

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

4/29/2014

Certified Mail

James Kochanny
INX International Ink Co.
1000 Maple Avenue
Homewood, IL 60430

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

Facility ID: 1483000550
Permit Number: P0116135
Permit Type: Initial Installation
County: Warren

| | |
|-----|------------------------------------|
| No | TOXIC REVIEW |
| Yes | SYNTHETIC MINOR TO AVOID MAJOR NSR |
| No | CEMS |
| No | MACT/GACT |
| No | NSPS |
| No | NESHAPS |
| No | NETTING |
| No | 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, The Western Star. 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 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
50 West Town Street Suite 700
PO Box 1049
Columbus, Ohio 43216-1049

and Southwest Ohio Air Quality Agency
250 William Howard Taft Rd.
Cincinnati, OH 45219

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 Southwest Ohio Air Quality Agency at (513)946-7777.

Sincerely,


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

Cc: U.S. EPA Region 5 Via E-Mail Notification
SWOQA; Indiana; Kentucky



Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. Source Description: The proposed facility is a printing ink manufacturing facility (NAICS 325910) consisting of twenty-eight (28) permitted ink production units and support activities. The facility also includes an emergency electrical generator (PBR) and ten (10) permit-exempt storage tanks.

3. Facility Emissions and Attainment Status: Emissions from the facility consist of VOC from the introduction of solvents into the various mixing, blending, and milling units and PE/PM10 from the introduction of dry solids additions in the form of pigments, etc. to the units. The facility will be located in Warren County which is designated attainment for PM10 and the 1997 ozone standard and marginal non-attainment for the 2008 ozone standard.

4. Source Emissions: Emissions from the ink production and support activities would exceed 100 TPY of VOC and PE/PM10 which would make the facility a Major Source subject to Title V regulation. Additionally, new VOC emissions would exceed 250 TPY which would make the facility subject to Major Source NAA-NSR. This permit is considered an FEPTIO, containing Federally Enforceable restrictions on the facility-wide PTE VOC and PE/PM10 below all Major Source thresholds. The facility-wide VOC from the permitted sources in this permit total 69.10 TPY. The facility-wide PE/PM10 from the permitted sources in this permit total 1.21 TPY. Further Synthetic Minor restrictions include production and usage rate limitations and work practice and control requirements for VOC and PE/PM10. HAPs from the facility are below the Major Source thresholds without restriction making the facility a True Minor source of HAPs.

5. Conclusion: The Synthetic Minor restrictions in place in this FEPTIO, including the appropriate MRR, allow the facility to avoid being a Major Source subject to the Part 70 Title V requirements and avoid being a Major Source subject to Major Source NAA-NSR.

6. Please provide additional notes or comments as necessary:

None

7. Total Permit Allowable Emissions Summary (for informational purposes only):

| <u>Pollutant</u> | <u>Tons Per Year</u> |
|------------------|----------------------|
| VOC | 69.10 |
| PE/PM10 | 1.21 |

PUBLIC NOTICE
4/29/2014 Issuance of Draft Air Pollution Permit-To-Install and Operate

INX International Ink Co.

350 Homan Road,
Lebanon, OH 45036
Warren County

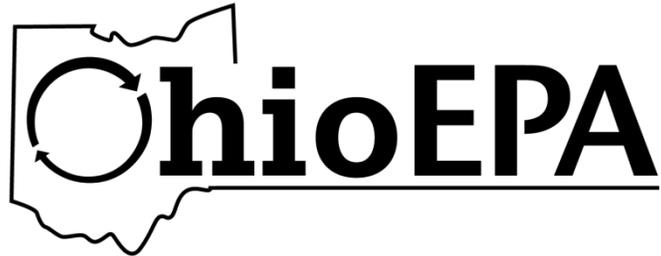
FACILITY DESC.: Printing Ink Manufacturing

PERMIT #: P0116135

PERMIT TYPE: Initial Installation

PERMIT DESC: Initial FEPTIO for a new printing ink manufacturing facility; FEPTIO to avoid Title V for VOC and PE/PM10 and Major Source NSR for VOC for 28 ink production units and support activities utilizing enclosed processes and covers to minimize VOC emissions and fabric filters for PE/PM10 control.

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: Alberta Mellon, Southwest Ohio Air Quality Agency, 250 William Howard Taft Rd., Cincinnati, OH 45219. Ph: (513)946-7777



DRAFT

**Division of Air Pollution Control
Permit-to-Install and Operate
for
INX International Ink Co.**

| | |
|----------------|-----------------------------------|
| Facility ID: | 1483000550 |
| Permit Number: | P0116135 |
| Permit Type: | Initial Installation |
| Issued: | 4/29/2014 |
| 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
INX International Ink Co.

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Draft Permit-to-Install and Operate

INX International Ink Co.

Permit Number: P0116135

Facility ID: 1483000550

Effective Date: To be entered upon final issuance

Authorization

Facility ID: 1483000550
Application Number(s): A0049802
Permit Number: P0116135
Permit Description: Initial FEPTIO for a new printing ink manufacturing facility; FEPTIO to avoid Title V for VOC and PE/PM10 and Major Source NSR for VOC for 28 ink production units and support activities utilizing enclosed processes and covers to minimize VOC emissions and fabric filters for PE/PM10 control.
Permit Type: Initial Installation
Permit Fee: \$10,100.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date: 4/29/2014
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:

INX International Ink Co.
350 Homan Road
Lebanon, OH 45036

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:

Southwest Ohio Air Quality Agency
250 William Howard Taft Rd.
Cincinnati, OH 45219
(513)946-7777

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

Craig W. Butler
Director



Authorization (continued)

Permit Number: P0116135

Permit Description: Initial FEPTIO for a new printing ink manufacturing facility; FEPTIO to avoid Title V for VOC and PE/PM10 and Major Source NSR for VOC for 28 ink production units and support activities utilizing enclosed processes and covers to minimize VOC emissions and fabric filters for PE/PM10 control.

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

Emissions Unit ID: P001
 Company Equipment ID: White Ink Dispersion Line
 Superseded Permit Number:
 General Permit Category and Type: Not Applicable

Emissions Unit ID: P028
 Company Equipment ID: Tote & Tank Washing Area
 Superseded Permit Number:
 General Permit Category and Type: Not Applicable

Group Name: Blend & Milled Processes

| | |
|-----------------------------------|-------------------------------|
| Emissions Unit ID: | P008 |
| Company Equipment ID: | Blend and Milled Processes |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P009 |
| Company Equipment ID: | Blend and Milled Processes |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P010 |
| Company Equipment ID: | Blend and Milled Processes |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P011 |
| Company Equipment ID: | Blend and Milled Process Line |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P012 |
| Company Equipment ID: | Blend and Milled Processes |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P013 |
| Company Equipment ID: | Blend and Milled Processes |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P014 |
| Company Equipment ID: | Blend and Milled Processes |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |



Draft Permit-to-Install and Operate

INX International Ink Co.

Permit Number: P0116135

Facility ID: 1483000550

Effective Date: To be entered upon final issuance

| | |
|-----------------------------------|-----------------------------|
| Emissions Unit ID: | P015 |
| Company Equipment ID: | Paste Ink Process Line |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P016 |
| Company Equipment ID: | Blend and Milled Processes |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P017 |
| Company Equipment ID: | Blend and Milled Processes |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P018 |
| Company Equipment ID: | Waterbased Ink Process Line |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P019 |
| Company Equipment ID: | Blend and Milled Processes |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P020 |
| Company Equipment ID: | Blend and Milled Processes |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P021 |
| Company Equipment ID: | Tank and Tote Washing Area |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |

Group Name: Nitro Varnish

| | |
|-----------------------------------|-------------------------|
| Emissions Unit ID: | P005 |
| Company Equipment ID: | Nitro Varnish Line |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P006 |
| Company Equipment ID: | Dispersion Process Line |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P007 |
| Company Equipment ID: | Nitro Varnish Line |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |

Group Name: Paste Ink

| | |
|-----------------------------------|---------------------|
| Emissions Unit ID: | P022 |
| Company Equipment ID: | Paste Ink Processes |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P023 |
| Company Equipment ID: | Paste Ink Processes |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |



Draft Permit-to-Install and Operate

INX International Ink Co.

Permit Number: P0116135

Facility ID: 1483000550

Effective Date: To be entered upon final issuance

| | |
|-----------------------------------|---------------------|
| Emissions Unit ID: | P024 |
| Company Equipment ID: | Paste Ink Processes |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |

Group Name: Waterbased Ink

| | |
|-----------------------------------|--------------------------|
| Emissions Unit ID: | P025 |
| Company Equipment ID: | Waterbased Ink Processes |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P026 |
| Company Equipment ID: | Waterbased Ink Processes |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P027 |
| Company Equipment ID: | Waterbased Ink Processes |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |

Group Name: White Ink Dispersion & Milling

| | |
|-----------------------------------|-------------------------------------|
| Emissions Unit ID: | P002 |
| Company Equipment ID: | White Ink Dispersion & Milling Line |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P003 |
| Company Equipment ID: | Nitro Varnish Line |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P004 |
| Company Equipment ID: | White Ink Dispersion and Milling |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |



Draft Permit-to-Install and Operate

INX International Ink Co.

Permit Number: P0116135

Facility ID: 1483000550

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 Southwest Ohio Air Quality Agency 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
INX International Ink Co.
Permit Number: P0116135
Facility ID: 1483000550
Effective Date: To be entered upon final issuance

B. Facility-Wide Terms and Conditions



Draft Permit-to-Install and Operate

INX International Ink Co.

Permit Number: P0116135

Facility ID: 1483000550

Effective Date: To be entered upon final issuance

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) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions units' maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year contained within P0116135 . OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified FEPTIO prior to making a "modification" as defined by OAC rule 3745-31-01 to P0116135. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year to any of the emissions units contained within P0116135 may require the permittee to apply for and obtain a new FEPTIO.
 - 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) None.



Draft Permit-to-Install and Operate
INX International Ink Co.
Permit Number: P0116135
Facility ID: 1483000550
Effective Date: To be entered upon final issuance

C. Emissions Unit Terms and Conditions



1. P001, White Ink Dispersion Line

Operations, Property and/or Equipment Description:

Rotor stator RS-100 operating in tank TM-100, with particulate emissions from the addition of dry ingredients controlled by an integrated dust collector DC-100 with no external discharge.

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. None.

(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)d., b)(2)d., thru b)(2)g., d), e)(2), f)(1)a. thru 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 3745-31-05(A)(3), as effective 11/30/01 ORC 3704.03(T) | The permittee shall employ the work practice standard for minimizing emissions of volatile organic compounds (VOC) in b)(2)d. and install a fabric filter with a design efficiency of at least 98% control of particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10). See b)(2)a. |
| b. | OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06 | See b)(2)b. |
| c. | OAC rule 3745-31-05(C), as effective 12/01/06 | See b)(2)c. |
| d. | OAC rule 3745-31-05(D) Synthetic Minor to Avoid Major Source NAA-NSR and Title V | The facility-wide emissions of volatile organic compounds (VOC) shall not exceed 69.10 tons per year (TPY), based upon a rolling 12-month summation of the |



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| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|-------------------------------|---|
| | | <p>VOC emission rates from emissions units P001 – P028, combined.</p> <p>The facility-wide PE/PM10 emissions shall not exceed 1.21 TPY, based upon a rolling, 12-month summation of the PE/PM10 emission rates from emissions units P001 – P028, combined.</p> <p>See b)(2)d., thru b)(2)g., d), e)(2), f)(1)a. thru c.</p> |
| e. | OAC rule 3745-17-07(A)(1) | 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. |
| f. | OAC rule 3745-17-11(B)(1) | <p>PE shall not exceed 6.0 pounds per hour based on Figure II.</p> <p>This emission limitation is less stringent than the emission limitation and control requirement established pursuant to OAC rule 3745-31-05(D).</p> |

(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, these emission limitations/control measures no longer apply.
- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the uncontrolled Potential to Emit for VOC is less than 10 TPY.



- c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Permit to Install P0116135 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment), as proposed by the permittee, for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) for PE/PM10:

- i. The permittee shall install a fabric filter with a design efficiency of at least 98% control of particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10); and
 - ii. PE/PM10 from this emissions unit shall not exceed 0.47 TPY.
- d. In order to minimize emissions of volatile organic compounds (VOC), the permittee shall maintain a work practice standard of ensuring the prompt closure of any tank or vessel containing VOC-containing materials.
- e. The emissions from this emissions unit shall be vented to a fabric filter, at all times dry ingredients are being added to the emissions unit, with a design efficiency of at least 98% control of particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10).
- f. The emissions of VOC from emissions units P001 – P028, combined, shall not exceed 69.10 TPY, based upon a rolling, 12-month summation of the VOC emissions. 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 emission levels specified in the following table:

| Month(s) | Maximum Allowable Cumulative Emissions of VOC (Tons) |
|----------|--|
| 1-6 | 34.55 |
| 1-7 | 40.31 |
| 1-8 | 46.07 |
| 1-9 | 51.83 |
| 1-10 | 57.58 |
| 1-11 | 63.34 |
| 1-12 | 69.10 |

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual emission



limitation for VOC shall be based upon a rolling, 12-month summation of the monthly emissions.

- g. The Synthetic Minor requirements for PE/PM10, pursuant to OAC rule 3745-31-05(A)(3), are primarily driven by the requirement to vent emissions to a fabric filter with a design efficiency of at least 98%. The proper monitoring, recordkeeping, reporting requirements (MRR) for determining compliance with the requirement is included by requiring parametric monitoring of the fabric filter. Thus, a monthly cumulative limit for PE/PM10 was not included in this permit.
- h. Emissions from emissions unit P001 are included in the facility-wide VOC Applicable Emissions Limitation pursuant to OAC rule 3745-31-05(D). However, since the production rate used to calculate the contribution of VOC emissions from emissions unit P001 to that allowable was based on 8760 hours per year and the premise that 100% of the production rate thru the appropriate emissions unit factor in pound(s) per ton of the production rate is emitted as VOC, there is no corresponding OAC 3745-31-05(D) "Operational Restriction" on production required for this emissions unit. In order to determine compliance with the facility-wide VOC emissions limit, the facility is required to calculate the rolling, 12-month actual emissions from emissions unit P001.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall record each instance where the tank or vessel containing any VOC-containing material was not promptly closed and the reason(s) for the failure to maintain the work practice standard.
- (2) The acceptable range for the pressure drop across the fabric filter shall be based upon the manufacturer's specifications, until such time as any required performance testing is conducted and an alternative pressure drop range and/or limit is established.
- (3) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the fabric filter when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the fabric filter on a daily basis. Alternatively, the permittee shall equip the fabric filter with an alarm system to serve as notification of any operation of the unit outside of the prescribed pressure drop range. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The acceptable pressure drop shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range is established to demonstrate compliance.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the



cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the fabric filter is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an Administrative Modification.

(4) The permittee shall maintain monthly records of the following information for emissions units P001 – P028, combined:

- a. the VOC emission rate for each month of operations; and



- b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the VOC emissions.

The monthly VOC emissions from the ink manufacturing operations and associated activities, emissions units P001 – P028, shall be calculated as follows:

$$\text{VOC, Tons per Month} = (\text{WI} + \text{NV} + \text{DL} + \text{WB} + \text{PI} + \text{CS}) / 2000$$

Where:

WI = White Ink Dispersion and White Ink Dispersion & Milling Line Emissions, pounds = [(RS-100 production, tons/month x VOC EF, 0.25 pound/ton) + (RS-101 production, tons/month x VOC EF, 0.31 pound/ton) + (AD-111 production, tons/month x VOC EF, 0.28 pound/ton)]*

* No VOC emissions from enclosed mill AM-101

NV = Nitro Varnish Line Emissions, pounds = [(AD-103 production, tons/month x VOC EF, 0.20 pound/ton) + (AD-104 production, tons/month x VOC EF, 0.19 pound/ton) + (AD-105 production, tons/month x VOC EF, 0.25 pound/ton)]

DL = Dispersion Line and Blend & Milled Process Line Emissions, pounds = [(RS-300 + RS-301 + RS-302 + RS-303 + BM-304 + AD-200 + AD-201 + AD-202 + AD-203 production, tons/month) x VOC EF, 12.4 pounds/ton]*

*AD-310 through AD-314 are included the production figures; no VOC emissions from enclosed mills AM-310 through AM-314

WB = Waterbased Ink Process Line Emissions, pounds = [(AGP-810 + AGP-811 + AGP-812 production, tons/month) x VOC EF, 2.4 pounds/ton]

PI = Paste Ink Process Line Emissions, pounds = [(APD-800 + APD-801 + APD-802 production, tons/month) x VOC EF, 0.26 pound/ton]

CS = Cleaning Solvent Emissions, pounds = [(TW-500, TW-501, FT-500, FT-501, FT-502, ZDS-500, and hand cleaning solvent usage, tons/month) x VOC EF, 400 pounds/ton]

The rolling, 12-month VOC emissions shall be a summation of emissions from the current month (ending) and the 11 previous calendar months.

Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative VOC emissions for each calendar month for emissions units P001 – P028, combined.

- c. the PE/PM10 emission rate for each month of operations; and



- d. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the PE/PM10 emissions.

The monthly PE/PM10 emissions from the ink manufacturing operations P001 – P028, shall be calculated as follows:

$$\text{PE/PM10, Tons per Month} = [(WI + DL) \times (1 - 0.98 \text{ CE})] / 2000$$

Where:

WI = White Ink Dispersion and White Ink Dispersion & Milling Line Emissions, pounds = [(RS-100 production, tons/month x actual % dry solids added, converted to pounds/ton x PE/PM10 EF, 0.01 pound/pound) + (RS-101 production, tons/month x actual % dry solids added, converted to pounds/ton x PE/PM10 EF, 0.01 pound/pound)]

DL = Dispersion Line and Blend & Milled Process Line Emissions, pounds = [(RS-300 + RS-301 + RS-302 + RS-303 + BM-304 + AD-200 + AD-201 + AD-202 + AD-203 production, tons/month) x actual % dry solids added, converted to pounds/ton x PE/PM10 EF, 0.01 pound/pound]

CE = Control Efficiency of fabric filters DC-100 and DC-600 given as 98% each based on design efficiency as indicated in Application A0049802

The rolling, 12-month PE/PM10 emissions shall be a summation of emissions from the current month (ending) and the 11 previous calendar months.

e) Reporting Requirements

- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- (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



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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 deviations of the facility-wide rolling, 12-month VOC emissions limit and, for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative VOC emission levels;
 - ii. All deviations of the facility-wide rolling, 12-month PE/PM10 emissions limit;
 - iii. All deviations of the work practice standard for minimizing VOC emissions;
 - iv. Each period of time (start time and date, and end time and date) when the pressure drop across the fabric filter was outside of the range specified by the manufacturer and outside of the acceptable range following any required compliance demonstration;
 - v. Any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the fabric filter;
 - vi. Each incident of deviation described in iv. (above) where a prompt investigation was not conducted;
 - vii. Each incident of deviation described in iv. where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - viii. Each incident of deviation described in iv. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.
- 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 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 (the appropriate District Office or local air agency).



- (3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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.

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. Control Requirement:

The emissions from this emissions unit shall be vented to a fabric filter, at all times dry ingredients are being added to the emissions unit, with a design efficiency of at least 98% control of particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10).

Applicable Compliance Method:

If required, compliance with the fabric filter design efficiency for PE/PM10 emissions control may be demonstrated by emissions tests using methodology including, but not limited to, Method 5, as specified in 40 CFR Part 60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995.

The basis for the fabric filter design efficiency is the company-supplied design estimate as supplied in Application A0049802 for FEPTIO P0116135.

- b. Emissions Limitation:

The facility-wide emissions of volatile organic compounds (VOC) shall not exceed 69.10 tons per year (TPY), based upon a rolling 12-month summation of the VOC emission rates from emissions units P001 – P028, combined.

Applicable Compliance Method:

Compliance with the facility-wide VOC emissions limitation shall be demonstrated by the recordkeeping requirement as outlined in term d)(4)b.

The rolling, 12-month VOC emission limitation was established from calculations in the document "Proposed VOC Emissions Limit for Ink Manufacturing" as supplied in Application A0049802 for FEPTIO P0116135.

The PTE VOC from P001 may be shown to be less than 10 TPY based on the calculations as supplied by the permittee in Application A0049576 for PTI P0116070 and the contribution of VOC to the facility-wide limit:

18,765,000 pounds ink/year x 0.25 pounds VOC/ton ink x 1 Ton/2000 pounds x 1 Ton/2000 pounds = 1.17 TPY VOC; and



1.17 TPY + 2.50 TPY + 61.75 TPY + 2.06 TPY + 0.02 TPY + 0.14 TPY + 1.43 TPY = 69.07 TPY VOC rounded to 69.10 TPY VOC.

c. Emissions Limitation:

The facility-wide PE/PM10 emissions shall not exceed 1.21 TPY, based upon a rolling, 12-month summation of the PE/PM10 emission rates from emissions units P001 – P028, combined.

Applicable Compliance Method:

Compliance with the facility-wide PE/PM10 emissions limitation shall be demonstrated by the recordkeeping requirement as outlined in term d)(4)d.

The rolling, 12-month PE/PM10 emission limitation was established from calculations in the document “Projected Maximum PM Emissions” as supplied in Application A0049802 for FEPTIO P0116135.

The PTE PE/PM10 for this emission unit may be shown to be less than 10 TPY based on the calculation as supplied by the permittee in Application A0049576 for PTI P0116070 and the contribution of PE/PM10 to the facility-wide limit:

18,765,000 pounds ink/year x 0.25 pound dry solids/pound ink x 0.01 pound PE/PM10/pound dry solids x (1 – 0.98 CE) x 1 Ton/2000 pounds = 0.47 TPY PE/PM10

0.47 TPY + 0.24 TPY + 0.50 TPY = 1.21 TPY PE/PM10.

d. Emission Limitation:

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.

Applicable Compliance Method:

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

e. Emission Limitation:

PE shall not exceed 6.0 pounds per hour based on Figure II.

Applicable Compliance Method:

If required, compliance with the mass emissions limitation may be demonstrated by emissions tests using methodology including, but not limited to, Method 5, as specified in 40 CFR Part 60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with the USEPA’s “Guidelines for Determining Capture Efficiency,” dated January 9, 1995.



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The mass emission limitation was established based on the method in the Appendix to OAC rule 3745-17-11, Figure II using the amount of dry solids as supplied by the permittee in Application A0049802 and the PE emission factor from AP-42, Table 6.4-1:

15000 pounds ink/batch x 0.25 pound dry solids/pound ink = 3750 pound dry solids/pound ink.

3750 pounds dry solids/pound ink x 0.01 pound PE/PM10/pound dry solids = 37.5 pounds PE/PM10/batch.

37.5 pounds PE/hour; Figure II, curve P1 (b) $A = 0.5782 \times U^{0.6456}$

$A = 0.5782 \times (37.5)^{0.6456}$ $A = 6.0$ pounds PE/hour.

g) Miscellaneous Requirements

(1) None.



2. Emissions Unit Group -White Ink Dispersion & Milling: P002,P003,P004,

| EU ID | Operations, Property and/or Equipment Description |
|--------------|--|
| P002 | Rotor stator RS-101 operating in tank TM-101 with particulate emissions from the addition of dry ingredients controlled by an integrated dust collector DC-100 with no external discharge. |
| P003 | Media mill AM-101. |
| P004 | Axial Dispenser AD-111 Operating in TM-111. |

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. None.

(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)c., b)(2)d., thru b)(2)g., d), e)(2), f)(1)a. thru 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 3745-31-05(A)(3), as effective 11/30/01 ORC 3704.03(T) | The permittee shall employ the work practice standard for minimizing emissions of volatile organic compounds (VOC) in b)(2)d. and install a fabric filter with a design efficiency of at least 98% control of particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10). See b)(2)a. |
| b. | OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06 | See b)(2)b. |
| c. | OAC rule 3745-31-05(C), as effective 12/01/06 | See b)(2)c. |
| d. | OAC rule 3745-31-05(D) | The facility-wide emissions of volatile |



| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|---|--|
| | Synthetic Minor to Avoid Major Source NAA-NSR and Title V | <p>organic compounds (VOC) shall not exceed 69.10 tons per year (TPY), based upon a rolling 12-month summation of the VOC emission rates from emissions units P001 – P028, combined.</p> <p>The facility-wide PE/PM10 emissions shall not exceed 1.21 TPY, based upon a rolling, 12-month summation of the PE/PM10 emission rates from emissions units P001 – P028, combined.</p> <p>See b)(2)d., thru b)(2)g., d), e)(2), f)(1)a. thru c.</p> |
| e. | OAC rule 3745-17-07(A)(1) | Visible particulate emissions from the stack serving emissions unit P002 shall not exceed 20 percent opacity as a six-minute average, except as provided by rule. |
| f. | OAC rule 3745-17-11(B)(1) | <p>PE from P002 shall not exceed 6.0 pounds per hour based on Figure II.</p> <p>This emission limitation is less stringent than the emission limitation and control requirement established pursuant to OAC rule 3745-31-05(D).</p> |

(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, these emission limitations/control measures no longer apply.
- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.



The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from these air contaminant sources since the uncontrolled Potential to Emit for VOC is less than 10 TPY each.

- c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Permit to Install P0116135 for these air contaminant sources takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment), as proposed by the permittee, for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) for PE/PM10:

- i. The permittee shall install a fabric filter with a design efficiency of at least 98% control of particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10); and
ii. PE/PM10 from emissions units P002 – P004, combined, shall not exceed 0.24 TPY.
d. In order to minimize emissions of volatile organic compounds (VOC), the permittee shall maintain a work practice standard of ensuring the prompt closure of any tank or vessel containing VOC-containing materials.
e. The emissions from these emissions units shall be vented to a fabric filter, at all times the emissions units are in operation, with a design efficiency of at least 98% control of particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10).
f. The emissions of VOC from emissions units P001 – P028, combined, shall not exceed 69.10 TPY, based upon a rolling, 12-month summation of the VOC emissions. 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 emission levels specified in the following table:

Table with 2 columns: Month(s) and Maximum Allowable Cumulative Emissions of VOC (Tons). Rows include 1-6 (34.55), 1-7 (40.31), 1-8 (46.07), and 1-9 (51.83).



| | |
|------|-------|
| 1-10 | 57.58 |
| 1-11 | 63.34 |
| 1-12 | 69.10 |

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

- g. The Synthetic Minor requirements for PE/PM10, pursuant to OAC rule 3745-31-05(A)(3), are primarily driven by the requirement to vent emissions to a fabric filter with a design efficiency of at least 98%. The proper MRR for determining compliance with the requirement is included by requiring parametric monitoring of the fabric filter. Thus, a monthly cumulative limit for PE/PM10 was not included in this permit.
- h. Emissions from emissions units P002 – P004 are included in the facility-wide VOC Applicable Emissions Limitation pursuant to OAC rule 3745-31-05(D). However, since the production rate used to calculate the contribution of VOC emissions from these emissions units to that allowable were based on 8760 hours per year and the premise that 100% of the production rate thru the appropriate emission factor in pound(s) per ton of the production rate is emitted as VOC, there is no corresponding 31-05(D) “Operational Restriction” on production required for these emissions units. In order to determine compliance with the facility-wide VOC emissions limit, the facility is required to calculate the rolling, 12-month actual emissions from emissions units P002 – P004.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall record each instance where the tank or vessel containing any VOC-containing material was not promptly closed and the reason(s) for the failure to maintain the work practice standard. The permittee shall identify the tank(s) where the standard(s) was not met.
- (2) The acceptable range for the pressure drop across the fabric filter shall be based upon the manufacturer’s specifications, until such time as any required performance testing is conducted and an alternative pressure drop range and/or limit is established.
- (3) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the fabric filter when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the fabric filter on a daily basis. Alternatively, the permittee shall equip the fabric filter with an alarm system to serve as notification of any operation of the unit outside of the prescribed pressure drop range.



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The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The acceptable pressure drop shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range is established to demonstrate compliance.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the fabric filter is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate



emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an Administrative Modification.

- (4) The permittee shall maintain monthly records of the following information for emissions units P001 – P028, combined:
 - a. the VOC emission rate for each month of operations; and
 - b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the VOC emissions.

The monthly VOC emissions from the ink manufacturing operations and associated activities, emissions units P001 – P028, shall be calculated as follows:

$$\text{VOC, Tons per Month} = (\text{WI} + \text{NV} + \text{DL} + \text{WB} + \text{PI} + \text{CS}) / 2000$$

Where:

WI = White Ink Dispersion and White Ink Dispersion & Milling Line Emissions, pounds = [(RS-100 production, tons/month x VOC EF, 0.25 pound/ton) + (RS-101 production, tons/month x VOC EF, 0.31 pound/ton) + (AD-111 production, tons/month x VOC EF, 0.28 pound/ton)]*

* No VOC emissions from enclosed mill AM-101

NV = Nitro Varnish Line Emissions, pounds = [(AD-103 production, tons/month x VOC EF, 0.20 pound/ton) + (AD-104 production, tons/month x VOC EF, 0.19 pound/ton) + (AD-105 production, tons/month x VOC EF, 0.25 pound/ton)]

DL = Dispersion Line and Blend & Milled Process Line Emissions, pounds = [(RS-300 + RS-301 + RS-302 + RS-303 + BM-304 + AD-200 + AD-201 + AD-202 + AD-203 production, tons/month) x VOC EF, 12.4 pounds/ton]*

*AD-310 through AD-314 are included the production figures; no VOC emissions from enclosed mills AM-310 through AM-314

WB = Waterbased Ink Process Line Emissions, pounds = [(AGP-810 + AGP-811 + AGP-812 production, tons/month) x VOC EF, 2.4 pounds/ton]

PI = Paste Ink Process Line Emissions, pounds = [(APD-800 + APD-801 + APD-802 production, tons/month) x VOC EF, 0.26 pound/ton]

CS = Cleaning Solvent Emissions, pounds = [(TW-500, TW-501, FT-500, FT-501, FT-502, ZDS-500, and hand cleaning solvent usage, tons/month) x VOC EF, 400 pounds/ton]

The rolling, 12-month VOC emissions shall be a summation of emissions from the current month (ending) and the 11 previous calendar months.



Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative VOC emissions for each calendar month for emissions units P001 – P028, combined.

- c. the PE/PM10 emission rate for each month of operations; and
- d. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the PE/PM10 emissions.

The monthly PE/PM10 emissions from the ink manufacturing operations P001 – P028, shall be calculated as follows:

$$\text{PE/PM10, Tons per Month} = [(WI + DL) \times (1 - 0.98 \text{ CE})]/2000$$

Where:

WI = White Ink Dispersion and White Ink Dispersion & Milling Line Emissions, pounds = [(RS-100 production, tons/month x actual % dry solids added, converted to pounds/ton x PE/PM10 EF, 0.01 pound/pound) + (RS-101 production, tons/month x actual % dry solids added, converted to pounds/ton x PE/PM10 EF, 0.01 pound/pound)]

DL = Dispersion Line and Blend & Milled Process Line Emissions, pounds = [(RS-300 + RS-301 + RS-302 + RS-303 + BM-304 + AD-200 + AD-201 + AD-202 + AD-203 production, tons/month) x actual % dry solids added, converted to pounds/ton x PE/PM10 EF, 0.01 pound/pound]

CE = Control Efficiency of fabric filters DC-100 and DC-600 given as 98% each based on design efficiency as indicated in Application A0049802

The rolling, 12-month PE/PM10 emissions shall be a summation of emissions from the current month (ending) and the 11 previous calendar months.

e) Reporting Requirements

- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid



electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.

- (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 deviations of the facility-wide rolling, 12-month VOC emissions limit and, for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative VOC emission levels;
 - ii. All deviations of the facility-wide rolling, 12-month PE/PM10 emissions limit;
 - iii. All deviations of the work practice standard for minimizing VOC emissions;
 - iv. Each period of time (start time and date, and end time and date) when the pressure drop across the fabric filter was outside of the range specified by the manufacturer and outside of the acceptable range following any required compliance demonstration;
 - v. Any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the fabric filter;
 - vi. Each incident of deviation described in iv. (above) where a prompt investigation was not conducted;
 - vii. Each incident of deviation described in iv. where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - viii. Each incident of deviation described in iv. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.
 - 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 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 (the appropriate District Office or local air agency).

- (3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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.

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. Control Requirement:

The emissions from these emissions units shall be vented to a fabric filter, at all times dry ingredients are being added to the emissions units, with a design efficiency of at least 98% control of particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10).

Applicable Compliance Method:

If required, compliance with the fabric filter design efficiency for PE/PM10 emissions control may be demonstrated by emissions tests using methodology including, but not limited to, Method 5, as specified in 40 CFR Part 60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency", dated January 9, 1995.

The basis for the fabric filter design efficiency is the company-supplied design estimate as supplied in Application A0049802 for FEPTIO P0116135.

- b. Emissions Limitation:

The facility-wide emissions of volatile organic compounds (VOC) shall not exceed 69.10 tons per year (TPY), based upon a rolling 12-month summation of the VOC emission rates from emissions units P001 – P028, combined.

Applicable Compliance Method:

Compliance with the facility-wide VOC emissions limitation shall be demonstrated by the recordkeeping requirement as outlined in term d)(4)b.

The rolling, 12-month VOC emission limitation was established from calculations in the document "Proposed VOC Emissions Limit for Ink Manufacturing" as supplied in Application A0049802 for FEPTIO P0116135.



The PTE VOC from emissions units P002 – P004, combined, may be shown to be less than 10 TPY based on the calculations as supplied by the permittee in Application A0049576 for PTI P0116070 and the contribution of VOC to the facility-wide limit:

9,735,000 pounds ink/year, RS-101 (P002) x 0.31 pound VOC/ton ink x 1 Ton/2000 pounds x 1 Ton/2000 pounds = 0.75 TPY VOC, P002

9,735,000 pounds ink/year, AD-111 (P004) x 0.28 pound VOC/ton ink x 1 Ton/2000 pounds x 1 Ton/2000 pounds = 0.68 TPY VOC, P004

Enclosed mill AM-101 (P003) does not emit VOC.

0.75 TPY + 0.68 TPY = 1.43 TPY VOC.

1.17 TPY + 2.50 TPY + 61.75 TPY + 2.06 TPY + 0.02 TPY + 0.14 TPY + 1.43 TPY = 69.07 TPY VOC rounded to 69.10 TPY VOC.

c. Emissions Limitation:

The facility-wide PE/PM10 emissions shall not exceed 1.21 TPY, based upon a rolling, 12-month summation of the PE/PM10 emission rates from emissions units P001 – P028, combined.

Applicable Compliance Method:

Compliance with the facility-wide PE/PM10 emissions limitation shall be demonstrated by the recordkeeping requirement as outlined in term d)(4)d.

The rolling, 12-month PE/PM10 emission limitation was established from calculations in the document “Projected Maximum PM Emissions” as supplied in Application A0049802 for FEPTIO P0116135.

The PTE PE/PM10 from P002 – P004, combined, may be shown to be less than 10 TPY based on the calculation as supplied by the permittee in Application A0049576 for PTI P0116070:

9,735,000 pounds ink/year, combined x 0.25 pound dry solids/pound ink x 0.01 pound PE/PM10/pound dry solids x (1 – 0.98 CE) x 1 Ton/2000 pounds = 0.24 TPY PE/PM10, combined

0.47 TPY + 0.24 TPY + 0.50 TPY = 1.21 TPY PE/PM10

d. Emission Limitation:

Visible particulate emissions from the stack serving emissions unit P002 shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.



Applicable Compliance Method:

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

e. Emission Limitation:

PE from P002 shall not exceed 6.0 pounds per hour based on Figure II.

Applicable Compliance Method:

If required, compliance with the mass emissions limitation may be demonstrated by emissions tests using methodology including, but not limited to, Method 5, as specified in 40 CFR Part 60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency", dated January 9, 1995.

The mass emissions limitation was established based on the method in the Appendix to OAC rule 3745-17-11, Figure II using the amount of dry solids as supplied by the permittee in Application A0049802 and the PE emission factor from AP-42, Table 6.4-1:

$$15000 \text{ pounds ink/batch} \times 0.25 \text{ pound dry solids/pound ink} = 3750 \text{ pound dry solids/pound ink}$$

$$3750 \text{ pounds dry solids/pound ink} \times 0.01 \text{ pound PE/PM10/pound dry solids} = 37.5 \text{ pounds PE/PM10/batch}$$

$$37.5 \text{ pounds PE/hour; Figure II, curve P1 (b) } A = 0.5782 \times U^{0.6456}$$

$$A = 0.5782 \times (37.5)^{0.6456} \quad A = 6.0 \text{ pounds PE/hour.}$$

g) Miscellaneous Requirements

- (1) None.



3. Emissions Unit Group -Nitro Varnish: P005,P006,P007,

| EU ID | Operations, Property and/or Equipment Description |
|--------------|--|
| P005 | Axial Disperser AD-103 operating in TM-103. |
| P006 | Axial Disperser AD-104 operating in TM-104. |
| P007 | Axial Disperser AD-105 operating in TM-105. |

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. None.

(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)c., b)(2)c. thru b)(2)e., d), e)(2), and f).

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 3745-31-05(A)(3), as effective 11/30/01 ORC 3704.03(T) | The permittee shall employ the work practice standard for minimizing emissions of volatile organic compounds (VOC) in b)(2)c. See b)(2)a. |
| b. | OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06 | See b)(2)b. |
| c. | OAC rule 3745-31-05(D) Synthetic Minor to Avoid Major Source NAA-NSR and Title V | The facility-wide emissions of volatile organic compounds (VOC) shall not exceed 69.10 tons per year (TPY), based upon a rolling 12-month summation of the VOC emission rates from emissions units P001 – P028, combined. See b)(2)c. thru b)(2)e., d), e)(2), and f). |



(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, these emission limitations/control measures no longer apply.
- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from these air contaminant sources since the uncontrolled Potential to Emit for VOC is less than 10 TPY each.

- c. In order to minimize emissions of volatile organic compounds (VOC), the permittee shall maintain a work practice standard of ensuring the prompt closure of any tank or vessel containing VOC-containing materials.
- d. The emissions of VOC from emissions units P001 – P028, combined, shall not exceed 69.10 TPY, based upon a rolling, 12-month summation of the VOC emissions. 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 emission levels specified in the following table:

| Month(s) | Maximum Allowable Cumulative Emissions of VOC (Tons) |
|----------|--|
| 1-6 | 34.55 |
| 1-7 | 40.31 |
| 1-8 | 46.07 |
| 1-9 | 51.83 |
| 1-10 | 57.58 |
| 1-11 | 63.34 |
| 1-12 | 69.10 |



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

- e. As indicated in Application A0049802, there are no dry solids additions in emissions units P005 – P007, thus, there are no PE/PM10 emissions associated with them.
- f. Emissions from emissions units P005 – P007 are included in the facility-wide VOC Applicable Emissions Limitation pursuant to OAC rule 3745-31-05(D). However, since the production rate used to calculate the contribution of VOC emissions from emissions units P005 – P007 to that allowable was based on 8760 hours per year each and the premise that 100% of the production rate thru the appropriate emission factor in pound(s) per ton of the production rate is emitted as VOC, there is no corresponding to OAC rule 3745-31-05(D) “Operational Restriction” on production required for these emissions units. In order to determine compliance with the facility-wide VOC emission limit, the facility is required to calculate the rolling, 12-month actual emissions from emissions units P005 – P007.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall record each instance where the tank or vessel containing any VOC-containing material was not promptly closed and the reason(s) for the failure to maintain the work practice standard.
- (2) The permittee shall maintain monthly records of the following information for emissions units P001 – P028, combined:
 - a. the VOC emission rate for each month of operations; and
 - b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the VOC emissions.

The monthly VOC emissions from the ink manufacturing operations and associated activities, P001 – P028, shall be calculated as follows:

$$\text{VOC, Tons per Month} = (\text{WI} + \text{NV} + \text{DL} + \text{WB} + \text{PI} + \text{CS}) / 2000$$

Where:

WI = White Ink Dispersion and White Ink Dispersion & Milling Line Emissions, pounds = [(RS-100 production, tons/month x VOC EF, 0.25 pound/ton) + (RS-101 production, tons/month x VOC EF, 0.31 pound/ton) + (AD-111 production, tons/month x VOC EF, 0.28 pound/ton)]*



Draft Permit-to-Install and Operate

INX International Ink Co.

Permit Number: P0116135

Facility ID: 1483000550

Effective Date: To be entered upon final issuance

* No VOC emissions from enclosed mill AM-101

NV = Nitro Varnish Line Emissions, pounds = [(AD-103 production, tons/month x VOC EF, 0.20 pound/ton) + (AD-104 production, tons/month x VOC EF, 0.19 pound/ton) + (AD-105 production, tons/month x VOC EF, 0.25 pound/ton)]

DL = Dispersion Line and Blend & Milled Process Line Emissions, pounds = [(RS-300 + RS-301 + RS-302 + RS-303 + BM-304 + AD-200 + AD-201 + AD-202 + AD-203 production, tons/month) x VOC EF, 12.4 pounds/ton]*

*AD-310 through AD-314 are included the production figures; no VOC emissions from enclosed mills AM-310 through AM-314

WB = Waterbased Ink Process Line Emissions, pounds = [(AGP-810 + AGP-811 + AGP-812 production, tons/month) x VOC EF, 2.4 pounds/ton]

PI = Paste Ink Process Line Emissions, pounds = [(APD-800 + APD-801 + APD-802 production, tons/month) x VOC EF, 0.26 pound/ton]

CS = Cleaning Solvent Emissions, pounds = [(TW-500, TW-501, FT-500, FT-501, FT-502, ZDS-500, and hand cleaning solvent usage, tons/month) x VOC EF, 400 pounds/ton]

The rolling, 12-month VOC emissions shall be a summation of emissions from the current month (ending) and the 11 previous calendar months.

Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative VOC emissions for each calendar month for emissions units P001 – P028, combined.

e) Reporting Requirements

- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.



- (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 deviations of the facility-wide rolling, 12-month VOC emissions limit and, for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative VOC emission levels; and
 - ii. All deviations of the work practice standard for minimizing VOC emissions.
 - 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 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 (the appropriate District Office or local air agency).

- (3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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.

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. Emissions Limitation:

The facility-wide emissions of volatile organic compounds (VOC) shall not exceed 69.10 tons per year (TPY), based upon a rolling 12-month summation of the VOC emission rates from emissions units P001 – P028, combined.



Applicable Compliance Method:

Compliance with the facility-wide VOC emissions limitation shall be demonstrated by the recordkeeping requirement as outlined in term d)(2)b.

The rolling, 12-month VOC emission limitation was established from calculations in the document "Proposed VOC Emissions Limit for Ink Manufacturing" as supplied in Application A0049802 for FEPTIO P0116135.

The PTE VOC from emissions units P005 – P007, combined, may be shown to be less than 10 TPY based on the calculations as supplied by the permittee in Application A0049576 for PTI P0116070 and the contribution of VOC to the facility-wide limit:

7,820,000 pounds ink, AD-103 (P005)/year x 0.20 pound VOC/ton ink x 1 Ton/2000 pounds x 1 Ton/2000 pounds = 0.39 TPY VOC, P005

15,147,000 pounds ink, AD-104 (P006)/year x 0.19 pound VOC/ton ink x 1 Ton/2000 pounds x 1 Ton/2000 pounds = 0.72 TPY VOC, P006

15,147,000 pounds ink, AD-105 (P007)/year x 0.25 pound VOC/ton ink x 1 Ton/2000 pounds x 1 Ton/2000 pounds = 0.95 TPY VOC, P007

0.39 TPY + 0.72 TPY + 0.95 TPY = 2.06

1.17 TPY + 2.50 TPY + 61.75 TPY + 2.06 TPY + 0.02 TPY + 0.14 TPY + 1.43 TPY = 69.07 TPY VOC rounded to 69.10 TPY VOC

g) Miscellaneous Requirements

(1) None.



4. Emissions Unit Group -Blend & Milled Processes:

P008, P009, P010, P011, P012, P013, P014, P015, P016, P017, P018, P019, P020, and P021.

| EU ID | Operations, Property and/or Equipment Description |
|-------|--|
| P008 | Vertical Post High Speed Mixer AD-200 fed by dosing station LSD-200, with particulate emissions from the addition of dry ingredients controlled by dust collector DC-600. |
| P009 | Vertical Post High Speed Mixer AD-201 fed by dosing station LSD-200, with particulate emissions from the addition of dry ingredients controlled by dust collector DC-600. |
| P010 | Vertical Post High Speed Mixer AD-202 fed by dosing station LSD-200, with particulate emissions from the addition of dry ingredients controlled by dust collector DC-600. |
| P011 | Vertical Post High Speed Mixer AD-203 fed by dosing station LSD-200, with particulate emissions from the addition of dry ingredients controlled by dust collector DC-600. |
| P012 | Vertical Post Rotor Stator Mixer RS-300 fed by dosing station LSD-200, with particulate emissions from the addition of dry ingredients controlled by dust collector DC-600. |
| P013 | Vertical Post Rotor Stator Mixer RS-301 fed by dosing station LSD-200, with particulate emissions from the addition of dry ingredients controlled by dust collector DC-600. |
| P014 | Vertical Post Rotor Stator Mixer RS-302 fed by dosing station LSD-200, with particulate emissions from the addition of dry ingredients controlled by dust collector DC-600. |
| P015 | Vertical Post Rotor Stator Mixer RS-303 fed by dosing station LSD-200, with particulate emissions from the addition of dry ingredients controlled by dust collector DC-600. |
| P016 | Submersible Basket Media Mill BM-304 fed by dosing station LSD-200, with particulate emissions from the addition of dry ingredients controlled by dust collector DC-600. |
| P017 | Vertical Enclosed Media Mill AM-310 and Vertical Post High Speed Mixer AD-310 fed by Vertical Post Rotor Stator Mixers RS-300, RS-301, RS-302 and RS-303 and Submersible Basket Media Mill BM-304. |
| P018 | Vertical Enclosed Media Mill AM-311 and Vertical Post High Speed Mixer AD-311 fed by Vertical Post Rotor Stator Mixers RS-300, RS-301, RS-302 and RS-303 and Submersible Basket Media Mill BM-304. |
| P019 | Vertical Enclosed Media Mill AM-312 and Vertical Post High Speed Mixer AD-312 fed by Vertical Post Rotor Stator Mixers RS-300, RS-301, RS-302 and RS-303 and Submersible Basket Media Mill BM-304. |
| P020 | Vertical Enclosed Media Mill AM-313 and Vertical Post High Speed Mixer AD-313 fed by Vertical Post Rotor Stator Mixers RS-300, RS-301, RS-302 and RS-303 and Submersible Basket Media Mill BM-304. |
| P021 | Vertical Enclosed Media Mill AM-314 and Vertical Post High Speed Mixer AD-314 fed by Vertical Post Rotor Stator Mixers RS-300, RS-301, RS-302 and RS-303 and Submersible Basket Media Mill BM-304. |

- 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. None.



(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)c., b)(2)c. thru b)(2)f., and c)(1), d), e)(2), and f)(1)a. thru 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 3745-31-05(A)(3), as effective 11/30/01 ORC 3704.03(T) | The permittee shall employ the work practice standard for minimizing emissions of volatile organic compounds (VOC) in b)(2)c. and install a fabric filter with a design efficiency of at least 98% control of particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10). See b)(2)a. |
| b. | OAC rule 3745-31-05(C), as effective 12/01/06 | See b)(2)b. |
| c. | OAC rule 3745-31-05(D) Synthetic Minor to Avoid Major Source NAA-NSR and Title V | The facility-wide emissions of volatile organic compounds (VOC) shall not exceed 69.10 tons per year (TPY), based upon a rolling 12-month summation of the VOC emission rates from emissions units P001 – P028, combined. The facility-wide PE/PM10 emissions shall not exceed 1.21 TPY, based upon a rolling, 12-month summation of the PE/PM10 emission rates from emissions units P001 – P028, combined. See b)(2)c. thru b)(2)f., and c)(1), d), e)(2), and f)(1)a. thru c. |
| d. | OAC rule 3745-17-07(A)(1) | Visible particulate emissions from the common stack serving emissions units P008, P009, P010, P011, P012, P013, P014, P015, & P016 shall not exceed 20 percent opacity as a six-minute average, except as provided by rule. |



| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|-------------------------------|--|
| e. | OAC rule 3745-17-11(B)(1) | <p>PE from P008, P009, P010, P011, P012, P013, P014, P015, & P016 shall not exceed 2.0 pounds per hour, each, based on Figure II.</p> <p>This emission limitation is less stringent than the emission limitation and control requirement established pursuant to OAC rule 3745-31-05(D).</p> |

(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, these emission limitations/control measures no longer apply.
- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Permit to Install P0116135 for these air contaminant sources takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment), as proposed by the permittee, for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) for PE/PM10:

- i. The permittee shall install a fabric filter with a design efficiency of at least 98% control of particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10);
- ii. The maximum annual ink production rate for emissions units P008 – P021, combined, shall not exceed 19,920,000 pounds;
- iii. PE/PM10 emissions from emissions units P008 – P021, combined, shall not exceed 0.50 TPY; and
- iv. VOC from emissions units P008 – P021, combined, shall not exceed 61.75 TPY, with the average VOC emissions from the 9 EUs in the group emitting VOC, being less than 10 TPY each.



- c. In order to minimize emissions of volatile organic compounds (VOC), the permittee shall maintain a work practice standard of promptly covering any tank or vessel that is not fully enclosed containing VOC-containing materials and ensuring the prompt closure of any tank or vessel containing VOC-containing materials.
- d. The emissions from these emissions units shall be vented to a fabric filter, at all times dry ingredients are being added to the emissions units, with a design efficiency of at least 98% control of particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10).
- e. The emissions of VOC from emissions units P001 – P028, combined, shall not exceed 69.10 TPY, based upon a rolling, 12-month summation of the VOC emissions. 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 emission levels specified in the following table:

| Month(s) | Maximum Allowable Cumulative Emissions of VOC (Tons) |
|----------|--|
| 1-6 | 34.55 |
| 1-7 | 40.31 |
| 1-8 | 46.07 |
| 1-9 | 51.83 |
| 1-10 | 57.58 |
| 1-11 | 63.34 |
| 1-12 | 69.10 |

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

- f. The Synthetic Minor requirements for PE/PM10, pursuant to OAC rule 3745-31-05(A)(3), are primarily driven by the requirement to vent emissions to a fabric filter with a design efficiency of at least 98%. The proper MRR for determining compliance with the requirement is included by requiring parametric monitoring of the fabric filter. Thus, a monthly cumulative limit for PE/PM10 was not included in this permit.



c) Operational Restrictions

- (1) The maximum annual ink production rate for emissions units P008 – P021, combined, shall not exceed 19,920,000 pounds, based upon a rolling, 12-month summation of the ink production rates.

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 production levels specified in the following table:

| Maximum Allowable Cumulative Production Month(s) | (pounds) |
|--|------------|
| 1-6 | 9,960,000 |
| 1-7 | 11,620,000 |
| 1-8 | 13,280,000 |
| 1-9 | 14,940000 |
| 1-10 | 16,600,000 |
| 1-11 | 18,260,000 |
| 1-12 | 19,920,000 |

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

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall record each instance where any tank or vessel containing any VOC-containing material was not promptly covered and/or not promptly closed and the reason(s) for the failure to maintain the work practice standard. The permittee shall identify the tank(s) where the standard(s) was not met.
- (2) The acceptable range for the pressure drop across the fabric filter shall be based upon the manufacturer’s specifications, until such time as any required performance testing is conducted and an alternative pressure drop range and/or limit is established.
- (3) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the fabric filter when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the fabric filter on a daily basis. Alternatively, the permittee shall equip the fabric filter with an alarm system to serve as notification of any operation of the unit outside of the prescribed pressure drop range. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer’s recommendations, instructions, and operating



manual(s), with any modifications deemed necessary by the permittee. The acceptable pressure drop shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range is established to demonstrate compliance.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the fabric filter is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the



range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an Administrative Modification.

- (4) The permittee shall maintain monthly records of the following information for emissions units P008 – P021, combined:
 - a. the ink production rate for each month, in pounds; and
 - b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the ink production rates, in pounds.

Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative production rate for each calendar month.

- (5) The permittee shall maintain monthly records of the following information for emissions units P001 – P028, combined:
 - a. the VOC emission rate for each month of operations; and
 - b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the VOC emissions.

The monthly VOC emissions from the ink manufacturing operations and associated activities, P001 – P028, shall be calculated as follows:

$$\text{VOC, Tons per Month} = (\text{WI} + \text{NV} + \text{DL} + \text{WB} + \text{PI} + \text{CS}) / 2000$$

Where:

WI = White Ink Dispersion and White Ink Dispersion & Milling Line Emissions, pounds = [(RS-100 production, tons/month x VOC EF, 0.25 pound/ton) + (RS-101 production, tons/month x VOC EF, 0.31 pound/ton) + (AD-111 production, tons/month x VOC EF, 0.28 pound/ton)]*

* No VOC emissions from enclosed mill AM-101

NV = Nitro Varnish Line Emissions, pounds = [(AD-103 production, tons/month x VOC EF, 0.20 pound/ton) + (AD-104 production, tons/month x VOC EF, 0.19 pound/ton) + (AD-105 production, tons/month x VOC EF, 0.25 pound/ton)]

DL = Dispersion Line and Blend & Milled Process Line Emissions, pounds = [(RS-300 + RS-301 + RS-302 + RS-303 + BM-304 + AD-200 + AD-201 + AD-202 + AD-203 production, tons/month) x VOC EF, 12.4 pounds/ton]*

*AD-310 through AD-314 are included the production figures; no VOC emissions from enclosed mills AM-310 through AM-314



WB = Waterbased Ink Process Line Emissions, pounds = [(AGP-810 + AGP-811 + AGP-812 production, tons/month) x VOC EF, 2.4 pounds/ton]

PI = Paste Ink Process Line Emissions, pounds = [(APD-800 + APD-801 + APD-802 production, tons/month) x VOC EF, 0.26 pound/ton]

CS = Cleaning Solvent Emissions, pounds = [(TW-500, TW-501, FT-500, FT-501, FT-502, ZDS-500, and hand cleaning solvent usage, tons/month) x VOC EF, 400 pounds/ton]

The rolling, 12-month VOC emissions shall be a summation of emissions from the current month (ending) and the 11 previous calendar months.

Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative VOC emissions for each calendar month for emissions units P001 – P028, combined.

The production rates in tons/month may be converted from the records in d)(4).

- c. the PE/PM10 emission rate for each month of operations; and
- d. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the PE/PM10 emissions.

The monthly PE/PM10 emissions from the ink manufacturing operations P001 – P028, shall be calculated as follows:

$$\text{PE/PM10, Tons per Month} = [(WI + DL) \times (1 - 0.98 \text{ CE})] / 2000$$

Where:

WI = White Ink Dispersion and White Ink Dispersion & Milling Line Emissions, pounds = [(RS-100 production, tons/month x actual % dry solids added, converted to pounds/ton x PE/PM10 EF, 0.01 pound/pound) + (RS-101 production, tons/month x actual % dry solids added, converted to pounds/ton x PE/PM10 EF, 0.01 pound/pound)]

DL = Dispersion Line and Blend & Milled Process Line Emissions, pounds = [(RS-300 + RS-301 + RS-302 + RS-303 + BM-304 + AD-200 + AD-201 + AD-202 + AD-203 production, tons/month) x actual % dry solids added, converted to pounds/ton x PE/PM10 EF, 0.01 pound/pound]

CE = Control Efficiency of fabric filters DC-100 and DC-600 given as 98% each based on design efficiency as indicated in Application A0049802

The rolling, 12-month PE/PM10 emissions shall be a summation of emissions from the current month (ending) and the 11 previous calendar months.

The production rates in tons/month may be converted from the records in d)(4).



e) Reporting Requirements

- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- (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 rate limitation; and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative ink production rate levels;
 - ii. All deviations of the facility-wide rolling, 12-month VOC emissions limit and, for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative VOC emission levels;
 - iii. All deviations of the facility-wide rolling, 12-month PE/PM10 emissions limit;
 - iv. All deviations of the work practice standard for minimizing VOC emissions;
 - v. Each period of time (start time and date, and end time and date) when the pressure drop across the fabric filter was outside of the range specified by the manufacturer and outside of the acceptable range following any required compliance demonstration;
 - vi. Any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the fabric filter;



- vii. Each incident of deviation described in v. (above) where a prompt investigation was not conducted;
 - viii. Each incident of deviation described in v. where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - ix. Each incident of deviation described in v. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.
- 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 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 (the appropriate District Office or local air agency).

- (3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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.

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. **Control Requirement:**

The emissions from these emissions units shall be vented to a fabric filter, at all times dry ingredients are being added to the emissions units, with a design efficiency of at least 98% control of particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10).

Applicable Compliance Method:

If required, compliance with the fabric filter design efficiency for PE/PM10 emissions control may be demonstrated by emissions tests using methodology including, but not limited to, Method 5, as specified in 40 CFR Part 60, Appendix



A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency", dated January 9, 1995.

The basis for the fabric filter design efficiency is the company-supplied design estimate as supplied in Application A0049802 for FEPTIO P0116135.

b. Emissions Limitation:

The facility-wide emissions of volatile organic compounds (VOC) shall not exceed 69.10 tons per year (TPY), based upon a rolling 12-month summation of the VOC emission rates from emissions units P001 – P028, combined.

Applicable Compliance Method:

Compliance with the facility-wide VOC emissions limitation shall be demonstrated by the recordkeeping requirement as outlined in term d)(5)b.

The rolling, 12-month VOC emission limitation was established from calculations in the document "Proposed VOC Emissions Limit for Ink Manufacturing" as supplied in Application A0049802 for FEPTIO P0116135.

The PTE VOC from emissions units P008 – P021, combined, may be shown to be less than 10 TPY based on the calculations as supplied by the permittee in Application A0049576 for PTI P0116070 and the contribution of VOC to the facility-wide limit:

$19,920,000 \text{ pounds ink/year} \times 12.4 \text{ pounds VOC/ton ink} \times 1 \text{ Ton}/2000 \text{ pounds} \times 1 \text{ Ton}/2000 \text{ pounds} = 61.75 \text{ TPY VOC}$

$61.75 \text{ TPY VOC} \div 9 \text{ EUs in the group emitting VOC} = 6.86 \text{ TPY VOC, each}$

$1.17 \text{ TPY} + 2.50 \text{ TPY} + 61.75 \text{ TPY} + 2.06 \text{ TPY} + 0.02 \text{ TPY} + 0.14 \text{ TPY} + 1.43 \text{ TPY} = 69.07 \text{ TPY VOC rounded to } 69.10 \text{ TPY VOC.}$

c. Emissions Limitation:

The facility-wide PE/PM10 emissions shall not exceed 1.21 TPY, based upon a rolling, 12-month summation of the PE/PM10 emission rates from emissions units P001 – P028, combined.

Applicable Compliance Method:

Compliance with the facility-wide PE/PM10 emissions limitation shall be demonstrated by the recordkeeping requirement as outlined in term d)(5)d.

The rolling, 12-month PE/PM10 emission limitation was established from calculations in the document "Projected Maximum PM Emissions" as supplied in Application A0049802 for FEPTIO P0116135.



Draft Permit-to-Install and Operate

INX International Ink Co.

Permit Number: P0116135

Facility ID: 1483000550

Effective Date: To be entered upon final issuance

The PTE PE/PM10 from P008 – P021, combined, may be shown to be less than 10 TPY based on the calculation as supplied by the permittee in Application A0049576 for PTI P0116070 and the contribution of PE/PM10 to the facility-wide limit:

$19,920,000 \text{ pounds ink/year} \times 0.25 \text{ pound dry solids/pound ink} \times 0.01 \text{ pound PE/PM10/pound dry solids} \times (1 - 0.98 \text{ CE}) \times 1 \text{ Ton/2000 pounds} = 0.50 \text{ TPY PE/PM10}$

$0.47 \text{ TPY} + 0.24 \text{ TPY} + 0.50 \text{ TPY} = 1.21 \text{ TPY PE/PM10}$

d. Emission Limitation:

Visible particulate emissions from the common stack serving emissions units P008, P009, P010, P011, P012, P013, P014, P015, & P016 shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.

Applicable Compliance Method:

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

e. Emission Limitation:

PE from P008, P009, P010, P011, P012, P013, P014, P015, & P016 shall not exceed 2.0 pounds per hour, each, based on Figure II.

Applicable Compliance Method:

If required, compliance with the mass emissions limitation may be demonstrated by emissions tests using methodology including, but not limited to, Method 5, as specified in 40 CFR Part 60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency", dated January 9, 1995.

The mass emissions limitation was established for P008, P009, P010, P011, P012, P013, P014, P015, & P016 based on the method in the Appendix to OAC rule 3745-17-11, Figure II using the amount of dry solids as supplied by the permittee in Application A0049802 and the PE emission factor from AP-42, Table 6.4-1:

$4000 \text{ pounds ink/batch} \times 0.25 \text{ pound dry solids/pound ink} = 1000 \text{ pound dry solids/pound ink}$



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1000 pounds dry solids/pound ink x 0.01 pound PE/PM10/pound dry solids =
10.0 pounds PE/PM10/batch

10.0 pounds PE/hour; Figure II, (a) $A = 0.20 \times U$

$A = 0.20 \times (10.0)$ $A = 2.0$ pounds PE/hour.

g) Miscellaneous Requirements

(1) None.



5. Emissions Unit Group -Paste Ink: P022,P023,P024,

| EU ID | Operations, Property and/or Equipment Description |
|--------------|--|
| P022 | Paste Ink Mixer APD-800 |
| P023 | Paste Ink Mixer APD-801 |
| P024 | Paste Ink Mixer APD-802 |

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. None.

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

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 3745-31-05(A)(3), as effective 11/30/01 ORC 3704.03(T) | The permittee shall employ the work practice standard for minimizing emissions of volatile organic compounds (VOC) in b)(2)c. See b)(2)a. |
| b. | OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06 | See b)(2)b. |
| c. | OAC rule 3745-31-05(D) Synthetic Minor to Avoid Major Source NAA-NSR and Title V | The facility-wide emissions of volatile organic compounds (VOC) shall not exceed 69.10 tons per year (TPY), based upon a rolling 12-month summation of the VOC emission rates from emissions units P001 – P028, combined. See b)(2)c., b)(2)d., c)(1), d), e)(1), and f). |



(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, these emission limitations/control measures no longer apply.
- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the uncontrolled Potential to Emit for VOC is less than 10 TPY.

- c. In order to minimize emissions of volatile organic compounds (VOC), the permittee shall maintain a work practice standard of promptly covering any tank or vessel that is not fully enclosed containing VOC-containing materials.
- d. The emissions of VOC from emissions units P001 – P028, combined, shall not exceed 69.10 TPY, based upon a rolling, 12-month summation of the VOC emissions. 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 emission levels specified in the following table:

| Month(s) | Maximum Allowable Cumulative Emissions of VOC (Tons) |
|----------|--|
| 1-6 | 34.55 |
| 1-7 | 40.31 |
| 1-8 | 46.07 |
| 1-9 | 51.83 |
| 1-10 | 57.58 |
| 1-11 | 63.34 |
| 1-12 | 69.10 |



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

- e. As indicated in Application A0049802, there are no dry solids additions in emissions units P022 – P024, thus, there are no PE/PM10 emissions associated with them.

c) Operational Restrictions

- (1) The maximum annual ink production rate for emissions units P022 – P024, combined, shall not exceed 240,000 pounds, based upon a rolling, 12-month summation of the ink production rates.

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 production levels specified in the following table:

| Month(s) | Maximum Allowable Cumulative Production (pounds) |
|----------|--|
| 1-6 | 120,000 |
| 1-7 | 140,000 |
| 1-8 | 160,000 |
| 1-9 | 180,000 |
| 1-10 | 200,000 |
| 1-11 | 220,000 |
| 1-12 | 240,000 |

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

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall record each instance where any tank or vessel containing any VOC-containing material was not promptly covered and the reason(s) for the failure to maintain the work practice standard. The permittee shall identify the tank(s) where the standard(s) was not met.
- (2) The permittee shall maintain monthly records of the following information for emissions units P022 – P024, combined:



- a. the ink production rate for each month, in pounds; and
- b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the ink production rates, in pounds.

Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative production rate for each calendar month.

- (3) The permittee shall maintain monthly records of the following information for emissions units P001 – P028, combined:

- a. the VOC emission rate for each month of operations; and
- b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the VOC emissions.

The monthly VOC emissions from the ink manufacturing operations and associated activities, P001 – P028, shall be calculated as follows:

$$\text{VOC, Tons per Month} = (\text{WI} + \text{NV} + \text{DL} + \text{WB} + \text{PI} + \text{CS}) / 2000$$

Where:

WI = White Ink Dispersion and White Ink Dispersion & Milling Line Emissions, pounds = [(RS-100 production, tons/month x VOC EF, 0.25 pound/ton) + (RS-101 production, tons/month x VOC EF, 0.31 pound/ton) + (AD-111 production, tons/month x VOC EF, 0.28 pound/ton)]*

* No VOC emissions from enclosed mill AM-101

NV = Nitro Varnish Line Emissions, pounds = [(AD-103 production, tons/month x VOC EF, 0.20 pound/ton) + (AD-104 production, tons/month x VOC EF, 0.19 pound/ton) + (AD-105 production, tons/month x VOC EF, 0.25 pound/ton)]

DL = Dispersion Line and Blend & Milled Process Line Emissions, pounds = [(RS-300 + RS-301 + RS-302 + RS-303 + BM-304 + AD-200 + AD-201 + AD-202 + AD-203 production, tons/month) x VOC EF, 12.4 pounds/ton]*

*AD-310 through AD-314 are included the production figures; no VOC emissions from enclosed mills AM-310 through AM-314

WB = Waterbased Ink Process Line Emissions, pounds = [(AGP-810 + AGP-811 + AGP-812 production, tons/month) x VOC EF, 2.4 pounds/ton]

PI = Paste Ink Process Line Emissions, pounds = [(APD-800 + APD-801 + APD-802 production, tons/month) x VOC EF, 0.26 pound/ton]



CS = Cleaning Solvent Emissions, pounds = [(TW-500, TW-501, FT-500, FT-501, FT-502, ZDS-500, and hand cleaning solvent usage, tons/month) x VOC EF, 400 pounds/ton]

The rolling, 12-month VOC emissions shall be a summation of emissions from the current month (ending) and the 11 previous calendar months.

Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative VOC emissions for each calendar month for emissions units P001 – P028, combined.

The production rates in tons/month may be converted from the records in d)(2).

e) Reporting Requirements

- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- (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 rate limitation; and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative ink production rate levels;
 - ii. All deviations of the facility-wide rolling, 12-month VOC emissions limit and, for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative VOC emission levels; and



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- iii. All deviations of the work practice standard for minimizing VOC emissions.
- 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 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 (the appropriate District Office or local air agency).

- (3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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.

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. Emissions Limitation:

The facility-wide emissions of volatile organic compounds (VOC) shall not exceed 69.10 tons per year (TPY), based upon a rolling 12-month summation of the VOC emission rates from emissions units P001 – P028, combined.

Applicable Compliance Method:

Compliance with the facility-wide VOC emissions limitation shall be demonstrated by the recordkeeping requirement as outlined in term d)(3)b.

The rolling, 12-month VOC emission limitation was established from calculations in the document "Proposed VOC Emissions Limit for Ink Manufacturing" as supplied in Application A0049802 for FEPTIO P0116135.

The PTE VOC from P022 – P024, combined, may be shown to be less than 10 TPY based on the calculations as supplied by the permittee in Application A0049576 for PTI P0116070 and the contribution of VOC to the facility-wide limit:



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240,000 pounds ink, combined/year x 0.26 pound VOC/ton ink x 1 Ton/2000 pounds x 1 Ton/2000 pounds = 0.0156 TPY VOC, rounded to 0.02 TPY VOC, combined

1.17 TPY + 2.50 TPY + 61.75 TPY + 2.06 TPY + 0.02 TPY + 0.14 TPY + 1.43 TPY = 69.07 TPY VOC rounded to 69.10 TPY VOC.

g) Miscellaneous Requirements

(1) None.



6. Emissions Unit Group -Waterbased Ink: P025,P026,P027,

| EU ID | Operations, Property and/or Equipment Description |
|--------------|--|
| P025 | Waterbased Ink Mixer AGP-810 |
| P026 | Waterbased Ink Mixer AGP-811 |
| P027 | Waterbased Ink Mixer AGP-812 |

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. None.

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

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 3745-31-05(A)(3), as effective 11/30/01 ORC 3704.03(T) | The permittee shall employ the work practice standard for minimizing emissions of volatile organic compounds (VOC) in b)(2)c. See b)(2)a. |
| b. | OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06 | See b)(2)b. |
| c. | OAC rule 3745-31-05(D) Synthetic Minor to Avoid Major Source NAA-NSR and Title V | The facility-wide emissions of volatile organic compounds (VOC) shall not exceed 69.10 tons per year (TPY), based upon a rolling 12-month summation of the VOC emission rates from emissions units P001 – P028, combined. See b)(2)c., b)(2)d., c)(1), d), e)(2), and f). |



(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, these emission limitations/control measures no longer apply.
- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the uncontrolled Potential to Emit for VOC is less than 10 TPY.

- c. In order to minimize emissions of volatile organic compounds (VOC), the permittee shall maintain a work practice standard of promptly covering any tank or vessel that is not fully enclosed containing VOC-containing materials.
- d. The emissions of VOC from emissions units P001 – P028, combined, shall not exceed 69.10 TPY, based upon a rolling, 12-month summation of the VOC emissions. 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 emission levels specified in the following table:

| Month(s) | Maximum Allowable Cumulative Emissions of VOC (Tons) |
|----------|--|
| 1-6 | 34.55 |
| 1-7 | 40.31 |
| 1-8 | 46.07 |
| 1-9 | 51.83 |
| 1-10 | 57.58 |
| 1-11 | 63.34 |
| 1-12 | 69.10 |



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

- e. As indicated in Application A0049802, there are no dry solids additions in emissions units P025 – P027, thus, there are no PE/PM10 emissions associated with them.

c) Operational Restrictions

- (1) The maximum annual ink production rate for emissions units P025 – P027, combined, shall not exceed 240,000 pounds, based upon a rolling, 12-month summation of the ink production rates.

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 production levels specified in the following table:

| Month(s) | Maximum Allowable Cumulative Production (pounds) |
|----------|--|
| 1-6 | 120,000 |
| 1-7 | 140,000 |
| 1-8 | 160,000 |
| 1-9 | 180,000 |
| 1-10 | 200,000 |
| 1-11 | 220,000 |
| 1-12 | 240,000 |

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

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall record each instance where any tank or vessel containing any VOC-containing material was not promptly covered and the reason(s) for the failure to maintain the work practice standard. The permittee shall identify the tank(s) where the standard(s) was not met.
- (2) The permittee shall maintain monthly records of the following information for emissions units P025 – P027, combined:



- a. the ink production rate for each month, in pounds; and
- b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the ink production rates, in pounds.

Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative production rate for each calendar month.

- (3) The permittee shall maintain monthly records of the following information for emissions units P001 – P028, combined:
 - a. the VOC emission rate for each month of operations; and
 - b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the VOC emissions.

The monthly VOC emissions from the ink manufacturing operations and associated activities, P001 – P028, shall be calculated as follows:

$$\text{VOC, Tons per Month} = (\text{WI} + \text{NV} + \text{DL} + \text{WB} + \text{PI} + \text{CS}) / 2000$$

Where:

WI = White Ink Dispersion and White Ink Dispersion & Milling Line Emissions, pounds = [(RS-100 production, tons/month x VOC EF, 0.25 pound/ton) + (RS-101 production, tons/month x VOC EF, 0.31 pound/ton) + (AD-111 production, tons/month x VOC EF, 0.28 pound/ton)]*

* No VOC emissions from enclosed mill AM-101

NV = Nitro Varnish Line Emissions, pounds = [(AD-103 production, tons/month x VOC EF, 0.20 pound/ton) + (AD-104 production, tons/month x VOC EF, 0.19 pound/ton) + (AD-105 production, tons/month x VOC EF, 0.25 pound/ton)]

DL = Dispersion Line and Blend & Milled Process Line Emissions, pounds = [(RS-300 + RS-301 + RS-302 + RS-303 + BM-304 + AD-200 + AD-201 + AD-202 + AD-203 production, tons/month) x VOC EF, 12.4 pounds/ton]*

*AD-310 through AD-314 are included the production figures; no VOC emissions from enclosed mills AM-310 through AM-314

WB = Waterbased Ink Process Line Emissions, pounds = [(AGP-810 + AGP-811 + AGP-812 production, tons/month) x VOC EF, 2.4 pounds/ton]

PI = Paste Ink Process Line Emissions, pounds = [(APD-800 + APD-801 + APD-802 production, tons/month) x VOC EF, 0.26 pound/ton]



CS = Cleaning Solvent Emissions, pounds = [(TW-500, TW-501, FT-500, FT-501, FT-502, ZDS-500, and hand cleaning solvent usage, tons/month) x VOC EF, 400 pounds/ton]

The rolling, 12-month VOC emissions shall be a summation of emissions from the current month (ending) and the 11 previous calendar months.

Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative VOC emissions for each calendar month for emissions units P001 – P028, combined.

The production rates in tons/month may be converted from the records in d)(2).

e) Reporting Requirements

- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- (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 rate limitation; and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative ink production rate levels;
 - ii. All deviations of the facility-wide rolling, 12-month VOC emissions limit and, for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative VOC emission levels; and



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- iii. All deviations of the work practice standard for minimizing VOC emissions.
- 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 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 (the appropriate District Office or local air agency).

- (3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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.

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. Emissions Limitation:

The facility-wide emissions of volatile organic compounds (VOC) shall not exceed 69.10 tons per year (TPY), based upon a rolling 12-month summation of the VOC emission rates from emissions units P001 – P028, combined.

Applicable Compliance Method:

Compliance with the facility-wide VOC emissions limitation shall be demonstrated by the recordkeeping requirement as outlined in term d)(3)b.

The rolling, 12-month VOC emission limitation was established from calculations in the document "Proposed VOC Emissions Limit for Ink Manufacturing" as supplied in Application A0049802 for FEPTIO P0116135.

The PTE VOC from P025 – P027, combined, may be shown to be less than 10 TPY based on the calculations as supplied by the permittee in Application A0049576 for PTI P0116070 and the contribution of VOC to the facility-wide limit:



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240,000 pounds ink, combined/year x 2.40 pound VOC/ton ink x 1 Ton/2000 pounds x 1 Ton/2000 pounds = 0.14 TPY VOC, combined

1.17 TPY + 2.50 TPY + 61.75 TPY + 2.06 TPY + 0.02 TPY + 0.14 TPY + 1.43 TPY = 69.07 TPY VOC rounded to 69.10 TPY VOC.

g) Miscellaneous Requirements

(1) None.



7. P028, Tote & Tank Washing Area

Operations, Property and/or Equipment Description:

Tote & Tank Washing TW-500, TW-501, FT-500, FT-501, FT-502, ZDS-500, Hand Cleaning

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. None.

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

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 3745-31-05(A)(3), as effective 11/30/01 ORC 3704.03(T) | The maximum amount of cleaning solvent employed (purchased material minus waste) in this emissions unit shall not exceed 25,000 pounds per rolling, 12-month period. See b)(2)a. |
| b. | OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06 | See b)(2)b. |
| c. | OAC rule 3745-31-05(D) Synthetic Minor to Avoid Major Source NAA-NSR and Title V | The facility-wide emissions of volatile organic compounds (VOC) shall not exceed 69.10 tons per year (TPY), based upon a rolling 12-month summation of the VOC emission rates from emissions units P001 – P028, combined. See b)(2)c., b)(2)d., c)(1), d), e)(2), and f). |



(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, these emission limitations/control measures no longer apply.
- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the uncontrolled Potential to Emit for VOC is less than 10 TPY.

- c. The amount of cleaning solvent lost as VOC emissions shall not exceed 20%, by weight.
- d. The emissions of VOC from emissions units P001 – P028, combined, shall not exceed 69.10 TPY, based upon a rolling, 12-month summation of the VOC emissions. 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 emission levels specified in the following table:

| Month(s) | Maximum Allowable Cumulative Emissions of VOC (Tons) |
|----------|--|
| 1-6 | 34.55 |
| 1-7 | 40.31 |
| 1-8 | 46.07 |
| 1-9 | 51.83 |
| 1-10 | 57.58 |
| 1-11 | 63.34 |
| 1-12 | 69.10 |



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

c) Operational Restrictions

- (1) The maximum annual cleaning solvent usage rate for emissions unit P028 shall not exceed 25,000 pounds, based upon a rolling, 12-month summation of the cleaning solvent usage rates (purchased material minus waste).

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 usage levels specified in the following table:

| Month(s) | Maximum Allowable Cumulative Usage (pounds) |
|----------|---|
| 1-6 | 12,500 |
| 1-7 | 14,583 |
| 1-8 | 16,667 |
| 1-9 | 18,750 |
| 1-10 | 20,833 |
| 1-11 | 22,917 |
| 1-12 | 25,000 |

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

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information for emissions unit P028:
 - a. the VOC content of the cleaning solvent, in pounds of VOC per pound of cleaning solvent (% by weight);
 - b. the cleaning solvent usage rate for each month, in pounds; and
 - c. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the cleaning solvent usage rates, in pounds.



Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative cleaning solvent usage rate for each calendar month.

- (2) The permittee shall maintain monthly records of the following information for emissions units P001 – P028, combined:
 - a. the VOC emission rate for each month of operations; and
 - b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the VOC emissions.

The monthly VOC emissions from the ink manufacturing operations and associated activities, P001 – P028, shall be calculated as follows:

$$\text{VOC, Tons per Month} = (\text{WI} + \text{NV} + \text{DL} + \text{WB} + \text{PI} + \text{CS}) / 2000$$

Where:

WI = White Ink Dispersion and White Ink Dispersion & Milling Line Emissions, pounds = [(RS-100 production, tons/month x VOC EF, 0.25 pound/ton) + (RS-101 production, tons/month x VOC EF, 0.31 pound/ton) + (AD-111 production, tons/month x VOC EF, 0.28 pound/ton)]*

* No VOC emissions from enclosed mill AM-101

NV = Nitro Varnish Line Emissions, pounds = [(AD-103 production, tons/month x VOC EF, 0.20 pound/ton) + (AD-104 production, tons/month x VOC EF, 0.19 pound/ton) + (AD-105 production, tons/month x VOC EF, 0.25 pound/ton)]

DL = Dispersion Line and Blend & Milled Process Line Emissions, pounds = [(RS-300 + RS-301 + RS-302 + RS-303 + BM-304 + AD-200 + AD-201 + AD-202 + AD-203 production, tons/month) x VOC EF, 12.4 pounds/ton]*

*AD-310 through AD-314 are included the production figures; no VOC emissions from enclosed mills AM-310 through AM-314

WB = Waterbased Ink Process Line Emissions, pounds = [(AGP-810 + AGP-811 + AGP-812 production, tons/month) x VOC EF, 2.4 pounds/ton]

PI = Paste Ink Process Line Emissions, pounds = [(APD-800 + APD-801 + APD-802 production, tons/month) x VOC EF, 0.26 pound/ton]

CS = Cleaning Solvent Emissions, pounds = [(TW-500, TW-501, FT-500, FT-501, FT-502, ZDS-500, and hand cleaning solvent usage, tons/month) x VOC EF, 400 pounds/ton]

The rolling, 12-month VOC emissions shall be a summation of emissions from the current month (ending) and the 11 previous calendar months.



Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative VOC emissions for each calendar month for emissions units P001 – P028, combined.

The usage rates in tons/month may be converted from the records in d)(1).

e) Reporting Requirements

- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- (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 cleaning solvent usage rate limitation; and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative cleaning solvent usage rate levels;
 - ii. All deviations of the facility-wide rolling, 12-month VOC emissions limit and, for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative VOC emission levels; and
 - iii. All deviations of the restriction on the % by weight of cleaning solvent lost as VOC emissions.
 - 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 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 (the appropriate District Office or local air agency).

- (3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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.

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. Emissions Limitation:

The facility-wide emissions of volatile organic compounds (VOC) shall not exceed 69.10 tons per year (TPY), based upon a rolling 12-month summation of the VOC emission rates from emissions units P001 – P028, combined.

Applicable Compliance Method:

Compliance with the facility-wide VOC emissions limitation shall be demonstrated by the recordkeeping requirement as outlined in term d)(4)b.

The rolling, 12-month VOC emission limitation was established from calculations in the document “Proposed VOC Emissions Limit for Ink Manufacturing” as supplied in Application A0049802 for FEPTIO P0116135.

The PTE VOC from P028 may be shown to be less than 10 TPY based on the calculations as supplied by the permittee in Application A0049576 for PTI P0116070 and the contribution of VOC to the facility-wide limit:

25,000 pounds solvent/year x 400 pounds VOC/ton solvent x 1 Ton/2000 pounds x 1 Ton/2000 pounds = 2.50 TPY VOC; and

1.17 TPY + 2.50 TPY + 61.75 TPY + 2.06 TPY + 0.02 TPY + 0.14 TPY + 1.43 TPY = 69.07 TPY VOC rounded to 69.10 TPY VOC.

- b. Emissions Limitation:

The amount of cleaning solvent lost as VOC emissions shall not exceed 20%, by weight.



Draft Permit-to-Install and Operate

INX International Ink Co.

Permit Number: P0116135

Facility ID: 1483000550

Effective Date: To be entered upon final issuance

Applicable Compliance Method:

If required, compliance with the VOC emissions limitation may be demonstrated by a material balance and/or formulation data including, but not limited to, USEPA Methods 24 or 24A.

g) Miscellaneous Requirements

(1) None.