



State of Ohio Environmental Protection Agency

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P.O. Box 1049  
Columbus, OH 43216-1049

**RE: FINAL PERMIT TO INSTALL MODIFICATION**

**CERTIFIED MAIL**

**PREBLE COUNTY**

**Application No: 08-04710**

**Fac ID: 0868090072**

**DATE: 11/29/2005**

Rohm and Haas Chemicals, LLC  
Gerald Winkler  
10 S Electric St  
W Alexandria, OH 45381-0000

	TOXIC REVIEW
	PSD
Y	SYNTHETIC MINOR
	CEMS
	MACT
	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

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

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

Sincerely,

Michael W. Ahern, Manager  
Permit Issuance and Data Management Section  
Division of Air Pollution Control

CC: USEPA

RAPCA



**FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 08-04710**

Application Number: 08-04710  
Facility ID: 0868090072  
Permit Fee: **\$400**  
Name of Facility: Rohm and Haas Chemicals, LLC  
Person to Contact: Gerald Winkler  
Address: 10 S Electric St  
W Alexandria, OH 45381-0000

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**10 S Electric St  
W Alexandria, Ohio**

Description of proposed emissions unit(s):  
**Chapter 31 modification replacing pti 08-03815 issued 11/19/02 to install three new mixing vessels.**

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described source(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 included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. Permit to Install General Terms and Conditions

#### 1. Compliance Requirements

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

#### 2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and 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 appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

#### 3. Records Retention Requirements

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

#### 4. Inspections and Information Requests

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

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

**5. Scheduled Maintenance/Malfunction Reporting**

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

**6. Permit Transfers**

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

**7. Air Pollution Nuisance**

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

**8. Termination of Permit to Install**

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

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

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

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

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

**10. Public Disclosure**

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

**11. Applicability**

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

**12. Best Available Technology**

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

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

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this

permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

**14. Construction Compliance Certification**

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

**15. Fees**

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

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

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
Organic Compounds	0.23

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

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P052 - Clear Adhesives Manufacturing, Closed Reactor/Mixing Vessel 1027 vented to a regenerative thermal oxidizer (RTO)	OAC rule 3745-31-05(A)(3)	The organic compound (OC) emissions from this emissions unit shall not exceed 0.06 lb/hour, 1.44 lbs/day and 0.18 ton per year (TPY).  See A.2.a.
	OAC rule 3745-35-07(B) (Synthetic minor to avoid Title V and MACT)	The requirements of this rule also include compliance with the requirements of OAC rules 3745-35-07(B).  The OC, individual hazardous air pollutant (HAP), and combined HAP emissions from emissions units P051, P052, P053, P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P518, P519, P520, P521, P524, P529, P530, P532, P535, P537, P538, P539, T008, T009, T010, T011, and T012 shall not exceed 7.46 TPY based upon a rolling, 12-month summation of the monthly OC emissions.  See A.2.b, A.2.c, A.2.d, and B.1.
	OAC rule 3745-21-07(G)(2)	The emission limitations specified by this rule are less stringent than

the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

## **2. Additional Terms and Conditions**

- 2.a** The 0.06 lb/hr and 1.44 lbs/day OC emission limitations were established to reflect potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.
- 2.b** The RTO is a common control device used to control OC emissions from emissions units P051, P052, P053, P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P518, P519, P520, P521, P524, P529, P530, P532, P535, P537, P538, P539, T008, T009, T010, T011, and T012.
- 2.c** The regenerative thermal oxidizer shall achieve at least 97% OC destruction efficiency. The allowable OC emission rate, as a 12-month rolling limit from the common regenerative thermal oxidizer stack including the emissions units permitted under PTI 08-03851, PTI 08-04205, PTI 08-04432 and PTI 08-04710 shall not exceed 7.46 TPY OC.
- 2.d** All of the HAP emissions from emissions units P051, P052, P053, P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P518, P519, P520, P521, P524, P529, P530, P532, P535, P537, P538, P539, T008, T009, T010, T011, and T012 are OC. Therefore, provided compliance is shown with the rolling 12-month OC emissions limitation, compliance will also be shown with the rolling 12-month individual and combined HAPs emissions limitations and it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with the rolling 12-month individual and combined HAPs emissions limitations.

## **B. Operational Restrictions**

- 1.** The maximum amount of clear adhesive manufactured in this emissions unit shall not exceed 1,750,000 pounds based upon a rolling 12-month summation. The permittee has existing clear adhesives manufacturing records and therefore does not need to be limited in the first year on a monthly basis.
- 2.** The average combustion temperature within the regenerative thermal oxidizer, for any 3-consecutive hour block of time when the emissions units are in operation, shall not be more than 50°F below the average temperature measured during the most recent emissions testing program that demonstrated that the emissions units were in compliance.

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

1. The permittee shall collect and record the following information each month for emissions units P051, P052, P053, P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P518, P519, P520, P521, P524, P529, P530, P532, P535, P537, P538, P539, T008, T009, T010, T011, and T012:
  - a. The name and identification each resin, adhesive intermediate and adhesive manufactured.
  - b. The weight, in tons, of each resin, adhesive intermediate and adhesive manufactured in each emissions unit.
  - c. The OC emissions factor for each resin, adhesive intermediate and adhesive manufactured, in pounds of OC emissions per ton of adhesive manufactured.
  - d. The total OC emissions for all resin, adhesive intermediate and adhesive manufactured, in tons per month (the sum of  $b \times c$  for each resin, adhesive intermediate and adhesive manufactured).
  - e. The rolling, 12-month summation of the monthly OC emissions from emissions units P051, P052, P053, P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P518, P519, P520, P521, P524, P529, P530, P532, P535, P537, P538, P539, T008, T009, T010, T011, and T012 (the sum of the monthly emissions rates calculated in d for the previous 12 months for each emissions unit).
2. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the RTO when the emissions units are in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature 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 for each day:

- a. All 3-consecutive hour blocks of time during which the average combustion temperature within the RTO, when the emissions units were in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.
- b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions units were in operation.

3. The permittee shall collect and record the following information for the purpose of determining annual OC emissions from this emissions unit:
  - a. The total annual weight, in pounds, of clear adhesive manufactured in this emissions unit.
  - b. The total annual OC emissions, in tons, from the clear adhesive manufactured in this emissions unit.

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

1. The permittee shall submit quarterly deviation (excursion) reports that include an identification of:
  - a. All exceedances of the rolling 12-month clear adhesive manufacturing limitation.
  - b. All exceedances of the rolling 12-month emissions limitation from emissions units P051, P052, P053, P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P518, P519, P520, P521, P524, P529, P530, P532, P535, P537, P538, P539, T008, T009, T010, T011, and T012 .
  - c. All 3-consecutive hour blocks of time during which the average combustion temperature within the RTO does not comply with the temperature limitation specified in II.B.2 above.

The quarterly deviation (excursion) reports shall be submitted as specified in section A.2.b of the General Terms and Conditions.

2. The permittee shall submit semi-annual reports which specify the following information:
  - a. The total organic compound emission rates from each emissions unit, in tons per year, as a 12-month rolling limit.
  - b. The production rate for each product type listed in term and condition C.1 in pounds per year, as a 12-month rolling limit.

The reports shall be submitted by January 31 and July 31 of each year and shall cover the previous six months.

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

1. Compliance with the emissions limitations in section A.I.1. of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation -  
The OC emissions from this emissions unit shall not exceed 0.06 lb/hour.

Applicable Compliance Method -

Compliance with the hourly allowable OC emission limitation may be determined by multiplying the maximum hourly clear adhesives production rate of 0.146 ton/hour by the emission factor of 0.40 lb OC/ton of adhesive manufactured (based on engineering calculations of uncontrolled emissions (13.32 lbs OC/ton of adhesive) and 97% destruction).

b. Emission Limitation -

The OC emissions from this emissions unit shall not exceed 1.44 lbs/day.

Applicable Compliance Method -

The 1.44 lbs OC/day limitation was developed by multiplying the hourly emissions limit by 24 hours/day. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the daily limitation.

c. Emission Limitation -

The OC emissions from this emissions unit shall not exceed 0.18 TPY.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in C.3 and shall be determined by multiplying the annual clear adhesives manufacturing rate in tons by the emission factor of 0.40 lb OC/ton of adhesive manufactured.

d. Emission Limitation -

The OC emissions from emissions units P051, P052, P053, P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P518, P519, P520, P521, P524, P529, P530, P532, P535, P537, P538, P539, T008, T009, T010, T011, and T012 shall not exceed 7.46 TPY based upon a rolling, 12-month summation of the monthly OC emissions.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in C.1. and shall be determined by the sum of the rolling, 12 month manufacturing rate, in tons, of each type of adhesive manufactured multiplied by the appropriate emission factor, in lbs of OC/ton of adhesive manufactured and divided by 2000 lbs/ton.

e. Emission Limitation -

The individual HAP emissions from emissions units P051, P052, P053, P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P518, P519, P520, P521, P524, P529, P530, P532, P535, P537, P538, P539, T008, T009, T010, T011, and T012 shall not exceed 7.46 TPY based upon a rolling, 12-month summation of the monthly OC emissions.

Applicable Compliance Method -

All of the HAP emissions from emissions units P051, P052, P053, P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P518, P519, P520, P521, P524,

P529, P530, P532, P535, P537, P538, P539, T008, T009, T010, T011, and T012 are OC. Therefore, provided compliance is shown with the rolling 12-month OC emissions limitation, compliance will also be shown with the rolling 12-month individual HAP emissions limitation.

f. Emission Limitation -

The combined HAP emissions from emissions units P051, P052, P053, P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P518, P519, P520, P521, P524, P529, P530, P532, P535, P537, P538, P539, T008, T009, T010, T011, and T012 shall not exceed 7.46 TPY based upon a rolling, 12-month summation of the monthly OC emissions.

Applicable Compliance Method -

All of the HAP emissions from emissions units P051, P052, P053, P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P518, P519, P520, P521, P524, P529, P530, P532, P535, P537, P538, P539, T008, T009, T010, T011, and T012 are OC. Therefore, provided compliance is shown with the rolling 12-month OC emissions limitation, compliance will also be shown with the rolling 12-month combined HAP emissions limitation.

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

- a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the 97% overall control efficiency limitation for OC emissions.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

40 CFR Part 60, Appendix A, Methods 18, 25, or 25A.

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

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA. 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.

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- e. Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Regional Air Pollution Control Agency (RAPCA). 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).
- f. 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.
- g. 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.

## **F. Miscellaneous Requirements**

- 1. Compliance with the rolling OC and HAP emission limitations in section A.1, A.2.b, A.2.c, and A.2.d and the operational restrictions, monitoring, record keeping, reporting and testing requirements in sections B.1, B.2, C.1, C.2, D.1, and E.1.d, E.1.e, E.1.f, and E.2 for this emissions unit are federally enforceable.

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

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P053 - DNSB Adhesives Manufacturing, Closed Reactor/Mixing Vessels 1028 and 1029 vented to regenerative thermal oxidizer (RTO)	OAC rule 3745-31-05(A)(3)	The organic compound (OC) emissions from this emissions unit shall not exceed 0.014 lb/hour, 0.34 lb/day and 0.05 ton per year (TPY).
		See A.2.a.
	OAC rule 3745-35-07(B) (Synthetic minor to avoid Title V and MACT)	The requirements of this rule also include compliance with the requirements of OAC rules 3745-35-07(B).
		The OC, individual hazardous air pollutant (HAP), and combined HAP emissions from emissions units P051, P052, P053, P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P518, P519, P520, P521, P524, P529, P530, P532, P535, P537, P538, P539, T008, T009, T010, T011, and T012 shall not exceed 7.46 TPY based upon a rolling, 12-month summation of the monthly OC emissions.
		See A.2.b, A.2.c, A.2.d, and B.1.
	OAC rule 3745-21-07(G)(2)	The emission limitations specified by this rule are less stringent than the emission limitations established

| pursuant to OAC rule 3745-31-05(A)(3).

## **2. Additional Terms and Conditions**

- 2.a** The 0.014 lb/hr and 0.34 lb/day OC emission limitations were established to reflect potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.
- 2.b** The RTO is a common control device used to control OC emissions from emissions units P051, P052, P053, P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P518, P519, P520, P521, P524, P529, P530, P532, P535, P537, P538, P539, T008, T009, T010, T011, and T012.
- 2.c** The regenerative thermal oxidizer shall achieve at least 97% OC destruction efficiency. The allowable OC emission rate, as a 12-month rolling limit from the common regenerative thermal oxidizer stack including the emissions units permitted under PTI 08-03851, PTI 08-04205, PTI 08-04432 and PTI 08-04710 shall not exceed 7.46 TPY OC.
- 2.d** All of the HAP emissions from emissions units P051, P052, P053, P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P518, P519, P520, P521, P524, P529, P530, P532, P535, P537, P538, P539, T008, T009, T010, T011, and T012 are OC. Therefore, provided compliance is shown with the rolling 12-month OC emissions limitation, compliance will also be shown with the rolling 12-month individual and combined HAPs emissions limitations and it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with the rolling 12-month individual and combined HAPs emissions limitations.

## **B. Operational Restrictions**

- 1.** The maximum amount of DNSB adhesive manufactured in this emissions unit shall not exceed 2,750,000 pounds based upon a rolling 12-month summation. The permittee has existing DNSB adhesives manufacturing records and therefore does not need to be limited in the first year on a monthly basis.
- 2.** The average combustion temperature within the regenerative thermal oxidizer, for any 3-consecutive hour block of time when the emissions units are in operation, shall not be more than 50°F below the average temperature measured during the most recent emissions testing program that demonstrated that the emissions units were in compliance.

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

- 1.** The permittee shall collect and record the following information each month for emissions units P051, P052, P053, P505, P506, P507, P508, P509, P510, P511, P512, P513, P514,

P518, P519, P520, P521, P524, P529, P530, P532, P535, P537, P538, P539, T008, T009, T010, T011, and T012:

- a. The name and identification each resin, adhesive intermediate and adhesive manufactured.
  - b. The weight, in tons, of each resin, adhesive intermediate and adhesive manufactured in each emissions unit.
  - c. The OC emissions factor for each resin, adhesive intermediate and adhesive manufactured, in pounds of OC emissions per ton of adhesive manufactured.
  - d. The total OC emissions for all resin, adhesive intermediate and adhesive manufactured, in tons per month (the sum of  $b \times c$  for each resin, adhesive intermediate and adhesive manufactured).
  - e. The rolling, 12-month summation of the monthly OC emissions from emissions units P051, P052, P053, P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P518, P519, P520, P521, P524, P529, P530, P532, P535, P537, P538, P539, T008, T009, T010, T011, and T012 (the sum of the monthly emissions rates calculated in d for the previous 12 months for each emissions unit).
- 2.** The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the RTO when the emissions units are in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature 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 for each day:
- a. All 3-consecutive hour blocks of time during which the average combustion temperature within the RTO, when the emissions units were in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.
  - b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions units were in operation.
- 3.** The permittee shall collect and record the following information for the purpose of determining annual OC emissions from this emissions unit:
- a. The total annual weight, in pounds, of DNSB adhesive manufactured in this emissions unit.

- b. The total annual OC emissions, in tons, from the DNSB adhesive manufactured in this emissions unit.

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

- 1. The permittee shall submit quarterly deviation (excursion) reports that include an identification of:
  - a. All exceedances of the rolling 12-month DNSB adhesive manufacturing limitation.
  - b. All exceedances of the rolling 12-month emissions limitation from emissions units P051, P052, P053, P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P518, P519, P520, P521, P524, P529, P530, P532, P535, P537, P538, P539, T008, T009, T010, T011, and T012 .
  - c. All 3-consecutive hour blocks of time during which the average combustion temperature within the RTO does not comply with the temperature limitation specified in II.B.2 above.

The quarterly deviation (excursion) reports shall be submitted as specified in section A.2.b of the General Terms and Conditions.

- 2. The permittee shall submit semi-annual reports which specify the following information:
  - a. The total organic compound emission rates from each emissions unit, in tons per year, as a 12-month rolling limit.
  - b. The production rate for each product type listed in term and condition C.1 in pounds per year, as a 12-month rolling limit.

The reports shall be submitted by January 31 and July 31 of each year and shall cover the previous six months.

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

- 1. Compliance with the emissions limitations in section A.I.1. of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation -  
The OC emissions from this emissions unit shall not exceed 0.014 lb/hour.

##### **Applicable Compliance Method -**

Compliance with the hourly allowable OC emission limitation may be determined by multiplying the maximum hourly DNSB adhesives production rate of 0.2 ton/hour by the emission factor of 0.07 lb OC/ton of adhesive manufactured (based on

engineering calculations of uncontrolled emissions (2.23 lbs OC/ton of adhesive) and 97% destruction).

- b. Emission Limitation -  
The OC emissions from this emissions unit shall not exceed 0.34 lb/day.

Applicable Compliance Method -

The 0.34 lb OC/day limitation was developed by multiplying the hourly emissions limit by 24 hours/day. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the daily limitation.

- c. Emission Limitation -  
The OC emissions from this emissions unit shall not exceed 0.05 TPY.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in C.4 and shall be determined by multiplying the annual DNSB adhesives manufacturing rate in tons by the emission factor of 0.07 lb OC/ton of adhesive manufactured.

- d. Emission Limitation -  
The OC emissions from emissions units P051, P052, P053, P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P518, P519, P520, P521, P524, P529, P530, P532, P535, P537, P538, P539, T008, T009, T010, T011, and T012 shall not exceed 7.46 TPY based upon a rolling, 12-month summation of the monthly OC emissions.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in C.1. and shall be determined by the sum of the rolling, 12 month manufacturing rate, in tons, of each type of adhesive manufactured multiplied by the appropriate emission factor, in lbs of OC/ton of adhesive manufactured and divided by 2000 lbs/ton.

- e. Emission Limitation -  
The individual HAP emissions from emissions units P051, P052, P053, P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P518, P519, P520, P521, P524, P529, P530, P532, P535, P537, P538, P539, T008, T009, T010, T011, and T012 shall not exceed 7.46 TPY based upon a rolling, 12-month summation of the monthly OC emissions.

Applicable Compliance Method -

All of the HAP emissions from emissions units P051, P052, P053, P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P518, P519, P520, P521, P524, P529, P530, P532, P535, P537, P538, P539, T008, T009, T010, T011, and T012 are OC. Therefore, provided compliance is shown with the rolling 12-month OC emissions limitation, compliance will also be shown with the rolling 12-month individual HAP emissions limitation.

- f. Emission Limitation -  
The combined HAP emissions from emissions units P051, P052, P053, P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P518, P519, P520, P521, P524, P529, P530, P532, P535, P537, P538, P539, T008, T009, T010, T011, and T012 shall not exceed 7.46 TPY based upon a rolling, 12-month summation of the monthly OC emissions.

Applicable Compliance Method -

All of the HAP emissions from emissions units P051, P052, P053, P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P518, P519, P520, P521, P524, P529, P530, P532, P535, P537, P538, P539, T008, T009, T010, T011, and T012 are OC. Therefore, provided compliance is shown with the rolling 12-month OC emissions limitation, compliance will also be shown with the rolling 12-month combined HAP emissions limitation.

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

- a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the 97% overall control efficiency limitation for OC emissions.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

40 CFR Part 60, Appendix A, Methods 18, 25, or 25A.

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

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA. 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.

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

- e. Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Regional Air Pollution Control Agency (RAPCA). 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).
- f. 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.
- g. 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.

## **F. Miscellaneous Requirements**

- 1. Compliance with the rolling OC and HAP emission limitations in section A.1, A.2.b, A.2.c, and A.2.d and the operational restrictions, monitoring, record keeping, reporting and testing requirements in sections B.1, B.2, C.1, C.2, D.1, and E.1.d, E.1.e, E.1.f, and E.2 for this emissions unit are federally enforceable.