



Environmental Protection Agency

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

1/26/2011

Certified Mail

Mr. Daniel Jones  
Avery Dennison, Specialty Tape Division, Bldg. 14&19  
250 Chester St., Building 5  
Painesville, OH 44077

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL  
Facility ID: 0243081177  
Permit Number: P0107135  
Permit Type: Administrative Modification  
County: Lake

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Please complete a survey at [www.epa.ohio.gov/dapc/permitsurvey.aspx](http://www.epa.ohio.gov/dapc/permitsurvey.aspx) and give us feedback on your permitting experience. We value your opinion.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
309 South Fourth Street, Room 222  
Columbus, OH 43215

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. If you have any questions regarding this permit, please contact the Ohio EPA DAPC, Northeast District Office. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

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

Cc: U.S. EPA  
Ohio EPA-NEDO; Pennsylvania; Canada





**FINAL**

**Division of Air Pollution Control  
Permit-to-Install**

for

Avery Dennison, Specialty Tape Division, Bldg. 14&19

Facility ID:	0243081177
Permit Number:	P0107135
Permit Type:	Administrative Modification
Issued:	1/26/2011
Effective:	1/26/2011





Division of Air Pollution Control
Permit-to-Install
for
Avery Dennison, Specialty Tape Division, Bldg. 14&19

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## Authorization

Facility ID: 0243081177  
Facility Description: Manufacturer of pressure sensitive tape and film  
Application Number(s): M0001025  
Permit Number: P0107135  
Permit Description: Agency-initiated Administrative Modification to permit 02-22438 for emisisions unit K005 to establish BAT and conform with the July 2,2010 memo "Permit Processing After US District Court <10 Ton per year Exemption Decision".  
Permit Type: Administrative Modification  
Permit Fee: \$0.00  
Issue Date: 1/26/2011  
Effective Date: 1/26/2011

This document constitutes issuance to:

Avery Dennison, Specialty Tape Division, Bldg. 14&19  
7100 Lindsay Drive  
Mentor, OH 44060

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

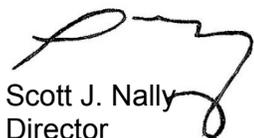
Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northeast District Office  
2110 East Aurora Road  
Twinsburg, OH 44087  
(330)425-9171

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

  
Scott J. Nally  
Director



## **Authorization (continued)**

Permit Number: P0107135  
Permit Description: Agency-initiated Administrative Modification to permit 02-22438 for emisisions unit K005 to establish BAT and conform with the July 2,2010 memo "Permit Processing After US District Court <10 Ton per year Exemption Decision".

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

<b>Emissions Unit ID:</b>	<b>K005</b>
Company Equipment ID:	I-10 Adhesive Coater
Superseded Permit Number:	02-22438
General Permit Category and Type:	Not Applicable



## **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.2.a), Severability Clause
  - (2) Standard Term and Condition A.3.c) through A. 3.e) General Requirements
  - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
  - (4) Standard Term and Condition A.9., Reporting Requirements
  - (5) Standard Term and Condition A.10., Applicability
  - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
  - (7) Standard Term and Condition A.14., Public Disclosure
  - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
  - (9) Standard Term and Condition A.16., Fees
  - (10) Standard Term and Condition A.17., Permit Transfers

**2. Severability Clause**

- a) 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.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they 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 and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

**3. General Requirements**

- a) The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.

- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying 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.

#### 4. 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, 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.
- 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, 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.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Northeast District Office.
  - (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations,

excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Northeast District Office. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.

- (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the Ohio EPA DAPC, Northeast District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
  - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

## 5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Northeast District Office in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to 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 emission unit(s) that is (are) served by such control system(s).

## 6. Compliance Requirements

- a) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.
- b) Any document (including reports) required to be submitted and required by a federally applicable requirement in this 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.
- c) 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 ORC section 3704.08.
  - (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.
- d) The permittee shall submit progress reports to the Ohio EPA DAPC, Northeast District Office 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.

## **7. Best Available Technology**

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

## **8. 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.

## **9. Reporting Requirements**

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Northeast District Office.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Northeast District Office. 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 (i.e., postmarked) 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.)

#### 10. Applicability

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

#### 11. Construction of New Sources(s) and Authorization to Install

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.
- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized 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 authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in Ohio EPA's "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All

records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

No emissions unit certified by the authorized official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

## 12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

## 13. Construction Compliance Certification

The applicant shall identify the following dates in the online facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

## 14. Public Disclosure

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

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

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly (i.e., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.



**16. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

**17. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in Air Services once the transfer is legally completed. The change must be submitted through Air Services within thirty days of the ownership transfer date.

**18. Risk Management Plans**

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

**19. 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.

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



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. 40 CFR Part 63, Subpart JJJJ MACT Requirements

The following emissions unit (OEPA unit number K005), contained in this permit, because the facility is major for HAPS and this line emits HAPs, is subject to the applicable emission limitation(s) and/or control measures, operational restrictions, monitoring and/or record keeping requirements, reporting requirements, testing requirements and the general and/or other requirements specified in 40 CFR Part 63, Subpart JJJJ, in accordance with 40 CFR Sections 63.3280 through 63.3410 (including the applicable Table(s) and Appendix(ices) referenced in Subpart JJJJ), which are included in the text of the final standard, promulgated on December 4, 2002, and as amended on May 24, 2006 and are hereby incorporated into this permit as if fully rewritten.

The complete MACT requirements, including the MACT General Provisions, may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://efcr.gpoaccess.gov> (<http://efcr.gpoaccess.gov/>) or by contacting the Ohio EPA Northeast District Office.

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



1. K005, I-10 Adhesive Coater

Operations, Property and/or Equipment Description:

**Adhesive coater equipped with web unwind, web treatment roll-coat station, drying oven, web rewind and a regenerative thermal oxidizer (RTO) (K005) – Building #19**

- 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.	OAC rule 3745-31-05(A)(3)	Overall reduction of volatile organic compounds (VOC) emissions shall not be less than 99.5%, by weight, (100% capture efficiency through the use of a permanent total enclosure and 99.5% destruction efficiency) for all solvent based coatings.  VOC emissions shall not exceed 5.1 pounds per hour from the coating line, including cleanup, as a daily average and 23.0 tons per year, including cleanup.  The BAT determination also includes compliance with OAC rule 3745-21-09(F), 40 CFR Part 60, Subpart RR and 40 CFR Part 63, Subpart JJJJ.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Nitrogen oxides (NO <sub>x</sub> ) emissions shall not exceed 1.4 pounds per hour and 6.1 tons per year.  Carbon monoxide (CO) emissions shall not exceed 1.2 pounds per hour and 4.9 tons per year.  See b)(2)a.
c.	OAC rule 3745-31-05(A)(3)(b), as	See b)(2)b.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	effective 12/01/06	
d.	OAC rule 3745-31-05(D)	VOC emissions shall not exceed 23.0 tons per rolling, 12-month period, including coatings and cleanup materials.
e.	OAC rule 3745-21-09(F)	<p>The control efficiency limitation of 81% overall reduction of VOC, by weight, (and 90% destruction) specified by this rule for all solvent based coatings is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p> <p>For non-solvent based coatings, the VOC content limitation specified in this rule is less stringent than the VOC content limitation established pursuant to 40 CFR Part 60, Subpart RR.</p>
f.	40 CFR Part 60, Subpart RR	<p>For solvent based coatings, the overall VOC emission reduction control efficiency emission limitation specified by this rule is less stringent than the overall VOC emission reduction control efficiency emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p> <p>For all coatings that are not vented to the RTO (non-solvent based coatings) the VOC content shall not exceed 0.2 kg of VOC per kg of solids applied, as calculated on a weighted average basis for one calendar month.</p>
g.	40 CFR Part 63, Subpart JJJJ	<p>The control efficiency limitation of 98% reduction of VOCs (HAPs), by weight, specified by this rule for all coatings is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p> <p>See 40 CFR 63.3320.</p>
h.	40 CFR Part 63, Subpart A	Table 2 to Subpart JJJJ of 40 CFR Part 63 - Applicability of General Provisions to Subpart JJJJ shows which parts of the General Provisions in 40 CFR Part 63.1 through 63.15 apply.

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements for NO<sub>x</sub> and CO pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph(A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by state regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006, version of 3745-31-05, then these emission limits/control measures for NO<sub>x</sub> and CO no longer apply.

BAT emission limitations for NO<sub>x</sub> and CO for this emissions unit is based on maximum capacity and operating hours for this emissions unit, i.e. the potential to emit and therefore record keeping and monitoring is not required.

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

Then, BAT requirements under OAC rule 3745-31-05(A) shall not apply to the NO<sub>x</sub> and CO emissions from this air contaminant source since the uncontrolled potential to emit for NO<sub>x</sub> and CO is less than 10 tons per year.

- c. During solvent based coating operations, this emissions unit shall be vented to the regenerative thermal oxidizer. This emissions unit has no bypass of the thermal oxidizer which would allow for intermittently controlled coating operations, however emergency dampers have been installed that would allow bypass to protect employee safety and the facility.
- d. The permittee shall maintain a permanent total enclosure that complies with the requirements of 40 CFR Part 51, Appendix M, Reference Method 204 to capture all the VOC emissions from this emissions unit during all coating operations.
- e. The permittee shall not concurrently apply solvent based coatings through the roll and the die coater.
- f. VOC emissions before control from this emissions unit shall not exceed 4444 tons per rolling, 12 months, calculated using the following formula:

$$4444.0 \text{ tons VOC} \geq \sum_{i=1}^n \frac{(P_i)(VOC_i)}{2000 \text{ lbs/ton}} \times (1-.995) + 0.32 = 23.0 \text{ tpy (RTO)}$$

where:



Pi = usage of the coating and cleanup material i, in gallons during the last 12 months; and

VOCi = volatile organic compound content of coating i, cleanup material i, in pounds per gallon.

To ensure enforceability during the first twelve (12) calendar months of operation following the effective date of this permit to install, VOC emissions from this emissions unit, Ohio EPA emissions unit K005, shall not exceed the emissions levels specified in the following table:

Table with 2 columns: Month, Cumulative VOC emissions (after issuance) (including cleanup) tons per year without control. Rows 1-12 showing cumulative values increasing from 891 to 4400, followed by a calculation for month 12: 4444 x (1- 99.5) = 22.2 (+ 0.32 ) = 23.0 tpy

After the first 12 calendar months of operation following the issuance of this permit, compliance shall be based upon a rolling, 12-month summation of the VOC emissions.

- g. This facility may be subject to 40 CFR Part 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial/Commercial/Institutional Boilers and Process Heaters upon final promulgation.
h. A solvent based coating is any coating that must be vented to the thermal oxidizer.
i. A non-solvent based coating is any coating or ink that is not vented to the thermal oxidizer.

## c) Operational Restrictions

- (1) The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when this emissions unit is in operation and coating, shall not be below the average temperature during the most recent emission test that demonstrated this emissions unit was in compliance.
- (2) When employing solvent based coatings, this emissions unit shall be totally enclosed such that all VOC emissions are captured, contained, and when employing coating, vented to the regenerative thermal oxidizer. Compliance with the following criteria, as specified in USEPA Method 204, shall be met by the permittee when employing coatings:
  - a. Any natural draft opening (NDO) shall be at least four equivalent opening diameters from each VOC emitting point unless otherwise specified by the Administrator.
  - b. The total area of all NDOs shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling.
  - c. The average facial velocity (FV) of air through all NDOs shall be either at least 3,600 meters/hr (200 fpm) or meet the pressure differential requirement across the enclosure as described in the Method. The direction of air flow through all NDOs shall be into the enclosure.
  - d. All access doors and windows whose areas are not included in section (b) and are not included in the calculation in section (c) shall be closed during routine operation of the process.
- (3) The thermal oxidizer control system shall be designed and operated according to good engineering practices and the manufacturer's recommendations and specifications.
- (4) When this emissions unit is in operation, the permanent total enclosure shall be maintained under negative pressure at a minimum differential pressure, in inches of water as a 3-hour average, that is equal to or greater than the differential pressure that was established at the time of the last emissions test that demonstrated compliance with the corresponding facial velocity or pressure drop criteria for the permanent total enclosure. The differential pressure corresponding to the 200 fpm facial velocity shall be determined for the permanent total enclosure when compliance with the facial velocity is demonstrated.
- (5) The concentrations of VOC emissions for this emissions unit, determined in accordance with the leak monitoring program currently used at Building 5 for the permanent total enclosure, shall not exceed 100 ppm, by volume.
- (6) For emissions from the use of organic solvents for clean up, which are not vented to the RTO, the permittee shall:
  - a. store all VOC containing cleaning materials and used shop towels in closed containers;

- b. ensure that mixing and storage containers used for VOC-containing cleaning materials are kept closed at all time except when depositing or removing these materials;
  - c. minimize spills of VOC-containing cleaning materials from one location to another in closed containers or pipes; and
  - d. minimize VOC emissions from cleaning storage, mixing, and conveying equipment.
- (7) See 40 CFR Part 63, Subpart JJJJ (40 CFR Part 63.3280 – 63.3420 and Tables 1 and 2.
- d) **Monitoring and/or Recordkeeping Requirements**
- (1) The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when this emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
- The permittee shall collect and record the following information each day:
- a. all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was below the average temperature during the most recent emission test that demonstrated that the emissions unit was in compliance;
  - b. a log or record of the downtime for the capture (collection) system, control device, and monitoring equipment, when the emissions unit was in operation; and
  - c. a record of any periods of time when the emissions unit is in operation, but the VOC emissions are not vented to the thermal oxidizer.
- (2) The permittee shall install, and thereafter operate and maintain, a continuous pressure drop monitor and recorder that continuously measures and records the pressure drop across the permanent total enclosure when the emissions unit is in operation. Units shall be in inches of water. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The pressure drop monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
- The permittee shall collect and record the following information each day:
- a. all 3-hour blocks of time when the emissions unit is in operation, during which the permanent total enclosure was not maintained at or above the minimum pressure differential, in inches of water as a 3-hour average, specified in c)(2)c; and

- b. a log or record of downtime for the capture (collection) system when the emissions unit was in operation.
- (3) The permittee shall collect and record the following information daily for all coatings employed in this emissions unit:
- a. the name and identification number of each coating employed;
  - b. the VOC content of each coating, as applied, in pounds per gallon, excluding water and exempt solvents;
  - c. whether or not the emissions from the coating were vented to the RTO or to atmosphere;
  - d. the number of gallons of each coating employed, excluding water and exempt solvents;
  - e. the total uncontrolled VOC emissions from all coatings employed, in pounds and tons; and
  - f. the calculated, controlled VOC emission rate for all coatings, in pounds and tons (the controlled VOC emission rate for coatings shall be calculated using the overall control efficiency for the control equipment as determined during the most recent compliance test that demonstrated that the emissions unit was in compliance).
- (4) The permittee shall collect and record the following information daily for all cleanup materials:
- a. the name and identification of each cleanup material employed;
  - b. the number of gallons of each cleanup material employed;
  - c. the VOC content of each cleanup material, in pounds per gallon; and
  - d. the total VOC emissions from all cleanup materials employed in pounds and tons.
- (5) The permittee shall record the following information daily:
- a. the total VOC emissions from all coatings and cleanup materials (the sum of the values from d)(3)e and d)(4)d, in pounds;
  - b. the total operating hours for the emissions unit;
  - c. the average hourly emission rate, in pounds per hour (a/b); and
  - d. the rolling, 12-month summation of the VOC emissions from all coatings and cleanup materials, in tons.
- (6) The permittee shall inspect and monitor quarterly with a Photoionization Detector or equivalent device all positive pressure locations between the permanent enclosure of the coater and the thermal oxidizer for unacceptable VOC levels (greater than 100 ppm) and

maintain records of the results in accordance with the permittee's 1998 preventive maintenance plan or equivalent. Records shall be maintained of the inspection results and shall include the following:

- a. line speed;
  - b. fan speed;
  - c. VOC content of the coating applied at the time of monitoring; and
  - d. documentation of any unacceptable level of VOCs.
- (7) The permittee shall employ the plan for preventive maintenance and repair of leaks within the solvent capture and destruction system, as submitted by Avery Dennison to the Ohio EPA on August 10, 1998, or equivalent.

Equipment subject to the plan shall include all ductwork from the enclosures of the heads of the coaters to the thermal oxidizer fan covers.

- (8) Any calculations used to determine compliance shall be maintained at the facility and made available to the Director or his representative, upon request, during normal business hours.
- (9) The permittee shall collect and record the following information monthly for all non-solvent based coatings employed in this emissions unit:
- a. the name and identification number of each coating employed;
  - b. the VOC content of each coating, in kg/kg of coating solids, as applied;
  - c. the weight fraction of VOC in each coating;
  - d. the weight fraction of solids in each coating;
  - e. the total mass of each coating, in kgs; and
  - f. the mass-weighted average VOC content for all the coatings employed, in kg/kg of coating solids, calculated in accordance with the equation in section 60.443(a)(2) of Subpart RR.

If the VOC content of each coating employed during the calendar month does not exceed 0.20 kg of VOC/kg of solids, the permittee has demonstrated compliance with the VOC content limitation for that month and is not required to calculate the mass-weighted VOC content for all the coatings employed during the calendar month.

- (10) See 40 CFR Part 63, Subpart JJJJ (40 CFR Part 63.3280 – 63.3420 and Tables 1 and 2.

e) Reporting Requirements

- (1) The permittee shall submit quarterly summary reports that identify the following information:

- a. all 3-hour blocks of time during which the average combustion temperature within each thermal oxidizer did not comply with the temperature limitation specified above; and
- b. all periods of downtime for the capture (collection) system, control device, and monitoring equipment, when the associated coating or printing line was operating and employing coatings.

These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters.

- (2) The permittee shall submit quarterly deviation (excursion) reports that identify all 3-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 required in c)(2)c.
  - (3) The permittee shall submit annual reports that specify the total VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
  - (4) The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month emission limitation for VOC of 23.0 tons.
  - (5) The permittee shall submit deviation (excursion) reports that identify all exceedances of the average hourly emission limitation for VOC of 5.1 pounds.
  - (6) The permittee shall notify the Director (the Ohio EPA Northeast District Office) in writing of any quarterly record showing any unacceptable level of VOCs (greater than 100 ppm) from the positive pressure locations of the lines between the permanent total enclosure and the thermal oxidizer. A copy of the record shall be sent to the Ohio EPA Northeast District Office within 30 days following the end of the calendar month in which the exceedance occurred.
  - (7) The permittee shall notify the Director (the Ohio EPA Northeast District Office) in writing of any record showing that emissions from solvent based coatings employed in this emissions unit were not vented to the RTO.
  - (8) The permittee shall notify the Director (the Ohio EPA Northeast District Office) in writing of any record showing that emissions from non-solvent based coatings employed in this emissions unit exceeded the maximum allowable VOC content of 0.20 kilogram of VOC per kilogram of solids, calculated as a monthly mass weighted average.
  - (9) See 40 CFR Part 63, Subpart JJJJ (40 CFR Part 63.3280 – 63.3420 and Tables 1 and 2.
- f) Testing Requirements
- (1) Compliance with the emission limitations established in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Overall reduction of VOC emissions shall not be less than 99.5%, by weight, (100% capture efficiency through the use of a permanent total enclosure and 99.5% destruction efficiency) for all solvent based coatings.

Applicable Compliance Method:

Compliance shall be demonstrated based upon performance testing and shall be conducted using the methods and criteria described in f)(2) of this section.

b. Emission Limitation:

VOC emissions shall not exceed 5.1 pounds per hour from the coating line, including cleanup, as a daily average.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(5) of these terms and conditions and performance testing as described in f)(2) of this section.

c. Emission Limitation:

VOC emissions shall not exceed 23.0 tons per year, including cleanup.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in d)(5) of these terms and conditions.

d. Emission Limitation:

For all coatings that are not vented to the RTO (non-solvent based coatings) the VOC content shall not exceed 0.2 kg of VOC per kg of solids applied, as calculated on a weighted average basis for one calendar month.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the use of Method 24, or any alternative compliance method approved by the USEPA for determining the VOC content of each coating, and on the record keeping requirements specified in d)(9).

e. Emission Limitation:

NO<sub>x</sub> emissions from this emissions unit shall not exceed 1.4 pounds per hour and 6.1 tons per year.

Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the Ohio SIP, BAT shall not be applicable as the potential to emit for

NO<sub>x</sub> (including controls) will be less than 10 tons per year and b)(1)b will be voided.

Applicable Compliance Method:

Compliance may be determined by multiplying the emission factor of 100 pounds of NO<sub>x</sub> per million cubic feet of natural gas (EPA AP-42, July 1998, Section 1.4, Natural Gas Combustion) by the maximum hourly natural gas combustion capacity (14,000 ft<sup>3</sup>/hr) of this unit.

If required, emission testing to demonstrate compliance with the pound per hour emission limitation shall be performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7.

The ton per year emission limitation was developed by multiplying the short-term allowable NO<sub>x</sub> emission limitation (1.4 lbs/hr) by the maximum annual hours of operation (8760 hours), and then dividing by 2000 lbs per ton. Therefore, if compliance is shown with the short-term emission limitation, compliance shall also be shown with the annual emission limitation.

f. Emission Limitation:

CO emissions from this emissions unit shall not exceed 1.2 pounds per hour and 4.9 tons per year.

Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the Ohio SIP, BAT shall not be applicable as the potential to emit for CO (including controls) will be less than 10 tons per year and b)(1)b will be voided.

Applicable Compliance Method:

Compliance may be determined by multiplying the emission factor of 84 pounds of CO per million cubic feet of natural gas (EPA AP-42, July 1998, Section 1.4, Natural Gas Combustion) by the maximum hourly natural gas combustion capacity (14,000 ft<sup>3</sup>/hr) of this unit.

If required, emission testing to demonstrate compliance with the pound per hour emission limitation shall be performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 10.

The ton per year emission limitation was developed by multiplying the short-term allowable CO emission limitation (1.2 lbs/hr) by the maximum annual hours of operation (8760 hours), and then dividing by 2000 lbs per ton. Therefore, if compliance is shown with the short-term emission limitation, compliance shall also be shown with the annual emission limitation.

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

- a. Emission testing shall be conducted within six months after initial start up (first day that the unit is used in normal production) of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency limitation and capture efficiency limitation for VOC of 99.5% and 100%, respectively, and the hourly mass emission limitation of 5.1 pounds per hour.
- c. The following test methods shall be employed to demonstrate compliance with the capture efficiency and control efficiency limitations for VOC:

Method 25 of 40 CFR Part 60, Appendix A, if the VOC concentrations as carbon in the outlet are greater than 50 ppm; or

Method 25A of 40 CFR Part 60, Appendix A, if the VOC concentrations as carbon in the outlet are less than 50 ppm;

Method 204 of 40 CFR Part 51 Appendix M; and

Method 2 of 40 CFR Part 60, Appendix A and Method 204, if differential pressure is selected as a means of complying with the required facial velocity as described in Method 204.

Performance testing shall be conducted in accordance with OAC rule 3745-21-10(C).

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

- d. The test shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA Northeast District Office.
- e. The capture efficiency shall be determined using Methods 204 through Method 204F, as specified 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the "Guidelines for Determining Capture Efficiency" dated January 9, 1995. (The Ohio EPA will consider the request for the use of an alternative method, including an evaluation of the applicability, necessity and validity of the alternative method, and may approve its use, if such approval does not contravene any other applicable requirement.)
- f. The control or destruction efficiency defined as the percent reduction of mass emissions between the inlet and outlet of the control system shall be determined in accordance with the test methods and procedures specified in Ohio Administrative Code 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

