



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

7/15/2016

Certified Mail

Mr. Paul Krueger
Sonoco Flexible Packaging Co Inc
706 South Avenue
Franklin, OH 45005

Facility ID: 1483040077
Permit Number: P0118711
County: Warren

RE: PRELIMINARY PROPOSED AIR POLLUTION TITLE V PERMIT
Permit Type: Renewal

Dear Permit Holder:

Enclosed is the Ohio Environmental Protection Agency (EPA) Preliminary Proposed Title V permit that was issued in draft form on 6/8/2015. The comment period for the Draft permit has ended. We are now ready to submit this permit to U.S. EPA for approval.

We are submitting this for your review and comment. If you do not agree with the Preliminary Proposed Title V permit as written, you now have the opportunity to raise your concerns. 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 permit or in narrative format. Any comments must be sent to the following within 14 days of your receipt of this letter:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

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

If you believe that it is necessary to have an informal conference with us, then, as part of your written comments, you should request a conference concerning the written comments. If comments are not submitted within 14 days of your receipt of this letter, we will forward the proposed permit to U.S. EPA for approval. All comments received will be carefully considered before proceeding with the proposed permit.

Sincerely,

A handwritten signature in cursive script that reads "Michael E. Hopkins".

Michael E. Hopkins, P.E
Assistant Chief Permitting Section, DAPC

Cc: Southwest Ohio Air Quality Agency



Response to Comments

Facility ID:	1483040077
Facility Name:	Sonoco Flexible Packaging Co Inc
Facility Description:	Product flexible packaging printing facility.
Facility Address:	708 South Avenue Franklin, OH 45005 Warren County
Permit:	P0118711, Title V Permit - Renewal
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the The Western Star on 06/14/2015. The comment period ended on 07/14/2015.	
Hearing date (if held)	NA
Hearing Public Notice Date (if different from draft public notice)	NA

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

Comments from US EPA, Region 5, Air Permits Section, dated 7/6/2015

1. Topic: Practical enforceability of VOC emission limitation(s), emissions units K008, K009, K010, and P012

- a. Comment: For emissions units K008, K009, K010, and P012, the VOC emissions are based upon the potential to emit of and the overall control efficiency requirement of the emissions units. An equation is included as the applicable compliance method, however there is no limitations within the permit for the maximum VOC content of the materials used at the facility [ref. terms and conditions C.1.f)(1)a., C.2.f)(1)a., C.1.f)(1)a., and C.4.f)(1)a.]. Should the facility change any of the materials used, emissions may increase depending on the VOC content. To ensure that the potential to emit restrictions identified in the emission calculations are enforceable as a practical matter, Ohio EPA should establish a maximum VOC content limitation on the materials used at the facility.

Response: In regard to emissions units K008, K009, and K010, Ohio EPA worked with the permittee to review the VOC content of the materials used at the facility and requested Permit to Install (PTI) applications from the permittee to modify the underlying PTIs to account for the materials used in these emissions units, as well as future material usage, and developed material usage, material VOC content, and emission limitations and compliance methods to



Response to Comments
Sonoco Flexible Packaging Co Inc
Permit Number: P0118711
Facility ID: 1483040077

address concerns regarding practical enforceability. The draft PTI modifications were presented to US EPA for review and agreement was reached on sufficient enforceability of the terms. The PTI modifications for K008, K009, and K010 were issued final on 4/11/2016 and have been incorporated into the terms and conditions of this Title V permit renewal.

In regard to emissions unit P012, it was found that the draft Title V term and equation described in term C.4.f)(1)a. was incorrect and not based upon the potential to emit methodology found in the underlying PTI demonstration. The application for PTI #14-03182 used an emissions factor found in AP 42, Table 6.4-1, of 30 pounds of VOC/ton of product (ink) and a 50% capture/control efficiency found in the US EPA RACT document "Control of VOC Emissions from Ink and Paint Manufacturing Processes" EPA-450/3-92-013 for the use of tightly fitting mixing covers to arrive at the potential to emit of 7.5 pounds of organic compounds/hour. Regardless of the error, since the time of draft Title V issuance, the permittee has permanently shut down emissions unit P012. Therefore, Ohio EPA has removed emissions unit P012 and its terms and conditions from this renewal permit.

No other comments were received.



PRELIMINARY PROPOSED

Division of Air Pollution Control Title V Permit for Sonoco Flexible Packaging Co Inc

Facility ID:	1483040077
Permit Number:	P0118711
Permit Type:	Renewal
Issued:	7/15/2016
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance



Division of Air Pollution Control
Title V Permit
for
Sonoco Flexible Packaging Co Inc

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Preliminary Proposed Title V Permit

Sonoco Flexible Packaging Co Inc

Permit Number: P0118711

Facility ID: 1483040077

Effective Date: To be entered upon final issuance

Authorization

Facility ID: 1483040077
Facility Description: Product flexible packaging printing facility.
Application Number(s): A0053143, A0055939
Permit Number: P0118711
Permit Description: Renewal of Title V Operating Permit for a product flexible packaging printing facility, includes rotogravure press, extruder/laminators, and ink mixing operations.
Permit Type: Renewal
Issue Date: 7/15/2016
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance
Superseded Permit Number: P0100479

This document constitutes issuance of an OAC Chapter 3745-77 Title V permit to:

Sonoco Flexible Packaging Co Inc
708 South Avenue
Franklin, OH 45005

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 a Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Southwest Ohio Air Quality Agency. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months and no later than 6 months prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler
Director



Preliminary Proposed Title V Permit
Sonoco Flexible Packaging Co Inc
Permit Number: P0118711
Facility ID: 1483040077
Effective Date: To be entered upon final issuance

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
- (1) Standard Term and Condition A. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions
 - (2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions
 - (3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting For State-Only Requirements
 - (4) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (5) Standard Term and Condition A. 30.

(Authority for term: ORC 3704.036(A))

2. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit), the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
- (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))



c) The permittee shall submit required reports in the following manner:

- (1) All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted by January 31, April 30, July 31, and October 31 of each year in accordance with Standard Term and Condition A.2.c)(2) below; and each report shall cover the previous calendar quarter. An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c).

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any submitted scheduled maintenancerequests, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

- (2) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit or, in some cases, in section B. Facility-Wide Terms and Conditions of this Title V permit), all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the



probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be submitted promptly to the Southwest Ohio Air Quality Agency. Except as provided below, the written reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written deviation reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement satisfies the reporting requirements specified in this Standard Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy (for the deviations so reported) the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this Standard Term and Condition.

See A.29 below if no deviations occurred during the quarter.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

- (3) All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with Standard Term and Condition A.2)c)(2) above shall be submitted in the following manner:

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; Standard Terms and Conditions: A.3, A.4, A.5, A.7.e), A.8, A.13, A.15, A.19, A.20, A.21, and A.23 of this Title V permit, as well as any deviations from the requirements in section C. Emissions Unit Terms and Conditions of this Title V permit, and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted to the Southwest Ohio Air Quality Agency by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable



requirements not specifically addressed by permit or rule for the insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with Standard Term and Condition A.2.c)(2) above.

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

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))

- (4) Each written report shall be signed by a Responsible Official certifying that, "based on information and belief formed after reasonable inquiry, the statements and information in the report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete." Signature by the Responsible Official may be represented by entry of the personal identification number (PIN) by the Responsible Official as part of the electronic submission process or by the scanned attestation document signed by the Responsible Official that is attached to the electronically submitted written report.

(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

- (5) Consistent with A.2.c.1. above, reports of any required monitoring and/or record keeping information required to be submitted to Ohio EPA shall be submitted to Southwest Ohio Air Quality Agency unless otherwise specified.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. Reporting of Any Exceedence of a Federally Enforceable Emission Limitation or Control Requirement Resulting From Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in Standard Term and Condition A.2.c)(1) above.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

4. Risk Management Plans

If applicable, the permittee shall develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq. ("Act"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

- a) a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or
- b) as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

(Authority for term: OAC rule 3745-77-07(A)(4))

5. Title IV Provisions

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

(Authority for term: OAC rule 3745-77-07(A)(5))

6. Severability Clause

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

(Authority for term: OAC rule 3745-77-07(A)(6))

7. General Requirements

- a) Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit except as provided pursuant to A.16 below.
- c) This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.11 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.

- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.
- f) Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:
- (1) the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or
 - (2) the permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or
 - (3) a combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminant sources once this permit ceases to be enforceable. The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.

(Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

8. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.

(Authority for term: OAC rule 3745-77-07(A)(8))

9. Marketable Permit Programs

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

(Authority for term: OAC rule 3745-77-07(A)(9))

10. Reasonably Anticipated Operating Scenarios

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

(Authority for term: OAC rule 3745-77-07(A)(10))

11. Reopening for Cause

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

- a) Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b) This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c) The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d) The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

12. Federal and State Enforceability

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

(Authority for term: OAC rule 3745-77-07(B))

13. Compliance Requirements

- a) Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a Responsible

Official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

- b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
- (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c) The permittee shall submit progress reports to the Southwest Ohio Air Quality Agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
- (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- d) Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the Southwest Ohio Air Quality Agency) and the Administrator of the U.S. EPA in the following manner and with the following content:
- (1) Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
 - (2) Compliance certifications shall include the following:
 - a. Identification of each term or condition that is the basis of the certification. The identification may include a statement by the Responsible Official that every term and condition that is federally enforceable has been reviewed, and such terms and conditions with which there has been continuous compliance throughout the year are not separately identified.
 - b. The permittee's current compliance status.



Preliminary Proposed Title V Permit

Sonoco Flexible Packaging Co Inc

Permit Number: P0118711

Facility ID: 1483040077

Effective Date: To be entered upon final issuance

- c. Whether compliance was continuous or intermittent consistent with A.13.d.2.a above.
 - d. The method(s) used for determining the compliance status of the source currently and over the required reporting period consistent with A.13.d.2.a above.
 - e. Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
- (3) Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

14. Permit Shield

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

(Authority for term: OAC rule 3745-77-07(F))

15. Operational Flexibility

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

(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

16. Emergencies

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

(Authority for term: OAC rule 3745-77-07(G))

17. Off-Permit Changes

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

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

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

(Authority for term: OAC rule 3745-77-07(I))

18. Compliance Method Requirements

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

(This term is provided for informational purposes only.)

19. Insignificant Activities or Emissions Levels

Each IEU that is subject to one or more applicable requirements shall comply with those applicable requirements.

(Authority for term: OAC rule 3745-77-07(A)(1))

20. Permit to Install Requirement

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

(Authority for term: OAC rule 3745-77-07(A)(1))

21. Air Pollution Nuisance

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

(Authority for term: OAC rule 3745-77-07(A)(1))

22. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification from the Responsible Official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the Responsible Official that the emissions unit was permanently shut down.

After the date on which an emissions unit is permanently shut down (i.e., that 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 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any Title V permit requirements applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

Unless otherwise exempted, no emissions unit identified in this permit that has been certified by the Responsible Official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-01)

23. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:



- a) Persons operating appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.
- b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.
- c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(Authority for term: OAC rule 3745-77-01(H)(11))

24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or record keeping information shall be submitted to the Southwest Ohio Air Quality Agency.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Southwest Ohio Air Quality Agency. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

25. Records Retention Requirements Under State Law Only

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

26. Inspections and Information Requests

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



whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

(Authority for term: OAC rule 3745-77-07(C))

27. Scheduled Maintenance/Malfunction Reporting For State-Only Requirements

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

28. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The Southwest Ohio Air Quality Agency must be notified in writing of any transfer of this permit.

(Authority for term: OAC rule 3745-77-01(C))

29. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

- a) where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in Standard Term and Condition A.2.c)(2); or
- b) where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potential to emit; or
- c) where the company's Responsible Official has certified that an emissions unit has been permanently shut down.



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30. Submitting Documents Required by this Permit

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 Southwest Ohio Air Quality 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 Responsible Official may be represented as provided through procedures established in Air Services.



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B. Facility-Wide Terms and Conditions



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1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

a) None.

2. The following insignificant emissions units at this facility must comply with all applicable State and federal regulations, as well as any emissions limitations and/or control requirements contained within the identified permit-to-install for the emissions unit. The insignificant emissions units listed below are subject to one or more applicable requirements contained in a permit-to-install or in the SIP approved versions of OAC Chapters 3745-17, 3745-18, 3745-21, and 3745-31, and/or 40 CFR Part 60 or 63:

a) B002 5.0 MMBtu/hr gas-fired boiler (PTI 18-025, issued 4/4/1975)

b) B003 6.3 MMBtu/hr gas-fired boiler (PTI 14-820, issued 7/17/1985)

B006 5 MMBtu/hr gas-fired thermal oil heater (PTI P0119416, issued 11/6/2015)

L003 Non-halogenated cold cleaner

L006 Non-halogenated cold cleaner (PTI 14-05405, issued 4/17/2003)

c) P011 Distillation Unit (PTI 14-1769, issued 5/17/1989)

T008 5,000 gallon solvent storage tank #4 (PTI 14-1720, issued 3/22/1989)

T009 5,000 gallon solvent storage tank #5 (PTI 14-1720, issued 3/22/1989)

T010 5,000 gallon solvent storage tank #6 (PTI 14-1720, issued 3/22/1989)

T011 5,000 gallon solvent storage tank #7 (PTI 14-1720, issued 3/22/1989)

(Authority for term: OAC rule 3745-77-07(A)(13))

3. The following emissions units contained in this permit are subject to 40 CFR Part 63, Subparts A and KK, National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Printing and Publishing Industry (surface coating): K009. The complete NESHAP requirements, including the NESHAP General Provisions, may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the appropriate Ohio EPA District office or local air agency.

The permittee shall comply with all applicable requirements of 40 CFR Part 63, Subpart KK. The permittee shall also comply with all applicable requirements of 40 CFR Part 63, Subpart A (General Provisions) as identified in Table 1 of 40 CFR Part 63, Subpart KK.

(Authority for term: 40 CFR Part 63)



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4. The following emissions units contained in this permit are subject to 40 CFR Part 63, Subparts A and JJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Paper and Other Web Coating Industry: K008, K010, and K012. The complete NESHAP requirements, including the NESHAP General Provisions, may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the appropriate Ohio EPA District office or local air agency.

The permittee shall comply with all applicable requirements of 40 CFR Part 63, Subpart JJJJ. The permittee shall also comply with all applicable requirements of 40 CFR Part 63, Subpart A (General Provisions) as identified in Table 2 of 40 CFR Part 63, Subpart JJJJ.

(Authority for term: 40 CFR Part 63)

5. The following emissions units contained in this permit are subject to 40 CFR Part 63, Subparts A and DDDDD, National Emission Standards for Hazardous Air Pollutants (NESHAP) Industrial, Commercial, and Institutional Boilers and Process Heaters: B002, B003, and B006.

The complete NESHAP requirements, including the NESHAP General Provisions, may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the appropriate Ohio EPA District office or local air agency.

(Authority for term: 40 CFR Part 63)

6. The following abbreviations are used throughout this permit:

VOC = Volatile organic compounds

OC = Organic compounds

HAP = Hazardous air pollutant

MMBtu = million British thermal units

PTI = Permit to Install

CFR = Code of Federal Regulations

OAC = Ohio Administrative Code



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C. Emissions Unit Terms and Conditions



1. K008, Black Clawson Extruder-Laminator

Operations, Property and/or Equipment Description:

Black Clawson 2-station extruder/laminator with permanent total enclosure and catalytic oxidizer

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

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.	ORC 3704.03(T) and OAC rule 3745-31-05(A)(3) June 30, 2008 (PTI P0119988, issued 4/11/2016)	Organic HAP emissions shall not exceed 5 percent of the organic HAP applied for each month. See b)(2)a.
b.	40 CFR Part 63, Subpart JJJJ (40 CFR 63.3280 – 63.3420) National Emission Standards for the Paper and other Web Coating Industry [In accordance with 40 CFR 63.3290, this emissions unit is an existing web coating line located at an existing facility that is a major source of HAP.]	Organic HAP emissions shall not exceed 5 percent of the organic HAP applied for each month. See b)(2)e. and c)(7).
c.	40 CFR Part 63, Subpart A (40 CFR 63.1 – 15 and 40 CFR 63.3340)	Table 2 to 40 CFR Part 63, Subpart JJJJ- Applicability of General Provisions to Subpart JJJJ shows which parts of the General Provisions in 40 CFR 63.1-15 apply.
d.	OAC rule 3745-31-05(F) Voluntary limitations	VOC emissions from coatings employed in this emissions unit shall not exceed 20.76 tons per rolling, 12-month period. VOC emissions from the cleanup materials employed in this emissions unit shall not exceed 4.21 tons per rolling, 12-



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		month period. See b)(2)a. – b)(2)d. and c)(1) – c)(6).
e.	OAC rule 3745-21-09(F)(1)	The minimum overall control efficiency specified by this rule is less stringent than the minimum overall control efficiency established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The permittee shall operate an emissions capture system (permanent total enclosure) at a minimum capture efficiency of 100 percent and a control device (catalytic oxidizer) at a minimum overall control efficiency of 98% for VOC emissions. This control efficiency is more stringent than the control efficiency pursuant to 40 CFR Part 63, Subpart JJJJ and is a voluntary restriction requested by the permittee.
- b. The permanent total enclosure shall be constructed to totally enclose the application stations, coating reservoirs, and all areas from the application station to the oven and the control device, such that all VOC emissions are captured, contained, and directed to the catalytic oxidizer.
- c. The permanent total enclosure shall be maintained under negative pressure whenever the emissions unit is in operation, and shall be designed and maintained to have an average facial velocity of air through each natural draft opening of at least 200 feet per minute (3,600 m/hr). Compliance with the average facial velocity shall be demonstrated during the compliance test, by either using an air flow monitor or a differential pressure gauge at each natural draft opening, and maintaining the required facial velocity or the corresponding negative pressure. The permanent total enclosure shall meet all of the following criteria if the capture efficiency of the enclosure and control device is to be assumed to be 100%:

- i. Any natural draft opening shall be at least four equivalent opening diameters, or 4 times the diameter of the opening, from each VOC emitting point. An equivalent diameter is the diameter of a circle that has the same area as the opening. If the opening is not circular the equivalent diameter (ED) is calculated as follows:

$$ED = (4 \text{ area} / \pi)^{0.5}$$

- ii. The total area of all natural draft openings (A_N) shall not exceed 5 percent of the total surface area of the enclosure (A_T), i.e, the four walls, floor, and ceiling. The natural draft opening to enclosure area ratio (NEAR) is calculated as follows:

$$NEAR = A_N / A_T$$



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- iii. The direction of air flow through all natural draft openings shall be into the enclosure, with an average facial velocity of no less than 200 feet per minute (3,600 m/hr) or a pressure drop of 0.013 mm Hg (0.007 in. H₂O).
 - iv. All access doors and windows to the enclosure that do not meet the requirements of a natural draft opening and whose surface areas are not included in the 5 percent surface area determination in "ii.", shall be completely closed to any air movement during process operations.
 - v. All VOC emissions shall be captured and contained for discharge through the control device.
 - d. The permanent total enclosure serving this emissions unit shall be maintained in such a manner as to meet the criteria established for a permanent total enclosure in 40 CFR, Part 51, Appendix M, Reference Method 204, and shall capture all of the VOC emissions from this emissions unit.
 - e. Pursuant to 63.3360(f), compliance with the permanent total enclosure criteria above in b)(2)c. and b)(2)d. satisfies the 100% capture efficiency requirements of 40 CFR Part 63, Subpart JJJJ.
- c) Operational Restrictions
- (1) The maximum coatings usage for this emissions unit shall be as follows:
 - a. Adhesives: 205,000 gallons per rolling, 12-month period;
 - b. Curing Agents/Catalysts: 4,100 gallons per rolling, 12-month period; and
 - c. Thinner: 173,000 gallons per rolling, 12-month period (excluding cleanup solvent).

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(F)]
 - (2) The maximum cleanup solvent usage for this emissions unit shall not exceed 1,400 gallons per rolling, 12-month period.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(F)]
 - (3) The maximum VOC content for coatings and cleanup material used in this emissions unit shall be as follows:
 - a. Adhesives: 3.67 pounds per gallon (lbs/gal);
 - b. Curing Agents/Catalysts: 6.05 lbs/gal;
 - c. Thinner: 7.51 lbs/gal; and
 - d. Cleanup Material: 7.51 lbs/gal.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(F)]



- (4) The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit controlled by the catalytic oxidizer is in operation, shall not be less than the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance.

[Authority for term: OAC rule 3745-77-07(A)(1), OAC rule 3745-31-05(A)(3), ORC 3704.03(T), OAC rule 3745-31-05(F), and 40 CFR Part 63, Subpart JJJJ]

- (5) The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.013 mm Hg (0.007 in. H₂O), as a 3-hour average, whenever the emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(A)(1), OAC rule 3745-31-05(A)(3), ORC 3704.03(T), OAC rule 3745-31-05(F), and 40 CFR Part 63, Subpart JJJJ]

- (6) The catalytic oxidizer shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The conversion efficiency of the catalyst, as determined in an annual catalyst activity test, shall be sufficient to meet the destruction efficiency and control efficiency requirements of this permit at a test temperature that is equal to that temperature at which the inlet to the catalyst bed is set. Solvent loading during the catalyst activity test shall be consistent with the test laboratory's normal testing protocol.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(F)]

- (7) The permittee shall comply with the applicable operational restrictions required under 40 CFR Part 63, Subpart JJJJ, including the following sections:

63.3321(a) and Table 1 of Subpart JJJJ	Operating requirements for add-on control devices and capture system, including the requirements specified in c)(4) and c)(5) above.
63.3360(e)(3)	Requirements for establishing operating limits during performance tests
63.3340, Table 2, and 63.6(e)(3)	Startup, shutdown, and malfunction plan (SSMP)

[Authority for term: OAC rule 3745-77-07(A)(1), ORC 3704.03(T), OAC rule 3745-31-05(A)(3), and 40 CFR Part 63, Subpart JJJJ]

d) **Monitoring and/or Recordkeeping Requirements**

- (1) The permittee shall install, calibrate, operate and maintain a temperature monitoring device equipped with a continuous recorder. All temperature monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturer's specifications. The calibration of the chart recorder, data logger, or temperature indicator shall be verified every three months; or the chart recorder, data logger, or temperature indicator shall be replaced. The replacement shall be done either if the permittee chooses not to perform the calibration, or if the equipment cannot be calibrated properly.

The device shall be capable of monitoring temperature with an accuracy of +/- 1 percent of the temperature being monitored in degrees Celsius or +/- 1 degree Celsius, whichever is greater. The thermocouple or temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet.

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

- a. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was less than the average temperature during the most recent performance test which demonstrated the emissions unit to be in compliance; and
- b. A log or record of downtime or bypass of the control device and/or monitoring equipment when the associated emissions unit was in operation.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), ORC 3704.03(T), OAC rule 3745-31-05(F), and 40 CFR Part 63, Subpart JJJJ]

- (2) The permittee shall install, operate, and maintain monitoring device(s) and a recorder that continuously monitor and record the differential pressure between the inside and outside of the permanent total enclosure when the emissions unit is in operation. The monitoring and recording devices shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals, with any modifications deemed necessary by the permittee.

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

- a. all three-hour blocks of time during which the difference in pressure between the permanent total enclosure and the surrounding areas is not maintained at or above the minimum pressure differential of 0.007 inches of water, as a three-hour average; and
- b. a log or record of downtime or bypass of the capture (collection) system and/or monitoring equipment when the emissions unit was in operation.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), ORC 3704.03(T), OAC rule 3745-31-05(F), 40 CFR Part 63, Subpart JJJJ, and 40 CFR 51, Appendix M, Method 204]

- (3) The permittee shall measure, document/calculate, and maintain a permanent record of the following information for the permanent total enclosure, which may be the same record documented during the compliance test(s):

- a. the measured diameter of each natural draft opening;
- b. the distance measured from each natural draft opening to each VOC emitting point;
- c. the total calculated surface area of all natural draft openings and the surface area of the enclosure's four walls, floor, and ceiling;



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- d. the calculation or demonstration that the distance from each VOC emitting point to each natural draft opening is at least 4 times the diameter of the opening; and
- e. the calculation demonstrating that the sum of the surface areas of all of the natural draft openings to the enclosure is not more than 5 percent of the sum of the surface areas of the enclosure's four walls, floor, and ceiling.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), ORC 3704.03(T), OAC rule 3745-31-05(F), 40 CFR Part 63, Subpart JJJJ, and 40 CFR 51, Appendix M, Method 204]

- (4) The permittee shall collect and record the following information on a monthly basis for the coating and cleanup materials applied in this emissions unit:
 - a. the name and identification number of each adhesive, curing agent/catalyst, and thinner as applied;
 - b. the VOC content of each adhesive, curing agent/catalyst, and thinner as applied, in pounds per gallon;
 - c. the number of gallons of each adhesive, curing agent/catalyst, and thinner employed;
 - d. the uncontrolled VOC emissions from all adhesives, curing agents/catalysts, and thinners applied, i.e., the summation of the products of "b" x "c";
 - e. the overall control efficiency determined for the catalytic oxidizer during the most recent demonstration of compliance;
 - f. the total controlled VOC emissions from all adhesives, curing agents/catalysts, and thinners applied, i.e., "d" x "e", in pounds. This total shall be converted to tons by dividing the total coating VOC emissions by 2000 pounds per ton;
 - g. the updated rolling, 12-month summation of total VOC emissions from coatings, in tons. This shall include the information for the current month and the preceding eleven calendar months;
 - h. the name and identification of each cleanup material employed;
 - i. the VOC content of each cleanup material, in pounds per gallon;
 - j. the number of gallons of each cleanup material employed;
 - k. the total VOC emissions from all cleanup materials employed, i.e., the summation of the products of "i" x "j", in pounds. This total shall be converted to tons by dividing the total cleanup VOC emissions by 2000 pounds per ton ; and



- I. the updated rolling, 12-month summation of total VOC emissions from cleanup materials, in tons. This shall include the information for the current month and the preceding eleven calendar months.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(F)]

- (5) The permittee shall perform a preventative maintenance inspection of the catalytic oxidizer on an annual basis to evaluate the performance of the catalyst bed. Each inspection shall consist of internal and visual inspections in accordance with the manufacturer's recommendations, and shall include a physical inspection of the unit and all of the associated equipment, including but not limited to burners, controls, dampers, valves, and monitoring and recording equipment. Repair and replacement of equipment and the catalyst shall be performed as determined by the inspection. During each annual inspection a sample of the catalyst material shall be collected from the catalyst bed and used to perform a catalyst activity test. The permittee shall maintain a record of the results of each annual inspection and the results of each annual catalyst activity test.

The permittee shall also perform weekly inspections of the external integrity of the catalytic oxidizer. Records shall be maintained of the inspections and the date(s) of catalyst replacement, and if only partial, the amount or percent of the total catalyst replaced.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(F)]

- (6) The permittee shall comply with the applicable monitoring and record keeping required under 40 CFR Part 63, Subpart JJJJ, including the following sections:

63.3350(a)	Summary of monitoring requirements – control devices and capture system
63.3350(b)	Monitoring requirements – compliance date
63.3350(e)(1) – (8)	Continuous parameter monitoring system (CPMS) requirements, including the requirements specified in d)(1) – d)(3) above.
63.3350(e)(9)	Monitoring requirements for oxidizers, including the requirements specified in d)(1) above.
63.3350(f)(1) – (5)	Monitoring requirements for capture systems, including the requirements specified in d)(2) and d)(3) above.
63.3360(e)(3)(ii)(C) and (D)	Catalytic oxidizer monitoring, inspection, and maintenance plan requirements
63.3410(a)(1) – (2)	Recordkeeping requirements

[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(T), OAC rule 3745-31-05(A)(3), and 40 CFR Part 63, Subpart JJJJ]



- (7) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #P0119988: d)(1) - d)(6). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. all 3-hour blocks of time, when the emissions unit was in operation, during which the average temperature of the exhaust gases immediately before the catalyst bed were less than the average temperature established during the most recent performance test that demonstrated the emissions unit was in compliance;
 - b. all three-hour blocks of time, when the emissions unit was in operation, during which the permanent total enclosure was not maintained at the minimum pressure differential of 0.007 inches of water, as a 3-hour average;
 - c. any records of downtime or bypass (date and length of time) of the capture (collection) system, the catalytic oxidizer, and/or the monitoring equipment when the emissions unit was in operation;
 - d. any exceedance of the VOC emission limitations specified in b)(1)d.; and
 - e. any exceedance of the operational usage and VOC content restrictions specified in c)(1) – c)(3).

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), ORC 3704.03(T), OAC rule 3745-31-05(F), and 40 CFR Part 63, Subpart JJJJ]

- (2) The permittee shall submit annual reports that specify the results of the annual catalyst activity test required in f)(2) for the previous calendar year along with a summary of the results of the annual inspection of the internal integrity of the catalytic oxidizer. The reports shall be submitted by January 31 of each year.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(F)]

- (3) The permittee shall comply with the applicable reporting required under 40 CFR Part 63, Subpart JJJJ, including the following sections:

63.3400(a)	Reporting requirements - general
63.3400(b)	Initial notification requirements



63.3400(c)(1) and (2)	Semiannual compliance report requirements
63.3400(d)	Notification of Performance Tests
63.3400(e)	Notification of Compliance Status
63.3400(f)	Performance test reporting
63.3400(g)	Startup, shutdown, and malfunction reporting

[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(T), OAC rule 3745-31-05(A)(3), and 40 CFR Part 63, Subpart JJJJ]

(4) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #P0119988; e)(1) - e)(3). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

f) Testing Requirements

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

a. Emission Limitation:

The permittee shall operate an emissions capture system (permanent total enclosure) at a minimum capture efficiency of 100 percent and a control device (catalytic oxidizer) at a minimum overall control efficiency of 98% for VOC emissions.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:

- i. The emission testing shall be conducted within 6 months prior to permit expiration.
- ii. The emission testing shall be conducted to demonstrate compliance with the capture efficiency and control efficiency limitations for VOCs and HAPs.
- iii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates and control efficiencies:

(a) Method 1-4, and Method 25 (hourly and control efficiency); and



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(b) Method 204 (capture efficiency).

The control efficiency shall be determined using Method 25 and the capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, unless otherwise specified in 40 CFR 63.3360(e) and (f).

Alternative U.S. EPA approved test methods may be used with prior approval from U.S. EPA and Ohio EPA, as appropriate.

- iv. The test(s) shall be conducted while the emissions unit is operating at normal operating conditions pursuant to 40 CFR 63.3360(e) and (f). Process information and control device operating parameters shall be recorded during the test as specified in 63.3360(e).
- v. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- vi. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- vii. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.
- viii. See e)(3) and f)(3) for additional compliance, testing, and reporting requirements under 40 CFR Part 63, Subpart JJJJ.

[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(T), OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(F), 40 CFR Part 63, Subpart JJJJ, and 40 CFR 51, Appendix M, Method 204]



b. Emission Limitations:

VOC emissions from coatings employed in this emissions unit shall not exceed 20.76 tons per rolling, 12-month period.

VOC emissions from the cleanup materials employed in this emissions unit shall not exceed 4.21 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the operational restrictions shall be demonstrated by the recordkeeping in d)(4).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(F)]

c. Operational Restrictions:

The maximum VOC content for coatings and cleanup material used in this emissions unit shall be as follows:

- i. Adhesives: 3.67 pounds per gallon (lbs./gal);
- ii. Curing Agents/Catalysts: 6.05 lbs./gal;
- iii. Thinner: 7.51 lbs./gal; and
- iv. Cleanup Material: 7.51 lbs./gal.

Applicable Compliance Method:

If required, US EPA methods 24 and 24A shall be used to determine the VOC content for coatings. If, pursuant 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating, the permittee shall so notify the Administrator of the US EPA and shall use formulation data for that coating to demonstrate compliance until the US EPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A. US EPA Method 24 or formulation data shall be used to determine the VOC contents of the cleanup materials.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(F)]

- (2) The permittee shall conduct, or have conducted, catalyst activity testing using the catalyst sample collected during the annual inspection described in this permit. An Intent to Test notification shall not be required for catalyst activity testing. The procedures for the catalyst activity test shall be conducted in accordance with the manufacturer's recommendations and as required by the appropriate test method.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(F)]

- (3) The permittee shall comply with the applicable compliance and testing requirements required under 40 CFR Part 63, Subpart JJJJ, including the following sections:



63.3360(a), 63.3360(e), and 63.3360(f)	Performance test methods
63.3400(d)	Notification of Performance Tests
63.3400(f)	Performance test reports
63.3370(a)(4)	Compliance demonstration requirements for capture system and control device(s) - summary
63.3370(e)	Compliance demonstration requirements for emissions reduction by capture and control
63.3370(j)	Compliance demonstration requirements using CPMS for capture and control system

[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(T), OAC rule 3745-31-05(A)(3), and 40 CFR Part 63, Subpart JJJJ]

- (4) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #P0119988: f)(1) - f)(3). The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

g) Miscellaneous Requirements

- (1) None.



2. K009, Rotomec 10-Station Press

Operations, Property and/or Equipment Description:

Rotomec 56 inch 10-station rotogravure printing press and dryers with permanent total enclosure and catalytic oxidizer

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

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.	ORC 3704.03(T) and OAC rule 3745-31-05(A)(3) June 30, 2008 (PTI P0119989, issued 4/11/2016)	Organic HAP emissions shall not exceed 5 percent of the organic HAP applied for the month. See b)(2)a.
b.	OAC rule 3745-31-05(D) (PTI P0119989, issued 4/11/2016) Synthetic minor limitations to avoid non-attainment new source review and emissions offsets	VOC emissions from the inks, thinners, and cleanup materials employed in this emissions unit shall not exceed 39.45 tons per year, based on a rolling, 12-month period. See b)(2)a. - b)(2)d., b)(2)f., and c)(1) – c)(3).
c.	40 CFR, Part 63, Subpart KK (40 CFR 63.820 – 63.839) National Emission Standards for the Printing and Publishing Industry [In accordance with 40 CFR 63.820 and 63.822, this emissions unit is a rotogravure printing press for packaging at an existing product and packaging rotogravure printing operation subject to the emission limitations/control measures specified in this section.]	Organic HAP emissions shall not exceed 5 percent of the organic HAP applied for the month. The permittee shall operate a capture system and control device and demonstrate an overall organic HAP control efficiency of at least 95 percent for each month. [40 CFR 63.825(b) and 63.825(b)(7)]. See b)(2)e. and c)(4).



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	40 CFR Part 63, Subpart A (40 CFR 63.1-15 and 40 CFR 63.823)	Table 1 to 40 CFR, Part 63, Subpart KK – Applicability of General Provisions to Subpart KK shows which parts of the General Provisions in 40 CFR 63.1-15 apply.
e.	OAC rule 3745-21-09(Y)(1)(b)	The minimum overall control efficiency specified by this rule is less stringent than the minimum overall control efficiency established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The permittee shall operate an emissions capture system (permanent total enclosure) at a minimum capture efficiency of 100 percent and a control device (catalytic oxidizer) at a minimum overall control efficiency of 95% for VOC emissions. The permittee shall also ensure a minimum recycle rate of 20% for all cleanup materials employed in this emissions unit.
- b. The permanent total enclosure shall be constructed to totally enclose the application stations, coating reservoirs, and all areas from the application station to the oven and the control device, such that all VOC emissions are captured, contained, and directed to the catalytic oxidizer.
- c. The permanent total enclosure shall be maintained under negative pressure whenever the emissions unit is in operation, and shall be designed and maintained to have an average facial velocity of air through each natural draft opening of at least 200 feet per minute (3,600 m/hr). Compliance with the average facial velocity shall be demonstrated during the compliance test, by either using an air flow monitor or a differential pressure gauge at each natural draft opening, and maintaining the required facial velocity or the corresponding negative pressure. The permanent total enclosure shall meet all of the following criteria if the capture efficiency of the enclosure and control device is to be assumed to be 100%:
 - i. Any natural draft opening shall be at least four equivalent opening diameters, or 4 times the diameter of the opening, from each VOC emitting point. An equivalent diameter is the diameter of a circle that has the same area as the opening. If the opening is not circular the equivalent diameter (ED) is calculated as follows:

$$ED = (4 \text{ area}/\pi)^{0.5}$$



- ii. The total area of all natural draft openings (A_N) shall not exceed 5 percent of the total surface area of the enclosure (A_T), i.e, the four walls, floor, and ceiling. The natural draft opening to enclosure area ratio (NEAR) is calculated as follows:

$$NEAR = A_N / A_T$$

- iii. The direction of air flow through all natural draft openings shall be into the enclosure, with an average facial velocity of no less than 200 feet per minute (3,600 m/hr) or a pressure drop of 0.013 mm Hg (0.007 in. H₂O).
 - iv. All access doors and windows to the enclosure that do not meet the requirements of a natural draft opening and whose surface areas are not included in the 5 percent surface area determination in "ii.", shall be completely closed to any air movement during process operations.
 - v. All VOC emissions shall be captured and contained for discharge through the control device.
- d. The permanent total enclosure serving this emissions unit shall be maintained in such a manner as to meet the criteria established for a permanent total enclosure in 40 CFR, Part 51, Appendix M, Reference Method 204, and shall capture all of the VOC emissions from this emissions unit.
 - e. Pursuant to 63.827(e)(1), compliance with the permanent total enclosure criteria above in b)(2)c. and b)(2)d. satisfies the capture efficiency requirements of 40 CFR Part 63, Subpart KK.
 - f. The maximum VOC usage* of inks, thinners, and cleanup materials employed in this emissions unit shall not exceed 39.45 tons per rolling 12-month period. The usage shall be calculated according to the following formula:

$$39.45 \text{ tons} \leq \sum_{n=1}^i \frac{(G_i) \times (V_i)}{2000} \text{ lbs/ton multiplied by the control efficiencies listed in b)(2)a.}$$

G_i = usage of inks, thinners, and cleanup materials i in gallons for the rolling 12-month period

V_i = VOC content of inks, thinners, and cleanup materials i in pounds of VOC per gallon

i = total number of inks, thinners, and cleanup materials used on this emissions unit.

*this is based upon the premise that all of the liquid VOC portion of the inks, thinners, and cleanup materials employed in this emissions unit is 100% emitted and that demonstration of this limitation will be established by the recordkeeping requirements in d)(4).



c) Operational Restrictions

- (1) The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit controlled by the catalytic oxidizer is in operation, shall not be less than the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance.

[Authority for term: OAC rule 3745-77-07(A)(1), ORC 3704.03(T), OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), and 40 CFR Part 63, Subpart KK]

- (2) The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.013 mm Hg (0.007 in. H₂O), as a 3-hour average, whenever the emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(A)(1), ORC 3704.03(T), OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), and 40 CFR Part 63, Subpart KK]

- (3) The catalytic oxidizer shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The conversion efficiency of the catalyst, as determined in an annual catalyst activity test, shall be sufficient to meet the destruction efficiency and control efficiency requirements of this permit at a test temperature that is equal to that temperature at which the inlet to the catalyst bed is set. Solvent loading during the catalyst activity test shall be consistent with the test laboratory's normal testing protocol.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(D)]

- (4) The permittee shall comply with the applicable operational restrictions required under 40 CFR Part 63, Subpart KK, including the following sections:

63.823(b)	General duty to minimize emissions, operation and maintenance
63.825(h)(3) and 63.827(d)(3)	Operating parameters of capture system(s) and control device(s), including the requirements specified in c)(1) and c)(2) above.
63.828(b)	Operating parameter excursions and violation provisions

[Authority for term: OAC rule 3745-77-07(A)(1), ORC 3704.03(T), OAC rule 3745-31-05(A)(3), and 40 CFR Part 63, Subpart KK]

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall install, calibrate, operate and maintain a temperature monitoring device equipped with a continuous recorder. All temperature monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturer's specifications. The calibration of the chart recorder, data logger, or temperature indicator shall be verified every three months; or the chart recorder, data logger, or temperature indicator shall be replaced. The replacement shall be done either if the permittee chooses not to perform the calibration, or if the equipment cannot be calibrated properly. The device shall be capable of monitoring temperature with an accuracy of +/- 1 percent of the temperature being monitored in degrees Celsius or +/- 1 degree Celsius,

whichever is greater. The thermocouple or temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet.

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

- a. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was less than the average temperature during the most recent performance test which demonstrated the emissions unit to be in compliance; and
- b. A log or record of downtime or bypass of the control device and/or monitoring equipment when the associated emissions unit was in operation.

[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(T), OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), and 40 CFR Part 63, Subpart KK]

- (2) The permittee shall install, operate, and maintain monitoring device(s) and a recorder that continuously monitor and record the differential pressure between the inside and outside of the permanent total enclosure when the emissions unit is in operation. The monitoring and recording devices shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals, with any modifications deemed necessary by the permittee.

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

- a. all three-hour blocks of time during which the difference in pressure between the permanent total enclosure and the surrounding areas is not maintained at or above the minimum pressure differential of 0.007 inches of water, as a three-hour average; and
- b. a log or record of downtime or bypass of the capture (collection) system and/or monitoring equipment when the emissions unit was in operation.

[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(T), OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), 40 CFR Part 63, Subpart KK, and 40 CFR 51, Appendix M, Method 204]

- (3) The permittee shall measure, document/calculate, and maintain a permanent record of the following information for the permanent total enclosure, which may be the same record documented during the compliance test(s):

- a. the measured diameter of each natural draft opening;
- b. the distance measured from each natural draft opening to each VOC emitting point;
- c. the total calculated surface area of all natural draft openings and the surface area of the enclosure's four walls, floor, and ceiling;
- d. the calculation or demonstration that the distance from each VOC emitting point to each natural draft opening is at least 4 times the diameter of the opening; and

- e. the calculation demonstrating that the sum of the surface areas of all of the natural draft openings to the enclosure is not more than 5 percent of the sum of the surface areas of the enclosure's four walls, floor, and ceiling.

[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(T), OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), 40 CFR Part 63, Subpart KK, and 40 CFR 51, Appendix M, Method 204]

- (4) The permittee shall collect and record the following information on a monthly basis for the inks, thinners and cleanup materials applied in this emissions unit:
 - a. the name and identification number of each ink, and thinner as applied;
 - b. the VOC content of each ink, and thinner as applied, in pounds per gallon;
 - c. the number of gallons of each ink, and thinner employed;
 - d. the uncontrolled VOC emissions from all inks, and thinners applied, i.e., the summation of the products of "b" x "c";
 - e. the overall control efficiency determined for the catalytic oxidizer during the most recent demonstration of compliance;
 - f. the total controlled VOC emissions from all inks, and thinners applied, i.e., "d" x "e";
 - g. the name and identification of each cleanup material employed;
 - h. the VOC content of each cleanup material, in pounds per gallon;
 - i. the number of gallons of each cleanup material employed;
 - j. the rolling, 12-month summations of the ink, thinner, and cleanup material usage figures;
 - k. the total VOC emissions from all cleanup materials employed, i.e., the summation of the products of "h" x "i", in pounds;
 - l. the total VOC emissions from all inks, thinners and cleanup materials employed, i.e., "f" + "k", in pounds; and
 - m. the rolling, 12-month summation of VOC emissions, in tons [the total VOC emissions for the current month, plus the total VOC emissions for the previous 11 calendar months, and divided by 2,000 lbs/ton].

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(D)]

- (5) The permittee shall perform a preventative maintenance inspection of the catalytic oxidizer on an annual basis to evaluate the performance of the catalyst bed. Each inspection shall consist of internal and visual inspections in accordance with the manufacturer's recommendations, and shall include a physical inspection of the unit and



all of the associated equipment, including but not limited to burners, controls, dampers, valves, and monitoring and recording equipment. Repair and replacement of equipment and the catalyst shall be performed as determined by the inspection. During each annual inspection a sample of the catalyst material shall be collected from the catalyst bed and used to perform a catalyst activity test. The permittee shall maintain a record of the results of each annual inspection and the results of each annual catalyst activity test.

The permittee shall also perform weekly inspections of the external integrity of the catalytic oxidizer. Records shall be maintained of the inspections and the date(s) of catalyst replacement, and if only partial, the amount or percent of the total catalyst replaced.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(D)]

- (6) The permittee shall comply with the applicable monitoring and record keeping requirements required under 40 CFR Part 63, Subpart KK, including the following sections:

63.825(d)	Overall organic HAP control efficiency – recordkeeping requirements for demonstration
63.828(a)	Monitoring and inspection of control devices – general requirements
63.828(a)(2)(ii)	Requirements for temperature monitoring equipment, including the requirements specified in d)(1) above
63.825(d)(1)(x) and 63.828(a)(4)(ii)	Catalytic oxidizer monitoring requirements, including the requirements specified in d)(1) above
63.825(d)(1)(x) and 63.828(a)(5)	Capture efficiency monitoring requirements, including the requirements specified in d)(2) and d)(3) above
63.829(a) and Table 1	Recordkeeping requirements, including Subpart A
63.829(b)(1) – (3) and 63.10	Monthly recordkeeping requirements and control device and capture system continuous monitoring operating parameter exceedances and corrective actions, including the requirements of d)(1) and d)(2) above.
63.829(g)-(h)	Malfunction recordkeeping requirements

[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(T), OAC rule 3745-31-05(A)(3), and 40 CFR Part 63, Subpart KK]

- (7) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #P0119989: d)(1) - d)(6). The monitoring and record keeping requirements contained in the above-referenced Permit



to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. all 3-hour blocks of time, when the emissions unit was in operation, during which the average temperature of the exhaust gases immediately before the catalyst bed were less than the average temperature established during the most recent performance test that demonstrated the emissions unit was in compliance;
 - b. all three-hour blocks of time, when the emissions unit was in operation, during which the permanent total enclosure was not maintained at the minimum pressure differential of 0.007 inches of water, as a 3-hour average;
 - c. any records of downtime or bypass (date and length of time) of the capture (collection) system, the catalytic oxidizer, and/or the monitoring equipment when the emissions unit was in operation;
 - d. any exceedance of the VOC emission limitation specified in b)(1)b.; and
 - e. any exceedance of the VOC usage limitation specified in b)(2)c.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(T), OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), 40 CFR Part 63, Subpart KK, and 40 CFR 51, Appendix M, Method 204]

- (2) The permittee shall submit annual reports of the results of the annual catalyst activity test required in f)(2) for the previous calendar year, along with a summary of the results of the annual inspection of the internal integrity of the catalytic oxidizer. The reports shall be submitted by January 31 of each year.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(D)]

- (3) The permittee shall comply with the applicable reporting requirements required under 40 CFR Part 63, Subpart KK, including the following sections:

63.830(a) and Table 1	Reporting requirements, including Subpart A
63.830(b)(1)	Initial notification requirements
63.830(b)(2)	Notification of performance tests



63.830(b)(3)	Notification of Compliance Status report
63.830(b)(4)	Performance test reports
63.830(b)(6)	Semi-annual summary reports, including exceedances, malfunctions, and corrective actions
63.830(c)(1)-(2)	Submission of reports to US EPA and Ohio EPA

[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(T), OAC rule 3745-31-05(A)(3), and 40 CFR Part 63, Subpart KK]

- (4) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #P0119989: e)(1) - e)(3). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

f) Testing Requirements

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

a. Emission Limitation:

The permittee shall operate an emissions capture system (permanent total enclosure) at a minimum capture efficiency of 100 percent and a control device (catalytic oxidizer) at a minimum overall control efficiency of 95% for VOC emissions.

Organic HAP emissions shall not exceed 5 percent of the organic HAP applied for the month. The permittee shall operate a capture system and control device and demonstrate an overall organic HAP control efficiency of at least 95 percent for each month.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- i. The emission testing shall be conducted within 6 months prior to permit expiration.
- ii. The emission testing shall be conducted to demonstrate compliance with the capture efficiency and control efficiency limitations for VOCs and HAPs.
- iii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates and control efficiencies:

- (a) Method 1-4, and Method 25 (hourly and control efficiency); and
- (b) Method 204 (capture efficiency).

The control efficiency shall be determined using Method 25 and the capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, unless otherwise specified in 40 CFR 63.827.

Alternative U.S. EPA approved test methods may be used with prior approval from U.S. EPA and Ohio EPA, as appropriate.

- iv. The test(s) shall be conducted while the emissions unit is operating at normal operating conditions pursuant to 40 CFR 63.827(d). Process information and control device operating parameters shall be recorded during the test as specified in 63.827(d)(2) and 63.827(d)(3).
- v. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- vi. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- vii. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.
- viii. See e)(3) and f)(3) for additional compliance, testing, and reporting requirements under 40 CFR Part 63, Subpart KK.

[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(T), OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(D), 40 CFR Part 63, Subpart KK, and 40 CFR 51, Appendix M, Method 204]



b. Emission Limitation:

VOC emissions from the coatings, inks, thinners, and cleanup materials employed in this emissions unit shall not exceed 39.45 tons per year, based on a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the annual VOC emission limitation shall be demonstrated by the performance testing requirements in f)(1)a. and the recordkeeping requirements specified in d)(4).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(D)]

- (2) The permittee shall conduct, or have conducted, catalyst activity testing using the catalyst sample collected during the annual inspection described in this permit. An intent to test notification shall not be required for catalyst activity testing. The procedures for the catalyst activity test shall be conducted in accordance with the manufacturer's recommendations and as required by the appropriate test method.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(D)]

- (3) The permittee shall comply with the applicable compliance and testing requirements required under 40 CFR Part 63, Subpart KK, including the following sections:

63.825(d)(1)	Requirements for demonstration of compliance
63.827	Performance test methods
63.827(d)	Control device performance test requirements
63.827(e)	Capture system performance test requirements
63.827(f)	Alternative - Capture system performance testing

[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(T), OAC rule 3745-31-05(A)(3), and 40 CFR Part 63, Subpart KK]

- (4) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #P0119989: f)(1) - f)(3). The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

g) Miscellaneous Requirements

- (1) None.



3. K010, Combi Laminator

Operations, Property and/or Equipment Description:

Combi 1-station extruder/laminator with permanent total enclosure and catalytic oxidizer

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

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.	ORC 3704.03(T) and OAC rule 3745-31-05(A)(3) June 30, 2008 (PTI P0119988, issued 4/11/2016)	Organic HAP emissions shall not exceed 5 percent of the organic HAP applied for each month. See b)(2)a.
b.	40 CFR Part 63, Subpart JJJJ (40 CFR 63.3280 – 63.3420) National Emission Standards for the Paper and other Web Coating Industry [In accordance with 40 CFR 63.3290, this emissions unit is an existing web coating line located at an existing facility that is a major source of HAP.]	Organic HAP emissions shall not exceed 5 percent of the organic HAP applied for each month. See b)(2)e. and c)(7).
c.	40 CFR Part 63, Subpart A (40 CFR 63.1 – 15 and 40 CFR 63.3340)	Table 2 to 40 CFR Part 63, Subpart JJJJ- Applicability of General Provisions to Subpart JJJJ shows which parts of the General Provisions in 40 CFR 63.1-15 apply.
d.	OAC rule 3745-31-05(F) Voluntary limitations	VOC emissions from coatings employed in this emissions unit shall not exceed 9.43 tons per rolling, 12-month period. VOC emissions from the cleanup materials employed in this emissions unit



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		shall not exceed 3.89 tons per rolling, 12-month period. See b)(2)a. – b)(2)d. and c)(1) – c)(6).
e.	OAC rule 3745-21-09(F)(1)	The minimum overall control efficiency specified by this rule is less stringent than the minimum overall control efficiency established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The permittee shall operate an emissions capture system (permanent total enclosure) at a minimum capture efficiency of 100 percent and a control device (catalytic oxidizer) at a minimum overall control efficiency of 98% for VOC emissions. This control efficiency is more stringent than the control efficiency pursuant to 40 CFR Part 63, Subpart JJJJ and is a voluntary restriction requested by the permittee.
- b. The permanent total enclosure shall be constructed to totally enclose the application stations, coating reservoirs, and all areas from the application station to the oven and the control device, such that all VOC emissions are captured, contained, and directed to the catalytic oxidizer.
- c. The permanent total enclosure shall be maintained under negative pressure whenever the emissions unit is in operation, and shall be designed and maintained to have an average facial velocity of air through each natural draft opening of at least 200 feet per minute (3,600 m/hr). Compliance with the average facial velocity shall be demonstrated during the compliance test, by either using an air flow monitor or a differential pressure gauge at each natural draft opening, and maintaining the required facial velocity or the corresponding negative pressure. The permanent total enclosure shall meet all of the following criteria if the capture efficiency of the enclosure and control device is to be assumed to be 100%:
 - i. Any natural draft opening shall be at least four equivalent opening diameters, or 4 times the diameter of the opening, from each VOC emitting point. An equivalent diameter is the diameter of a circle that has the same area as the opening. If the opening is not circular the equivalent diameter (ED) is calculated as follows:

$$ED = (4 \text{ area}/\pi)^{0.5}$$

- ii. The total area of all natural draft openings (A_N) shall not exceed 5 percent of the total surface area of the enclosure (A_T), i.e, the four walls, floor, and ceiling. The natural draft opening to enclosure area ratio (NEAR) is calculated as follows:



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$$\text{NEAR} = A_N / A_T$$

- iii. The direction of air flow through all natural draft openings shall be into the enclosure, with an average facial velocity of no less than 200 feet per minute (3,600 m/hr) or a pressure drop of 0.013 mm Hg (0.007 in. H₂O).
 - iv. All access doors and windows to the enclosure that do not meet the requirements of a natural draft opening and whose surface areas are not included in the 5 percent surface area determination in "ii.", shall be completely closed to any air movement during process operations.
 - v. All VOC emissions shall be captured and contained for discharge through the control device.
- d. The permanent total enclosure serving this emissions unit shall be maintained in such a manner as to meet the criteria established for a permanent total enclosure in 40 CFR, Part 51, Appendix M, Reference Method 204, and shall capture all of the VOC emissions from this emissions unit.
- e. Pursuant to 63.3360(f), compliance with the permanent total enclosure criteria above in b)(2)c. and b)(2)d. satisfies the 100% capture efficiency requirements of 40 CFR Part 63, Subpart JJJJ.
- c) Operational Restrictions
- (1) The maximum coatings usage for this emissions unit shall be as follows:
 - a. Adhesives: 93,150 gallons per rolling, 12-month period;
 - b. Curing Agents/Catalysts: 1,863 gallons per rolling, 12-month period; and
 - c. Thinner: 78,525 gallons per rolling, 12-month period (excluding cleanup solvent).[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(F)]
 - (2) The maximum cleanup solvent usage for this emissions unit shall not exceed 1,295 gallons per rolling, 12-month period.
[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(F)]
 - (3) The maximum VOC content for coatings and cleanup material used in this emissions unit shall be as follows:
 - a. Adhesives: 3.67 pounds per gallon (lbs./gal);
 - b. Curing Agents/Catalysts: 6.05 lbs./gal;



- c. Thinner: 7.51 lbs./gal; and
- d. Cleanup Material: 7.51 lbs. /gal.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(F)]

- (4) The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit controlled by the catalytic oxidizer is in operation, shall not be less than the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance.

[Authority for term: OAC rule 3745-77-07(A)(1), OAC rule 3745-31-05(A)(3), ORC 3704.03(T), OAC rule 3745-31-05(F), and 40 CFR Part 63, Subpart JJJJ]

- (5) The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.013 mm Hg (0.007 in. H₂O), as a 3-hour average, whenever the emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(A)(1), OAC rule 3745-31-05(A)(3), ORC 3704.03(T), OAC rule 3745-31-05(F), and 40 CFR Part 63, Subpart JJJJ]

- (6) The catalytic oxidizer shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The conversion efficiency of the catalyst, as determined in an annual catalyst activity test, shall be sufficient to meet the destruction efficiency and control efficiency requirements of this permit at a test temperature that is equal to that temperature at which the inlet to the catalyst bed is set. Solvent loading during the catalyst activity test shall be consistent with the test laboratory's normal testing protocol.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(F)]

- (7) The permittee shall comply with the applicable operational restrictions required under 40 CFR Part 63, Subpart JJJJ, including the following sections:

63.3321(a) and Table 1 of Subpart JJJJ	Operating requirements for add-on control devices and capture system, including the requirements specified in c)(4) and c)(5) above.
63.3360(e)(3)	Requirements for establishing operating limits during performance tests
63.3340, Table 2, and 63.6(e)(3)	Startup, shutdown, and malfunction plan (SSMP)

[Authority for term: OAC rule 3745-77-07(A)(1), ORC 3704.03(T), OAC rule 3745-31-05(A)(3), and 40 CFR Part 63, Subpart JJJJ]

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall install, calibrate, operate and maintain a temperature monitoring device equipped with a continuous recorder. All temperature monitoring equipment shall

be installed, calibrated, maintained, and operated according to manufacturer's specifications. The calibration of the chart recorder, data logger, or temperature indicator shall be verified every three months; or the chart recorder, data logger, or temperature indicator shall be replaced. The replacement shall be done either if the permittee chooses not to perform the calibration, or if the equipment cannot be calibrated properly. The device shall be capable of monitoring temperature with an accuracy of +/- 1 percent of the temperature being monitored in degrees Celsius or +/- 1 degree Celsius, whichever is greater. The thermocouple or temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet.

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

- a. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was less than the average temperature during the most recent performance test which demonstrated the emissions unit to be in compliance; and
- b. A log or record of downtime or bypass of the control device and/or monitoring equipment when the associated emissions unit was in operation.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), ORC 3704.03(T), OAC rule 3745-31-05(F), and 40 CFR Part 63, Subpart JJJJ]

- (2) The permittee shall install, operate, and maintain monitoring device(s) and a recorder that continuously monitor and record the differential pressure between the inside and outside of the permanent total enclosure when the emissions unit is in operation. The monitoring and recording devices shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals, with any modifications deemed necessary by the permittee.

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

- a. all three-hour blocks of time during which the difference in pressure between the permanent total enclosure and the surrounding areas is not maintained at or above the minimum pressure differential of 0.007 inches of water, as a three-hour average; and
- b. a log or record of downtime or bypass of the capture (collection) system and/or monitoring equipment when the emissions unit was in operation.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), ORC 3704.03(T), OAC rule 3745-31-05(F), 40 CFR Part 63, Subpart JJJJ, and 40 CFR 51, Appendix M, Method 204]

- (3) The permittee shall measure, document/calculate, and maintain a permanent record of the following information for the permanent total enclosure, which may be the same record documented during the compliance test(s):
 - a. the measured diameter of each natural draft opening;



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- b. the distance measured from each natural draft opening to each VOC emitting point;
- c. the total calculated surface area of all natural draft openings and the surface area of the enclosure's four walls, floor, and ceiling;
- d. the calculation or demonstration that the distance from each VOC emitting point to each natural draft opening is at least 4 times the diameter of the opening; and
- e. the calculation demonstrating that the sum of the surface areas of all of the natural draft openings to the enclosure is not more than 5 percent of the sum of the surface areas of the enclosure's four walls, floor, and ceiling.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), ORC 3704.03(T), OAC rule 3745-31-05(F), 40 CFR Part 63, Subpart JJJJ, and 40 CFR 51, Appendix M, Method 204]

- (4) The permittee shall collect and record the following information on a monthly basis for the coating and cleanup materials applied in this emissions unit:
 - a. the name and identification number of each adhesive, curing agent/catalyst, and thinner as applied;
 - b. the VOC content of each adhesive, curing agent/catalyst, and thinner as applied, in pounds per gallon;
 - c. the number of gallons of each adhesive, curing agent/catalyst, and thinner employed;
 - d. the uncontrolled VOC emissions from all adhesives, curing agents/catalysts, and thinners applied, i.e., the summation of the products of "b" x "c";
 - e. the overall control efficiency determined for the catalytic oxidizer during the most recent demonstration of compliance;
 - f. the total controlled VOC emissions from all adhesives, curing agents/catalysts, and thinners applied, i.e., "d" x "e", in pounds. This total shall be converted to tons by dividing the total coating VOC emissions by 2000 pounds per ton;
 - g. the updated rolling, 12-month summation of total VOC emissions from coatings, in tons. This shall include the information for the current month and the preceding eleven calendar months;
 - h. the name and identification of each cleanup material employed;
 - i. the VOC content of each cleanup material, in pounds per gallon;
 - j. the number of gallons of each cleanup material employed;



- k. the total VOC emissions from all cleanup materials employed, i.e., the summation of the products of “i” x “j”, in pounds. This total shall be converted to tons by dividing the total cleanup VOC emissions by 2000 pounds per ton ; and
- l. the updated rolling, 12-month summation of total VOC emissions from cleanup materials, in tons. This shall include the information for the current month and the preceding eleven calendar months.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(F)]

- (5) The permittee shall perform a preventative maintenance inspection of the catalytic oxidizer on an annual basis to evaluate the performance of the catalyst bed. Each inspection shall consist of internal and visual inspections in accordance with the manufacturer's recommendations, and shall include a physical inspection of the unit and all of the associated equipment, including but not limited to burners, controls, dampers, valves, and monitoring and recording equipment. Repair and replacement of equipment and the catalyst shall be performed as determined by the inspection. During each annual inspection a sample of the catalyst material shall be collected from the catalyst bed and used to perform a catalyst activity test. The permittee shall maintain a record of the results of each annual inspection and the results of each annual catalyst activity test.

The permittee shall also perform weekly inspections of the external integrity of the catalytic oxidizer. Records shall be maintained of the inspections and the date(s) of catalyst replacement, and if only partial, the amount or percent of the total catalyst replaced.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(F)]

- (6) The permittee shall comply with the applicable monitoring and record keeping required under 40 CFR Part 63, Subpart JJJJ, including the following sections:

63.3350(a)	Summary of monitoring requirements – control devices and capture system
63.3350(b)	Monitoring requirements – compliance date
63.3350(e)(1) – (8)	Continuous parameter monitoring system (CPMS) requirements, including the requirements specified in d)(1) – d)(3) above.
63.3350(e)(9)	Monitoring requirements for oxidizers, including the requirements specified in d)(1) above.
63.3350(f)(1) – (5)	Monitoring requirements for capture systems, including the requirements specified in d)(2) and d)(3) above.
63.3360(e)(3)(ii)(C) and (D)	Catalytic oxidizer monitoring, inspection, and maintenance plan requirements



63.3410(a)(1) – (2)	Recordkeeping requirements
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[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(T), OAC rule 3745-31-05(A)(3), and 40 CFR Part 63, Subpart JJJJ]

- (7) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #P0119988: d)(1) - d)(6). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. all 3-hour blocks of time, when the emissions unit was in operation, during which the average temperature of the exhaust gases immediately before the catalyst bed were less than the average temperature established during the most recent performance test that demonstrated the emissions unit was in compliance;
 - b. all three-hour blocks of time, when the emissions unit was in operation, during which the permanent total enclosure was not maintained at the minimum pressure differential of 0.007 inches of water, as a 3-hour average;
 - c. any records of downtime or bypass (date and length of time) of the capture (collection) system, the catalytic oxidizer, and/or the monitoring equipment when the emissions unit was in operation;
 - d. any exceedance of the VOC emission limitations specified in b)(1)d.; and
 - e. any exceedance of the operational usage and VOC content restrictions specified in c)(1) – c)(3).

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), ORC 3704.03(T), OAC rule 3745-31-05(F), and 40 CFR Part 63, Subpart JJJJ]

- (2) The permittee shall submit annual reports that specify the results of the annual catalyst activity test required in f)(2) for the previous calendar year along with a summary of the results of the annual inspection of the internal integrity of the catalytic oxidizer. The reports shall be submitted by January 31 of each year.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(F)]

- (3) The permittee shall comply with the applicable reporting required under 40 CFR Part 63, Subpart JJJJ, including the following sections:



63.3400(a)	Reporting requirements - general
63.3400(b)	Initial notification requirements
63.3400(c)(1) and (2)	Semiannual compliance report requirements
63.3400(d)	Notification of Performance Tests
63.3400(e)	Notification of Compliance Status
63.3400(f)	Performance test reporting
63.3400(g)	Startup, shutdown, and malfunction reporting

[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(T), OAC rule 3745-31-05(A)(3), and 40 CFR Part 63, Subpart JJJJ]

- (4) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #P0119988: e)(1) - e)(3). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

f) Testing Requirements

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

a. Emission Limitation:

The permittee shall operate an emissions capture system (permanent total enclosure) at a minimum capture efficiency of 100 percent and a control device (catalytic oxidizer) at a minimum overall control efficiency of 98% for VOC emissions.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:

- i. The emission testing shall be conducted within 6 months prior to permit expiration.
- ii. The emission testing shall be conducted to demonstrate compliance with the capture efficiency and control efficiency limitations for VOCs and HAPs.

- iii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates and control efficiencies:
- (a) Method 1-4, and Method 25 (hourly and control efficiency); and
 - (b) Method 204 (capture efficiency).

The control efficiency shall be determined using Method 25 and the capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, unless otherwise specified in 40 CFR 63.3360(e) and (f).

Alternative U.S. EPA approved test methods may be used with prior approval from U.S. EPA and Ohio EPA, as appropriate.

- iv. The test(s) shall be conducted while the emissions unit is operating at normal operating conditions pursuant to 40 CFR 63.3360(e) and (f). Process information and control device operating parameters shall be recorded during the test as specified in 63.3360(e).
- v. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- vi. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- vii. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.
- viii. See e)(3) and f)(3) for additional compliance, testing, and reporting requirements under 40 CFR Part 63, Subpart JJJJ.



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b. Emission Limitations:

VOC emissions from coatings employed in this emissions unit shall not exceed 9.43 tons per rolling, 12-month period.

VOC emissions from the cleanup materials employed in this emissions unit shall not exceed 3.89 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the operational restrictions shall be demonstrated by the recordkeeping in d)(4).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(F)]

c. Operational Restrictions:

The maximum VOC content for coatings and cleanup material used in this emissions unit shall be as follows:

- i. Adhesives: 3.67 pounds per gallon (lbs. /gal);
- ii. Curing Agents/Catalysts: 6.05 lbs. /gal;
- iii. Thinner: 7.51 lbs. /gal; and
- iv. Cleanup Material: 7.51 lbs. /gal.

Applicable Compliance Method:

If required, US EPA methods 24 and 24A shall be used to determine the VOC content for coatings. If, pursuant 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating, the permittee shall so notify the Administrator of the US EPA and shall use formulation data for that coating to demonstrate compliance until the US EPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A. US EPA Method 24 or formulation data shall be used to determine the VOC contents of the cleanup materials.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(F)]



- (2) The permittee shall conduct, or have conducted, catalyst activity testing using the catalyst sample collected during the annual inspection described in this permit. An intent to test notification shall not be required for catalyst activity testing. The procedures for the catalyst activity test shall be conducted in accordance with the manufacturer's recommendations and as required by the appropriate test method.

[Authority for term: OAC rules 3745-77-07(C)(1) and 3745-31-05(F)]

- (3) The permittee shall comply with the applicable compliance and testing requirements required under 40 CFR Part 63, Subpart JJJJ, including the following sections:

63.3360(a), 63.3360(e), and 63.3360(f)	Performance test methods
63.3400(d)	Notification of Performance Tests
63.3400(f)	Performance test reports
63.3370(a)(4)	Compliance demonstration requirements for capture system and control device(s) - summary
63.3370(e)	Compliance demonstration requirements for emissions reduction by capture and control
63.3370(j)	Compliance demonstration requirements using CPMS for capture and control system

[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(T), OAC rule 3745-31-05(A)(3), and 40 CFR Part 63, Subpart JJJJ]

- (4) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #P0119988: f)(1) - f)(3). The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

g) Miscellaneous Requirements

- (1) None.



4. K012, Bobst Triplex Laminator

Operations, Property and/or Equipment Description:

Bobst 2-Station Triplex Laminator with permanent total enclosure and catalytic oxidizer

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

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.	ORC 3704.03(T) and OAC rule 3745-31-05(A)(3) June 30, 2008 (PTI P0119416, issued 11/6/2015)	Organic HAP emissions shall not exceed 2 percent of the organic HAP applied for each month. See b)(2)a.
b.	40 CFR Part 63, Subpart JJJJ (40 CFR 63.3280 – 63.3420) National Emission Standards for the Paper and other Web Coating Industry [In accordance with 40 CFR 63.3290, this emissions unit is a new web coating line located at an existing facility that is a major source of HAP.]	Organic HAP emissions shall not exceed 2 percent of the organic HAP applied for each month. See c)(8).
c.	40 CFR Part 63, Subpart A (40 CFR 63.1 – 15 and 40 CFR 63.3340)	Table 2 to 40 CFR Part 63, Subpart JJJJ- Applicability of General Provisions to Subpart JJJJ shows which parts of the General Provisions in 40 CFR 63.1-15 apply.
d.	OAC rule 3745-31-05(D) (PTI P0119416, issued 11/6/2015) Synthetic minor limitations to avoid non-attainment new source review and emissions offsets	VOC emissions shall not exceed 39.7 tons per rolling, 12-month period. See b)(2)a. – b)(2)d., and c)(1) – c)(7).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	OAC rule 3745-21-09(F)	The minimum overall control efficiency specified by this rule is less stringent than the minimum overall control efficiency established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The permittee shall operate an emissions capture system (permanent total enclosure) at a minimum capture efficiency of 100 percent and a control device (catalytic oxidizer) at a minimum overall control efficiency of 98.8% for VOC emissions. This control efficiency is more stringent than the control efficiency pursuant to 40 CFR Part 63, Subpart JJJJ and is a voluntary restriction requested by the permittee.
- b. The permanent total enclosure shall be constructed to totally enclose the application stations, coating reservoirs, and all areas from the application station to the oven and the control device, such that all VOC emissions are captured, contained, and directed to the catalytic oxidizer.
- c. The permanent total enclosure shall be maintained under negative pressure whenever the emissions unit is in operation, and shall be designed and maintained to have an average facial velocity of air through each natural draft opening of at least 200 feet per minute (3,600 m/hr). Compliance with the average facial velocity shall be demonstrated during the compliance test, by either using an air flow monitor or a differential pressure gauge at each natural draft opening, and maintaining the required facial velocity or the corresponding negative pressure. The permanent total enclosure shall meet all of the following criteria if the capture efficiency of the enclosure and control device is to be assumed to be 100%:

- i. Any natural draft opening shall be at least four equivalent opening diameters, or 4 times the diameter of the opening, from each VOC emitting point. An equivalent diameter is the diameter of a circle that has the same area as the opening. If the opening is not circular the equivalent diameter (ED) is calculated as follows:

$$ED = (4 \text{ area} / \pi)^{0.5}$$

- ii. The total area of all natural draft openings (A_N) shall not exceed 5 percent of the total surface area of the enclosure (A_T), i.e, the four walls, floor, and ceiling. The natural draft opening to enclosure area ratio (NEAR) is calculated as follows:

$$NEAR = A_N / A_T$$



- iii. The direction of air flow through all natural draft openings shall be into the enclosure, with an average facial velocity of no less than 200 feet per minute (3,600 m/hr) or a pressure drop of 0.013 mm Hg (0.007 in. H₂O).
- iv. All access doors and windows to the enclosure that do not meet the requirements of a natural draft opening and whose surface areas are not included in the 5 percent surface area determination in "ii.", shall be completely closed to any air movement during process operations.
- v. All VOC emissions shall be captured and contained for discharge through the control device.
- d. The permanent total enclosure serving this emissions unit shall be maintained in such a manner as to meet the criteria established for a permanent total enclosure in 40 CFR, Part 51, Appendix M, Reference Method 204, and shall capture all of the VOC emissions from this emissions unit.

c) Operational Restrictions

(1) The maximum coatings usage for this emissions unit shall be as follows:

- a. Adhesives: 648,240 gallons per rolling, 12-month period;
- b. Curing Agents/Catalysts: 64,824 gallons per rolling, 12-month period; and
- c. Thinner: 432,160 gallons per rolling, 12-month period (excluding cleanup solvent).

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(D)]

(2) The maximum cleanup solvent usage for this emissions unit shall not exceed 960 gallons per rolling, 12-month period.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(D)]

(3) To ensure enforceability during the first 12 calendar months of operation, the permittee shall not exceed the usage levels for coatings and cleanup solvent specified in the following table:

	Maximum Allowable Cumulative Usage (Gallons)			
Month	Adhesives	Curing Agents/ Catalysts	Thinner	Cleanup Solvent
1	54,020	5,402	36,013	80
1-2	108,040	10,804	72,027	160



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1-3	162,060	16,206	108,040	240
1-4	216,080	21,608	144,053	320
1-5	270,100	27,010	180,067	400
1-6	324,120	32,412	216,080	480
1-7	378,140	37,814	252,093	560
1-8	432,160	43,216	288,107	640
1-9	486,180	48,618	324,120	720
1-10	540,200	54,020	360,133	800
1-11	594,220	59,422	396,147	880
1-12	648,240	64,824	432,160	960

After the first 12 calendar months of operation, compliance with the annual usage limitations shall be based upon a rolling, 12-month summation of the usage rates.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(D)]

- (4) The maximum VOC content for coatings and cleanup material used in this emissions unit shall be as follows:
 - a. Adhesives: 3.67 pounds per gallon (lbs./gal);
 - b. Curing Agents/Catalysts: 6.05 lbs./gal;
 - c. Thinner: 7.51 lbs./gal; and
 - d. Cleanup Material: 7.51 lbs. /gal.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(D)]

- (5) The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit controlled by the catalytic oxidizer is in operation, shall not be less than the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance.

[Authority for term: OAC rule 3745-77-07(A)(1), OAC rule 3745-31-05(A)(3), ORC 3704.03(T), OAC rule 3745-31-05(D), and 40 CFR Part 63, Subpart JJJJ]



- (6) The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.013 mm Hg (0.007 in. H₂O), as a 3-hour average, whenever the emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(A)(1), OAC rule 3745-31-05(A)(3), ORC 3704.03(T), OAC rule 3745-31-05(D), and 40 CFR Part 63, Subpart JJJJ]

- (7) The catalytic oxidizer shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The conversion efficiency of the catalyst, as determined in an annual catalyst activity test, shall be at least 90% at a test temperature that is equal to that temperature at which the inlet to the catalyst bed is set. Solvent loading during the catalyst activity test shall be consistent with the test laboratory's normal testing protocol.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(D)]

- (8) The permittee shall comply with the applicable operational restrictions required under 40 CFR Part 63, Subpart JJJJ, including the following sections:

63.3321(a) and Table 1 of Subpart JJJJ	Operating requirements for add-on control devices and capture system, including the requirements specified in c)(5) and c)(6) above.
63.3360(e)(3)	Requirements for establishing operating limits during performance tests
63.3340, Table 2, and 63.6(e)(3)	Startup, shutdown, and malfunction plan (SSMP)

[Authority for term: OAC rule 3745-77-07(A)(1), ORC 3704.03(T), OAC rule 3745-31-05(A)(3), and 40 CFR Part 63, Subpart JJJJ]

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall install, calibrate, operate and maintain a temperature monitoring device equipped with a continuous recorder. All temperature monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturer's specifications. The calibration of the chart recorder, data logger, or temperature indicator shall be verified every three months; or the chart recorder, data logger, or temperature indicator shall be replaced. The replacement shall be done either if the permittee chooses not to perform the calibration, or if the equipment cannot be calibrated properly. The device shall be capable of monitoring temperature with an accuracy of +/- 1 percent of the temperature being monitored in degrees Celsius or +/- 1 degree Celsius, whichever is greater. The thermocouple or temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet.

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

- a. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst



bed was less than the average temperature during the most recent performance test which demonstrated the emissions unit to be in compliance; and

- b. A log or record of downtime or bypass of the control device and/or monitoring equipment when the associated emissions unit was in operation.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), ORC 3704.03(T), OAC rule 3745-31-05(D), and 40 CFR Part 63, Subpart JJJJ]

- (2) The permittee shall install, operate, and maintain monitoring device(s) and a recorder that continuously monitor and record the differential pressure between the inside and outside of the permanent total enclosure when the emissions unit is in operation. The monitoring and recording devices shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals, with any modifications deemed necessary by the permittee.

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

- a. all three-hour blocks of time during which the difference in pressure between the permanent total enclosure and the surrounding areas is not maintained at or above the minimum pressure differential of 0.007 inches of water, as a three-hour average; and
- b. a log or record of downtime or bypass of the capture (collection) system and/or monitoring equipment when the emissions unit was in operation.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), ORC 3704.03(T), OAC rule 3745-31-05(D), 40 CFR Part 63, Subpart JJJJ, and 40 CFR 51, Appendix M, Method 204]

- (3) The permittee shall measure, document/calculate, and maintain a permanent record of the following information for the permanent total enclosure, which may be the same record documented during the compliance test(s):

- a. the measured diameter of each natural draft opening;
- b. the distance measured from each natural draft opening to each VOC emitting point;
- c. the total calculated surface area of all natural draft openings and the surface area of the enclosure's four walls, floor, and ceiling;
- d. the calculation or demonstration that the distance from each VOC emitting point to each natural draft opening is at least 4 times the diameter of the opening; and
- e. the calculation demonstrating that the sum of the surface areas of all of the natural draft openings to the enclosure is not more than 5 percent of the sum of the surface areas of the enclosure's four walls, floor, and ceiling.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), ORC 3704.03(T), OAC rule 3745-31-05(D), 40 CFR Part 63, Subpart JJJJ, and 40 CFR 51, Appendix M, Method 204]

- (4) The permittee shall collect and record the following information on a monthly basis for the coating and cleanup materials applied in this emissions unit:
- a. the name and identification number of each adhesive, curing agent/catalyst, and thinner as applied;
 - b. the VOC content of each adhesive, curing agent/catalyst, and thinner as applied, in pounds per gallon;
 - c. the number of gallons of each adhesive, curing agent/catalyst, and thinner employed;
 - d. the uncontrolled VOC emissions from all adhesives, curing agents/catalysts, and thinners applied, i.e., the summation of the products of "b" x "c";
 - e. the overall control efficiency determined for the catalytic oxidizer during the most recent demonstration of compliance;
 - f. the total controlled VOC emissions from all adhesives, curing agents/catalysts, and thinners applied, i.e., "d" x "e";
 - g. the name and identification of each cleanup material employed;
 - h. the VOC content of each cleanup material, in pounds per gallon;
 - i. the number of gallons of each cleanup material employed;
 - j. the total VOC emissions from all cleanup materials employed, i.e., the summation of the products of "h" x "i", in pounds;
 - k. the total VOC emissions from all adhesives, curing agents/catalysts, thinners and cleanup materials employed, i.e., "f" + "j", in pounds. This total shall be converted to tons by dividing the VOC emissions by 2000 pounds per ton; and
 - l. the updated rolling, 12-month summation of total VOC emissions, in tons. This shall include the information for the current month and the preceding eleven calendar months.

Also, during the first 12 calendar months of operation following final issuance of this permit, the permittee shall record the cumulative usage as denoted in c)(3) for each calendar month.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(D)]

- (5) The permittee shall perform a preventative maintenance inspection of the catalytic oxidizer on an annual basis to evaluate the performance of the catalyst bed. Each inspection shall consist of internal and visual inspections in accordance with the



manufacturer's recommendations, and shall include a physical inspection of the unit and all of the associated equipment, including but not limited to burners, controls, dampers, valves, and monitoring and recording equipment. Repair and replacement of equipment and the catalyst shall be performed as determined by the inspection. During each annual inspection a sample of the catalyst material shall be collected from the catalyst bed and used to perform a catalyst activity test. The permittee shall maintain a record of the results of each annual inspection and the results of each annual catalyst activity test.

The permittee shall also perform weekly inspections of the external integrity of the catalytic oxidizer. Records shall be maintained of the inspections and the date(s) of catalyst replacement, and if only partial, the amount or percent of the total catalyst replaced.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(D)]

- (6) The permittee shall comply with the applicable monitoring and record keeping required under 40 CFR Part 63, Subpart JJJJ, including the following sections:

63.3350(a)	Summary of monitoring requirements – control devices and capture system
63.3350(b)	Monitoring requirements – compliance date
63.3350(e)(1) – (8)	Continuous parameter monitoring system (CPMS) requirements, including the requirements specified in d)(1) – d)(3) above.
63.3350(e)(9)	Monitoring requirements for oxidizers, including the requirements specified in d)(1) above.
63.3350(f)(1) – (5)	Monitoring requirements for capture systems, including the requirements specified in d)(2) and d)(3) above.
63.3360(e)(3)(ii)(C) and (D)	Catalytic oxidizer monitoring, inspection, and maintenance plan requirements
63.3410(a)(1) – (2)	Recordkeeping requirements

[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(T), OAC rule 3745-31-05(A)(3), and 40 CFR Part 63, Subpart JJJJ]

- (7) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #P0119416: d)(1) – d)(6). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install



e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. all 3-hour blocks of time, when the emissions unit was in operation, during which the average temperature of the exhaust gases immediately before the catalyst bed were less than the average temperature established during the most recent performance test that demonstrated the emissions unit was in compliance;
 - b. all three-hour blocks of time, when the emissions unit was in operation, during which the permanent total enclosure was not maintained at the minimum pressure differential of 0.007 inches of water, as a 3-hour average;
 - c. any records of downtime or bypass (date and length of time) of the capture (collection) system, the catalytic oxidizer, and/or the monitoring equipment when the emissions unit was in operation;
 - d. any exceedance of the VOC emissions limitation specified in b)(1)d.; and
 - e. any exceedance of the operational usage and VOC content restrictions specified in c)(1) – c)(4).

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), ORC 3704.03(T), OAC rule 3745-31-05(D), and 40 CFR Part 63, Subpart JJJJ]

- (2) The permittee shall comply with the applicable reporting required under 40 CFR Part 63, Subpart JJJJ, including the following sections:

63.3400(a)	Reporting requirements - general
63.3400(b)	Initial notification requirements
63.3400(c)(1) and (2)	Semiannual compliance report requirements
63.3400(d)	Notification of Performance Tests
63.3400(e)	Notification of Compliance Status
63.3400(f)	Performance test reporting
63.3400(g)	Startup, shutdown, and malfunction reporting

[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(T), OAC rule 3745-31-05(A)(3), and 40 CFR Part 63, Subpart JJJJ]

- (3) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #P0119416: e)(1) – e)(2). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install

f) **Testing Requirements**

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

a. **Emission Limitation/Control Requirements:**

The permittee shall operate an emissions capture system (permanent total enclosure) at a minimum capture efficiency of 100 percent and a control device (catalytic oxidizer) at a minimum overall control efficiency of 98.8% for VOC emissions.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- i. The emission testing shall be conducted within 180 days of commencement of operation of this emissions unit.
- ii. The emission testing shall be conducted to demonstrate compliance with the capture efficiency and control efficiency limitations for VOCs and HAPs.
- iii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates and control efficiencies:

(a) Method 1-4, and Method 25 (hourly and control efficiency); and

(b) Method 204 (capture efficiency).

The control efficiency shall be determined using Method 25 and the capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M.

Alternative U.S. EPA approved test methods may be used with prior approval from U.S. EPA and Ohio EPA, as appropriate.

- iv. The test(s) shall be conducted while the emissions unit is operating at normal operating conditions. Process information and control device operating parameters shall be recorded during the test.



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- v. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- vi. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- vii. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), ORC 3704.03(T), OAC rule 3745-31-05(D), and 40 CFR Part 63, Subpart JJJJ]

b. Emissions Limitation:

VOC emissions shall not exceed 39.7 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the emissions limitation shall be demonstrated by the recordkeeping in d)(4).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(D)]

c. Operational Restrictions:

The maximum VOC content for coatings and cleanup material used in this emissions unit shall be as follows:

- i. Adhesives: 3.67 pounds per gallon (lbs. /gal);
- ii. Curing Agents/Catalysts: 6.05 lbs. /gal;
- iii. Thinner: 7.51 lbs. /gal; and
- iv. Cleanup Material: 7.51 lbs. /gal.



Applicable Compliance Method:

If required, US EPA methods 24 and 24A shall be used to determine the VOC content for coatings. If, pursuant 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating, the permittee shall so notify the Administrator of the US EPA and shall use formulation data for that coating to demonstrate compliance until the US EPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A. US EPA Method 24 or formulation data shall be used to determine the VOC contents of the cleanup materials.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(D)]

- (2) The permittee shall comply with the applicable compliance and testing requirements required under 40 CFR Part 63, Subpart JJJJ, including the following sections:

63.3360(a), 63.3360(e), and 63.3360(f)	Performance test methods
63.3400(d)	Notification of Performance Tests
63.3400(f)	Performance test reports
63.3370(a)(4)	Compliance demonstration requirements for capture system and control device(s) - summary
63.3370(e)	Compliance demonstration requirements for emissions reduction by capture and control
63.3370(j)	Compliance demonstration requirements using CPMS for capture and control system

[Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(T), OAC rule 3745-31-05(A)(3), and 40 CFR Part 63, Subpart JJJJ]

- (3) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #P0119416: f)(1) – f)(2). The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

g) Miscellaneous Requirements

- (1) None.