



3/18/2014

Bridget May
 Dover Chemical Corp
 3676 Davis Road NW
 Dover, OH 44622

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
 Facility ID: 0679010132
 Permit Number: P0116484
 Permit Type: Administrative Modification
 County: Tuscarawas

Certified Mail

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

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

How to appeal this permit

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

Environmental Review Appeals Commission
 77 South High Street, 17th Floor
 Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/survey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Ohio EPA DAPC, Southeast District Office at (740)3858501 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA
Ohio EPA-SEDO; Pennsylvania; West Virginia



FINAL

**Division of Air Pollution Control
Permit-to-Install
for
Dover Chemical Corp**

Facility ID:	0679010132
Permit Number:	P0116484
Permit Type:	Administrative Modification
Issued:	3/18/2014
Effective:	3/18/2014



Division of Air Pollution Control
Permit-to-Install
for
Dover Chemical Corp

Table of Contents

Authorization	1
A. Standard Terms and Conditions	3
1. Federally Enforceable Standard Terms and Conditions	4
2. Severability Clause	4
3. General Requirements	4
4. Monitoring and Related Record Keeping and Reporting Requirements.....	5
5. Scheduled Maintenance/Malfunction Reporting	6
6. Compliance Requirements	6
7. Best Available Technology	7
8. Air Pollution Nuisance	8
9. Reporting Requirements	8
10. Applicability	8
11. Construction of New Sources(s) and Authorization to Install	8
12. Permit-To-Operate Application	9
13. Construction Compliance Certification	10
14. Public Disclosure	10
15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations	10
16. Fees.....	10
17. Permit Transfers	10
18. Risk Management Plans	10
19. Title IV Provisions	10
B. Facility-Wide Terms and Conditions.....	11
C. Emissions Unit Terms and Conditions	13
1. P917 - Solvent 9228 Solids Blending	14
2. P019 - Phenol Recovery	23



Final Permit-to-Install
Dover Chemical Corp
Permit Number: P0116484
Facility ID: 0679010132
Effective Date: 3/18/2014

Authorization

Facility ID: 0679010132
Facility Description: Chemical processing plant
Application Number(s): M0002671
Permit Number: P0116484
Permit Description: Agency-initiated administrative modification of PTI P0113604 to correct the EU descriptions for EUs P019 and P917 on the authorization page of the PTI.
Permit Type: Administrative Modification
Permit Fee: \$0.00
Issue Date: 3/18/2014
Effective Date: 3/18/2014

This document constitutes issuance to:

Dover Chemical Corp
3676 Davis Rd. NW
Dover, OH 44622

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

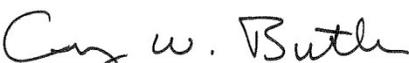
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Southeast District Office
2195 Front Street
Logan, OH 43138
(740)385-8501

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Craig W. Butler
Director



Final Permit-to-Install
Dover Chemical Corp
Permit Number: P0116484
Facility ID: 0679010132
Effective Date:3/18/2014

Authorization (continued)

Permit Number: P0116484
Permit Description: Agency-initiated administrative modification of PTI P0113604 to correct the EU descriptions for EUs P019 and P917 on the authorization page of the PTI.

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

Emissions Unit ID:	P019
Company Equipment ID:	Phenol Recovery
Superseded Permit Number:	P0113604
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P917
Company Equipment ID:	Solvent 9228 Solids Blending
Superseded Permit Number:	P0113604
General Permit Category and Type:	Not Applicable



Final Permit-to-Install
Dover Chemical Corp
Permit Number: P0116484
Facility ID: 0679010132
Effective Date: 3/18/2014

A. Standard Terms and Conditions



1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
- (1) Standard Term and Condition A.2.a), Severability Clause
 - (2) Standard Term and Condition A.3.c) through A. 3.e) General Requirements
 - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
 - (4) Standard Term and Condition A.9., Reporting Requirements
 - (5) Standard Term and Condition A.10., Applicability
 - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
 - (7) Standard Term and Condition A.14., Public Disclosure
 - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (9) Standard Term and Condition A.16., Fees
 - (10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

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



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

4. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Southeast District Office.



- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Southeast District Office. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
 - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Ohio EPA DAPC, Southeast District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
 - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

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

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

- a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted



local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a Responsible Official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

- b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c) The permittee shall submit progress reports to the Ohio EPA DAPC, Southeast District Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

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



8. Air Pollution Nuisance

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

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Southeast District Office.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Southeast District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s) not exempt from the requirement to obtain a Permit-to-Install.

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

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the



Director within a reasonable time before the termination date and the permittee shows good cause for any such extension.

- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted, no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

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

12. Permit-To-Operate Application

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



13. Construction Compliance Certification

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

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

14. Public Disclosure

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

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

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

16. Fees

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

17. Permit Transfers

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

18. Risk Management Plans

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

19. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.



Final Permit-to-Install
Dover Chemical Corp
Permit Number: P0116484
Facility ID: 0679010132
Effective Date: 3/18/2014

B. Facility-Wide Terms and Conditions



Final Permit-to-Install
Dover Chemical Corp
Permit Number: P0116484
Facility ID: 0679010132
Effective Date: 3/18/2014

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - a) None.
2. Emissions unit P019 contained in this permit is subject to the Maximum Achievable Control Technology (MACT) standards in 40 CFR Part 63, Subparts A, FFFF and UU. The complete MACT requirements, including the MACT General Provisions, may be accessed via the internet from the Electronic Code of Federal Regulation (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the appropriate Ohio EPA District office or local air agency.



Final Permit-to-Install
Dover Chemical Corp
Permit Number: P0116484
Facility ID: 0679010132
Effective Date: 3/18/2014

C. Emissions Unit Terms and Conditions



1. P917 - Solvent 9228 Solids Blending

Operations, Property and/or Equipment Description:

Solvent 9228 solids blending process (Unit #s 1 and 2); Unit #1 includes raw material and additive load-in, a material feeder, a compactor and final drum loading controlled with 9228 Baghouse #1 with a capture efficiency of 95% and a control efficiency of 99% and uncontrolled material handling equipment and a hammermill, all operated inside the building (70% capture efficiency); Unit #2 includes a sifter and final product packaging controlled with 9228 Baghouse #2 with a capture efficiency of 95% and a control efficiency of 99% and uncontrolled additive load-in and material handling, all operated inside the building (70% capture efficiency); first issue PTI for process installed in January 2007 and previously managed as de minimis via recorkeeping

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	<p>Particulate emissions (PE) from the stack serving Unit #1 of this emissions unit shall not exceed 0.011 pound per hour (lb/hr) and 0.048 ton per year (TPY).</p> <p>PE from the stack serving Unit #2 of this emissions unit shall not exceed 0.001 pound per hour (lb/hr) and 0.0044 ton per year (TPY).</p> <p>Emissions of particulate matter less than 10 microns (PM₁₀) and 2.5 microns (PM_{2.5}) from the stack serving Unit #1 of this emissions unit shall not exceed 0.0074 lb/hr and 0.0032 TPY.</p> <p>PM₁₀/PM_{2.5} emissions from the stack serving Unit #2 of this emissions unit shall not exceed 0.0006 lb/hr and 0.003 TPY.</p> <p>Fugitive PE shall not exceed 1.07 TPY.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Fugitive PM ₁₀ /PM _{2.5} emissions shall not exceed 0.78 TPY. No visible PE from any baghouse stack and no visible emissions of fugitive dust from any building egress point. Best available control measures that are sufficient to eliminate visible emissions of fugitive dust. See b)(2)a.-e. below.
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)f. below.
c.	OAC rule 3745-17-11(B)	See b)(2)g. below.
d.	OAC rule 3745-17-07(A)	See b)(2)h. below.
e.	OAC rules 3745-17-07(B) and 3745-17-08(B)	See b)(2)i. and j. below.

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limits/control measures no longer apply.
- b. The emissions from this following portions of this emissions unit shall be vented to a baghouse at all times the emissions unit is in operation:
 - Unit #1: raw material and additive load-in, a material feeder, a compactor and final drum loading
 - Unit #2: sifter and final product packaging
- c. The permittee shall employ best available control measures for the uncontrolled solids blending operation for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permit application,



the permittee will ensure that the baghouses capture 95% of the particulate emissions from the controlled portions of the solids blending operation, and will operate all of the equipment within a building with a minimum of 70% capture efficiency. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- d. For each operation that is not adequately enclosed, the above-identified control measures shall be implemented if the permittee determines, as a result of the daily VE checks conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during the operation of the material handling operations until further observation confirms that use of the control measure(s) is unnecessary.
- e. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.
- f. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the SIP.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE and PM₁₀/PM_{2.5} emissions from this air contaminant source since the uncontrolled potential to emit for PE, PM₁₀ and PM_{2.5} is less than 10 tons/yr.

- g. The uncontrolled mass rate of emissions (UMRE) for particulate from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II does not apply to this emissions unit.
- h. Since the mass emissions limitation for particulates in OAC rule 3745-17-11 is not applicable, the opacity limits in OAC rule 3745-17-07 are also not applicable pursuant to OAC rule 3745-17-07(A)(3)(h).
- i. This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08, therefore, the requirements of OAC rule 3745-17-08(B), which requires the installation of reasonably available control measures to prevent fugitive dust, do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).
- j. This emissions unit is exempt from the visible emissions limitations for fugitive dust, specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e), because the emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08.

c) Operational Restrictions

- (1) None.



d) **Monitoring and/or Recordkeeping Requirements**

- (1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from any stack serving this emissions unit and for any visible emissions of fugitive dust from the building egress points (i.e., windows, doors, roof monitors, etc.). The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emissions incident; and
 - e. any corrective actions taken to eliminate the visible emissions.

e) **Reporting Requirements**

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit semiannual written reports that identify:
 - a. all days during which any visible particulate emissions were observed from any stack serving this emissions unit;
 - b. all days during which any visible emissions of fugitive dust were observed from the building egress points (i.e., windows, doors, roof monitors, etc.) serving this emissions unit; and
 - c. any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

f) **Testing Requirements**

- (1) Compliance with the emissions limitations and/or control requirements specified in b)(1) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emissions Limitations:

PE from the stack serving Unit #1 of this emissions unit shall not exceed 0.011 pound per hour (lb/hr) and 0.048 ton per year (TPY).



PE from the stack serving Unit #2 of this emissions unit shall not exceed 0.001 pound per hour (lb/hr) and 0.0044 ton per year (TPY).

PM₁₀/PM_{2.5} emissions from the stack serving Unit #1 of this emissions unit shall not exceed 0.0074 pound per hour (lb/hr) and 0.0032 ton per year (TPY).

PM₁₀/PM_{2.5} emissions from the stack serving Unit #2 of this emissions unit shall not exceed 0.0006 pound per hour (lb/hr) and 0.003 ton per year (TPY).

Applicable Compliance Method:

Compliance with the lb/hr emissions limitations is demonstrated by the following calculations based on a maximum hourly throughput of Unit #1 of 210 pounds (0.21/1,000 lbs/hr), a maximum hourly throughput of Unit #2 of 70 pounds (0.07/1,000 lbs/hr), and a baghouse control efficiency of 99% per the permittee's application:

Unit #1

PE (lb/hr)

$$\begin{aligned} &= (\text{maximum hourly throughput of feeder and sifter, combined, in lb/1,000 lbs/hr} \times \text{emissions factor for screening, in lb PE/1,000 lbs}) + (\text{maximum hourly throughput of compactor, in lb/1,000 lbs/hr} \times \text{emissions factor for grinding, in lb PE/1,000 lbs}) + (\text{maximum hourly throughput of drum loading operations, combined, in lb/1,000 lbs/hr} \times \text{emissions factor for packaging operations, in lb PE/1,000 lbs}) \\ &= (0.42/1,000 \text{ lbs/hr} \times 0.0043 \text{ lb/1,000 lbs}) + (0.21/1,000 \text{ lbs} \times 0.0220 \text{ lb/1,000 lbs}) + (0.42/1,000 \text{ lbs/hr} \times 0.009 \text{ lb PE/1,000 lbs}) \\ &= 0.011 \text{ lb/hr} \end{aligned}$$

PM₁₀/PM_{2.5} (lb/hr)

$$\begin{aligned} &= (\text{controlled hourly emissions from the feeder, sifter and compactor, as calculated above} \times 80.8\%) + (\text{controlled hourly emissions from drum loading} \times 56.8\%) \\ &= (0.0064 \text{ lb/hr} \times 0.808) + (0.0038 \text{ lb/hr} \times 0.568) \\ &= 0.0074 \text{ lb/hr} \end{aligned}$$

Unit #2

PE (lb/hr)

$$= (\text{maximum hourly throughput of sifter, in lb/1,000 lbs/hr} \times \text{emissions factor for screening, in lb PE/1,000 lbs}) + (\text{maximum hourly throughput of packaging operations, in lb/1,000 lbs/hr} \times \text{emissions factor for packaging operations, in lb PE/1,000 lbs})$$



$$= (0.07/1,000 \text{ lbs/hr} \times 0.0043 \text{ lb/1,000 lbs}) + (0.07/1,000 \text{ lbs/hr} \times 0.009 \text{ lb PE/1,000 lbs})$$

$$= 0.001 \text{ lb/hr}$$

PM₁₀/PM_{2.5} (lb/hr)

$$= (\text{controlled hourly emissions from sifter, as calculated above} \times 80.8\%) + (\text{controlled hourly emissions from packaging operations} \times 56.8\%)$$

$$= (0.0003 \text{ lb/hr} \times 0.808) + (0.0006 \text{ lb/hr} \times 0.568)$$

$$= 0.0006 \text{ lb/hr}$$

Where:

0.0043 lb PE/1,000 lbs of material processed = controlled stack emissions factor for screening operations from AP-42 Table 11.26-1 (11/95); applies to the Unit #1 feeder and both units' sifters;

0.0220 lb PE/1,000 lbs of material processed = controlled stack emissions factor for grinding operations from AP-42 Table 11.26-1 (11/95); applies to compactor;

0.0090 lb PE/1,000 lbs of material processed = controlled stack emissions factor for packaging operations from AP-42 Table 11.26-1 (11/95); applies to drum loading and packaging operations;

80.8% = percentage of PE generated in screening and grinding operations that is PM₁₀ (AP-42 Table 11.26-2 (11/95)); and

56.8% = percentage of PE generated in storage and packaging operations that is PM₁₀ (AP-42 Table 11.26-2 (11/95)).

If required, PE shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

If required, PM₁₀/PM_{2.5} emissions shall be determined according to test Methods 201/201A and 202 as set forth in 40 CFR Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

Compliance with the TPY emissions limitations is demonstrated by the following calculations:

PE (TPY; Unit #1)

$$= \text{hourly emissions limitations for PE from Unit \#1 baghouse stack of } 0.011 \text{ lb/hr} \times 8,760 \text{ hrs/yr} \times 1 \text{ ton/2,000 lbs.}$$



PE (TPY; Unit #2)

= hourly emissions limitations for PE from Unit #2 baghouse stack of 0.001 lb/hr X 8,760 hrs/yr X 1 ton/2,000 lbs.

PM₁₀/PM_{2.5} (TPY; Unit #1)

= hourly emissions limitation for PM₁₀/PM_{2.5} from Unit #1 baghouse stack of 0.0074 lb/hr X 8,760 hrs/yr X 1 ton/2,000 lbs.

PM₁₀/PM_{2.5} (TPY; Unit #2)

= hourly emissions limitation for PM₁₀/PM_{2.5} from Unit #2 baghouse stack of 0.0006 lb/hr X 8,760 hrs/yr X 1 ton/2,000 lbs.

b. Emissions Limitations:

Fugitive PE shall not exceed 1.07 TPY.

Fugitive PM₁₀/PM_{2.5} emissions shall not exceed 0.78 TPY.

Applicable Compliance Method:

Compliance with the annual fugitive emissions limitations is demonstrated by the following calculations based on a maximum hourly throughput of Unit #1 of 210 pounds (0.21/1,000 lbs), a maximum hourly throughput of Unit #2 of 70 pounds (0.07/1,000 lbs), a baghouse capture efficiency of 95%, and a 70% building settling factor per the permittee's application:

Fugitive PE (TPY)

= [(maximum hourly throughput of Unit #1 feeder and both sifters, combined, in lb/1,000 lbs/hr X uncontrolled emissions factor for screening operations, in lb PE/1,000 lbs of material processed) + (maximum hourly throughput of compactor, in lb/1,000 lbs/hr X uncontrolled emissions factor for grinding operations, in lb PE/1,000 lbs of material processed) + (maximum hourly throughput of drum loading and final product packaging, combined, in lb/1,000 lbs/hr X uncontrolled emissions factor for packaging operations, in lb PE/1,000 lbs of material processed) X % of PE not captured by baghouse] + [(maximum hourly throughput of Unit #2 feeder, in lb/1,000 lbs/hr X uncontrolled emissions factor for screening operations, in lb PE/1,000 lbs of material processed) + (maximum hourly throughput of the hammermill, in lb/1,000 lbs/hr X uncontrolled emissions factor for grinding operations, in lb PE/1,000 lbs material processed) + (maximum hourly throughput of drum unloading, in lb/1,000 lbs/hr X uncontrolled emissions factor for packaging operations, in lb PE/1,000 lbs of material processed) + (maximum hourly throughput of the bucket elevator, in lb/1,000 lbs/hr X uncontrolled emissions factor for final product bin loading, in lb PE/1,000 lbs of material processed)] X building settling factor X 8,760 hrs/yr X 1 ton/2,000 lbs



$$= [(0.49 \text{ lb}/1,000 \text{ lbs/hr} \times 0.43 \text{ lb PE}/1,000 \text{ lbs}) + (0.21 \text{ lb}/1,000 \text{ lbs/hr} \times 2.20 \text{ lbs PE}/1,000 \text{ lbs}) + (0.49 \text{ lb}/1,000 \text{ lbs/hr} \times 0.90 \text{ lb PE}/1,000 \text{ lbs}) \times (1 - 0.95)] + [(0.07 \text{ lb}/1,000 \text{ lbs/hr} \times 0.43 \text{ lb PE}/1,000 \text{ lbs}) + (0.21 \text{ lb}/1,000 \text{ lbs/hr} \times 2.20 \text{ lbs PE}/1,000 \text{ lbs}) + (0.21 \text{ lb}/1,000 \text{ lbs/hr} \times 0.90 \text{ lb PE}/1,000 \text{ lbs}) + (0.21 \text{ lb}/1,000 \text{ lbs/hr} \times 0.35 \text{ lb PE}/1,000 \text{ lbs})] \times (1 - 0.70) \times 8,760 \text{ hrs/yr} \times 1 \text{ ton}/2,000 \text{ lbs}$$

$$= 1.07 \text{ TPY}$$

Fugitive PM₁₀/PM_{2.5} (TPY)

$$= [(\text{uncontrolled hourly fugitive emissions from the feeders, sifters hammermill and compactor, as calculated above} \times 80.8\%) + (\text{uncontrolled hourly fugitive emissions from the bucket elevator, drum loading, drum unloading and product packaging, as calculated above} \times 56.8\%)] \times \text{building settling factor} \times 8,760 \text{ hrs/yr} \times 1 \text{ ton}/2,000 \text{ lbs}$$

$$= [(0.53 \text{ lb/hr} \times 0.808) + (0.29 \text{ lb/hr} \times 0.568)] \times (1 - 0.70) \times 8,760 \text{ hrs/yr} \times 1 \text{ ton}/2,000 \text{ lbs}$$

$$= 0.78 \text{ TPY}$$

Where:

0.43 lb PE/1,000 lbs of material processed = uncontrolled emissions factor for screening operations based on dividing the controlled emissions factor in AP-42 Table 11.26-1 (11/95) for screening operations by one percent; used to calculate fugitive emissions from the Unit #1 feeder and both units' sifters and uncontrolled emissions from the Unit #2 feeder;

2.20 lb PE/1,000 lbs of material processed = uncontrolled emissions factor for grinding operations based on dividing the controlled emissions factor in AP-42 Table 11.26-1 (11/95) by one percent; used to calculate fugitive emissions from the compactor and uncontrolled emissions from the hammermill;

0.90 lb PE/1,000 lbs of material processed = uncontrolled emissions factor for packaging operations in AP-42 Table 11.26-1 (11/95) based on dividing the controlled emissions factor by one percent; uncontrolled emissions factor used to calculate fugitive emissions from drum loading and final product packaging and uncontrolled emissions from drum unloading;

0.35 lb PE/1,000 lbs of material processed = uncontrolled emissions factor for final product bin loading based on dividing the controlled emissions factor in AP-42 Table 11.26-1 (11/95) by one percent; used to calculate uncontrolled emissions from the bucket elevator;

80.8% = percentage of PE generated in screening and grinding operations that is PM₁₀/PM_{2.5} (AP-42 Table 11.26-2 (11/95)); and



56.8% = percentage of PE generated in storage and packaging operations that is $PM_{10}/PM_{2.5}$ (AP-42 Table 11.26-2 (11/95)).

c. Emissions Limitation:

No visible PE from any baghouse stack and no visible emissions of fugitive dust from any building egress point.

Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to USEPA Method 22.

g) Miscellaneous Requirements

(1) None.



2. P019 - Phenol Recovery

Operations, Property and/or Equipment Description:

Phenol recovery process; includes distillation columns, process and storage tanks and an AMS scrubber for product recovery; except for fugitive leaks from the process equipment and vent releases from 238T and 295T, VOC and HAP emissions from these processes are controlled with carbon totes with a 95% control efficiency; first issue PTI for process installed in January 1998 and previously managed as de minimis via recordkeeping

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) g)(1)

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions from any stack serving this emissions unit shall not exceed 0.11 pound per hour (lb/hr). VOC emissions (stack and fugitive, combined) shall not exceed 0.70 ton per year (TPY).
b.	OAC rule 3745-21-09(DD)	The requirements of this rule are equivalent to the requirements of 40 CFR Part 63, Subparts FFFF and UU and OAC rule 3745-31-05(A)(3) for equipment leaks.
c.	40 CFR Part 63, Subparts FFFF and UU (40 CFR 63.2430-2550 and 40 CFR 63.1019-1039) [In accordance with 40 CFR 63.2430, 63.2435, 63.2440 and 63.1019, this emissions unit is an existing miscellaneous organic chemical process unit (MCPU) at a major source of hazardous air pollutants (HAPs). The equipment	You must meet each requirement in Table 6 to Subpart FFFF of Part 63 that applies to your equipment leaks: Comply with the requirements of Subpart UU of 40 CFR Part 63 and the requirements referenced therein, except as specified in § 63.2480(b) and (d) (40 CFR 63.2480(a) and (b)) See b)(2)a.-c.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	leaks from affected equipment in this process are subject to the emissions limitations and control measures specified in Subparts FFFF and UU.]	The requirements of this rule include compliance with OAC rule 3745-31-05(A)(3), as effective 11/30/01, for equipment leaks.
d.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	<p>Table 12 to Subpart FFFF of 40 CFR Part 63 – Applicability of General Provisions to Subpart FFFF, specifies the provisions of Subpart A that apply to owners and operators of affected facilities subject to Subpart FFFF. (40 CFR 63.2540)</p> <p>The provisions of 40 CFR Part 63, Subpart A (General Provisions) do not apply to Subpart UU except as noted in the referencing subpart. (40 CFR 63.1019)</p>

(2) Additional Terms and Conditions

- a. The owner or operator of an existing source on November 10, 2003 must comply with the requirements for existing sources in Subpart FFFF and UU no later than May 10, 2008.
- b. In accordance with 40 CFR, Part 63 Subpart FFFF and UU, the equipment leaks that are covered by this permit and are subject to the above-mentioned requirements are listed below:
 - i. valves (127)
 - ii. pumps (11)
 - iii. connectors (83)
 - iv. agitators (2)
 - v. relief valves (11)
- c. For pumps in light liquid service in an MCPU that have no continuous process vents and are part of an existing source, the permittee may elect to consider the leak definition that defines a leak to be 10,000 parts per million (ppm) or greater as an alternative to the values specified in 40 CFR 63.1026(b)(2)(i) through (iii) or 63.163(b)(2).

c) Operational Restrictions

- (1) The VOC emissions from the column and all tanks (except for 238T and 295T) shall be vented to a carbon tote at all times the emissions unit is in operation.
- (2) See 40 CFR Part 63, Subparts FFFF and UU [40 CFR 63. 2430-2550 and 63.1019-1039].



d) Monitoring and/or Recordkeeping Requirements

- (1) See 40 CFR Part 63, Subparts FFFF and UU [40 CFR 63. 2430-2550 and 63.1019-1039].
- (2) The permittee shall maintain records of any changes in the component counts listed in b)(2)b. for each type of equipment leak subject to 40 CFR Part 63, Subparts FFFF and UU. These records shall be maintained on site and shall be made available for inspection upon request.

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit deviation (excursion) reports that identify each day when this emissions unit was operated without venting the column and all tanks (except for 238T and 295T) to the carbon tote. Each report shall be submitted within 30 days after the deviation occurs.
- (3) See 40 CFR Part 63, Subparts FFFF and UU [40 CFR 63. 2430-2550 and 63.1019-1039].

f) Testing Requirements

- (1) Compliance with the emissions limitations and/or control requirements specified in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation:

VOC emissions from any stack serving this emissions unit shall not exceed 0.11 lb/hr.

Applicable Compliance Method:

Compliance with the lb/hr emissions limitation is demonstrated by the following calculations based on the information provided in the permittee's application:

VOC (lb/hr)

$$= [(uncontrolled\ VOC\ emissions\ rate\ from\ condenser\ vent,\ in\ lb/hr) + (uncontrolled\ VOC\ emissions\ rate\ from\ controlled\ tanks,\ in\ lb/hr)] \times capture\ efficiency\ of\ carbon\ totes \times control\ efficiency\ of\ carbon\ totes$$

$$= (2.15\ lbs/hr + 0.07\ lb/hr) \times 99\% \times (1-0.95)$$

$$= 0.11\ lb/hr$$

Where:



2.15 lbs/hr = maximum VOC emission rate from condenser vent; based on an emission factor of 3.3 lbs VOC/ton of solvent processed from AP-42 Table 4.7-1 (1/95) and a maximum hourly throughput of 0.65 ton per hour;

0.07 lb/hr = maximum VOC emission rate from five tanks vented to totes; based on an emission factor of 0.02 lb VOC/ton of solvent processed from AP-42 Table 4.7-1 (1/95) and a maximum hourly throughput of 0.65 ton per hour; 99% = capture efficiency of carbon totes (based on engineering judgement); and 95% = control efficiency of carbon totes (based on engineering judgement).

If required, VOC emissions shall be determined according to test Methods 1 - 4, and 18, 25, or 25A as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

b. Emissions Limitation:

VOC emissions (stack and fugitive, combined) shall not exceed 0.70 TPY.

Applicable Compliance Method:

Compliance with the annual VOC emissions limitation is demonstrated by the following calculations based on the information provided in the permittee's application:

VOC (ton/yr)

$$= [(\text{maximum controlled VOC emission rate from column and tanks, in lb/hr (from f)(1)a. above) } + (\text{maximum uncontrolled VOC emission rate from uncontrolled tanks, in lb/hr}) + (\text{maximum VOC emission rate from fugitive leaks, in lb/hr}) \times 8,760 \text{ hours per year} \times 1 \text{ ton}/2,000 \text{ pounds}$$

$$= (0.11 \text{ lb/hr} + 0.03 \text{ lb/hr} + 0.02 \text{ lb/hr}) \times 8,760 \text{ hr/yr} \times 1 \text{ ton}/2,000 \text{ pounds}$$

$$= 0.70 \text{ ton/yr}$$

Where:

0.03 lb/hr = maximum VOC emission rate from two tanks vented to the atmosphere; based on an emission factor of 0.02 lb VOC/ton of solvent processed from AP-42 Table 4.7-1 (1/95) and a maximum hourly throughput of 0.65 ton per hour; and

0.02 lb/hr = maximum VOC emission rate from fugitive leaks based on 1% of the uncontrolled VOC emissions rate of 2.22 lbs/hr.

g) Miscellaneous Requirements

- (1) Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute" in ORC 3704.03(F)(4)(b) was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be



Final Permit-to-Install
Dover Chemical Corp
Permit Number: P0116484
Facility ID: 0679010132
Effective Date: 3/18/2014

less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install and operate prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new material, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install and operate.