



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL  
PREBLE COUNTY**

**CERTIFIED MAIL**

Street Address:

122 S. Front Street

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049

**Application No: 08-04432**

**DATE: 11/19/2002**

Morton International Inc, Rohm and Haas  
Gerald Winkler  
10 S Electric St  
W Alexandria, OH 453810000

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging 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 Pollution Prevention at (614) 644-3469.

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  
236 East Town Street, Room 300  
Columbus, Ohio 43215

Very truly yours,

Michael W. Ahern, Supervisor  
Field Operations and Permit Section  
Division of Air Pollution Control

cc: USEPA

RAPCA



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**Permit To Install  
Terms and Conditions**

**Issue Date: 11/19/2002  
Effective Date: 11/19/2002**

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**FINAL PERMIT TO INSTALL 08-04432**

Application Number: 08-04432  
APS Premise Number: 0868090072  
Permit Fee: **\$450**  
Name of Facility: Morton International Inc, Rohm and Haas  
Person to Contact: Gerald Winkler  
Address: 10 S Electric St  
W Alexandria, OH 453810000

Location of proposed air contaminant source(s) [emissions unit(s)]:

**10 S Electric St  
W Alexandria, Ohio**

Description of proposed emissions unit(s):

**5 polyester resin solution storage tanks; T008 modification, chapter 31 replacing 08-4089 issued 10-6-99 and 4 new tanks.**

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) 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 above described 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

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 Related to Monitoring and Recordkeeping 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

**Morton International Inc, Rohm and Haas**  
**PTI Application: 08-04432**  
**Issued: 11/19/2002**

**Facility ID: 0868090072**

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 application must be made to the Director for the installation or modification of any other emissions unit(s).

#### **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.

**Morton International Inc, Rohm and Haas**  
**PTI Application: 08-04432**  
**Issued: 11/19/2002**

**Facility ID: 0868090072**

**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>
OC	0.04

## **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>
T008 - 6,000 gallon storage tank vented to a thermal oxidizer; TK-436 * Modification	OAC rule 3745-31-05(A)(3)	Organic compounds (OC) emissions shall not exceed 0.37 pound per hour.
	OAC rule 3745-35-07(B)	The requirements established pursuant to this rule also include compliance with the requirements of OAC rules 3745-35-07(B) and 3745-21-07 (D)(2).
	OAC rule 3745-21-07 (D)(2)	OC emissions shall not exceed 0.011 tons per year (TPY), on a rolling 12-month basis
		The OC emissions are vented to a regenerative thermal oxidizer (RTO) operating at or above 97% destruction efficiency.

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

- 2.a The 0.37 lb/hr organic compound 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** Facility wide Hazardous Air Pollutant (HAP) emissions shall be limited to less than 9.9 TPY of any individual HAP and 24.9 TPY of combined HAPs listed in Section 112 (b) of Title III in the Clean Air Act. The HAP emissions are limited through the rolling 12-month production rate limitations and the use of air pollution control equipment.

- 2.c** The RTO is a common control device used to control OC emissions from emissions units P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P520, P522, P523, P524, P529, P532, P535, P537, P538, P539, P051, T008, T009, T010, T011, and T012.
- 2.d** The regenerative thermal oxidizer shall achieve at least 97% 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 and PTI 08-04432 as follows:

PTI 08-03851 (combined allowable)	20.67 TPY OC
PTI 08-04205	0.74 TPY OC
PTI 08-04432	0.04 TPY OC
Total	21.45 TPY OC

## **B. Operational Restrictions**

1. The average combustion temperature within the regenerative thermal oxidizer, for any 3-consecutive hour block of time when the emissions unit is 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 Recordkeeping Requirements**

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the regenerative thermal oxidizer 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.
2. 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 regenerative thermal oxidizer, 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 each month for each operation that has an allowable organic compound emission rate.
  - a. The company identified category for material produced.
  - b. The number of pounds of each organic material employed.
  - c. The hazardous air pollutant (HAP) content of each organic material, in pounds per batch.
  - d. The total controlled HAP emission rate for all organic materials, in pounds per month (i.e., calculated using the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance).
  - e. The total individual HAP emissions for each HAP from all material produced, in tons, as a 12-month rolling limit.
  - f. The total combined HAP emissions from all material produced, in tons, as a 12-month rolling limit.

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

1. The permittee shall submit semi-annual reports which specify the following information. The reports shall be submitted by January 31 and July 31 of each year and shall cover the previous six months.
  - a. The total organic compound emission rates from each emissions unit, in tons per year, as a 12-month rolling limit.
  - b. The individual HAP emission limits, in tons per year, as a rolling 12-month limit.
  - c. The total combined HAP emission limit, in tons per year, as a rolling 12-month limit.
2. The permittee shall submit deviation (excursion) reports which identify all 3-consecutive hour blocks of time during which the average combustion temperature within the regenerative thermal oxidizer does not comply with the temperature limitation specified above.
3. The permittee shall submit all reports in accordance with General Terms and Conditions A.2.b.

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

1. Compliance with the emission limitation(s) of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation-  
0.37 lb OC/hr

**Applicable Compliance Method-**

This emission limitation was developed using the maximum material throughput and the TANKS 4.0 computer program.

- b. **Emission Limitation-**  
0.011 TPY OC

**Applicable Compliance Method-**

Compliance with this limitation is presumed through the application of the regenerative thermal oxidizer to reduce the organic compound emission rate. The 0.011 TPY organic compound emission limitation was developed using the maximum material throughput and the TANKS 4.0 computer program and 97% destruction efficiency of the RTO.

**F. Miscellaneous Requirements**

1. The terms and conditions in sections A, B, C, D, and E of this permit are federally enforceable, pursuant to OAC rule 3745-35-07.
2. This PTI is a modification of emission T008 included in PTI 08-04089. This PTI represents a change in service for T008. Allowable emissions from T008 were previously 0.11 TPY OC, combined allowable emissions from T008, T009, T010, T011, and T012 are 0.04 TPY OC based on the requirements of this PTI.

**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>
T009 - 6,000 gallon storage tank vented to thermal oxidizer; TK-435	OAC rule 3745-31-05(A)(3)	OC emissions shall not exceed 0.37 pound per hour.  The requirements established pursuant to this rule also include compliance with the requirements of OAC rules 3745-35-07(B) and 3745-21-07 (D)(2).
	OAC rule 3745-35-07(B)	OC emissions shall not exceed 0.011 tons per year (TPY), on a rolling 12-month basis.
	OAC rule 3745-21-07 (D)(2)	The OC emissions are vented to a regenerative thermal oxidizer (RTO) operating at or above 97% destruction efficiency.

**2. Additional Terms and Conditions**

- 2.a The 0.37 lb/hr organic compound 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 Facility wide Hazardous Air Pollutant (HAP) emissions shall be limited to less than 9.9

Emissions Unit ID: T009

TPY of any individual HAP and 24.9 TPY of combined HAPs listed in Section 112 (b) of Title III in the Clean Air Act. The HAP emissions are limited through the rolling 12-month production rate limitations and the use of air pollution control equipment.

- 2.c The RTO is a common control device used to control OC emissions from emissions units P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P520, P522, P523, P524, P529, P532, P535, P537, P538, P539, P051, T008, T009, T010, T011, and T012.
- 2.d The regenerative thermal oxidizer shall achieve at least 97% 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 and PTI 08-04432 as follows:

PTI 08-03851 (combined allowable)	20.67 TPY OC
PTI 08-04205	0.74 TPY OC
PTI 08-04432	0.04 TPY OC
Total	21.45 TPY OC

**B. Operational Restrictions**

- 1. The average combustion temperature within the regenerative thermal oxidizer, for any 3-consecutive hour block of time when the emissions unit is 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 Recordkeeping Requirements**

- 1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the regenerative thermal oxidizer 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.
- 2. 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 regenerative thermal oxidizer, 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 each month for each operation that has an allowable organic compound emission rate.
  - a. The company identified category for material produced.
  - b. The number of pounds of each organic material employed.
  - c. The hazardous air pollutant (HAP) content of each organic material, in pounds per batch.
  - d. The total controlled HAP emission rate for all organic materials, in pounds per month (i.e., calculated using the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance).
  - e. The total individual HAP emissions for each HAP from all material produced, in tons, as a 12-month rolling limit.
  - f. The total combined HAP emissions from all material produced, in tons, as a 12-month rolling limit.

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

1. The permittee shall submit semi-annual reports which specify the following information. The reports shall be submitted by January 31 and July 31 of each year and shall cover the previous six months.
  - a. The total organic compound emission rates from each emissions unit, in tons per year, as a 12-month rolling limit.
  - b. The individual HAP emission limits, in tons per year, as a rolling 12-month limit.
  - c. The total combined HAP emission limit, in tons per year, as a rolling 12-month limit.
2. The permittee shall submit deviation (excursion) reports which identify all 3-consecutive hour blocks of time during which the average combustion temperature within the regenerative thermal oxidizer does not comply with the temperature limitation specified above.

**Morton International Inc, Rohm and Haas**

**PTI Application: 08-04433**

**Issued**

**Facility ID: 0868090072**

**Emissions Unit ID: T009**

3. The permittee shall submit all reports in accordance with General Terms and Conditions A.2.b.

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

1. Compliance with the emission limitation(s) of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation-  
0.37 lb OC/hr

Applicable Compliance Method-

This emission limitation was developed using the maximum material throughput and the TANKS 4.0 computer program.

- b. Emission Limitation-  
0.011 TPY OC

Applicable Compliance Method-

Compliance with this limitation is presumed through the application of the regenerative thermal oxidizer to reduce the organic compound emission rate. The 0.011 TPY organic compound emission limitation was developed using the maximum material throughput and the TANKS 4.0 computer program and 97% destruction efficiency of the RTO.

#### **F. Miscellaneous Requirements**

1. The terms and conditions in sections A, B, C, D, and E of this permit are federally enforceable, pursuant to OAC rule 3745-35-07.

## **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>
T010 - 6,000 gallon storage tank vented to thermal oxidizer; TK-816	OAC rule 3745-31-05(A)(3)	OC emissions shall not exceed 0.37 pound per hour.
	OAC rule 3745-35-07(B)	The requirements established pursuant to this rule also include compliance with the requirements of OAC rules 3745-35-07(B) and 3745-21-07 (D)(2).  OC emissions shall not exceed 0.011 tons per year (TPY), on a rolling 12-month basis
	OAC rule 3745-21-07 (D)(2)	The OC emissions are vented to a regenerative thermal oxidizer (RTO) operating at or above 97% destruction efficiency.

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

- 2.a The 0.37 lb/hr organic compound 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 Facility wide Hazardous Air Pollutant (HAP) emissions shall be limited to less than 9.9

**Morto****PTI A****Issued: 11/19/2002**Emissions Unit ID: **T010**

TPY of any individual HAP and 24.9 TPY of combined HAPs listed in Section 112 (b) of Title III in the Clean Air Act. The HAP emissions are limited through the rolling 12-month production rate limitations and the use of air pollution control equipment.

- 2.c** The RTO is a common control device used to control OC emissions from emissions units P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P520, P522, P523, P524, P529, P532, P535, P537, P538, P539, P051, T008, T009, T010, T011, and T012.
- 2.d** The regenerative thermal oxidizer shall achieve at least 97% 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 and PTI 08-04432 as follows:

PTI 08-03851 (combined allowable)	20.67 TPY OC
PTI 08-04205	0.74 TPY OC
PTI 08-04432	0.04 TPY OC
Total	21.45 TPY OC

## **B. Operational Restrictions**

1. The average combustion temperature within the regenerative thermal oxidizer, for any 3-consecutive hour block of time when the emissions unit is 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 Recordkeeping Requirements**

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the regenerative thermal oxidizer 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.
2. 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 regenerative thermal oxidizer, when the emissions units were in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent

**Issued**Emissions Unit ID: **T010**

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 each month for each operation that has an allowable organic compound emission rate.
    - a. The company identified category for material produced.
    - b. The number of pounds of each organic material employed.
    - c. The hazardous air pollutant (HAP) content of each organic material, in pounds per batch.
    - d. The total controlled HAP emission rate for all organic materials, in pounds per month (i.e., calculated using the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance).
    - e. The total individual HAP emissions for each HAP from all material produced, in tons, as a 12-month rolling limit.
    - f. The total combined HAP emissions from all material produced, in tons, as a 12-month rolling limit.

**D. Reporting Requirements**

1. The permittee shall submit semi-annual reports which specify the following information. The reports shall be submitted by January 31 and July 31 of each year and shall cover the previous six months.
  - a. The total organic compound emission rates from each emissions unit, in tons per year, as a 12-month rolling limit.
  - b. The individual HAP emission limits, in tons per year, as a rolling 12-month limit.
  - c. The total combined HAP emission limit, in tons per year, as a rolling 12-month limit.
2. The permittee shall submit deviation (excursion) reports which identify all 3-consecutive hour blocks of time during which the average combustion temperature within the regenerative thermal oxidizer does not comply with the temperature limitation specified above.

3. The permittee shall submit all reports in accordance with General Terms and Conditions A.2.b.

**E. Testing Requirements**

1. Compliance with the emission limitation(s) of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation-  
0.37 lb OC/hr

## Applicable Compliance Method-

This emission limitation was developed using the maximum material throughput and the TANKS 4.0 computer program.

- b. Emission Limitation-  
0.011 TPY OC

## Applicable Compliance Method-

Compliance with this limitation is presumed through the application of the regenerative thermal oxidizer to reduce the organic compound emission rate. The 0.011 TPY organic compound emission limitation was developed using the maximum material throughput and the TANKS 4.0 computer program and 97% destruction efficiency of the RTO.

**F. Miscellaneous Requirements**

1. The terms and conditions in sections A, B, C, D, and E of this permit are federally enforceable, pursuant to OAC rule 3745-35-07.

**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>
T011 - 2,500 gallon storage tank vented to thermal oxidizer; TK-817-1	OAC rule 3745-31-05(A)(3)	OC emissions shall not exceed 0.12 pound per hour.
	OAC rule 3745-35-07(B)	The requirements established pursuant to this rule also include compliance with the requirements of OAC rules 3745-35-07(B) and 3745-21-07 (D)(2).
	OAC rule 3745-21-07 (D)(2)	OC emissions shall not exceed 0.0013 tons per year (TPY), on a rolling 12-month basis  The OC emissions are vented to a regenerative thermal oxidizer (RTO) operating at or above 97% destruction efficiency.

**2. Additional Terms and Conditions**

- 2.a The 0.12 lb/hr organic compound 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 Facility wide Hazardous Air Pollutant (HAP) emissions shall be limited to less than 9.9 TPY of any individual HAP and 24.9 TPY of combined HAPs listed in Section 112 (b) of

Title III in the Clean Air Act. The HAP emissions are limited through the rolling 12-month production rate limitations and the use of air pollution control equipment.

- 2.c** The RTO is a common control device used to control OC emissions from emissions units P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P520, P522, P523, P524, P529, P532, P535, P537, P538, P539, P051, T008, T009, T010, T011, and T012.
- 2.d** The regenerative thermal oxidizer shall achieve at least 97% 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 and PTI 08-04432 as follows:

PTI 08-03851 (combined allowable)	20.67 TPY OC
PTI 08-04205	0.74 TPY OC
PTI 08-04432	0.04 TPY OC
Total	21.45 TPY OC

## B. Operational Restrictions

- The average combustion temperature within the regenerative thermal oxidizer, for any 3-consecutive hour block of time when the emissions unit is 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 Recordkeeping Requirements

- The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the regenerative thermal oxidizer 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:
  - All 3-consecutive hour blocks of time during which the average combustion temperature within the regenerative thermal oxidizer, 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 each month for each operation that has an allowable organic compound emission rate.
  - a. The company identified category for material produced.
  - b. The number of pounds of each organic material employed.
  - c. The hazardous air pollutant (HAP) content of each organic material, in pounds per batch.
  - d. The total controlled HAP emission rate for all organic materials, in pounds per month (i.e., calculated using the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance).
  - e. The total individual HAP emissions for each HAP from all material produced, in tons, as a 12-month rolling limit.
  - f. The total combined HAP emissions from all material produced, in tons, as a 12-month rolling limit.

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

1. The permittee shall submit semi-annual reports which specify the following information. The reports shall be submitted by January 31 and July 31 of each year and shall cover the previous six months.
  - a. The total organic compound emission rates from each emissions unit, in tons per year, as a 12-month rolling limit.
  - b. The individual HAP emission limits, in tons per year, as a rolling 12-month limit.
  - c. The total combined HAP emission limit, in tons per year, as a rolling 12-month limit.
2. The permittee shall submit deviation (excursion) reports which identify all 3-consecutive hour blocks of time during which the average combustion temperature within the regenerative thermal oxidizer does not comply with the temperature limitation specified above.
3. The permittee shall submit all reports in accordance with General Terms and Conditions A.2.b.

**Morton International Inc, Rohm and Haas**

**PTI Application: 08-04433**

**Issued**

**Facility ID: 0868090072**

**Emissions Unit ID: T011**

**E. Testing Requirements**

1. Compliance with the emission limitation(s) of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation-  
0.12 lb OC/hr

Applicable Compliance Method-

This emission limitation was developed using the maximum material throughput and the TANKS 4.0 computer program.

- b. Emission Limitation-  
0.0013 TPY OC

Applicable Compliance Method-

Compliance with this limitation is presumed through the application of the regenerative thermal oxidizer to reduce the organic compound emission rate. The 0.011 TPY organic compound emission limitation was developed using the maximum material throughput and the TANKS 4.0 computer program and 97% destruction efficiency of the RTO.

**F. Miscellaneous Requirements**

1. The terms and conditions in sections A, B, C, D, and E of this permit are federally enforceable, pursuant to OAC rule 3745-35-07.

**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>
T012 - 2,500 gallon storage tank vented to thermal oxidizer; TK-817-2	OAC rule 3745-31-05(A)(3)  OAC rule 3745-35-07(B)  OAC rule 3745-21-07 (D)(2)	OC emissions shall not exceed 0.23 pound per hour.  The requirements established pursuant to this rule also include compliance with the requirements of OAC rules 3745-35-07(B) and 3745-21-07 (D)(2).  OC emissions shall not exceed 0.011 tons per year (TPY), on a rolling 12-month basis  The OC emissions are vented to a regenerative thermal oxidizer (RTO) operating at or above 97% destruction efficiency.

**2. Additional Terms and Conditions**

- 2.a The 0.12 lb/hr organic compound 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 Facility wide Hazardous Air Pollutant (HAP) emissions shall be limited to less than 9.9

Emissions Unit ID: T011

TPY of any individual HAP and 24.9 TPY of combined HAPs listed in Section 112 (b) of Title III in the Clean Air Act. The HAP emissions are limited through the rolling 12-month production rate limitations and the use of air pollution control equipment.

- 2.c** The RTO is a common control device used to control OC emissions from emissions units P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P520, P522, P523, P524, P529, P532, P535, P537, P538, P539, P051, T008, T009, T010, T011, and T012.
- 2.d** The regenerative thermal oxidizer shall achieve at least 97% 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 and PTI 08-04432 as follows:

PTI 08-03851 (combined allowable)	20.67 TPY OC
PTI 08-04205	0.74 TPY OC
PTI 08-04432	0.04 TPY OC
Total	21.45 TPY OC

## B. Operational Restrictions

- The average combustion temperature within the regenerative thermal oxidizer, for any 3-consecutive hour block of time when the emissions unit is 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 Recordkeeping Requirements

- The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the regenerative thermal oxidizer 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:
  - All 3-consecutive hour blocks of time during which the average combustion temperature within the regenerative thermal oxidizer, 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 each month for each operation that has an allowable organic compound emission rate.
  - a. The company identified category for material produced.
  - b. The number of pounds of each organic material employed.
  - c. The hazardous air pollutant (HAP) content of each organic material, in pounds per batch.
  - d. The total controlled HAP emission rate for all organic materials, in pounds per month (i.e., calculated using the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance).
  - e. The total individual HAP emissions for each HAP from all material produced, in tons, as a 12-month rolling limit.
  - f. The total combined HAP emissions from all material produced, in tons, as a 12-month rolling limit.

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

1. The permittee shall submit semi-annual reports which specify the following information. The reports shall be submitted by January 31 and July 31 of each year and shall cover the previous six months.
  - a. The total organic compound emission rates from each emissions unit, in tons per year, as a 12-month rolling limit.
  - b. The individual HAP emission limits, in tons per year, as a rolling 12-month limit.
  - c. The total combined HAP emission limit, in tons per year, as a rolling 12-month limit.
2. The permittee shall submit deviation (excursion) reports which identify all 3-consecutive hour blocks of time during which the average combustion temperature within the regenerative thermal oxidizer does not comply with the temperature limitation specified above.

3. The permittee shall submit all reports in accordance with General Terms and Conditions A.2.b.

**E. Testing Requirements**

1. Compliance with the emission limitation(s) of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation-  
0.12 lb OC/hr

**Applicable Compliance Method-**

This emission limitation was developed using the maximum material throughput and the TANKS 4.0 computer program.

- b. Emission Limitation-  
0.0013 TPY OC

**Applicable Compliance Method-**

Compliance with this limitation is presumed through the application of the regenerative thermal oxidizer to reduce the organic compound emission rate. The 0.011 TPY organic compound emission limitation was developed using the maximum material throughput and the TANKS 4.0 computer program and 97% destruction efficiency of the RTO.

**F. Miscellaneous Requirements**

1. The terms and conditions in sections A, B, C, D, and E of this permit are federally enforceable, pursuant to OAC rule 3745-35-07.