

John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

12/24/2013

Kevin Walters  
International Paper- Marysville Ink  
865 Pittsburgh Drive  
Delaware, OH 43015

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0180010416  
Permit Number: P0115604  
Permit Type: Initial Installation  
County: Union

Certified Mail

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
Yes	MODELING SUBMITTED
Yes	SYNTHETIC MINOR TO AVOID TITLE V
Yes	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate (PTIO) for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio Environmental Protection Agency (EPA) Weekly Review and the local newspaper, Marysville Tribune. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall  
Permit Review/Development Section  
Ohio EPA, DAPC  
122 South Front Street  
Columbus, Ohio 43215

and Ohio EPA DAPC, Central District Office  
50 West Town Street, 6th Floor  
P.O. Box 1049  
Columbus, OH 43216-1049

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Ohio EPA DAPC, Central District Office at (614)728-3778.

Sincerely,



Michael W. Ahern, Manager  
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA Region 5 Via E-Mail Notification  
Ohio EPA-CDO





## Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. Source Description:

International Paper- Marysville Ink (IP) is requesting an initial permit to install and operate an ink manufacturing facility in Marysville, Ohio. Ink production takes place within several units which operate by batches in parallel. The batch units consist of five drum mixing units, one blending unit and one Kady Mill.

3. Facility Emissions and Attainment Status:

IP is located in Union County which is in full attainment for all criteria pollutants. IP is requesting a synthetic minor operational restriction to avoid the Title V permitting program for volatile organic compounds (VOCs) and hazardous air pollutants (HAPs). The synthetic minor strategy consists of limiting the facility-wide ink production to 53,982 tons per rolling, 12-month period. The appropriate operational, monitoring, recordkeeping, reporting and testing requirements have been established in order to demonstrate the operational limitation is not exceeded.

4. Source Emissions:

The ink manufacturing process is a source of VOC, HAP and particulate emissions from the transfer, mixing and milling of ink production materials. Tub washing is also a source of VOC and HAP emissions. Particulate emissions are controlled through the use of a particulate filter.

VOC emissions are calculated using the following emissions factors derived from the National Association of Printing Ink Manufacturers (NAPIM) Guide to Estimating VOC Emissions from Printing Ink Manufacturing.

0.0004 pound of VOC per pound of ink milled  
0.0015 pound of VOC per pound of ink mixed  
4 pounds of VOC per wash cycle

The emissions factors for mixing and milling are for low VOC inks (less than 10.2% wt). The mixing emissions factor listed in the NAPIM document (0.0012 lb VOC/lb ink) is multiplied by 1.25 to account for emissions from transfer and packaging. The tub washing emissions factor is applied to all emissions units combined.

The uncontrolled facility-wide potential to emit is calculated as 132 tons of VOC per year and 129 tons of HAPs per year. To avoid the Title V permitting program, IP is requesting to limit facility-wide emissions to 99 tons of VOC per year, 9.9 tons of individual HAPs per year and 24.9 tons of combined HAPs per year. IP is requesting a facility-wide ink production limit of 53,982 tons per year to achieve these emissions limitations.



The following work practice standards have been established as best available technology (BAT) for VOC:

- Keep containers that store VOC-containing materials closed or covered except during the addition or removal of materials;
- To the extent practicable, the permittee shall prevent spills of VOC-containing materials and clean up spills as soon as possible; and
- To the extent practicable, the permittee shall repair leaks from any components utilized in the transfer of VOC-containing materials as soon as possible.

The uncontrolled particulate emissions from each unit is less than 10 pounds per hour. Therefore, particulate emissions limitations assigned under OAC rule 3745-17-11(B) were obtained from Table I of the Appendix. The weight of the liquid was not included in the process weight rate because the liquid content in this process does not cause or result in the emission of particulate matter, following guidance per February 22, 2007 communication from Tom Kalman, Ohio EPA. The Table I maximum process weight rate for each unit was calculated to represent the maximum hourly batch average with a maximum 62% powder content (as obtained from the permit application) as follows.

Emissions Unit ID	Emissions Unit Description	Total Process Weight Rate (lb/hr)	Maximum Powder Content (% wt)	Maximum Powder Throughput (lb/hr)	Table I Process Weight Rate (TPH)	Table I Particulate Emissions Limitation (lb/hr)
P001	kady mill	1,125	0.62	698	0.35	2.0
P002	3 drum	846	0.62	525	0.26	1.7
P003	10 drum	1,519	0.62	942	0.47	2.5
P004	16 drum	4,140	0.62	2,567	1.28	4.8
P005	16 drum	4,050	0.62	2,511	1.26	4.8
P006	20 drum	3,750	0.62	2,325	1.16	4.5
P007	blends	2,813	0.62	1,744	0.87	3.7

The maximum uncontrolled particulate emissions from P001, P002, P003, P004, P005, P006 and P007 combined is 49.5 tons per year. This uncontrolled potential to emit is based on the maximum potential powder throughput for each emissions unit and the emissions factors specified in AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 6.7, Table 6.7-1 (1/95) of 2 pounds of particulate emissions per ton of powder.

BAT for these units has been established as the installation of a particulate filter with a design PM<sub>10</sub>/PM<sub>2.5</sub> control efficiency of at least 90%. Assuming a 90% filter capture efficiency, the maximum controlled particulate emissions from P001, P002, P003, P004, P005, P006 and P007 combined is 9.4 tons per year.

5. Conclusion:

The issuance of P0115604 is recommended.

PUBLIC NOTICE  
12/24/2013 Issuance of Draft Air Pollution Permit-To-Install and Operate

International Paper- Marysville Ink  
13307 Industrial Parkway,  
Marysville, OH 43040  
Union County

FACILITY DESC.: Printing Ink Manufacturing

PERMIT #: P0115604

PERMIT TYPE: Initial Installation

PERMIT DESC: Initial permit to install and operate for an ink manufacturing facility.

The Director of the Ohio Environmental Protection Agency issued the draft permit above. The permit and complete instructions for requesting information or submitting comments may be obtained at: <http://epa.ohio.gov/dapc/permitsonline.aspx> by entering the permit # or: Pamela McCoy, Ohio EPA DAPC, Central District Office, 50 West Town Street, 6th Floor P.O. Box 1049, Columbus, OH 43216-1049. Ph: (614)728-3778





**DRAFT**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
International Paper- Marysville Ink**

Facility ID:	0180010416
Permit Number:	P0115604
Permit Type:	Initial Installation
Issued:	12/24/2013
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance





**Division of Air Pollution Control**  
**Permit-to-Install and Operate**  
for  
International Paper- Marysville Ink

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**Draft Permit-to-Install and Operate**

International Paper- Marysville Ink

**Permit Number:** P0115604

**Facility ID:** 0180010416

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

## Authorization

Facility ID: 0180010416  
Application Number(s): A0049007, A0049481  
Permit Number: P0115604  
Permit Description: Initial permit to install and operate for an ink manufacturing facility.  
Permit Type: Initial Installation  
Permit Fee: \$3,450.00 *DO NOT send payment at this time, subject to change before final issuance*  
Issue Date: 12/24/2013  
Effective Date: To be entered upon final issuance  
Expiration Date: To be entered upon final issuance  
Permit Evaluation Report (PER) Annual Date: To be entered upon final issuance

This document constitutes issuance to:

International Paper- Marysville Ink  
13307 Industrial Parkway  
Marysville, OH 43040

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Central District Office  
50 West Town Street, 6th Floor  
P.O. Box 1049  
Columbus, OH 43216-1049  
(614)728-3778

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section 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 described emissions unit(s) will operate in compliance with applicable State and Federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally  
Director



## Authorization (continued)

Permit Number: P0115604

Permit Description: Initial permit to install and operate for an ink manufacturing facility.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

**Group Name: Ink Manufacturing**

<b>Emissions Unit ID:</b>	<b>P001</b>
Company Equipment ID:	P001
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P002</b>
Company Equipment ID:	P002
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P003</b>
Company Equipment ID:	P003
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P004</b>
Company Equipment ID:	P004
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P005</b>
Company Equipment ID:	P005
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P006</b>
Company Equipment ID:	P006
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P007</b>
Company Equipment ID:	P007
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



**Draft Permit-to-Install and Operate**

International Paper- Marysville Ink

**Permit Number:** P0115604

**Facility ID:** 0180010416

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

## **A. Standard Terms and Conditions**



**1. What does this permit-to-install and operate ("PTIO") allow me to do?**

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

**2. Who is responsible for complying with this permit?**

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

**3. What records must I keep under this permit?**

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

**4. What are my permit fees and when do I pay them?**

There are two fees associated with permitted air contaminant sources in Ohio:

PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

**5. When does my PTIO expire, and when do I need to submit my renewal application?**

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is



very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

**6. What happens to this permit if my project is delayed or I do not install or modify my source?**

This PTIO expires 18 months after the issue date identified on the “Authorization” page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

**7. What reports must I submit under this permit?**

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

**8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?**

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions of this permit will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

**9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?**

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.



**10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?**

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Ohio EPA DAPC, Central District Office in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

**11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?**

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

**12. What happens if one or more emissions units operated under this permit is/are shut down permanently?**

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.



**13. Can I transfer this permit to a new owner or operator?**

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

**14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?**

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

**15. What happens if a portion of this permit is determined to be invalid?**

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.



**Draft Permit-to-Install and Operate**

International Paper- Marysville Ink

**Permit Number:** P0115604

**Facility ID:** 0180010416

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

## **B. Facility-Wide Terms and Conditions**



1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - (1) None.
  - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - (1) 2., 3., 4., 5., 6. and 7.
2. The emissions of volatile organic compounds (VOCs) from P001, P002, P003, P004, P005, P006, P007, all de minimis emissions units as defined in OAC rule 3745-15-05, and all permit exempt and permit-by-rule emissions units pursuant to OAC rule 3745-31-03, combined, shall not exceed 99 tons per rolling, 12-month period.
3. The emissions of hazardous air pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act, from P001, P002, P003, P004, P005, P006, P007, all de minimis emissions units as defined in OAC rule 3745-15-05, and all permit exempt and permit-by-rule emissions units pursuant to OAC rule 3745-31-03, combined, shall not exceed 9.9 tons per year for any individual HAP and 24.9 tons per year for any combination of HAPs, based upon rolling, 12-month summations of the HAP emissions.
4. The permittee shall on a monthly basis maintain the following information for the entire facility:
  - a) the total VOC emissions, in tons per month;
  - b) the individual HAP emissions, in tons per month;
  - c) the combined HAP emissions, in tons per month;
  - d) the rolling, 12-month summation of total VOC emissions, in tons;
  - e) the rolling, 12-month summation of individual HAP emissions, in tons; and
  - f) the rolling, 12-month summation of combined HAP emissions, in tons.
5. The permittee shall submit quarterly deviation (excursion) reports that identify:
  - a) all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
    - (1) all exceedances of the rolling, 12-month VOC emission limitation;
    - (2) all exceedances of the rolling, 12-month individual HAP emission limitation; and



- (3) alleceedances of the rolling, 12-month combined HAP emission limitation.
- b) the probable cause of each deviation (excursion).
- d) any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions).
- e) the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the director (Ohio EPA, Central District Office).

6. Emission Limitations

The emissions of volatile organic compounds (VOCs) from P001, P002, P003, P004, P005, P006, P007, all de minimis emissions units as defined in OAC rule 3745-15-05, and all permit exempt and permit-by-rule emissions units pursuant to OAC rule 3745-31-03, combined, shall not exceed 99 tons per rolling, 12-month period.

Applicable Compliance Method

Compliance with this emission limitation shall be determined through the recordkeeping requirements specified in 4. above as well as the monitoring and recordkeeping requirements in Section C-Emissions Unit Terms and Conditions for tracking VOC emissions from P001, P002, P003, P004, P005, P006 and P007.

7. Emission Limitations

The emissions of hazardous air pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act, from P001, P002, P003, P004, P005, P006, P007, all de minimis emissions units as defined in OAC rule 3745-15-05, and all permit exempt and permit-by-rule emissions units pursuant to OAC rule 3745-31-03, combined, shall not exceed 9.9 tons per year for any individual HAP and 24.9 tons per year for any combination of HAPs, based upon rolling, 12-month summations of the HAP emissions.

Applicable Compliance Method

Compliance with these emission limitations shall be determined through the recordkeeping requirements specified in 4. above and as follows:

- a) For each batch of ink produced, individual HAP emissions shall be calculated by multiplying the VOC emissions by each individual HAP to VOC ratio.



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International Paper- Marysville Ink

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- b) For each batch of ink produced, combined HAP emissions shall be calculated by multiplying the VOC emissions by the combined HAP to VOC ratio.
- c) For each wash cycle, individual HAP emissions shall be calculated by multiplying the VOC emissions by each individual HAP to VOC ratio.
- d) For wash cycle, combined HAP emissions shall be calculated by multiplying the VOC emissions by the combined HAP to VOC ratio.



**Draft Permit-to-Install and Operate**

International Paper- Marysville Ink

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## **C. Emissions Unit Terms and Conditions**



**1. Emissions Unit Group -Ink Manufacturing: P001, P002, P003, P004, P005, P006 and P007**

<b>EU ID</b>	<b>Operations, Property and/or Equipment Description</b>
P001	Kady Mill
P002	3 Drum (1,400 lb capacity)
P003	10 Drum (4,600 lb capacity)
P004	16 Drum (7,360 lb capacity)
P005	16 Drum (7,200 lb capacity)
P006	20 Drum (two 10,000 lb capacity tanks processing one batch at a time due to a single mixer)
P007	Blends

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. b)(1)g., b)(2)d., d)(6), d)(8), d)(9), d)(10), d)(11), e)(4)f., e)(4)g. and f)(1)d.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)e., c)(1), d)(7), e)(2) and f)(1)c.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
b.	OAC rule 3745-17-11(B)	Particulate emissions (PE) shall not exceed:  2.0 pounds per hour from P001; 1.7 pounds per hour from P002; 2.5 pounds per hour from P003; 4.8 pounds per hour from P004; 4.8 pounds per hour from P005;



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		4.5 pounds per hour from P006; and 3.7 pounds per hour from P007.
c.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	The permittee shall install a particulate filter with a design PM <sub>10</sub> /PM <sub>2.5</sub> control efficiency of at least 90%.
d.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 12/01/06	See b)(2)b. below.
e.	OAC rule 3745-31-05(D) (Federally enforceable limitations to avoid Title V)	<p>Volatile organic compound (VOC) emissions from emissions units P001, P002, P003, P004, P005, P006 and P007 combined shall not exceed 95.0 tons per rolling, 12-month period.</p> <p>See c)(1) below.</p> <p>See 2. through 7. of Section B - Facility-Wide Terms and Conditions.</p>
f.	ORC 3704.03(T)	See b)(2)c. below.
g.	ORC 3704.03(F)(4)(c) (Toxic air contaminant statute)	See b)(2)d. below.

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.
- b. The following rule paragraphs will apply once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan:
  - i. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM<sub>10</sub>/PM<sub>2.5</sub> emissions from this air contaminant source since the controlled potential to emit is less than 10 tons per year.



- c. The following work practice standards have been established as best available technology (BAT) for VOC for this emissions unit:
  - i. Keep containers that store VOC-containing materials closed or covered except during the addition or removal of materials;
  - ii. To the extent practicable, the permittee shall prevent spills of VOC-containing materials and clean up spills as soon as possible; and
  - iii. To the extent practicable, the permittee shall repair leaks from any components utilized in the transfer of VOC-containing materials as soon as possible.
- d. In order to demonstrate compliance with the "Toxic Air Contaminant Statute", the director has established, per ORC 3704.03(F)(4)(c), a limit for glycol ether DE, which shall not exceed 48.9 pounds per day from emissions units P001, P002, P003, P004, P005, P006 and P007 combined. This daily allowable emissions rate was calculated by multiplying the approved daily operating schedule submitted in the permit application, by the emission rate modeled (to determine the ground level concentration).

c) Operational Restrictions

- (1) Ink production in emissions units P001, P002, P003, P004, P005, P006 and P007 combined shall not exceed 53,982 tons per rolling, 12-month period.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the ink production specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Ink Production (Tons)</u>
1	4,499
1-2	8,997
1-3	13,496
1-4	17,994
1-5	22,493
1-6	26,991
1-7	31,490
1-8	35,988
1-9	40,487
1-10	44,985
1-11	49,484
1-12	53,982

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual production limitation shall be based upon a rolling, 12-month summation.



d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate and maintain the particulate filter in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s).
- (2) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, and/or operating manual(s) for the particulate filter. These documents shall be maintained at the facility and shall be made available to the Ohio EPA, Central District Office upon request
- (3) The permittee shall maintain the following information for maintenance and repairs performed on the particulate filter:
  - a. the date of the maintenance and/or repair;
  - b. a description of the maintenance and/or repairs performed; and
  - c. the name of person(s) who performed the maintenance and/or repair.
- (4) 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. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emissions incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.



- (5) The permittee shall perform a weekly inspection of the emissions unit and document the following for the purpose of demonstrating compliance with the applicable work practice standards:
  - a. Verification that containers that store VOC-containing material are closed or covered. If containers are not closed or covered, a description of any corrective actions taken during the inspection or as a result of the inspection;
  - b. Any indication that VOC-containing materials were spilled and not cleaned up. If a spill has occurred and has not been cleaned up, a description of any corrective actions taken during the inspection or as a result of the inspection;
  - c. Any indication that components utilized in the transfer of VOC-containing material are leaking. If a component is leaking and has not been repaired, a description of any corrective actions taken during the inspection or as a result of the inspection;
  - d. The date and time that the inspection and any corrective actions were performed; and
  - e. The name of the person responsible for performing the inspection.
  
- (6) The permittee shall collect and record the following information each day for P001, P002, P003, P004, P005, P006 and P007 combined:
  - a. The name and identification number/code of each batch of ink produced;
  - b. The number of pounds of each batch of ink produced;
  - c. The VOC emissions from mixing/blending each batch of ink produced, in pounds, i.e., (b) x (0.0015 lb VOC/lb ink);
  - d. The VOC emissions from milling each batch of ink produced, in pounds, i.e., (b) x (0.0004 lb VOC/lb ink);
  - e. The total VOC emissions from each batch of ink produced, in pounds, i.e., (c) + (d);
  - f. The glycol ether DE to VOC ratio for each batch of ink produced;
  - g. The total glycol ether DE emissions from each batch of ink produced, in pounds, i.e., (e) x (f);
  - h. The total number of wash cycles employed;
  - i. The total VOC emissions from wash cycles, i.e., (h) x (4 lb VOC/wash cycle)
  - j. The total glycol ether DE emissions from wash cycles, in pounds, i.e., (i) x (glycol ether DE to VOC ratio for the wash detergent); and
  - k. The total glycol ether DE emissions from all batches of ink produced and wash cycles, in pounds.



- (7) The permittee shall collect and record the following information each month for P001, P002, P003, P004, P005, P006 and P007 combined:
- a. The total tons of ink produced;
  - b. The total VOC emissions from all batches of ink produced, in pounds or tons;
  - c. The total VOC emissions from all wash cycles, in pounds or tons;
  - d. The total VOC emissions from all batches of ink produced and wash cycles, i.e., (b) + (c);
  - e. The rolling, 12-month summation of tons of ink produced; and
  - f. The rolling, 12-month summation of VOC emissions, in tons.
- (8) The FEPTIO application for these emissions units, P001, P002, P003, P004, P005, P006 and P007, was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:
- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions units, (as determined from the materials processed) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
    - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
    - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.



- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., “24” hours per day and “6” days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants or “worst case” toxic contaminant(s):

Toxic Contaminant: glycol ether DE

TLV (mg/m<sup>3</sup>): 140

Maximum Hourly Emission Rate (lb/hr): 2.38

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 3,762

MAGLC (ug/m<sup>3</sup>): 3,889

The permittee, having demonstrated that emissions of glycol ether DE, from emissions units P001, P002, P003, P004, P005, P006 and P007, is estimated to be equal or greater than eighty per cent, but less than 100 per cent of the maximum acceptable ground level concentration (MAGLC), shall not operate the emissions units at a rate that would exceed the daily emissions rate, process weight rate, and/or restricted hours of operations, as allowed in this permit; and any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F).

- (9) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, 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 new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV 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 toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
  - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).



If the permittee determines that the "Toxic Air Contaminant Statute", ORC 3704.03(F), 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 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final FEPTIO prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

- (10) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute":
  - a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
  - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
  - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
  - d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.
  
- (11) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.
  
- e) Reporting Requirements
  - (1) Unless other arrangements have been approved by the director, all notifications and reports shall be submitted through the Ohio EPA's e-Business Center: Air Services online web portal.



- (2) The permittee shall submit quarterly deviation (excursion) reports that identify:
- a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
    - i. all exceedances of the rolling, 12-month ink production limitation; and
    - ii. all exceedances of the rolling, 12-month VOC emission limitation;
  - b. the probable cause of each deviation (excursion);
  - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
  - d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the director (Central District Office).

- (3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA e-Business Center: Air Services by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (4) The permittee shall identify the following information in the annual PER:
- a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit;
  - b. any corrective actions taken to minimize or eliminate the visible particulate emissions;
  - c. all days during which containers that store VOC-containing material were observed opened or uncovered and a description of any corrective actions taken;
  - d. all days during which VOC-containing materials were spilled and not cleaned up and a description of any corrective actions taken;
  - e. all days during which components utilized in the transfer of VOC-containing material were leaking and a description of any corrective actions taken;



- f. any exceedance of the daily limitation on glycol ether DE emissions, as established by the director, in order to maintain any toxic air contaminant below its MAGLC; and
- g. any changes made, during the calendar year, to a parameter or value entered into the dispersion model that was used to maintain compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation

Visible particulate emissions from the stack shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.

Applicable Compliance Method

If required, compliance shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9.

- b. Emission Limitation

Particulate emissions (PE) shall not exceed:

- 2.0 pounds per hour from P001;
- 1.7 pounds per hour from P002;
- 2.5 pounds per hour from P003;
- 4.8 pounds per hour from P004;
- 4.8 pounds per hour from P005;
- 4.5 pounds per hour from P006; and
- 3.7 pounds per hour from P007.

Applicable Compliance Method

Compliance with these emission limitations shall be based on meeting the requirements for the particulate filter found in Sections d)(1), d)(2), d)(3), e)(4)a. and e)(4)b.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).



c. Emission Limitation

Volatile organic compound (VOC) emissions from emissions units P001, P002, P003, P004, P005, P006 and P007 combined shall not exceed 95.0 tons per rolling, 12-month period.

Applicable Compliance Method

Compliance with the rolling, 12-month VOC emission limitation shall be determined through the recordkeeping requirements specified in Section d)(7).

d. Emission Limitation

In order to demonstrate compliance with the "Toxic Air Contaminant Statute", the director has established, per ORC 3704.03(F)(4)(c), a limit for glycol ether DE, which shall not exceed 48.9 pounds per day from emissions units P001, P002, P003, P004, P005, P006 and P007 combined.

Applicable Compliance Method

Compliance shall be determined through the recordkeeping requirements specified in Section d)(6).

g) Miscellaneous Requirements

- (1) None.