



State of Ohio Environmental Protection Agency

STREET ADDRESS:

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50 W. Town St., Suite 700  
Columbus, Ohio 43215

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MAILING ADDRESS:

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

9/23/2008

Certified Mail

Rick Holt  
Sherwin-Williams Company  
2121 New World Drive  
Columbus, OH 43207

Yes	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR
No	CEMS
No	MACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
Yes	MODELING SUBMITTED

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE  
Facility ID: 0125041181  
Permit Number: P0082828  
Permit Type: Renewal  
County: Franklin

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit comments on the permit. A public notice will appear in the Ohio EPA Weekly Review and the local newspaper, The Columbus Dispatch. A copy of the public notice and the draft permit are enclosed. This permit has been posted to the Division of Air Pollution Control Web page <http://www.epa.state.oh.us/dapc> in Microsoft Word and Adobe Acrobat format. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall  
Permit Review/Development Section  
Ohio EPA, DAPC  
122 South Front Street  
Columbus, Ohio 43215

and Ohio EPA DAPC, Central District Office  
50 West Town Street, 6th Floor  
P.O. Box 1049  
Columbus, OH 43216-1049

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install and operate will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install and Operate is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Ohio EPA DAPC, Central District Office at (614)728-3778.

Sincerely,

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

Cc: U.S. EPA Region 5 *Via E-Mail Notification*  
Ohio EPA-CDO

Ted Strickland, Governor  
Lee Fisher, Lieutenant Governor  
Chris Korleski, Director



PUBLIC NOTICE  
Issuance of Draft Air Pollution Permit-To-Install and Operate  
Sherwin-Williams Company

Issue Date: 9/23/2008  
Permit Number: P0082828  
Permit Type: Renewal  
Permit Description: Package solvent recovery distillation system  
Facility ID: 0125041181  
Facility Location: Sherwin-Williams Company  
2121 New World Drive,  
Columbus, OH 43207  
Facility Description: Paint and Coating Manufacturing

Chris Korleski, Director of the Ohio Environmental Protection Agency, 50 West Town Street, Columbus Ohio has issued a draft action of an air pollution control, federally enforceable permit-to-install and operate (PTIO) for the facility at the location identified above on the date indicated. Comments concerning this draft action, or a request for a public meeting, must be sent in writing no later than thirty (30) days from the date this notice is published. All comments, questions, requests for permit applications or other pertinent documentation, and correspondence concerning this action must be directed to John Kirwin at Ohio EPA DAPC, Central District Office, 50 West Town Street, 6th Floor P.O. Box 1049 or (614)728-3778. The permit can be downloaded from the Web page: [www.epa.state.oh.us/dapc](http://www.epa.state.oh.us/dapc)





## Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. Source Description:

This state of the art solvent recovery distillation system operates with both a process and an emissions control condenser

3. Facility Emissions and Attainment Status:

Sherwin-Williams manufactures solvent based coatings and operates a regenerative thermal oxidizer (RTO) to control OC and HAP emissions. The facility operates under a federally enforceable synthetic minor permit to install to avoid Title V and MACT requirements. Franklin County is designated as being in basic non-attainment for the 8-hour ozone and the particulate matter (PM 2.5) standard.

4. Source Emissions:

Cleaning solvent run through this still has a typical composition of 13% methyl ethyl ketone, 55% xylene and 20% n-butyl acetate with a calculated uncontrolled PTE of 2.3 tons OC/yr and a controlled PTE of 1 ton OC/yr. The highest emissions are calculated from 100% methyl ethyl ketone (MEK) resulting in controlled emissions of 0.93 lbs MEK/hr and 4.05 tons MEK/yr.

5. Conclusion:

Federally enforceable operating restrictions, monitoring, record keeping and reporting requirements for the distillation system (P180) will ensure compliance with the rolling, 12-month emission limitation on OC and HAP emissions. This will effectively maintain facility-wide HAP and OC emissions below the Title V and MACT threshold level.

6. Please provide additional notes or comments as necessary:

The screen 3 model was conducted at 0.93 lb/hr as released at 1 cfm from a 2 inch diameter vent at 27 feet above grade. The resulting 530 ug/m3 maximum ground level concentration did not exceed the MAGLC, demonstrating compliance with the toxic policy.

7. Total Permit Allowable Emissions Summary (for informational purposes only):

<u>Pollutant</u>	<u>Tons Per Year</u>
OC	4.05
Facility-wide Individual HAP	9.9
Facility-wide Combined HAP	24.9





State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**DRAFT**

**Air Pollution Permit-to-Install and Operate**  
for  
Sherwin-Williams Company

Facility ID: 0125041181  
Permit Number: P0082828  
Permit Type: Renewal  
Issued: 9/23/2008  
Effective: To be entered upon final issuance  
Expiration: To be entered upon final issuance





**Air Pollution Permit-to-Install and Operate**  
for  
Sherwin-Williams Company

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State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Draft Permit-to-Install and Operate**

**Permit Number:** P0082828

**Facility ID:** 0125041181

**Effective Date:** To be entered upon final issuance

## Authorization

Facility ID: 0125041181  
Application Number(s): A0013182  
Permit Number: P0082828  
Permit Description: Package solvent recovery distillation system  
Permit Type: Renewal  
Permit Fee: \$0.00 *DO NOT send payment at this time - subject to change before final issuance*  
Issue Date: 9/23/2008  
Effective Date: To be entered upon final issuance  
Expiration Date: To be entered upon final issuance  
Permit Evaluation Report (PER) Annual Date: To be entered upon final issuance

This document constitutes issuance to:

Sherwin-Williams Company  
2121 New World Drive  
Columbus, OH 43207

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

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

Ohio EPA DAPC, Central District Office  
50 West Town Street, 6th Floor  
P.O. Box 1049  
Columbus, OH 43216-1049  
(614)728-3778

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski  
Director



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Draft Permit-to-Install and Operate**

**Permit Number:** P0082828

**Facility ID:** 0125041181

**Effective Date:** To be entered upon final issuance

## Authorization (continued)

Permit Number: P0082828

Permit Description: Package solvent recovery distillation system

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

<b>Emissions Unit ID:</b>	<b>P180</b>
Company Equipment ID:	Solvent Distillation System
Superseded Permit Number:	01-12129
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Draft Permit-to-Install and Operate**

**Permit Number:** P0082828

**Facility ID:** 0125041181

**Effective Date:** To be entered upon final issuance

## **A. Standard Terms and Conditions**



**1. What does this permit-to-install and operate ("PTIO") allow me to do?**

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

**2. Who is responsible for complying with this permit?**

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

**3. What records must I keep under this permit?**

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

**4. What are my permit fees and when do I pay them?**

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

**5. When does my PTIO expire, and when do I need to submit my renewal application?**

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is



very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

**6. What happens to this permit if my project is delayed or I do not install or modify my source?**

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

**7. What reports must I submit under this permit?**

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

**8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?**

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

**9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?**

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.



**10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?**

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Ohio EPA DAPC, Central District Office in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

**11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?**

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

**12. What happens if one or more emissions units operated under this permit is/are shut down permanently?**

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

**13. Can I transfer this permit to a new owner or operator?**

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Draft Permit-to-Install and Operate**

**Permit Number:** P0082828

**Facility ID:** 0125041181

**Effective Date:** To be entered upon final issuance

**14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?**

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

**15. What happens if a portion of this permit is determined to be invalid?**

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Draft Permit-to-Install and Operate**

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



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Draft Permit-to-Install and Operate**

**Permit Number:** P0082828

**Facility ID:** 0125041181

**Effective Date:** To be entered upon final issuance

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - (1) None.
  - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - (1) None.



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Draft Permit-to-Install and Operate**

**Permit Number:** P0082828

**Facility ID:** 0125041181

**Effective Date:** To be entered upon final issuance

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



**1. P180, Solvent Distillation System**

**Operations, Property and/or Equipment Description:**

Solvent distillation system vented to condenser (200 gallon/hour)

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)(a)(ii) (voluntary restriction to avoid BAT) (PTI 01-12129)	See (2)a and c)(1).
b.	OAC rule 3745-21-07(G)(2)	See (2)b.
c.	OAC rule 3745-31-05(D) (synthetic minor to avoid Title V and MACT requirements)	See (2)c.

(2) Additional Terms and Conditions

a. "Permit to Install 01-12129 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

i. The system condensers shall be maintained regularly per manufacturer's recommendations in order to maintain the highest effective level of OC



emissions control. Maintenance of condensers shall be recorded in an operations log maintained at this facility;

- ii. The emissions of OC from this emissions unit shall not exceed 4.05 tons per year, based upon a rolling, 12-month summation of the monthly emissions.
- b. The emission limitation specified by this rule is less stringent than emission limitation established pursuant to OAC rule 3745-31-05(D).
- c. The restrictions on the potential to emit for facility-wide individual hazardous air pollutants (HAP), total combined HAP and organic compounds (OC) established under OAC rule 3745-31-05(D) are as follows for the emissions units listed in section d)(3) below:
  - i. the facility-wide individual HAP and total HAP emissions shall not exceed 9.9 tons and 24.9 tons as a rolling, 12-month summation, respectively, and
  - ii. the facility-wide total OC emissions shall not exceed 99.9 tons as a rolling, 12-month summation.

Therefore, the permittee, by complying with the federally enforceable terms and conditions, will not be subject to Title V permitting and provisions in the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Miscellaneous Coating Manufacturing 40 CFR Part 63 Subpart HHHHH. The restrictions to potential to emit (PTE) for this emissions unit, as documented with on-site record keeping at this facility, will ensure that the individual HAP, and total combined HAP and OC, emissions will not exceed the Title V and MACT applicability thresholds.

<sup>1</sup>A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact.

c) Operational Restrictions

- (1) The permittee shall operate the condensers for control of organic compound emissions whenever this emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain daily records that document any time periods when the condensers were not in service when the emissions unit was in operation.
- (2) At the end of each calendar month, the permittee shall calculate and record the following information for each day of operation during the preceding month:
  - a. the number of batches of solvent processed in this emissions unit;
  - b. an identification of how the emissions were calculated for each batch;
  - c. the summation of actual OC and HAP emissions for each month of operation, from all product batches processed each month; and



- d. the summation of actual OC and HAP emissions from this emissions unit during the rolling, 12-month period of operation calculated by summing the emissions from each month of operation to the previous 11-month summations.
- (3) The permittee shall maintain the following monthly records on-site to document compliance with the facility-wide restriction on the potential to emit for OC, individual HAP, and total HAP. The records shall include a minimum of the following information for emissions units P013, P014, P016, P017, P021, P022, P023, P024, P025, P026, P027, P117, P118, P138, P170, P171, P172, P047, P048, P049, P050, P051, P052, P053, P054, P055, P056, P057, P058, P059, P060, P061, P062, P063, P064, P065, P066, P067, P068, P069, P070, P071, P072, P073, P074, P075, P076, P085, P086, P087, P088, P089, P090, P091, P092, P093, P094, P095, P096, P097, P098, P099, P100, P101, P102, P151, P157, P158, P159, P103, P104, P105, P106, P107, P108, P109, P110, P111, P112, P113, P114, P115, P116, P120, P146, P147, P148, P149, P150, P160, P161, P162, P163, P164, P165, P173, P174, P175, P176, P177, P178 and P180 along with any permanent exempt and de minimis emissions units:
- a. the calculated facility-wide OC emissions for the current month, in pounds or tons, for each the above emissions units;
  - b. the rolling, 12-month summation of facility-wide OC emissions (i.e., the OC emissions from the current month added to the summation of the OC emissions from the previous 11 months) for all the above emissions units;
  - c. the calculated facility-wide individual HAP emissions for the current month, in pounds or tons, for each the above emissions units;
  - d. the calculated facility-wide total HAP emissions for the current month, in pounds or tons, for each the above emissions units;
  - e. the rolling 12-month summation of individual HAP emissions (i.e., the individual HAP emissions from the current month added to the summation of the individual HAP emissions from the previous 11 months) for all the above emissions units;
  - f. the rolling 12-month summation of total facility-wide HAP emissions (i.e., the total facility-wide HAP emissions from the current month added to the summation of the total facility-wide HAP emissions from the previous 11 months) for all the above emissions units; and
  - g. the rolling 12-month summation of facility-wide OC, individual HAP, total HAP emissions from permanent exempt and de minimis emissions units.
- (4) The PTI application for this/these emissions unit(s), P180 was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The AToxic Air Contaminant Statute<sup>2</sup>, ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level



Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
  - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists= (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
  - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists= (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Pollutant: MEK

TLV (mg/m3): 590

Maximum Hourly Emission Rate (lbs/hr): 1.84 lbs/hr

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1049

MAGLC (ug/m3): 14,047

Toxic Contaminant: MEK

TLV (mg/m3): 590

Maximum Hourly Emission Rate (lbs/hr): 1.84



Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1049

MAGLC (ug/m3): 14,047

The permittee, has demonstrated that emissions of MEK, from emissions unit(s) P180, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the AToxic Air Contaminant Statute, ORC 3704.03(F).

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (5) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
  - a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV 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 toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
  - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the AToxic Air Contaminant Statute will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the AToxic Air Contaminant Statute, ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI, PTIO, or FEPTIO (as applicable) prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (6) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the AToxic Air Contaminant Statute, ORC 3704.03(F):



- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
- b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the AToxic Air Contaminant Statute<sup>®</sup>, ORC 3704.03(F);
- c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the AToxic Air Contaminant Statute<sup>®</sup>, ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
- d. the documentation of the initial evaluation of compliance with the AToxic Air Contaminant Statute<sup>®</sup>, ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (7) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the AToxic Air Contaminant Statute<sup>®</sup>, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. any daily record that documents a time period when the condensers were not in service when the emissions unit was in operation as identified by recordkeeping in d)(1);
  - b. any month during which the rolling, 12-month OC emission limitation listed in (2)a.ii is exceeded as identified by recordkeeping in d)(2)d; and.
  - c. any month during which the rolling 12-month individual HAP and total HAP emission limitations listed in term A.2.c.i are exceeded as identified by recordkeeping in d)(3)e and d)(3)f.

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

[OAC rule 3745-15-03(B)(1)(a)] and [OAC rule 3745-15-03(C)] and [OAC rule 3745-77-07(C)(1)]



- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (3) The permittee shall submit annual reports to the appropriate Ohio EPA District Office or local air agency, documenting any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the AToxic Air Contaminant Statute<sup>o</sup>, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

f) Testing Requirements

- (1) Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

The OC emissions from this emissions unit shall not exceed 4.05 tons per year based on a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the annual VOC emission limit shall be determined by summing the monthly emissions for the calendar year, i.e., the value calculated in d)(2)d, above.

The annual OC emissions were derived by summing emissions from the ideal gas law calculations of displacement and distillation losses processing 100% methyl ethyl ketone solvent.

$$\text{Emission lbs/batch} = P(X) V (MW)/RT \quad 0.809789359 (1) (401 \text{ ft}^3) / (72.1\text{g}) / (10.731 * 510 \text{ R}) = 4.28 \text{ lbs OC/batch} (8760 \text{ hrs}/15 \text{ hrs}) = 2498 \text{ lbs}/2000 \text{ lbs} = 1.25 \text{ tons displacement emissions/yr}$$

$$\text{Distillation Emissions} = V_f ( \text{ volume} ) = 1 \text{ ft}^3/\text{min}; t = 60 \text{ min/hr}; sf = 100\%; T = 510 \text{ R} (50 \text{ degree F}) P (\text{MEK vapor pressure}) = 0.809789359 \text{ psia}; MW = 72.1 \text{ lb/lb mole}; \text{Mole fraction} = 1; R = 10.731 \text{ psia ft}^3/\text{lbmol R}; T = 510 \text{ R} (50 \text{ degree F})$$

$$\text{Emission lbs OC/hr} = P(X) V_f (MW) t (sf)/RT \quad 0.809789359 \text{ psia}(1) (1 \text{ ft}^3/\text{min}) / (72.1\text{g}) 60\text{min} / (10.731 * 510 \text{ R}) = 0.64 \text{ lbs/hr} * 8760 \text{ hrs/yr} \quad 1 \text{ ton}/2000 \text{ lbs} = 2.8 \text{ tons controlled emissions/yr}$$

$$1.25 \text{ tons} + 2.8 \text{ tons} = 4.05 \text{ tons OC/yr}$$



b. Emission Limitation:

The facility-wide emissions of individual HAP and total HAP shall not exceed 9.9 tons and 24.9 tons as a rolling, 12-month summation, respectively.

Applicable Compliance Method:

Compliance shall be demonstrated by the record keeping requirements specified in d)(3)g of this permit.

c. Emission Limitation:

The total facility-wide OC emissions shall not exceed 99.9 tons as a rolling, 12-month summation

Applicable Compliance Method:

Compliance shall be demonstrated by the record keeping requirements specified in d)(3)g of this permit.

g) Miscellaneous Requirements

- (1) None.