State of Ohio Environmental Protection Agency

Street Address:
Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

TELE: (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

RE: FINAL PERMIT TO INSTALL MODIFICATION CERTIFIED MAIL
PREBLE COUNTY
Application No: 08-03851

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

DATE: 1/17/2002

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

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
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo

Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA RAPCA

FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 08-03851

Application Number: **08-03851**

APS Premise Number: **0868090072**

Permit Fee: **$1900**

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 modification:
Adhesives and Polyester Resin Product Manufacturing; PTI 08-3851 issued 11/24/99.

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

GENERAL PERMIT CONDITIONS

TERMINATION OF PERMIT TO INSTALL

Substantial construction for installation must take place within 18 months of the effective date of this permit. 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.

NOTICE OF INSPECTION

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, or to examine records or reports pertaining to the construction, modification or installation of the source(s) of environmental pollutants identified within this permit.

CONSTRUCTION OF NEW SOURCES

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.

PERMIT TO INSTALL FEE

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 30 days of the effective date of this permit to install.

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.

APPLICABILITY

This Permit to Install is applicable only to the contaminant sources identified. Separate application must be made to the Director for the installation or modification of any other contaminant sources.

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.

SOURCE OPERATION AND OPERATING PERMIT REQUIREMENTS AFTER COMPLETION OF CONSTRUCTION

If 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).

If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. 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 thirty (30) days after commencing operation of the source(s) covered by this permit.

Morton International Inc, Rohm and Haas Facility ID: **0868090072**
PTI Application: 08-03851
Modification Issued: 1/17/2002

AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **Morton International Inc, Rohm & Haas** located in **Preble** County. The emissions units listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

Ohio EPA Source Number	Source Description	BAT Determination	Applicable Federal and OAC Rules	Permit Allowable Mass Emissions and Control & Usage Requirements
P501	Bulk and Small Bag Unloading Systems with Fabric Filter	a	3745-31-02 (A)(2) 3745-35-07 (B) 3745-17-11 3745-17-07	0.009 lb/hr particulate, 0.04 TPY particulate emissions; 5% visible emission opacity The total combined particulate emissions for P501, P502, P503 and P504 shall not exceed 0.06 TPY, as a rolling 12 month limit. less stringent than the above limits
P502	Filter/ Receiver for Solids Addition to Kettle #420 with Fabric Filter	a	3745-31-02 (A)(2) 3745-35-07 (B) 3745-17-11 3745-17-07	0.009 lb/hr particulate, 0.04 TPY particulate emissions; 5% visible emission opacity The total combined particulate emissions for P501, P502, P503 and P504 shall not exceed 0.06 TPY, as a rolling 12 month limit. less stringent than the above limits

Ohio EPA Source Number	Source Identification Number	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements
P503	Filter/ Receiver for Solids Addition to Kettle #421 with Fabric Filter	a	3745-31-02 (A)(2) 3745-35-07 (B) 3745-17-11 3745-17-07	0.009 lb/hr, 0.04 TPY particulate emissions; 5% visible emission opacity The total combined particulate emissions for P501, P502, P503 and P504 shall not exceed 0.06 TPY, as a rolling 12 month limit. less stringent than the above limits
P504	Filter/ Receiver for Solids Addition to Kettle #422 with Fabric Filter	a	3745-31-02 (A)(2) 3745-35-07 (B) 3745-17-11 3745-17-07	0.009 lb/hr, 0.04 TPY particulate emissions; 5% visible emission opacity The total combined particulate emissions for P501, P502, P503 and P504 shall not exceed 0.06 TPY, as a rolling 12 month limit. less stringent than the above limits

Ohio EPA Source Number	Source Identification Number	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements
P505	Prepolymer Kettle #420 with Receiver, Condenser & Regenerative Thermal Oxidizer (RTO)	b	3745-31-02 (A)(2)	0.03 lb/hr OC, 0.72 lb/day OC, 0.13 TPY OC;
			3745-35-07 (B)	The total combined OC emission rate for P505, P506, P507, P508, P509, P510, P511 and P535 shall not exceed 0.82 TPY, as a rolling 12-month limit.
			3745-21-07 (G)(2)	less stringent than the above limit
P506	Prepolymer Kettle #421 with Receiver, Condenser & RTO	b	3745-31-02 (A)(2)	0.15 lb/hr OC, 3.6 lbs/day OC, 0.66 TPY OC;
			3745-35-07 (B)	The total combined OC emission rate for P505, P506, P507, P508, P509, P510, P511 and P535 shall not exceed 0.82 TPY, as a rolling 12-month limit.
			3745-21-07 (G)(2)	less stringent than the above limit

Ohio EPA Source Number	Source Identification Number	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements
P507	Prepolymer Kettle #422 with Receiver, Condenser & RTO	b	3745-31-02 (A)(2)	0.02 lb/hr OC, 0.48 lb/day OC, 0.09 TPY OC;
			3745-35-07 (B)	The total combined OC emission rate for P505, P506, P507, P508, P509, P510, P511 and P535 shall not exceed 0.82 TPY, as a rolling 12-month limit.
			3745-21-07 (G)(2)	less stringent than the above limit
P508	Autoclave #423 with Receiver, Condenser, Cold Trap & RTO	c	3745-31-02 (A)(2)	0.02 lb/hr OC, 0.48 lb/day OC, 0.09 TPY OC;
			3745-35-07 (B)	The total combined OC emission rate for P505, P506, P507, P508, P509, P510, P511 and P535 shall not exceed 0.82 TPY, as a rolling 12-month limit.
			3745-21-07 (G)(2)	less stringent than the above limit

Ohio EPA Source Number	Source Identification Number	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements
P509	Autoclave #424 with Receiver, Condenser, Cold Trap & RTO	c	3745-31-02 (A)(2)	0.02 lb/hr OC, 0.48 lb/day OC, 0.09 TPY OC;
			3745-35-07 (B)	The total combined OC emission rate for P505, P506, P507, P508, P509, P510, P511 and P535 shall not exceed 0.82 TPY, as a rolling 12-month limit.
			3745-21-07 (G)(2)	less stringent than the above limit
P510	Autoclave #425 with Receiver, Condenser, Cold Trap & RTO	c	3745-31-02 (A)(2)	0.02 lb/hr OC, 0.48 lb/day OC, 0.09 TPY OC;
			3745-35-07 (B)	The total combined OC emission rate for P505, P506, P507, P508, P509, P510, P511 and P535 shall not exceed 0.82 TPY, as a rolling 12-month limit
			3745-21-07 (G)(2)	less stringent than the above limit

Ohio EPA Source Number	Source Identification Number	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements
P511	Autoclave #426 with Receiver, Condenser, Cold Trap & RTO	c	3745-31-02 (A)(2)	0.02 lb/hr OC, 0.48 lb/day OC, 0.09 TPY OC;
			3745-35-07 (B)	The total combined OC emission rate for P505, P506, P507, P508, P509, P510, P511 and P535 shall not exceed 0.82 TPY, as a rolling 12-month limit.
			3745-21-07 (G)(2)	less stringent than the above limit
P512	Resin Dissolving Tank #431 with Condenser & RTO	b	3745-31-02 (A)(2)	4.15 lbs/hr OC, 99.60 lbs/day OC, 18.18 TPY OC;
			3745-35-07 (B)	The total combined OC emission rate for P512, P513, P514, P522, P523, and P524 shall not exceed 5.07 TPY, as a rolling 12-month limit.
			3745-21-07 (G)(2)	less stringent than the above limit

Ohio EPA Source Number	Source Identification Number	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements
P513	Resin Dissolving Tank #433 with Condenser & RTO	b	3745-31-02 (A)(2)	0.99 lb/hr OC, 23.76 lbs/day OC, 4.34 TPY OC;
			3745-35-07 (B)	The total combined OC emission rate for P512, P513, P514, P522, P523, and P524 shall not exceed 5.07 TPY, as a rolling 12-month limit.
			3745-21-07 (G)(2)	less stringent than the above limit
P514	Resin Dissolving Tank #432 with Condenser & RTO	b	3745-31-02 (A)(2)	0.28 lb/hr OC, 6.72 lbs/day OC, 1.23 TPY OC;
			3745-35-07 (B)	The total combined OC emission rate for P512, P513, P514, P522, P523, and P524 shall not exceed 5.07 TPY, as a rolling 12-month limit.
			3745-21-07 (G)(2)	less stringent than the above limit
P515	Polymer Blocks, Granules, Pellets; Pelletizer 401, Crystallizer Tank #408, Pellet Dryer #409	d	3745-31-02 (A)(2)	5 lbs/hr particulate, 3.5 TPY PM; 5% visible emission opacity;
				3.5 TPY particulate combined maximum for P515 and P516, as a rolling 12-month limit
			3745-17-11 3745-17-07	less stringent than the above limits

Ohio EPA Source Number	Source Identification Number	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements
P516	Polymer Blocks, Granules, Pellets; Nitrogen Cabinets, Granulator #451	d	3745-31-02 (A)(2) 3745-17-11 3745-17-07	5 lbs/hr particulate, 3.5 TPY PM; 5% visible emission opacity; 3.5 TPY particulate combined maximum for P515 and P516, as a rolling 12-month limit less stringent than the above limits
P518	Churns #101-103, 106-109, 112, 115, 120	e	3745-31-05 (A)(3) 3745-35-07 (B) 3745-21-07 (G)(2)	3.31 lbs/hr OC, 40 lbs/day OC, 7.3 TPY OC; The total combined OC emission rate for P518, P519, P520, P521, P529, P530, P532, P537, P538 and P539 shall not exceed 14.78 TPY, as a rolling 12-month limit. less stringent than the above limit

Ohio EPA Source Number	Source Identification Number	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements
P519	Grinding Mills #151, #152, #154, #157, #158, #176	d	3745-31-05 (A)(3)	3.31 lbs/hr OC, 40 lbs/day OC, 7.3 TPY OC;
			3745-35-07 (B)	The total combined OC emission rate for P518, P519, P520, P521, P529, P530, P532, P537, P538 and P539 shall not exceed 14.78 TPY, as a rolling 12-month limit.
			3745-21-07 (G)(2)	less stringent than the above limit
P520	Reactor #141 with Receiver, Condenser & RTO	b	3745-31-05 (A)(3)	0.05 lb/hr Particulate, 0.36 TPY Particulate, 5% visible emission opacity from the receiver
				0.27 lb/hr OC, 6.48 lbs/day OC, 1.18 TPY OC;
			3745-35-07 (B)	The total combined OC emission rate for P518, P519, P520, P521, P529, P530, P532, P537, P538 and P539 shall not exceed 14.78 TPY, as a rolling 12-month limit.
			3745-21-07 (G)(2) 3745-17-07 3745-17-11	less stringent than the above limits

Ohio EPA Source Number	Source Identification Number	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements
P521	Reactor #142 with Receiver, Condenser & Scrubber	f	3745-31-05 (A)(3)	0.05 lb/hr Particulate, 0.36 TPY Particulate, 5% visible emission opacity from the receiver 0.27 lb/hr OC, 6.48 lbs/day OC, 1.18 TPY OC;
			3745-35-07 (B)	The total combined OC emission rate for P518, P519, P520, P521, P529, P530, P532, P537, P538 and P539 shall not exceed 14.78 TPY, as a rolling 12-month limit.
			3745-21-07 (G)(2) 3745-17-07 3745-17-11	less stringent than the above limits
P522	Kettle/ Receiver #143 with Condenser & RTO	b	3745-31-02 (A)(2)	0.025 lb/hr OC, 0.60 lb/day OC, 0.11 TPY OC;
			3745-35-07 (B)	The total combined OC emission rate for P512, P513, P514, P522, P523, and P524 shall not exceed 5.07 TPY, as a rolling 12-month limit.
			3745-21-07 (G)(2)	less stringent than the above limit

Ohio EPA Source Number	Source Identification Number	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements
P523	Kettle/ Receiver #144 with Condenser & RTO	not applicable	3745-31-02 (A)(2)	0.17 lb/hr OC, 4.08 lbs/day OC, 0.74 TPY OC;
			3745-35-07 (B)	The total combined OC emission rate for P512, P513, P514, P522, P523, and P524 shall not exceed 5.07 TPY, as a rolling 12-month limit.
			3745-21-07 (G)(2)	less stringent than the above limit
P524	Reactor #145 with Condenser & RTO	b	3745-31-02 (A)(2)	0.34 lb/hr OC, 8.16 lbs/day OC, 1.49 TPY OC;
			3745-35-07 (B)	The total combined OC emission rate for P512, P513, P514, P522, P523, and P524 shall not exceed 5.07 TPY, as a rolling 12-month limit.
			3745-21-07 (G)(2)	less stringent than the above limit

Ohio EPA Source Number	Source Identification Number	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements
P525	Filter/ Receiver for Solids Addition to Mixer #124 with Fabric Filter	a	3745-31-02 (A)(2) 3745-35-07 (B) 3745-17-11 3745-17-07	3.6 lbs/hr Particulate, 0.24 TPY PM; 5% visible emission opacity 0.24 TPY particulate combined maximum for P525, P526, P527, and P528, as a rolling 12-month limit. less stringent than the above limits
P526	Filter/ Receiver for Solids Addition to Mixer #125 with Fabric Filter	a	3745-31-02 (A)(2) 3745-17-11 3745-17-07	3.6 lbs/hr Particulate, 0.24 TPY PM; 5% visible emission opacity 0.24 TPY particulate combined maximum for P525, P526, P527, and P528, as a rolling 12-month limit less stringent than the above limits

Ohio EPA Source Number	Source Identification Number	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements
P527	Filter/ Receiver for Solids Addition to Mixer #126 with Fabric Filter	a	3745-31-02 (A)(2) 3745-35-07 (B) 3745-17-11 3745-17-07	3.6 lbs/hr Particulate, 0.24 TPY PM; 5% visible emission opacity 0.24 TPY particulate combined maximum for P525, P526, P527, and P528, as a rolling 12-month limit less stringent than the above limits
P528	Filter/ Receiver for Solids Addition to Mixer #127 with Fabric Filter	a	3745-31-02 (A)(2) 3745-35-07 (B) 3745-17-11 3745-17-07	3.6 lbs/hr Particulate, 0.24 TPY PM; 5% visible emission opacity 0.24 TPY particulate combined maximum for P525, P526, P527, and P528, as a rolling 12-month limit less stringent than the above limits

Ohio EPA Source Number	Source Identification Number	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements
P529	Mixing Vessel #124 Receiver Common with #125, with Condenser & RTO	a	3745-31-02 (A)(2) 3745-35-07 (B) 3745-21-07 (G)(2)	0.22 lb/hr OC, 5.28 lbs/day OC, 0.96 TPY OC; The total combined OC emission rate for P518, P519, P520, P521, P529, P530, P532, P537, P538 and P539 shall not exceed 14.78 TPY, as a rolling 12-month limit. less stringent than the above limit
P530	7.5 Cowles Disperser #156	not applicable	3745-31-02 (A)(2) 3745-35-07 (B) 3745-21-07 (G)(2)	2.5 lbs/hr OC, 40 lbs/day OC, 7.3 TPY OC The total combined OC emission rate for P518, P519, P520, P521, P529, P530, P532, P537, P538 and P539 shall not exceed 14.78 TPY, as a rolling 12-month limit. less stringent than the above limit
P531	75 HP Rietz Chopper, Rubber Shredder	d	3745-31-05 (A)(3) 3745-35-07 (B) 3745-17-11 3745-17-07	0.36 lb/hr Particulate, 0.36 TPY PM; 5% visible emission opacity 0.36 TPY Particulate, as a 12-month rolling limit less stringent than the above limits

Ohio EPA Source Number	Source Identification Number	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements
P532	Ross Mixer/ Emulsifier #199 with Condenser & RTO	b	3745-31-05 (A)(3)	8 lbs/hr OC, 40 lbs/day OC, 7.3 TPY OC;
			3745-35-07 (B)	The total combined OC emission rate for P518, P519, P520, P521, P529, P530, P532, P537, P538 and P539 shall not exceed 14.78 TPY, as a rolling 12-month limit.
			3745-21-07 (G)(2)	less stringent than the above limit
P535	Recycled Polymer Holding Tank #434 & RTO	g	3745-31-02 (A)(2)	0.07 lb/hr OC, 1.68 lbs/day OC, 0.31 TPY OC;
			3745-35-07 (B)	The total combined OC emission rate for P505, P506, P507, P508, P509, P510, P511 and P535 shall not exceed 0.82 TPY, as a rolling 12-month limit.
			3745-21-07 (G)(2)	less stringent than the above limit

Ohio EPA Source Number	Source Identification Number	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements
P537	Mixing Vessel #125 Receiver Common with #124, with Condenser & RTO	b	3745-31-02 (A)(2)	0.39 lb/hr OC, 9.36 lbs/day OC, 1.71 TPY OC;
			3745-35-07 (B)	The total combined OC emission rate for P518, P519, P520, P521, P529, P530, P532, P537, P538 and P539 shall not exceed 14.78 TPY, as a rolling 12-month limit.
			3745-21-07 (G)(2)	less stringent than the above limit
P538	Mixing Vessel #126 Receiver Common with #127, with Condenser & RTO	b	3745-31-02 (A)(2)	0.61 lb/hr OC, 14.64 lbs/day OC, 2.67 TPY OC;
			3745-35-07 (B)	The total combined OC emission rate for P518, P519, P520, P521, P529, P530, P532, P537, P538 and P539 shall not exceed 14.78 TPY, as a rolling 12-month limit.
			3745-21-07 (G)(2)	less stringent than the above limit

Ohio EPA Source Number	Source Identification Number	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements
P539	Mixing Vessel #127 Receiver Common with #126, with Condenser & RTO	b	3745-31-02 (A)(2)	1.20 lbs/hr OC, 28.80 lbs/day OC, 5.26 TPY OC;
			3745-35-07 (B)	The total combined OC emission rate for P518, P519, P520, P521, P529, P530, P532, P537, P538 and P539 shall not exceed 14.78 TPY, as a rolling 12-month limit.
			3745-21-07 (G)(2)	less stringent than the above limit

(a) Compliance with the applicable regulations and specified emission rates through the application of fabric filters; monitoring; record keeping; reporting

(b) Compliance with the applicable regulations and specified emission rates through the application of condensers and the regenerative thermal oxidizer; monitoring; record keeping; reporting; air toxics policy

(c) Compliance with the applicable regulations and specified emission rates through the application of condensers, cold traps, and the regenerative thermal oxidizer; monitoring; record keeping; reporting

(d) Compliance with the applicable regulations and specified emission rates; monitoring; record keeping; reporting; air toxics policy

(e) Compliance with the applicable regulations and specified emission rates through the application of reflux condensers and nitrogen purge system; monitoring; record keeping; reporting; air toxics policy

(f) Compliance with the applicable regulations and specified emission rates through the application of a condenser and scrubber; monitoring; record keeping; reporting

(g) Compliance with the applicable regulations and specified emission rates through the application of the regenerative thermal oxidizer; monitoring; record keeping; reporting

Morton International Inc, Rohm and Haas Facility ID: **0868090072**
PTI Application: 08-03851
Modification Issued: 1/17/2002

**This permit is a modification for some emissions units previously permitted. Reference the following list.

New EU ID	Old EU ID	Applicable Rule	PTI #	Issue Date
P501	P045	3745-31-02 (A)(2)	08-2983	11/30/94
P502	P046	3745-31-02 (A)(2)	08-2983	11/30/94
P505	P025	3745-31-02 (A)(2)	08-1260	9/16/87
P503	P047	3745-31-02 (A)(2)	08-2983	11/30/94
P506	P044	3745-31-02 (A)(2)	08-2983	11/30/94
P504	P048	3745-31-02 (A)(2)	08-2983	11/30/94
P507	P026	3745-31-02 (A)(2)	08-1260	9/16/87
P508	P027	3745-31-02 (A)(2)	08-1260	9/16/87
P509	P028	3745-31-02 (A)(2)	08-1260	9/16/87
P510	P029	3745-31-02 (A)(2)	08-1260	9/16/87
P511	P030	3745-31-02 (A)(2)	08-1260	9/16/87
P535	P050	3745-31-02 (A)(2)	08-3466	4/17/96
P512	P043	3745-31-02 (A)(2)	08-2983	11/30/94
P514	P032	3745-31-02 (A)(2)	08-1364	4/20/88
P513	P033	3745-31-02 (A)(2)	08-1364	4/20/88
P515	----	3745-31-05 (A)(3)		
P516	----	3745-31-05 (A)(3)		
P522	----	3745-31-05 (A)(3)		
P520	P007	3745-31-02 (A)(2)	existing	
P521	P007	3745-31-02 (A)(2)	existing	
P523	P005	3745-31-02 (A)(2)	existing	
P524	P016	3745-31-02 (A)(2)	08-3285	9/27/95
P518	P004, P007	3745-31-02 (A)(2)	existing	
P532	P049	3745-31-02 (A)(2)	08-3275	8/9/95
P525	P039	3745-31-02 (A)(2)	08-2983	11/30/94
P529	P035	3745-31-02 (A)(2)	08-2983	11/30/94
P537	P036	3745-31-02 (A)(2)	08-2983	11/30/94
P526	P040	3745-31-02 (A)(2)	08-2983	11/30/94
P527	P041	3745-31-02 (A)(2)	08-2983	11/30/94
P538	P037	3745-31-02 (A)(2)	08-2983	11/30/94
P528	P042	3745-31-02 (A)(2)	08-2983	11/30/94
P539	P038	3745-31-02 (A)(2)	08-2983	11/30/94
P519	P004	3745-31-02 (A)(2)	existing	
P530	P006	3745-31-02 (A)(2)	existing	
P531	----	3745-31-05 (A)(3)		

Pollutant	Tons/Year
organic compounds	20.67
particulates	5.86
any single HAP	9.0
Total HAPs	20.67

MAINTENANCE OF EQUIPMENT

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers in order to minimize air contaminant emissions.

MALFUNCTION/ABATEMENT

In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the Regional Air Pollution Control Agency, 117 South Main Street, Dayton, OH 45422.

Except as provided by OAC Rule 3745-15-06(A)(3), scheduled maintenance of air pollution control equipment that requires the shutdown or bypassing of air pollution control system(s) must be accompanied by the shutdown of the associated air pollution sources.

AIR POLLUTION NUISANCES PROHIBITED

The air contaminant source(s) identified in this permit may not cause a public nuisance in violation of OAC Rule 3745-15-07.

ADDITIONAL SPECIAL TERMS AND CONDITIONS

A. Equipment Identification:

1. Prepolymer manufacturing includes the following equipment:

   P501-Bulk and Small Bag Unloading Systems
   P502-Filter/Receiver for Solids Addition to Kettle #420
   P505-Prepolymer Kettle #420 with Receiver, Condenser, Regenerative Thermal Oxidizer (RTO)
   P503-Filter/Receiver for Solids Addition to Kettle #421
   P506-Prepolymer Kettle #421 with Receiver, Condenser, RTO
   P504-Filter/Receiver for Solids Addition to Kettle #422
   P507-Prepolymer Kettle #422 with Receiver, Condenser, RTO

Exempt Emissions Units-	By OAC Rule-

Prepolymer Interim Storage Tank #427	3745-15-05
Prepolymer Interim Storage Tank #428	3745-15-05
Prepolymer Interim Storage Tank #429	3745-15-05

2. Polymer manufacturing includes the following equipment:

   P503-Filter/Receiver for Solids Addition to Kettle #421
   P506-Prepolymer Kettle #421 with Receiver, Condenser & RTO
   P508-Autoclave #423 with Receiver
   P509-Autoclave #424 with Receiver
   P510-Autoclave #425 with Receiver
   P511-Autoclave #426 with Receiver
   P535-Recycled Polymer Holding Tank #434

3. Normal Polymer Solutions manufacturing includes the following equipment:

   P512-Resin Dissolving Tank #431 with Condenser, RTO
   P514-Resin Reactor #432 with Condenser, RTO
   P513-Resin Reactor #433 with Condenser, RTO

Exempt Emissions Unit-	By OAC Rule-
1500 gals. Rupture Disk Catch Tank #453	3745-15-05

4. Direct Polymer Solutions manufacturing includes the following equipment:

   P512-Resin Dissolving Tank #431 with Condenser, RTO
   P513-Resin Reactor #433 with Condenser, RTO

Exempt Emissions Unit-	By OAC Rule-
1500 gals. Rupture Disk Catch Tank #453	3745-15-05

5. Water based Polymer Solutions manufacturing includes the following equipment:

   P504-Filter/Receiver for Solids Addition to Kettle #422 with fabric filter
   P507-Prepolymer Kettle #422 with Receiver, Condenser & RTO
   P513-Resin Reactor #433 with Condenser, RTO

6. Polymer Blocks, Granules, Pellets manufacturing includes the following equipment:

   P515-Pelletizer #401, Crystallizer Tank #408, Pellet Dryer #409
   P516-Nitrogen Cabinets, Granulator #451

7. Urethane Adhesives manufacturing includes the following equipment:

P512-Resin Dissolving Tank #431 with Condenser, RTO
P514-Resin Reactor #432 with Condenser, RTO
P513-Resin Reactor #433 with Condenser, RTO
P522-Kettle/Receiver #143 with Receiver
P523-Reactor #144 with Condenser, RTO

8. Y-Intermediates, DNSB manufacturing includes the following equipment:

P520-Reactor #141 with Receiver, Condenser, RTO
P521-Reactor #142 with Receiver, Condenser

Exempt Emissions Units-	By OAC Rule-
Batch Feed Vessel #148	3745-15-05
750 gals. Bromine Storage Tank #147	3745-15-05
2000 gals. Rupture Disk Catch Tank #194	3745-15-05

9. Y-Intermediates, OSN manufacturing includes the following equipment:

P523-Reactor #144 with Condenser, RTO;
P524-Reactor #145 with Condenser, RTO;
P531-75 hp. Rietz Chopper, Rubber Shredder;

Exempt Emissions Units-	By OAC Rule-
5000 gals. Polymer Storage Tank	3745-15-05
2000 gals. Rupture Disk Catch Tank #194	3745-15-05

10. Water based Adhesives and Solvent Intermediates manufacturing includes the following equipment:

P520-Reactor #141 with Receiver, Condenser, RTO
P532-Ross Mixer/Emulsifier #199 with Condenser, RTO
P530-7.5 Cowles Disperser #156
P531-75 hp Rietz Chopper, Rubber Shredder

Exempt Emissions Unit-	By OAC Rule-
2000 gals. Rupture Disk Catch Tank #194	3745-15-05

11. Y-Polymer Adhesives manufacturing includes the following equipment:

P525-Filter/Receiver for Solids Addition to Mixer #124 with Fabric Filter
P529-Mixing Vessel #124 with Receiver Common with #125, with Condenser, RTO
P526-Filter/Receiver for Solids Addition to Mixer #125 with

Fabric Filter
P537-Mixing Vessel #125 with Receiver Common with #124, with Condenser, RTO
P527-Filter/Receiver for Solids Addition to Mixer #126 with Fabric Filter
P538-Mixing Vessel #126 with Receiver Common with #127 with Condenser, RTO
P528-Filter/Receiver for Solids Addition to Mixer #127 with Fabric Filter
P539-Mixing Vessel #127 with Receiver Common with #126 with Condenser, RTO
P519-Grinding Mills #151, #152, #154, #157, #158, #176
P530-7.5 hp Cowles Disperser #156
P531-75 hp Rietz Chopper, Rubber Shredder

12. DNSB Adhesives manufacturing includes the following equipment:

P518-Churns #101, #103, #106-#109, #112, #115, #120
P519-Grinding Mills #151, #152, #154, #157, #158, #176
P530-7.5 hp Cowles Disperser #156
P531-75 hp Rietz Chopper, Rubber Shredder

13. Clear Adhesives manufacturing includes the following equipment:

P520-Reactor #141 with Receiver, Condenser, RTO
P518-Churn #102
P532-Ross/Mixer Emulsifier #199 with condenser, RTO
P530-7.5 hp Cowles Disperser #156
P531-75 hp Rietz Chopper, Rubber Shredder

14. Sulfur Adhesives manufacturing includes the following equipment:

P525-Filter/Receiver for Solids Addition to Mixer #124 with Fabric Filter
P529-Mixing Vessel #124 with Receiver Common with #125, with Condenser, RTO
P526-Filter/Receiver for Solids Addition to Mixer #125 with Fabric Filter
P537-Mixing Vessel #125 with Receiver Common with #124, with Condenser, RTO
P527-Filter/Receiver for Solids Addition to Mixer #126 with Fabric Filter
P538-Mixing Vessel #126 with Receiver Common with #127 with Condenser, RTO
P528-Filter/Receiver for Solids Addition to Mixer #127 with Fabric Filter

P539-Mixing Vessel #127 with Receiver Common with #126 with Condenser, RTO
P519-Grinding Mills #151, #152, #154, #157, #158, #176
P530-7.5 hp Cowles Disperser #156
P531-75 hp Rietz Chopper, Rubber Shredder

B. <u>Applicable Emission Limitations and/or Control Requirements:</u>
(Also See Air Emissions Summary)

1. The emission limitations for Prepolymer Manufacturing are based on the maximum annual production limit of 16,000,000 lbs/year, as a 12-month rolling limit and shall not exceed 0.36 TPY OC, as a 12-month rolling limit; and 0.06 TPY PM, as a 12-month rolling limit.

2. The emission limitations for Polymer Manufacturing are based on the maximum annual production limit of 14,000,000 lbs/year, as a 12-month rolling limit and shall not exceed 0.46 TPY OC, as a 12-month rolling limit.

3. The emission limitations for Normal Polymer Manufacturing are based on the maximum annual production limit of 11,000,000 lbs/year, as a 12-month rolling limit and shall not exceed 0.77 TPY OC, as a 12-month rolling limit.

4. The emission limitations for Direct Polymer Solutions Manufacturing are based on the maximum annual production limit of 8,000,000 lbs/year, as a 12-month rolling limit and shall not exceed 0.56 TPY OC, as a 12-month rolling limit.

5. The emission limitations for Water based Polymer Solutions Manufacturing are based on the maximum annual production limit of 1,000,000 lbs/year, as a 12-month rolling limit and shall not exceed 0.07 TPY OC, as a 12-month rolling limit.

6. The emission limitations for Polymer Blocks, Granules and Pellets Manufacturing are based on the maximum annual production limit of 7,000,000 lbs/year, as a 12-month rolling limit and shall not exceed 3.5 TPY PM, as a 12-month rolling limit.

7. The emission limitations for Urethane Adhesives Manufacturing are based on the maximum annual production limit of 4,000,000 lbs/year, as a 12-month rolling limit and shall not exceed 1.98 TPY OC, as a 12-month rolling limit; and 0.02 TPY PM, as a 12-month rolling limit.

8. The emission limitations for Y-intermediates for DNSB Manufacturing are based on the maximum annual production limit of 2,000,000 lbs/year, as a 12-month rolling limit and shall not exceed 3.38 TPY OC, as a 12-month rolling limit; and 0.36 TPY PM, as a 12-month rolling limit.

9. The emission limitations for Y-intermediates for OSN Manufacturing are based on the maximum annual production limit of 1,000,000 lbs/year, as a 12-month rolling limit and shall not exceed 1.69 TPY OC, as a 12-month rolling limit; 0.18 TPY PM, as a 12-month rolling limit.

10. The emission limitations for Water based Adhesives and Solvent Intermediates Manufacturing are

based on the maximum annual production limit of 500,000 lbs/year, as a 12-month rolling limit and shall not exceed 0.25 TPY OC, as a 12-month rolling limit; and 0.05 TPY PM, as a 12-month rolling limit.

11. The emission limitations for Y-Polymer Adhesives Manufacturing are based on the maximum annual production limit of 3,200,000 lbs/year, as a 12-month rolling limit and shall not exceed 5.98 TPY OC, as a 12-month rolling limit; and 0.24 TPY PM, as a 12-month rolling limit.

12. The emission limitations for DNSB Adhesives Manufacturing are based on the maximum annual production limit of 3,200,000 lbs/year, as a 12-month rolling limit and shall not exceed 1.84 TPY OC, as a 12-month rolling limit; and 0.36 TPY PM, as a 12-month rolling limit.

13. The emission limitations for Clear Adhesives Manufacturing are based on the maximum annual production limit of 1,000,000 lbs/year, as a 12-month rolling limit and shall not exceed 3.33 TPY OC, as a 12-month rolling limit; and 0.12 TPY PM, as a 12-month rolling limit.

14. The emission limitations for Sulfur Adhesives Manufacturing are based on the maximum annual production limit of 200,000 lbs/year, as a 12-month rolling limit and shall not exceed 0.003 TPY OC, as a 12-month rolling limit; $7x10^{-5}$ TPY PM, as a 12-month rolling limit.

15. The regenerative thermal oxidizer shall achieve 97% destruction efficiency. The allowable OC emission rate, as a 12-month rolling limit from the common regenerative thermal oxidizer stack is as follows:

Product Type	EUs for OCs	TPY OC, including HAPs
Prepolymer Mfg.	P505, P506, P507	0.36
Polymer Mfg.	P506, P508, P509, P510, P511, P535	0.46
Total	P505, P506, P507, P508, P509, P510, P511, P535	0.82
Normal Polymer	P512, P514, P513	0.77
Direct Polymer	P512, P513	0.56
Water based Poly.	P513	0.07
Urethane Adhes.	P512, P514, P513, P522, P523	1.98
Y-Interm. (OSN)	P523, P524	1.69
Total	P512, P513, P514, P522, P523, P524	5.07
Y-Interm. (DNSB)	P520, P521	3.38
Water based Adhesives		

and Solvent Intermed.	P520, P532	0.25
Y-Polymer Adhesives	P529, P537, P538, P539, P519, P530	5.98
DNSB Adhesives	P518, P519, P530	1.84
Clear Adhesives	P520, P518, P532, P530	3.33
Sulfur Adhesives	P529, P537, P538, P539, P519, P530	0.003
Total	P518, P519, P520, P521, P529, P530, P532, P537, P538, P539	14.78
	Combined Allowable OC Emission Rate	20.67 TPY

C. Operational Restrictions:

1. The permittee shall not exceed the following production limitations as specified for each product type. The ton per year limitations are based upon on a rolling 12-month summation of the production rates.

Product Type	Limitation (lbs/yr)
Prepolymer	16,000,000
Polymer	14,000,000
Normal Polymer	11,000,000
Direct Polymer	8,000,000
Water based Polymer	1,000,000
Polymer Blocks, Granules & Pellets	7,000,000
Urethane Adhesives	4,000,000
Y-intermediates for DNSB	2,000,000
Y-intermediates for OSN	1,000,000
Water based Adhesives and Solvent Intermediates	500,000
Y-Polymer Adhesives	3,200,000
DNSB Adhesives	3,200,000
Clear Adhesives	1,000,000
Sulfur Adhesives	200,000

The permittee shall comply with the rolling 12-month production rates and OC emissions limitations, and monitoring and record keeping requirements upon startup under this permit, by use of data from the previous 12 months of operation.

2. 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 degrees

Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

3. The condensers installed on the affected reactors and mixing vessels are not operated primarily to control VOC loss. The units are operated as reflux condensers with the primary purpose of capturing and condensing any solvent (VOC) that is evolved during crucial batch periods and returning it to the reaction. The solvent reflux serves a vital role by controlling such parameters as reaction time and temperature. The reflux condensers predominantly function to regulate and control the physical and chemical reaction that takes place in the affected equipment. In order to ensure that the condensers are operating properly to reflux solvent, the water shall be flowing to each condenser during the full duration of a batch.

4. The pH of the scrubber liquor shall be maintained above 7 for the scrubber used to control HBr emissions from emissions unit P521 during the bromination phase of reactions.

   The temperature of the scrubber liquor shall be maintained below 150 degrees Fahrenheit during the bromination process.

5. The Hazardous Air Pollutant (HAP) emissions from this facility shall not exceed 9.0 TPY, as a 12-month rolling limit for any single HAP and 20.67 TPY, as a 12-month rolling limit for any combination of HAPs. (Reference Section 112 (b) of Title III of the Clean Air Act for identification of the HAPs.) The HAP emissions are limited through the rolling 12-month production rate limitations and the use of air pollution control equipment.

D. <u>Monitoring and Record Keeping:</u>

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.

   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.

2. The permittee shall monitor and record that water is flowing to each condenser at the beginning and at the end of each batch operation.

3. The permittee shall properly install, operate and maintain equipment to monitor the pH and temperature of the scrubber liquor while the reaction(s) is taking place in emissions unit P521 within the bromination phase. The pH and temperature monitors shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

   The permittee shall collect and record the following information each day emissions unit P521 is operated:

   a. The pH and temperature of the scrubber liquor during the bromination phase of each reaction conducted on that day.

   b. A log or record of the operating duration for the scrubber liquor pump and the corresponding reaction's bromination phase.

4. The permittee shall collect and record the following information monthly for each material that produces an organic compound emission rate:

   a. The company identification for each material produced.

   b. The number of pounds of each organic material employed.

   c. The organic compound content of each organic material, in pounds per batch.

   d. The total controlled organic compound 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 number of days the emissions unit was in operation based on standard batch duration.

   f. The average daily controlled organic compound emission rate for all organic materials, i.e., (d)/(e), in pounds per day (average).

5. 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.

A listing of the HAPs can be found in Section 112 (b) of Title III in the Clean Air Act. This information does not have to be maintained on a line-by-line basis.

6. The permittee shall maintain monthly records of the following information for each product manufactured: Prepolymer, Polymer, Normal Polymer Solutions, Direct Polymer Solutions, Water-based Polymer Solutions, Polymer Blocks, Granules, Pellets, Urethane Adhesives, Y-Intermediates (DNSB), Y-Intermediates (OSN), Water based Adhesives and Solvent Intermediates, Y-Polymer Adhesives, DNSB Adhesives, Clear Adhesives and Sulfur Adhesives.

   a. The production rate for each month.

   b. The rolling, 12-month summation of the production rates.

7. The permittee shall perform monthly checks of all emissions units controlled with a fabric filter, while the equipment is in operation, for any visible particulate emissions from the fabric filter control systems. The presence or absence of any visible emissions from the fabric filter control systems shall be noted in an operations log. If any visible emissions are observed from either system, corrective actions shall be taken to eliminate the visible emissions and these actions shall also be noted in the operations log.

8. The permittee shall collect and record the following information for each change where air toxic modeling was required pursuant to the Air Toxic Policy:

   a. Background data that describes the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

   b. Documentation of its evaluation and determination that the changed emissions unit still satisfies the Air Toxic Policy; and,

   c. Where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the Air Toxic Policy for the change.

E. <u>Reporting:</u>

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 production rate for each product type listed in term and condition C.1 in pounds per year, as a 12-month rolling limit.

c. The individual HAP emission limits, in tons per year, as a rolling 12-month limit.

d. The total combined HAP emission limit, in tons per year, as a rolling 12-month limit.

2. The permittee shall submit on a semi-annual basis a report which (a) identifies all days during which any visible particulate emissions were observed from the fabric filter control systems and (b) describes the corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted by January 31 and July 31 of each year to the Director (District Office or Local Air Agency) and shall cover the previous six calendar months.

3. 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.

4. The permittee shall submit quarterly reports for each condenser which documents the instances of any batch where verification that water was flowing to the condenser was not made; the cause of the condition and the corrective action taken to prevent its reoccurrence.

5. The permittee shall submit deviation (excursion) reports which include the following information for each product group which has an allowable organic compound emission rate:

   a. An identification of each month during which the average daily controlled organic compound emission rate from the materials produced exceeded the specified allowable emission rate in pounds per day given in the air emission summary for each emissions unit, and the actual average daily controlled organic compound emission rate for each such day.

6. The permittee shall submit quarterly deviation (excursion) reports for emissions unit P521, that identify all periods of time during that quarter in which the scrubber liquor pH and/or temperature did not comply with the required levels.

7. The deviation (excursion) reports shall be submitted in the following manner:

   a. Reports of any required monitoring and/or record keeping 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 record keeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventative 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.)

F. <u>Compliance Methodologies:</u>

1. Compliance with the emission limitations in this permit shall be determined in accordance with the following methods:

a. P501, P502, P503, & P504

Emission Limitation-

0.009 lb/hr Particulate, 0.04 TPY particulate, 5% visible emission opacity

Applicable Compliance Method-

The 0.009 lb/hr particulate limitation was developed by multiplying the maximum hourly equipment capacity of 0.54 ton/hr by the engineering emission estimate of 0.016 lb/ton for Prepolymer Manufacturing.

The 0.04 TPY particulate limitation was developed by multiplying the maximum hourly limitation of 0.009 lb/hr by 8760 hrs/yr and dividing by 2000 lbs/ton.

If required, compliance with the 5% visible emission opacity shall be determined through visible emission evaluations performed in accordance with procedures specified in OAC rule 3745-17-03 (B)(1) using the methods and procedures specified in USEPA Reference Method 9.

b. P501, P502, P503 & P504

Emission Limitation-

The total combined particulate emissions for P501, P502, P503 & P504 shall not exceed 0.06 TPY PM, as a rolling 12-month limit.

Applicable Compliance Method-

Compliance with the 0.06 TPY PM limitation shall be determined by multiplying the ton/year Prepolymer production rate documented per term and condition D.6. by the engineering emissions estimate of 0.016 lb/ton for Prepolymer Manufacturing and dividing by 2000 lbs/ton.

c. P505

Emission Limitation-

0.03 lb/hr OC, 0.72 lb/day OC, 0.13 TPY OC

Applicable Compliance Method-

The 0.03 lb/hr OC limitation was developed by multiplying the maximum hourly equipment capacity of 0.3 ton/hr by the engineering emissions estimate of 0.09 lb/ton for Prepolymer Manufacturing.

The 0.72 lb/day OC limitation was developed by multiplying the maximum hourly emission rate of 0.03 lb/hr by 24 hours/day.

The 0.13 TPY OC limitation was developed by multiplying 0.03 lb/hr by 8760 hrs/yr and dividing by 2000 lbs/ton.

d. P505, P506, P507, P508, P509, P510, P511, P535

Emission Limitation-

The total combined OC emission rate for P505, P506, P507, P508, P509, P510, P511, and P535 shall not exceed 0.82 TPY OC, as a rolling 12-month limit.

Applicable Compliance Method-

Compliance with the 0.82 TPY OC limitation shall be determined by summing the TPY OC emission rates for Prepolymer and Polymer Manufacturing (P505, P506, P507, P508, P509, P510, P511, and P535).

Compliance with the Prepolymer Manufacturing emission rate shall be determined by multiplying the ton/year Prepolymer production rate documented per term and condition D.6. by the engineering emissions estimate for Prepolymer Manufacturing of 0.09 lb/ton OC and divided by 2000 lbs/ton for emission units P505, P506, and P507.

Compliance with the Polymer Manufacturing emission rate shall be determined by multiplying the ton/year Polymer production rate documented per term and condition D.6. by the engineering emissions estimate for Polymer Manufacturing of 0.13 lb/ton OC and divided by 2000 lbs/ton for emission units P506, P508, P509, P510, P511, and P535.

e. P506

Emission Limitation-

0.15 lb/hr OC, 3.6 lbs/day OC, 0.66 TPY OC

Applicable Compliance Method-

The 0.15 lb/hr OC limitation was developed by multiplying the maximum hourly equipment capacity of 1.125 tons/hr by the engineering emissions estimate of 0.13 lb/ton for Polymer Manufacturing.

The 3.6 lbs/day OC limitation was developed by multiplying the maximum hourly emission rate of 0.15 lb/hr by 24 hours/day.

The 0.66 TPY OC limitation was developed by multiplying 0.15 lb/hr by 8760 hrs/yr and dividing by 2000 lbs/ton.

f. P507

Emission Limitation-

0.02 lb/hr OC, 0.48 lb/day OC, 0.09 TPY OC

Applicable Compliance Method-

The 0.02 lb/hr OC limitation was developed by multiplying the maximum hourly equipment capacity of 0.20 ton/hr by the engineering emissions estimate of 0.09 lb/ton for Prepolymer Manufacturing.

The 0.48 lb/day OC limitation was developed by multiplying the maximum hourly emission rate of 0.02 lb/hr by 24 hours/day.

Compliance with the 0.09 TPY OC limitation shall be determined by multiplying 0.02 lb/hr by 8760 hrs/yr and dividing by 2000 lbs/ton.

g. P508, P509, P510, P511

Emission Limitation-

0.02 lb/hr OC, 0.48 lb/day OC, 0.09 TPY OC

Applicable Compliance Method-

The 0.02 lb/hr OC limitation was developed by multiplying the maximum hourly equipment capacity of 0.125 ton/hr for each unit by the engineering emissions estimate of 0.13 lb/ton for Polymer Manufacturing.

The 0.48 lb/day OC limitation was developed by multiplying the maximum hourly emission rate of 0.02 lb/hr by 24 hours/day.

Compliance with the 0.09 TPY OC limitation shall be determined by multiplying 0.02 lb/hr by 8760 hrs/yr and dividing by 2000 lbs/ton.

h. P512

Emission Limitation-

4.15 lbs/hr OC, 99.60 lbs/day OC, 18.18 TPY OC

Applicable Compliance Method-

The 4.15 lbs/hr OC limitation was developed by multiplying the maximum hourly equipment capacity of 3.84 tons/hr by the engineering emissions estimate of 1.98 lbs/ton for Urethane Adhesives Manufacturing.

The 99.60 lbs/day OC limitation was developed by multiplying the maximum hourly emission rate of 4.15 lbs/hr by 24 hours/day.

Compliance with the 18.18 TPY OC limitation shall be determined by multiplying 4.15 lbs/hr by 8760 hrs/yr and dividing by 2000 lbs/ton.

i. P512, P513, P514, P522, P523, P524

Emission Limitation-

The total combined OC emissions for P512, P513, P514, P522, P523 and P524 shall not exceed 5.07 TPY OC, as a rolling 12-month limit.

Applicable Compliance Method-

Compliance with the 5.07 TPY OC limitation shall be determined by summing the TPY OC emission rates for Normal Polymer Manufacturing, Direct Polymer Solutions, Water based Polymer Manufacturing and Urethane Adhesives Manufacturing (P512, P513, P514, P522, P523, and P524).

The 5.07 TPY OC limitation was developed by summing 0.77 TPY OC, 0.56 TPY OC, 0.07 TPY OC, 1.98 TPY OC and 1.69 TPY OC for P512, P513, P514, P522, P523 and P524.

Compliance with the 0.77 TPY limitation shall be determined by multiplying the lbs/year Normal Polymer production rate documented per term and condition D.6. by the engineering emissions estimate for Normal Polymer Manufacturing of 0.28 lb/ton OC and dividing by 2000 lbs/ton for emissions units P512, P514, P513.

Compliance with the 0.56 TPY limitation shall be determined by multiplying the lbs/year Direct Polymer production rate documented per term and condition D.6. by the engineering emissions estimate for Direct Polymer Solutions of 0.28 lb/ton and dividing by 2000 lbs/ton for emissions units P512, P513.

Compliance with the 0.07 TPY limitation shall be determined by multiplying the lbs/year Water based Polymer production rate documented per term and condition D.6. by the engineering emissions estimate for Water based Polymer Manufacturing of 0.28 lb/ton and dividing by 2000 lbs/ton for emissions unit P513.

Compliance with the 1.98 TPY OC limitation shall be determined by multiplying the lbs/year Urethane Adhesives production rate documented per term and condition D.6., by the engineering emissions estimate of 0.008 lb/ton OC for 100 percent solids Urethane Adhesive Products, or by the engineering emissions estimate of 1.98 lbs/ton OC for solvent-borne Urethane Adhesive Products; then summing the two and dividing by 2000 lbs/ton for P512, P514, P513, P522 and P523.

Compliance with the 1.69 TPY OC limitation shall be determined by multiplying the lbs/year Y-intermediates (OSN) production rate documented per term and condition D.6. by the engineering emissions estimate for Y-intermediates (OSN) of 6.76 lbs/ton OC and dividing by 2000 lbs/ton for emissions units P523 and P524.

j. P513

Emission Limitation-

0.99 lb/hr OC, 23.76 lbs/day OC, 4.34 TPY OC

Applicable Compliance Method-

The 0.99 lb/hr OC limitation was developed by multiplying the maximum hourly equipment capacity of 0.50 ton/hr by the engineering emissions estimate of 1.98 lbs/ton for Urethane Adhesives Manufacturing.

The 23.76 lbs/day OC limitation was developed by multiplying the maximum hourly emission rate of 0.99 lb/hr by 24 hours/day.

The 4.34 TPY OC limitation was developed by multiplying 0.99 lb/hr by 8760 hrs/yr and dividing by 2000 lbs/ton.

k. P514

Emission Limitation-

0.28 lb/hr OC, 6.72 lbs/day OC, 1.23 TPY OC

Applicable Compliance Method-

The 0.28 lb/hr OC limitation was developed by multiplying the maximum hourly equipment capacity of 0.14 ton/hr by the engineering emissions estimate of 1.98 lbs/ton for Urethane Adhesives Manufacturing.

The 6.72 lbs/day OC limitation was developed by multiplying the maximum hourly emission rate of 0.28 lb/hr by 24 hours/day.

The 1.23 TPY OC limitation was developed by multiplying 0.28 lb/hr by 8760 hrs/yr and dividing by 2000 lbs/ton.

l. P515, P516

Emission Limitation-

5 lbs/hr particulate

Applicable Compliance Method-

The 5 lbs/hr particulate limitation was developed by multiplying the maximum hourly equipment capacity of 2.5 tons/hr by the engineering emissions estimate of 2.0 lbs/ton.

m. P515, P516

Emission Limitation-

3.5 TPY particulate individual unit maximum emission limit, with the total combined particulate emissions for P515 and P516 not to exceed 0.29 ton/month PM and 3.5 TPY PM

Applicable Compliance Method-

Compliance with the 3.5 TPY particulate limitation shall be determined by multiplying the ton/year Polymer Blocks, Granules, Pellets production rate documented per term and condition D.6. by the engineering emissions estimate of 2.0 lbs/ton for Polymer Blocks, Granules, Pellets Manufacturing and dividing by 2000 lbs/ton.

n. P515, P516

Emission Limitation-

5% visible emission opacity

Applicable Compliance Method-

If required, compliance with the 5% visible emission opacity shall be determined through visible emission evaluations performed in accordance with procedures specified in OAC rule 3745-17-03 (B)(1) using the methods and procedures specified in USEPA Reference Method 9.

o. P518, P519

Emission Limitation-

3.31 lbs/hr OC, 40 lbs/day OC, 7.3 TPY OC

Applicable Compliance Method-

The 3.31 lbs/hr OC limitation was developed by multiplying the maximum hourly production limit for Y-Polymer Adhesives Manufacturing of 0.44 ton/hr by engineering emissions estimate of 7.48 lbs/ton for Y-Polymer Adhesives Manufacturing.

The 40 lbs/day limitation was based on the maximum allowable emission rate stated in the applicable regulation.

The 7.3 TPY OC limitation was developed by multiplying 40 lbs/day by 365 days/yr and dividing by 2000 lbs/ton.

p. P518, P519, P520, P521, P529, P530, P532, P537, P538 and P539

Emission Limitation-

The total combined OC emissions for P518, P519, P520, P521, P529, P530, P532, P537, P538 and P539 shall not exceed 14.78 TPY OC.

Applicable Compliance Method-

Compliance with the 16.48 TPY OC limitation shall be determined by summing the TPY OC emission rates for Y-Intermediate (DNSB) Manufacturing, Water based Adhesives and Solvent Intermediates Manufacturing, Y-Polymer Adhesives Manufacturing, DNSB Adhesives Manufacturing, Clear Adhesives Manufacturing and Sulfur Adhesives Manufacturing (P518, P519, P520, P521, P529, P530, P532, P537, P538 and P539).
The 14.78 TPY OC limitation was developed by summing 3.38 TPY, 0.25 TPY, 5.98 TPY, 1.84 TPY, 3.33 TPY and 0.003 TPY for P518, P519, P520, P521, P529, P530, P532, P537, P538 and P539.

Compliance with the 3.38 TPY limitation shall be determined by multiplying the ton/year Y-Intermediate (DNSB) production rate documented per term and condition D.6. by the engineering emissions estimate for Y-Intermediate (DNSB) Manufacturing of 6.76 lbs/ton OC and dividing by 2000 lbs/ton for emission units P520 and P521.

Compliance with the 0.25 TPY limitation shall be determined by multiplying the ton/yr Water based Adhesives and Solvent Intermediates Manufacturing production rate documented per term and condition D.6. by the engineering emissions estimate for Water based Adhesives and Solvent Intermediates Manufacturing of 1.98 lbs/ton OC dividing by 2000 lbs/ton for emissions units P520 and P532.

Compliance with the 5.98 TPY limitation shall be determined by multiplying the ton/year

Y-Polymer Adhesives production rate documented per term and condition D.6. by the engineering emissions estimate for Y-Polymer Adhesives Manufacturing of 7.48 lbs/ton OC and dividing by 2000 lbs/ton.

Compliance with the 1.84 TPY limitation shall be determined by multiplying the ton/year DNSB Adhesives production rate documented per term and condition D.6. by the engineering estimate for DNSB Adhesives Manufacturing of 2.23 lbs/ton OC and dividing by 2000 lbs/ton.

Compliance with the 3.33 TPY limitation shall be determined by multiplying the ton/year Clear Adhesives production rate documented per term and condition D.6. by the engineering emissions estimate for Clear Adhesives Manufacturing of 13.32 lbs/ton OC and dividing by 2000 lbs/ton.

Compliance with the 0.003 TPY limitation shall be determined by multiplying the ton/year Sulfur Adhesives production rate documented per term and condition D.6. by the engineering emissions estimate for Sulfur Adhesives Manufacturing of 0.05 lb/ton OC and dividing by 2000 lbs/ton.

q. P520, P521

Emission Limitation-

0.05 lbs/hr particulate, 0.36 TPY particulate, 5% visible emission opacity from the receiver

Applicable Compliance Method-

The 0.05 lb/hr particulate limitation was developed by multiplying the maximum hourly production limit for Y-Intermediates (DNSB) Manufacturing of 0.075 ton/hr by the engineering emissions estimate of 0.72 lb/ton for Y-Intermediates (DNSB) Manufacturing.

Compliance with the 0.36 TPY particulate limitation shall be determined by multiplying the ton/year Y-Intermediates (DNSB) production rate documented per term and condition D.6. by the engineering emissions estimate of 0.72 lb/ton for Y-Intermediates (DNSB) Manufacturing and dividing by 2000 lbs/ton.

If required, compliance with the 5% visible emission opacity shall be determined through visible emission evaluations performed in accordance with procedures specified in OAC rule 3745-17-03 (B)(1) using the methods and procedures specified in USEPA Reference Method 9.

r. P520, P521

Emission Limitation-

0.27 lb/hr OC, 6.48 lbs/day OC, 1.18 TPY OC

Applicable Compliance Method-

The 0.27 lb/hr limitation was developed by multiplying the maximum hourly equipment capacity of 0.04 ton/hr by the engineering emissions estimate of 6.76 lbs/ton for Water based Adhesives and Solvent Intermediates Manufacturing.

The 6.48 lbs/day OC limitation was developed by multiplying the maximum hourly emission rate of 0.27 lb/hr by 24 hours/day.

The 1.18 TPY OC limitation was developed by multiplying 0.27 lb/hr by 8760 hrs/yr and dividing by 2000 lbs/ton.

s. P522

Emission Limitation-

0.025 lb/hr OC, 0.60 lb/day OC, 0.11 TPY OC

Applicable Compliance Method-

The 0.025 lb/hr OC limitation was developed by multiplying the maximum hourly equipment capacity of 0.0125 ton/hr by the engineering emissions estimate of 1.98 lbs/ton for Urethane Adhesives Manufacturing.

The 0.60 lb/day OC limitation was developed by multiplying the maximum hourly emission rate of 0.025 lb/hr by 24 hours/day.

The 0.11 TPY OC limitation was developed by multiplying 0.025 lb/hr by 8760 hrs/yr and dividing by 2000 lbs/ton.

t. P523

Emission Limitation-

0.17 lb/hr OC, 4.08 lbs/day OC, 0.74 TPY OC

Applicable Compliance Method-

The 0.17 lb/hr OC limitation was developed by multiplying the maximum hourly equipment capacity of 0.025 ton/hr by the engineering emissions estimate of 6.76 lbs/ton for Y-Intermediates, OSN Manufacturing.

The 4.08 lbs/day OC limitation was developed by multiplying the maximum hourly rate 0.17 lbs/hr OC by 24 hours/day.

The 0.74 TPY OC limitation was developed by multiplying 0.17 lb/hr by 8760 hrs/yr and

dividing by 2000 lbs/ton.

u. P524

Emission Limitation-

0.34 lb/hr OC, 8.16 lbs/day OC, 1.49 TPY OC

Applicable Compliance Method-

The 0.34 lb/hr OC limitation was developed by multiplying the maximum hourly equipment capacity of 0.05 ton/hr by the engineering emissions estimate of 6.76 lbs/ton OC for Y-Intermediates, OSN Manufacturing.

The 8.16 lbs/day OC limitation was developed by multiplying the maximum hourly rate of 0.34 lb/hr OC by 24 hours/day.

The 1.49 TPY OC limitation was developed by multiplying 0.34 lb/hr by 8760 hrs/yr and dividing by 2000 lbs/ton.

v. P525, P526, P527, P528

Emission Limitation-

3.6 lbs/hr particulate, 0.24 TPY particulate, as an individual maximum for P525, P526, P527 and P528, with the total combined allowable not to exceed 0.24 TPY PM, 5% visible emission opacity.

Applicable Compliance Method-

The 3.6 lbs/hr particulate limitation was developed by multiplying the maximum hourly equipment capacity of 12 tons/hr by the engineering emissions estimate of 0.30 lb/ton for Y-Polymer Adhesives.

Compliance with the 0.24 TPY particulate limitation shall be determined by multiplying the ton/year Y-Polymer Adhesives production rate documented per term and condition D.6. by the engineering emissions estimate of 0.30 lb/ton for Y-Polymer Adhesives and dividing by 2000 lbs/ton.

If required, compliance with the 5% visible emission opacity shall be determined through visible emission evaluations performed in accordance with procedures specified in OAC rule 3745-17-03 (B)(1) using the methods and procedures specified in USEPA Reference Method 9.

w. P529

Emission Limitation-

0.22 lb/hr OC, 5.28 lbs/day OC, 0.96 TPY OC

The 0.22 lb/hr limitation was developed by multiplying the maximum hourly equipment capacity of 0.03 ton/hr by the engineering emissions estimate of 7.48 for Y-Polymer Adhesives Manufacturing.

The 5.28 lbs/day OC limitation was developed by multiplying the maximum hourly rate of 0.22 lb/hr OC by 24 hours/day.

The 0.96 TPY OC limitation was developed by multiplying 0.22 lb/hr by 8760 hrs/yr and dividing by 2000 lbs/ton.

x. P530

Emission Limitation-

2.5 lbs/hr OC, 40 lbs/day OC, 7.3 TPY OC

Applicable Compliance Method-

The 2.5 lbs/hr OC limitation was developed by multiplying the maximum hourly equipment capacity of 0.1 ton/hr by the engineering emissions estimate of 25 lbs/ton OC for Water based Adhesives and Solvent Intermediates Manufacturing.

The 40 lbs/day limitation was based on the maximum allowable emission rate stated in the applicable regulation.

The 7.3 TPY OC limitation was developed by multiplying 40 lbs/day by 365 days/yr and dividing by 2000 lbs/ton.

y. P531

Emission Limitation-

0.36 lb/hr particulate, 0.36 TPY particulate, as a rolling 12-month limit, 5% visible emission opacity

Applicable Compliance Method-

The 0.36 lb/hr PM limitation was developed by multiplying the maximum hourly equipment capacity of 0.09 ton/hr by the engineering emissions estimate of 0.45 lb/ton for DNSB Adhesives Manufacturing.

Compliance with the 0.36 TPY PM limitation shall be determined by multiplying the

ton/year DNSB Adhesives production rate documented per term and condition D.6. by the engineering emissions estimate of 0.45 lb/ton for DNSB Adhesives Manufacturing and dividing by 2000 lbs/ton.

If required, compliance with the 5% visible emission opacity shall be determined through visible emission evaluations performed in accordance with procedures specified in OAC rule 3745-17-03 (B)(1) using the methods and procedures specified in USEPA Reference Method 9.

z. P532

Emission Limitation-

8 lbs/hr, 40 lbs/day, 7.3 TPY

Applicable Compliance Method-

The 8 lbs/hr limitation was based on the maximum allowable emission rate stated in the applicable regulation.

The 40 lbs/day limitation was based on the maximum allowable emission rate stated in the applicable regulation.

The 7.3 TPY OC limitation was developed by multiplying 40 lbs/day by 365 days/yr and dividing by 2000 lbs/ton.

aa. P535

Emission Limitation-

0.07 lb/hr OC, 1.68 lbs/day OC, 0.31 TPY OC

Applicable Compliance Method-

The 0.07 lb/hr OC limitation was developed by multiplying the maximum hourly equipment capacity of 0.5 ton/hr by the engineering emissions estimate of 0.13 lb/ton for Polymer Manufacturing.

The 1.68 lbs/day OC limitation was developed by multiplying the maximum hourly emission limit of 0.07 lb/hr by 24 hours/day.

The 0.31 TPY OC limitation was developed by multiplying 0.07 lb/hr by 8760 hrs/yr and dividing by 2000 lbs/ton.

bb. P537

Emission Limitation-

0.39 lb/hr OC, 9.36 lbs/day OC, 1.71 TPY OC

The 0.39 lb/hr limitation was developed by multiplying the maximum hourly equipment capacity of 0.052 ton/hr by the engineering emissions estimated of 7.48 for Y-Polymer Adhesives Manufacturing.

The 9.36 lbs/day OC limitation was developed by multiplying the maximum hourly rate of 0.39 lb/hr OC by 24 hours/day.

The 1.71 TPY OC limitation was developed by multiplying 0.39 lb/hr by 8760 hrs/yr and dividing by 2000 lbs/ton.

cc. P538

Emission Limitation-

0.61 lb/hr OC, 14.64 lbs/day OC, 2.67 TPY OC

The 0.61 lb/hr limitation was developed by multiplying the maximum hourly equipment capacity of 0.082 ton/hr by the engineering emissions estimate of 7.48 for Y-Polymer Adhesives Manufacturing.

The 14.64 lbs/day OC limitation was developed by multiplying the maximum hourly rate of 0.61 lb/hr OC by 24 hours/day.

The 2.67 TPY OC limitation was developed by multiplying 0.61 lb/hr by 8760 hrs/yr and dividing by 2000 lbs/ton.

dd. P539

Emission Limitation-

1.20 lbs/hr OC, 28.80 lbs/day OC, 5.26 TPY OC

The 1.20 lbs/hr limitation was developed by multiplying the maximum hourly equipment capacity of 0.16 ton/hr by the engineering emissions estimate of 7.48 for Y-Polymer Adhesives Manufacturing.

The 28.80 lbs/day OC limitation was developed by multiplying the maximum hourly rate of 1.20 lbs/hr OC by 24 hours/day.

The 5.26 TPY OC limitation was developed by multiplying 1.20 lbs/hr by 8760 hrs/yr and dividing by 2000 lbs/ton.

ee. Facility HAP limits

Emission Limitation-

9.0 TPY individual HAP
20.67 TPY total combined HAP

Applicable Compliance Method-

Compliance shall be determined through the record keeping specified in term and condition D.5. for each individual HAP emission rate and shall be the sum of the 12 months divided by 2000 lbs/ton.

Compliance shall be determined through the record keeping specified in term and condition D.5. for the total combined HAP emission rates and shall be the sum of the 12 months divided by 2000 lbs/ton.

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

a. The emission testing shall be conducted within three months of the issuance of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate of organic compounds from the common regenerative thermal oxidizer.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate: for organic compounds Method 25 of 40 CFR Part 60, Appendix A.

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

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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.

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.

G. <u>Miscellaneous Requirements:</u>

1. The following emissions units at this facility have been determined to exempt from the air permit review system:

   HVAC Boilers and Heaters, R&D Laboratory Equipment, 10 hp Cowles Disperser, Flammable Waste Storage Tank, Solvent Storage Tank Farm, and Soil Vapor Extraction (SVE) System for Remediation of Former Underground Storage Farm.

2. This permit allows the use of materials (typically coatings and cleanup materials) specified by the permittee in the permit to install application for this emissions unit. To fulfill the best available technology requirements of (OAC) rule 3745-31-05 and to ensure compliance with OAC rule 3745-15-07 (Air Pollution Nuisances Prohibited), the emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worse case" each pollutant(s):

   Pollutant: Ethylene Glycol
   TLV (ug/m^3):0.100
   Maximum Hourly Emission Rate (lbs/hr): 0.43
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3):5.12
   MAGLC (ug/m^3):175

   Pollutant: MEK
   TLV (ug/m^3): 590,000
   Maximum Hourly Emission Rate (lbs/hr): 0.43
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3):5.53
   MAGLC (ug/m^3):14,050

   Pollutant: Methylene Chloride
   TLV (ug/m^3): 174,000
   Maximum Hourly Emission Rate (lbs/hr): 0.00085
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3):0.01024

MAGLC (ug/m^3):41,400

Pollutant: Toluene
TLV (ug/m^3): 188,000
Maximum Hourly Emission Rate (lbs/hr): 0.206
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 2.56
MAGLC (ug/m^3): 4480

Pollutant: Cumene
TLV (ug/m^3): 246,000
Maximum Hourly Emission Rate (lbs/hr): 0.063
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 0.8192
MAGLC (ug/m^3): 5860

Pollutant: Selenium
TLV (ug/m^3): 200
Maximum Hourly Emission Rate (lbs/hr): 0.0016
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 0.08176
MAGLC (ug/m^3): 4.76

Pollutant: Epichlorohydrin
TLV (ug/m^3): 7600
Maximum Hourly Emission Rate (lbs/hr): 0.08
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 1.024
MAGLC (ug/m^3): 180

Pollutant: Monochlorobenzene
TLV (ug/m^3): 46,000
Maximum Hourly Emission Rate (lbs/hr): 0.018
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 0.2048
MAGLC (ug/m^3): 1095

Physical changes or changes in the method of operation of the emissions unit that result in changes to the factors affecting the air toxic analysis could result in noncompliance with this permit to install. In order to avoid this noncompliance situation, prior to initiating any changes, permittees are required to conduct an evaluation to determine that the “Air Toxic Policy” is still satisfied. Changes that can affect the “Air Toxic Policy” include, but are not limited to, the following:

a. Changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and,

c. Physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.)

3. The Ohio EPA will not consider any of the above-mentioned as a “modification” requiring a permit to install, if the following conditions are met:

a. The change is not otherwise considered a “modification” under OAC Chapter 3745-31;

b. The permittee can continue to comply with the allowable emission limitations specified in its permit to install; and,

c. Prior to the change, the applicant conducts an evaluation pursuant to the Air Toxic Policy, determines that the changed emissions unit still satisfies the Air Toxic Policy, and the permittee maintains documentation that identifies the change and the results of the application of the Air Toxic Policy for the change.

For any change to the emissions unit or its method of operation that either would require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01, the permittee shall obtain a final permit to install prior to the change.