



Environmental Protection Agency

John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

3/29/2011

Joe Fetrow  
Colortrend USA LLC.  
620 SHEPHERD DR.  
Lockland, OH 45215

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE  
Facility ID: 1431260080  
Permit Number: P0099572  
Permit Type: Renewal  
County: Hamilton

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
Yes	SYNTHETIC MINOR TO AVOID TITLE V
Yes	FEDERALLY ENFORCABLE PTIO (FEPTIO)

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. Please complete a survey at [www.epa.ohio.gov/dapc/permitsurvey.aspx](http://www.epa.ohio.gov/dapc/permitsurvey.aspx) and give us feedback on your permitting experience. We value your opinion.

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  
309 South Fourth Street, Room 222  
Columbus, OH 43215

If you have any questions, please contact Hamilton County Dept. of Environmental Services at (513)946-7777 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPC Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc), by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

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

Cc: HCDOES





**FINAL**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
Colortrend USA LLC.**

Facility ID:	1431260080
Permit Number:	P0099572
Permit Type:	Renewal
Issued:	3/29/2011
Effective:	3/29/2011
Expiration:	3/16/2014





Division of Air Pollution Control
Permit-to-Install and Operate
for
Colortrend USA LLC.

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## Authorization

Facility ID: 1431260080  
Application Number(s): A0031276  
Permit Number: P0099572  
Permit Description: First issue PTIO being completed as renewal for emission units P010 thru P017 that were most recently permitted under PTI 14-06016 issued 4/22/08 and for P018 that was most recently permitted under PTI 14-05811 issued 5/25/06.  
Permit Type: Renewal  
Permit Fee: \$0.00  
Issue Date: 3/29/2011  
Effective Date: 3/29/2011  
Expiration Date: 3/16/2014  
Permit Evaluation Report (PER) Annual Date: Oct 1 - Sept 30, Due Nov 15

This document constitutes issuance to:

Colortrend USA LLC.  
620 SHEPHERD DR.  
Lockland, OH 45215

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

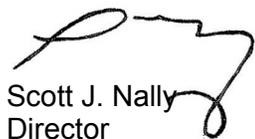
Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Hamilton County Dept. of Environmental Services  
250 William Howard Taft Pkwy.  
Cincinnati, OH 45219-2660  
(513)946-7777

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



Scott J. Nally  
Director



## Authorization (continued)

Permit Number: P0099572  
Permit Description: First issue PTIO being completed as renewal for emission units P010 thru P017 that were most recently permitted under PTI 14-06016 issued 4/22/08 and for P018 that was most recently permitted under PTI 14-05811 issued 5/25/06.

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

**Emissions Unit ID: P010**  
Company Equipment ID: Premix Tanks & Solvent Prod.  
Superseded Permit Number: 14-06016  
General Permit Category and Type: Not Applicable

**Emissions Unit ID: P011**  
Company Equipment ID: Mixer & Aqueous Prod.  
Superseded Permit Number: 14-06016  
General Permit Category and Type: Not Applicable

**Emissions Unit ID: P012**  
Company Equipment ID: Mixer & Aqueous Prod.  
Superseded Permit Number: 14-06016  
General Permit Category and Type: Not Applicable

**Emissions Unit ID: P013**  
Company Equipment ID: Mixer & Aqueous Prod.  
Superseded Permit Number: 14-06016  
General Permit Category and Type: Not Applicable

**Emissions Unit ID: P014**  
Company Equipment ID: Mixer & Aqueous Prod.  
Superseded Permit Number: 14-06016  
General Permit Category and Type: Not Applicable

**Emissions Unit ID: P015**  
Company Equipment ID: Mixer & Aqueous Prod.  
Superseded Permit Number: 14-06016  
General Permit Category and Type: Not Applicable

**Emissions Unit ID: P016**  
Company Equipment ID: Mixer & Aqueous Prod.  
Superseded Permit Number: 14-06016  
General Permit Category and Type: Not Applicable

**Emissions Unit ID: P017**  
Company Equipment ID: Mixer & Aqueous Prod.  
Superseded Permit Number: 14-06016  
General Permit Category and Type: Not Applicable

**Emissions Unit ID: P018**  
Company Equipment ID: Bag Stations  
Superseded Permit Number: 14-05811  
General Permit Category and Type: Not Applicable

## **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. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. 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 Hamilton County Dept. of Environmental Services 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<sup>1</sup> 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 emissions 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.

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<sup>1</sup> Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

**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.

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

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) 2., 3., 4., and 5.
2. The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units P007 (South Premix Tanks Solvent Based Production), P008 (South Toning Mixer A and Tanks Solvent Based Production), P009 (South Toning Mixer B and Tanks Solvent Based Production), P010 (North Premix Tanks and Mills Aqueous Based Production), P011 (West Toning Mixture and Tanks Aqueous Based Production), P012 (East Toning Mixer and Tanks Aqueous Based Production), P013 (MMT Mixer A and Tanks Aqueous Based Production), P014 (MMT Mixer B and Tanks Aqueous Based Production), P015 (MMT Mixer C and Tanks Aqueous Based Production), P016 (West Stir-in Mixer and Tank Aqueous Based Production), P017 (East Stir-in Mixer and Tanks Aqueous Based Production), P019 (Mixer and Tank V4043), P020 (Mixer and Tank V4071 with associated Mill) and P021 (Mixer and Tank V4072 with associated Mill) and any registration status and/or permit exempt emissions units shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.
3. The permittee shall collect and record the following information each month for all materials containing any hazardous air pollutant (HAP)<sup>1</sup> that are applied in the emissions units or air contaminant sources listed in 2 above:
  - a) the name and identification number of each colorant produced.
  - b) the individual hazardous air pollutant (HAP) content of each HAP of each colorant in pounds of individual HAP per pound of colorant, as applied.
  - c) the total combined HAP content of each colorant in pounds of combined HAPs per pound of colorant, as applied [sum of all the individual HAP contents from (b)].
  - d) the number of pounds of each colorant produced.
  - e) the name and identification of each cleanup material employed.
  - f) the individual hazardous air pollutant (HAP) content of each HAP of each cleanup material in pounds of individual HAP per pound of cleanup material, as applied.
  - g) the total HAP content of each cleanup material, in pounds of combined HAPs per gallon of cleanup material, as applied [sum of all the individual HAP contents from (f)].
  - h) the number of gallons of each cleanup material employed.

- i) the total individual HAP emissions for each HAP from all colorants produced and cleanup materials employed, in pounds or tons per month [the sum of (b) times (d) times the emission factor in E.1.a divided by 2000 lbs/ton for each colorant plus the sum of (f) times (h) for each cleanup material.
- j) the total combined HAP emissions from all colorants produced and cleanup materials employed, in pounds or tons per month [the sum of (c) times (d) times the emissions factor in E.1.a divided by 2000 lbs/ton for each colorant plus the sum of (g) times (h) for each cleanup material].
- k) the updated rolling, 12-month summation of the individual HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.
- l) the updated rolling, 12-month summation of the combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

\* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Hamilton County Department of Environmental Services contact. This information does not have to be kept on a individual emissions unit basis.

4. The permittee shall submit quarterly deviation (excursion) reports for in the emissions units or air contaminant sources listed in 2. above that identify the following:
- a) all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:  
  
See emission limitations in 2. above;
  - b) the probable cause of each deviation (excursion);
  - c) any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
  - d) the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

5. Compliance with the emission limitations in 2. of these terms and conditions shall be determined in accordance with the following method(s) identified below:

## a) Emission Limitations:

The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units P007 (South Premix Tanks Solvent Based Production), P008 (South Toning Mixer A and Tanks Solvent Based Production), P009 (South Toning Mixer B and Tanks Solvent Based Production), P010 (North Premix Tanks and Mills Aqueous Based Production), P011 (West Toning Mixture and Tanks Aqueous Based Production), P012 (East Toning Mixer and Tanks Aqueous Based Production), P013 (MMT Mixer A and Tanks Aqueous Based Production), P014 (MMT Mixer B and Tanks Aqueous Based Production), P015 (MMT Mixer C and Tanks Aqueous Based Production), P016 (West Stir-in Mixer and Tank Aqueous Based Production), P017 (East Stir-in Mixer and Tanks Aqueous Based Production), P019 (Mixer and Tank V4043), P020 (Mixer and Tank V4071 with associated Mill) and P021 (Mixer and Tank V4072 with associated Mill) and any registration status and/or permit exempt emissions units shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

## Applicable Compliance Method:

Compliance with the HAP emission limitations shall be demonstrated by the methods outlined in the recordkeeping requirements in 3. above.

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



1. P010, Premix Tanks & Solvent Prod.

Operations, Property and/or Equipment Description:

North Premix Tanks and Mills Aqueous Based Production

- 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. d)(2), d)(3), d)(4), d)(5) and e)(4).
  - (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. b)(2)d., c)(1) and c)(2).
- 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>Volatile Organic Compound (VOC) emissions shall not exceed 0.08 pound per hour and 0.35 TPY.</p> <p>See b)(2)a. and c)(2).</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).</p>
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/1/06	See b)(2)b.
c.	OAC rule 3745-31-05(D) Synthetic Minor to avoid New Source Review (NSR), Title V permitting and MACT requirements.	<p>See b)(2)d., c)(1) and c)(2).</p> <p>See Section B.2.</p>
d.	OAC rule 3745-21-07(G)	<p>Exempt, due to Ohio Supreme Court decision of July 11, 2001 and the Ohio EPA permitting call held July 18, 2002.</p> <p>See b)(2)e.</p>

- (2) Additional Terms and Conditions
- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 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 regulations for NAAQS pollutant less than ten tons per year. However, the 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 revisions 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 3745-31-05, then the mass NO<sub>x</sub>, SO<sub>2</sub>, VOC, PE and PM<sub>10</sub>, emission limitations no longer apply.
  - b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan:

The Best Available Technology (BAT) requirements under OAC 3745-31-05(A)(3) do not apply to the volatile organic compound emissions from this air contaminant source since the potential to emit for VOC is less than ten tons per year.
  - c. The hourly emission limitation is based upon the emissions unit's potential to emit. Therefore, no hourly records are required to demonstrate compliance with this limitation.
  - d. The volatile organic compound (VOC) emissions from emissions units P007 (South Premix Tanks Solvent Based Production), P008 (South Toning Mixer A and Tanks Solvent Based Production), P009 (South Toning Mixer B and Tanks Solvent Based Production), P010 (North Premix Tanks and Mills Aqueous Based Production), P011 (West Toning Mixture and Tanks Aqueous Based Production), P012 (East Toning Mixer and Tanks Aqueous Based Production), P013 (MMT Mixer A and Tanks Aqueous Based Production), P014 (MMT Mixer B and Tanks Aqueous Based Production), P015 (MMT Mixer C and Tanks Aqueous Based Production), P016 (West Stir-in Mixer and Tank Aqueous Based Production), P017 (East Stir-in Mixer and Tanks Aqueous Based Production), P019 (Mixer and Tank V4043), P020 (Mixer and Tank V4071 with associated Mill) and P021 (Mixer and Tank V4072 with associated Mill) shall not exceed 80.07 TPY. Compliance with the above limitations shall be based on a rolling, 12-month summation.
  - e. On February 18, 2008, OAC rule 3745-21 was revised to reserve paragraph (G); therefore, paragraph (G) does not contain specific requirements as currently listed in Ohio's State Implementation Plan (SIP). However, at the time of the issuance of this permit, the rule revision has not been submitted to U.S. EPA as a revision to Ohio's State Implementation Plan (SIP) and until the U.S. EPA approves the revisions to OAC rule 3745-21, the requirements of OAC rule 3745-21-07(G)(2) still exists as part of the federally-approved SIP for Ohio.

- c) Operational Restrictions
- (1) The maximum annual production rate in emissions units P007 through P017 and P019 through P021, combined shall not exceed 74,500,000 pounds of colorant per year, based on a rolling 12-month summation of the production rates.
  - (2) The permittee shall use fitted covers on this emissions unit while in operation or holding any material containing organic compounds.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall collect and record the following information each month for emissions units P007 - P017 and P019 - P021:
    - a. The name and identification number of each colorant produced.
    - b. The number of pounds of each colorant produced.
    - c. The organic compound content, in percent by weight, of each colorant produced.
    - d. The total organic compound emission rate for all colorants produced, in pounds or tons.
    - e. The updated rolling, 12-month summation of the total colorant usage, in pounds; (This shall include the information for the current month and the preceding eleven months.).
    - f. The rolling, 12-month summation of the OC emissions, in tons (This shall include the information for the current month and the preceding eleven months.).
  - (2) The permit to install for this/these emissions unit(s) [P007 - P017 and P019 - P021] was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee in the permit application. The "Toxic Air Contaminant Statute", 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 SCREEN 3.0, 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

Pollutant: Ethylene Glycol

TLV (ug/m<sup>3</sup>): 100,000

Maximum Hourly Emission Rate (lbs/hr): 6.8

Predicted 1-Hour Maximum Ground-Level

Concentration (ug/m<sup>3</sup>): 842

MAGLC (ug/m<sup>3</sup>): 2381

The permittee, has demonstrated that emissions of ethylene glycol, from emissions unit(s) [P007 - P017 and P019 - P021], 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 "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (3) 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 "Toxic 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 "Toxic 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 PTIO 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.

- (4) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic 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 "Toxic Air Contaminant Statute", 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 "Toxic Air Contaminant Statute", 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 "Toxic Air Contaminant Statute", 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.
- (5) 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 "Toxic Air Contaminant Statute", 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.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation reports which identify any exceedance of the OC emission limitation set forth in b)(2)d. If no deviations occurred during the reporting period, the permittee shall state so in the report.

The reports shall be submitted to the Director (the Hamilton County Department of Environmental Services) by January 31, April 30, July 31 and October 31 of each year and shall cover the previous three calendar months (October through December, January through March, April through June and July through September, respectively.)

- (2) The permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify all exceedances of the rolling, 12-month colorant production limitation in term c)(1). If no deviations occurred during the reporting period, the permittee shall state so in the report.

The reports shall be submitted to the Director (the Hamilton County Department of Environmental Services) by January 31, April 30, July 31 and October 31 of each year and shall cover the previous three calendar months (October through December, January through March, April through June and July through September, respectively.)

- (3) 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

- (4) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitation:

Volatile Organic Compound (VOC) emissions shall not exceed 0.08 pound per hour and 0.35 TPY.

Applicable Compliance Method:

Compliance with the hourly VOC emission rate from the colorant production shall be determined by the following equation:

$$E = A \times 0.0005 \text{ ton/lb} \times F$$

Where,

E is the VOC emission rate, pounds per hour

A is the maximum hourly colorant production in pounds

F is the emission factor in lb(s) per ton provided in the PTI application 14-06016 submitted on January 23, 2008.

Compliance with the annual VOC emission rate from the colorant production shall be determined by the following equation:

$$E = A \times 0.0005 \text{ ton/lb} \times F \times 8760 \text{ hours per year} \times 1 \text{ ton per } 2000 \text{ lbs.}$$

E is the OC emission rate, tons per year.

A is the maximum hourly colorant production in pounds.

F is the emission factor in lb(s) per ton provided in the PTI application 14-06016 submitted on January 23, 2008.

b. Emission Limitation:

VOC emissions shall not exceed 80.07 TPY for emission units P007 through P017 and P019 through P021 based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements as specified in d)(1).

The VOC emission rate from emission units P007 through P017 and P019 through P021 shall be determined by the following equation:

$$E = A \times 0.0005 \text{ ton/lb} \times F \times 0.0005 \text{ ton/lb}$$

E is the VOC emission rate, TPY

A is the annual colorant production in pounds

F is the emission factor for the colorant provided in the PTI application 14-06016 submitted on January 23, 2008.

- (2) Compliance with the rolling, 12-month colorant production limitation in c)(1) shall be based upon the record keeping requirements specified in term and condition d)(1).

g) Miscellaneous Requirements

- (1) None.



2. P011, Mixer & Aqueous Prod.

Operations, Property and/or Equipment Description:

West Toning Mixture and Tanks Aqueous Based Production

- 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. d)(2), d)(3), d)(4), d)(5) and e)(4).
  - (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. b)(2)d., c)(1) and c)(2).
- 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>Volatile Organic Compound (VOC) emissions shall not exceed 1.24 pounds per hour and 5.4 TPY.</p> <p>See b)(2)a. and c)(2).</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).</p>
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/1/06	See b)(2)b.
c.	OAC rule 3745-31-05(D) Synthetic Minor to avoid New Source Review (NSR), Title V permitting and MACT requirements.	<p>See b)(2)d., c)(1) and c)(2).</p> <p>See Section B.2.</p>
d.	OAC rule 3745-21-07(G)	<p>Exempt, due to Ohio Supreme Court decision of July 11, 2001 and the Ohio EPA permitting call held July 18, 2002.</p> <p>See b)(2)e.</p>

- (2) Additional Terms and Conditions
- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 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 regulations for NAAQS pollutant less than ten tons per year. However, the 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 revisions 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 3745-31-05, then the mass NO<sub>x</sub>, SO<sub>2</sub>, VOC, PE and PM<sub>10</sub>, emission limitations no longer apply.
  - b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan:  
  
The Best Available Technology (BAT) requirements under OAC 3745-31-05(A)(3) do not apply to the volatile organic compound emissions from this air contaminant source since the potential to emit for VOC is less than ten tons per year.
  - c. The hourly emission limitation is based upon the emissions unit's potential to emit. Therefore, no hourly records are required to demonstrate compliance with this limitation.
  - d. The volatile organic compound (VOC) emissions from emissions units P007 (South Premix Tanks Solvent Based Production), P008 (South Toning Mixer A and Tanks Solvent Based Production), P009 (South Toning Mixer B and Tanks Solvent Based Production), P010 (North Premix Tanks and Mills Aqueous Based Production), P011 (West Toning Mixture and Tanks Aqueous Based Production), P012 (East Toning Mixer and Tanks Aqueous Based Production), P013 (MMT Mixer A and Tanks Aqueous Based Production), P014 (MMT Mixer B and Tanks Aqueous Based Production), P015 (MMT Mixer C and Tanks Aqueous Based Production), P016 (West Stir-in Mixer and Tank Aqueous Based Production), P017 (East Stir-in Mixer and Tanks Aqueous Based Production), P019 (Mixer and Tank V4043), P020 (Mixer and Tank V4071 with associated Mill) and P021 (Mixer and Tank V4072 with associated Mill) shall not exceed 80.07 TPY. Compliance with the above limitations shall be based on a rolling, 12-month summation.
  - e. On February 18, 2008, OAC rule 3745-21 was revised to reserve paragraph (G); therefore, paragraph (G) does not contain specific requirements as currently listed in Ohio's State Implementation Plan (SIP). However, at the time of the issuance of this permit, the rule revision has not been submitted to U.S. EPA as a revision to Ohio's State Implementation Plan (SIP) and until the U.S. EPA approves the revisions to OAC rule 3745-21, the requirements of OAC rule 3745-21-07(G)(2) still exists as part of the federally-approved SIP for Ohio.

- c) Operational Restrictions
- (1) The maximum annual production rate in emissions units P007 through P017 and P019 through P021, combined shall not exceed 74,500,000 pounds of colorant per year, based on a rolling 12-month summation of the production rates.
  - (2) The permittee shall use fitted covers on this emissions unit while in operation or holding any material containing organic compounds.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall collect and record the following information each month for emissions units P007 - P017 and P019 - P021:
    - a. The name and identification number of each colorant produced.
    - b. The number of pounds of each colorant produced.
    - c. The organic compound content, in percent by weight, of each colorant produced.
    - d. The total organic compound emission rate for all colorants produced, in pounds or tons.
    - e. The updated rolling, 12-month summation of the total colorant usage, in pounds; (This shall include the information for the current month and the preceding eleven months.).
    - f. The rolling, 12-month summation of the OC emissions, in tons (This shall include the information for the current month and the preceding eleven months.).
  - (2) The permit to install for this/these emissions unit(s) [P007 - P017 and P019 - P021] was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee in the permit application. The "Toxic Air Contaminant Statute", 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 SCREEN 3.0, 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

Pollutant: Ethylene Glycol

TLV (ug/m<sup>3</sup>): 100,000

Maximum Hourly Emission Rate (lbs/hr): 6.8

Predicted 1-Hour Maximum Ground-Level

Concentration (ug/m<sup>3</sup>): 842

MAGLC (ug/m<sup>3</sup>): 2381

The permittee, has demonstrated that emissions of ethylene glycol, from emissions unit(s) [P007 - P017 and P019 - P021], 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 "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (3) 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 "Toxic 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 "Toxic 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 PTIO 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.

- (4) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic 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 "Toxic Air Contaminant Statute", 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 "Toxic Air Contaminant Statute", 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 "Toxic Air Contaminant Statute", 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.
- (5) 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 "Toxic Air Contaminant Statute", 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.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation reports which identify any exceedance of the OC emission limitation set forth in b)(2)d. If no deviations occurred during the reporting period, the permittee shall state so in the report.

The reports shall be submitted to the Director (the Hamilton County Department of Environmental Services) by January 31, April 30, July 31 and October 31 of each year and shall cover the previous three calendar months (October through December, January through March, April through June and July through September, respectively.)

- (2) The permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify all exceedances of the rolling, 12-month colorant production limitation in term c)(1). If no deviations occurred during the reporting period, the permittee shall state so in the report.

The reports shall be submitted to the Director (the Hamilton County Department of Environmental Services) by January 31, April 30, July 31 and October 31 of each year and shall cover the previous three calendar months (October through December, January through March, April through June and July through September, respectively.)

- (3) 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

- (4) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitation:

Volatile Organic Compound (VOC) emissions shall not exceed 1.24 pounds per hour and 5.4 TPY.

Applicable Compliance Method:

Compliance with the hourly VOC emission rate from the colorant production shall be determined by the following equation:



$$E = A \times 0.0005 \text{ ton/lb} \times F$$

Where,

E is the VOC emission rate, pounds per hour

A is the maximum hourly colorant production in pounds

F is the emission factor in lb(s) per ton provided in the PTI application 14-06016 submitted on January 23, 2008.

Compliance with the annual VOC emission rate from the colorant production shall be determined by the following equation:

$$E = A \times 0.0005 \text{ ton/lb} \times F \times 8760 \text{ hours per year} \times 1 \text{ ton per } 2000 \text{ lbs.}$$

E is the OC emission rate, tons per year.

A is the maximum hourly colorant production in pounds.

F is the emission factor in lb(s) per ton provided in the PTI application 14-06016 submitted on January 23, 2008.

b. Emission Limitation:

VOC emissions shall not exceed 80.07 TPY for emission units P007 through P017 and P019 through P021 based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements as specified in d)(1).

The VOC emission rate from emission units P007 through P017 and P019 through P021 shall be determined by the following equation:

$$E = A \times 0.0005 \text{ ton/lb} \times F \times 0.0005 \text{ ton/lb}$$

E is the VOC emission rate, TPY

A is the annual colorant production in pounds

F is the emission factor for the colorant provided in the PTI application 14-06016 submitted on January 23, 2008.

(2) Compliance with the rolling, 12-month colorant production limitation in c)(1) shall be based upon the record keeping requirements specified in term and condition d)(1).

g) Miscellaneous Requirements

(1) None.



3. P012, Mixer & Aqueous Prod.

Operations, Property and/or Equipment Description:

East Toning Mixer and Tanks Aqueous Based Production

- 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. d)(2), d)(3), d)(4), d)(5) and e)(4).
  - (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. b)(2)d., c)(1) and c)(2).
- 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>Volatile Organic Compound (VOC) emissions shall not exceed 1.24 pounds per hour and 5.4 TPY.</p> <p>See b)(2)a. and c)(2).</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).</p>
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/1/06	See b)(2)b.
c.	OAC rule 3745-31-05(D) Synthetic Minor to avoid New Source Review (NSR), Title V permitting and MACT requirements.	<p>See b)(2)d., c)(1) and c)(2).</p> <p>See Section B.2.</p>
d.	OAC rule 3745-21-07(G)	<p>Exempt, due to Ohio Supreme Court decision of July 11, 2001 and the Ohio EPA permitting call held July 18, 2002.</p> <p>See b)(2)e.</p>

- (2) Additional Terms and Conditions
- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 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 regulations for NAAQS pollutant less than ten tons per year. However, the 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 revisions 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 3745-31-05, then the mass NO<sub>x</sub>, SO<sub>2</sub>, VOC, PE and PM<sub>10</sub>, emission limitations no longer apply.
  - b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan:  
  
The Best Available Technology (BAT) requirements under OAC 3745-31-05(A)(3) do not apply to the volatile organic compound emissions from this air contaminant source since the potential to emit for VOC is less than ten tons per year.
  - c. The hourly emission limitation is based upon the emissions unit's potential to emit. Therefore, no hourly records are required to demonstrate compliance with this limitation.
  - d. The volatile organic compound (VOC) emissions from emissions units P007 (South Premix Tanks Solvent Based Production), P008 (South Toning Mixer A and Tanks Solvent Based Production), P009 (South Toning Mixer B and Tanks Solvent Based Production), P010 (North Premix Tanks and Mills Aqueous Based Production), P011 (West Toning Mixture and Tanks Aqueous Based Production), P012 (East Toning Mixer and Tanks Aqueous Based Production), P013 (MMT Mixer A and Tanks Aqueous Based Production), P014 (MMT Mixer B and Tanks Aqueous Based Production), P015 (MMT Mixer C and Tanks Aqueous Based Production), P016 (West Stir-in Mixer and Tank Aqueous Based Production), P017 (East Stir-in Mixer and Tanks Aqueous Based Production), P019 (Mixer and Tank V4043), P020 (Mixer and Tank V4071 with associated Mill) and P021 (Mixer and Tank V4072 with associated Mill) shall not exceed 80.07 TPY. Compliance with the above limitations shall be based on a rolling, 12-month summation.
  - e. On February 18, 2008, OAC rule 3745-21 was revised to reserve paragraph (G); therefore, paragraph (G) does not contain specific requirements as currently listed in Ohio's State Implementation Plan (SIP). However, at the time of the issuance of this permit, the rule revision has not been submitted to U.S. EPA as a revision to Ohio's State Implementation Plan (SIP) and until the U.S. EPA approves the revisions to OAC rule 3745-21, the requirements of OAC rule 3745-21-07(G)(2) still exists as part of the federally-approved SIP for Ohio.

- c) Operational Restrictions
- (1) The maximum annual production rate in emissions units P007 through P017 and P019 through P021, combined shall not exceed 74,500,000 pounds of colorant per year, based on a rolling 12-month summation of the production rates.
  - (2) The permittee shall use fitted covers on this emissions unit while in operation or holding any material containing organic compounds.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall collect and record the following information each month for emissions units P007 - P017 and P019 - P021:
    - a. The name and identification number of each colorant produced.
    - b. The number of pounds of each colorant produced.
    - c. The organic compound content, in percent by weight, of each colorant produced.
    - d. The total organic compound emission rate for all colorants produced, in pounds or tons.
    - e. The updated rolling, 12-month summation of the total colorant usage, in pounds; (This shall include the information for the current month and the preceding eleven months.).
    - f. The rolling, 12-month summation of the OC emissions, in tons (This shall include the information for the current month and the preceding eleven months.).
  - (2) The permit to install for this/these emissions unit(s) [P007 - P017 and P019 - P021] was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee in the permit application. The "Toxic Air Contaminant Statute", 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 SCREEN 3.0, 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

Pollutant: Ethylene Glycol

TLV (ug/m<sup>3</sup>): 100,000

Maximum Hourly Emission Rate (lbs/hr): 6.8

Predicted 1-Hour Maximum Ground-Level

Concentration (ug/m<sup>3</sup>): 842

MAGLC (ug/m<sup>3</sup>): 2381

The permittee, has demonstrated that emissions of ethylene glycol, from emissions unit(s) [P007 - P017 and P019 - P021], 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 "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (3) 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 "Toxic 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 "Toxic 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 PTIO 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.

- (4) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic 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 "Toxic Air Contaminant Statute", 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 "Toxic Air Contaminant Statute", 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 "Toxic Air Contaminant Statute", 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.
- (5) 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 "Toxic Air Contaminant Statute", 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.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation reports which identify any exceedance of the OC emission limitation set forth in b)(2)d. If no deviations occurred during the reporting period, the permittee shall state so in the report.

The reports shall be submitted to the Director (the Hamilton County Department of Environmental Services) by January 31, April 30, July 31 and October 31 of each year and shall cover the previous three calendar months (October through December, January through March, April through June and July through September, respectively.)

- (2) The permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify all exceedances of the rolling, 12-month colorant production limitation in term c)(1). If no deviations occurred during the reporting period, the permittee shall state so in the report.

The reports shall be submitted to the Director (the Hamilton County Department of Environmental Services) by January 31, April 30, July 31 and October 31 of each year and shall cover the previous three calendar months (October through December, January through March, April through June and July through September, respectively.)

- (3) 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
- (4) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitation:

Volatile Organic Compound (VOC) emissions shall not exceed 1.24 pounds per hour and 5.4 TPY.

Applicable Compliance Method:

Compliance with the hourly VOC emission rate from the colorant production shall be determined by the following equation:

$$E = A \times 0.0005 \text{ ton/lb} \times F$$

Where,

E is the VOC emission rate, pounds per hour

A is the maximum hourly colorant production in pounds

F is the emission factor in lb(s) per ton provided in the PTI application 14-06016 submitted on January 23, 2008.

Compliance with the annual VOC emission rate from the colorant production shall be determined by the following equation:

$$E = A \times 0.0005 \text{ ton/lb} \times F \times 8760 \text{ hours per year} \times 1 \text{ ton per } 2000 \text{ lbs.}$$

E is the OC emission rate, tons per year.

A is the maximum hourly colorant production in pounds.

F is the emission factor in lb(s) per ton provided in the PTI application 14-06016 submitted on January 23, 2008.

b. Emission Limitation:

VOC emissions shall not exceed 80.07 TPY for emission units P007 through P017 and P019 through P021 based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements as specified in d)(1).

The VOC emission rate from emission units P007 through P017 and P019 through P021 shall be determined by the following equation:

$$E = A \times 0.0005 \text{ ton/lb} \times F \times 0.0005 \text{ ton/lb}$$

E is the VOC emission rate, TPY

A is the annual colorant production in pounds

F is the emission factor for the colorant provided in the PTI application 14-06016 submitted on January 23, 2008.

- (2) Compliance with the rolling, 12-month colorant production limitation in c)(1) shall be based upon the record keeping requirements specified in term and condition d)(1).

- g) Miscellaneous Requirements
  - (1) None.



4. P013, Mixer & Aqueous Prod.

Operations, Property and/or Equipment Description:

MMT Mixer A and Tanks Aqueous Based Production

- 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. d)(2), d)(3), d)(4), d)(5) and e)(4).
  - (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. b)(2)d., c)(1) and c)(2).
- 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>Volatile Organic Compound (VOC) emissions shall not exceed 1.29 pounds per hour and 5.6 TPY.</p> <p>See b)(2)a. and c)(2).</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).</p>
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/1/06	See b)(2)b.
c.	OAC rule 3745-31-05(D) Synthetic Minor to avoid New Source Review (NSR), Title V permitting and MACT requirements.	<p>See b)(2)d., c)(1) and c)(2).</p> <p>See Section B.2.</p>
d.	OAC rule 3745-21-07(G)	<p>Exempt, due to Ohio Supreme Court decision of July 11, 2001 and the Ohio EPA permitting call held July 18, 2002.</p> <p>See b)(2)e.</p>

- (2) Additional Terms and Conditions
- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 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 regulations for NAAQS pollutant less than ten tons per year. However, the 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 revisions 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 3745-31-05, then the mass NO<sub>x</sub>, SO<sub>2</sub>, VOC, PE and PM<sub>10</sub>, emission limitations no longer apply.
  - b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan:

The Best Available Technology (BAT) requirements under OAC 3745-31-05(A)(3) do not apply to the volatile organic compound emissions from this air contaminant source since the potential to emit for VOC is less than ten tons per year.
  - c. The hourly emission limitation is based upon the emissions unit's potential to emit. Therefore, no hourly records are required to demonstrate compliance with this limitation.
  - d. The volatile organic compound (VOC) emissions from emissions units P007 (South Premix Tanks Solvent Based Production), P008 (South Toning Mixer A and Tanks Solvent Based Production), P009 (South Toning Mixer B and Tanks Solvent Based Production), P010 (North Premix Tanks and Mills Aqueous Based Production), P011 (West Toning Mixture and Tanks Aqueous Based Production), P012 (East Toning Mixer and Tanks Aqueous Based Production), P013 (MMT Mixer A and Tanks Aqueous Based Production), P014 (MMT Mixer B and Tanks Aqueous Based Production), P015 (MMT Mixer C and Tanks Aqueous Based Production), P016 (West Stir-in Mixer and Tank Aqueous Based Production), P017 (East Stir-in Mixer and Tanks Aqueous Based Production), P019 (Mixer and Tank V4043), P020 (Mixer and Tank V4071 with associated Mill) and P021 (Mixer and Tank V4072 with associated Mill) shall not exceed 80.07 TPY. Compliance with the above limitations shall be based on a rolling, 12-month summation.
  - e. On February 18, 2008, OAC rule 3745-21 was revised to reserve paragraph (G); therefore, paragraph (G) does not contain specific requirements as currently listed in Ohio's State Implementation Plan (SIP). However, at the time of the issuance of this permit, the rule revision has not been submitted to U.S. EPA as a revision to Ohio's State Implementation Plan (SIP) and until the U.S. EPA approves the revisions to OAC rule 3745-21, the requirements of OAC rule 3745-21-07(G)(2) still exists as part of the federally-approved SIP for Ohio.

- c) Operational Restrictions
- (1) The maximum annual production rate in emissions units P007 through P017 and P019 through P021, combined shall not exceed 74,500,000 pounds of colorant per year, based on a rolling 12-month summation of the production rates.
  - (2) The permittee shall use fitted covers on this emissions unit while in operation or holding any material containing organic compounds.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall collect and record the following information each month for emissions units P007 - P017 and P019 - P021:
    - a. The name and identification number of each colorant produced.
    - b. The number of pounds of each colorant produced.
    - c. The organic compound content, in percent by weight, of each colorant produced.
    - d. The total organic compound emission rate for all colorants produced, in pounds or tons.
    - e. The updated rolling, 12-month summation of the total colorant usage, in pounds; (This shall include the information for the current month and the preceding eleven months.).
    - f. The rolling, 12-month summation of the OC emissions, in tons (This shall include the information for the current month and the preceding eleven months.).
  - (2) The permit to install for this/these emissions unit(s) [P007 - P017 and P019 - P021] was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee in the permit application. The "Toxic Air Contaminant Statute", 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 SCREEN 3.0, 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. 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

Pollutant: Ethylene Glycol

TLV (ug/m<sup>3</sup>): 100,000

Maximum Hourly Emission Rate (lbs/hr): 6.8

Predicted 1-Hour Maximum Ground-Level

Concentration (ug/m<sup>3</sup>): 842

MAGLC (ug/m<sup>3</sup>): 2381

The permittee, has demonstrated that emissions of ethylene glycol, from emissions unit(s) [P007 - P017 and P019 - P021], 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 "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (3) 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 "Toxic 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 "Toxic 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 PTIO 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.

- (4) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic 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 "Toxic Air Contaminant Statute", 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 "Toxic Air Contaminant Statute", 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 "Toxic Air Contaminant Statute", 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.
- (5) 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 "Toxic Air Contaminant Statute", 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.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation reports which identify any exceedance of the OC emission limitation set forth in b)(2)d. If no deviations occurred during the reporting period, the permittee shall state so in the report.

The reports shall be submitted to the Director (the Hamilton County Department of Environmental Services) by January 31, April 30, July 31 and October 31 of each year and shall cover the previous three calendar months (October through December, January through March, April through June and July through September, respectively.)

- (2) The permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify all exceedances of the rolling, 12-month colorant production limitation in term c)(1). If no deviations occurred during the reporting period, the permittee shall state so in the report.

The reports shall be submitted to the Director (the Hamilton County Department of Environmental Services) by January 31, April 30, July 31 and October 31 of each year and shall cover the previous three calendar months (October through December, January through March, April through June and July through September, respectively.)

- (3) 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
- (4) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitation:

Volatile Organic Compound (VOC) emissions shall not exceed 1.29 pounds per hour and 5.6 TPY.

Applicable Compliance Method:

Compliance with the hourly VOC emission rate from the colorant production shall be determined by the following equation:

$$E = A \times 0.0005 \text{ ton/lb} \times F$$

Where,

E is the VOC emission rate, pounds per hour

A is the maximum hourly colorant production in pounds

F is the emission factor in lb(s) per ton provided in the PTI application 14-06016 submitted on January 23, 2008.

Compliance with the annual VOC emission rate from the colorant production shall be determined by the following equation:

$$E = A \times 0.0005 \text{ ton/lb} \times F \times 8760 \text{ hours per year} \times 1 \text{ ton per 2000 lbs.}$$

E is the OC emission rate, tons per year.

A is the maximum hourly colorant production in pounds.

F is the emission factor in lb(s) per ton provided in the PTI application 14-06016 submitted on January 23, 2008.

b. Emission Limitation:

VOC emissions shall not exceed 80.07 TPY for emission units P007 through P017 and P019 through P021 based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements as specified in d)(1).

The VOC emission rate from emission units P007 through P017 and P019 through P021 shall be determined by the following equation:

$$E = A \times 0.0005 \text{ ton/lb} \times F \times 0.0005 \text{ ton/lb}$$

E is the VOC emission rate, TPY

A is the annual colorant production in pounds

F is the emission factor for the colorant provided in the PTI application 14-06016 submitted on January 23, 2008.

- (2) Compliance with the rolling, 12-month colorant production limitation in c)(1) shall be based upon the record keeping requirements specified in term and condition d)(1).

- g) Miscellaneous Requirements
  - (1) None.



5. P014, Mixer & Aqueous Prod.

Operations, Property and/or Equipment Description:

MMT Mixer B and Tanks Aqueous Based Production

- 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. d)(2), d)(3), d)(4), d)(5) and e)(4).
  - (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. b)(2)d., c)(1) and c)(2).
- 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>Volatile Organic Compound (VOC) emissions shall not exceed 1.29 pounds per hour and 5.6 TPY.</p> <p>See b)(2)a. and c)(2).</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).</p>
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/1/06	See b)(2)b.
c.	OAC rule 3745-31-05(D) Synthetic Minor to avoid New Source Review (NSR), Title V permitting and MACT requirements.	<p>See b)(2)d., c)(1) and c)(2).</p> <p>See Section B.2.</p>
d.	OAC rule 3745-21-07(G)	<p>Exempt, due to Ohio Supreme Court decision of July 11, 2001 and the Ohio EPA permitting call held July 18, 2002.</p> <p>See b)(2)e.</p>

- (2) Additional Terms and Conditions
- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 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 regulations for NAAQS pollutant less than ten tons per year. However, the 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 revisions 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 3745-31-05, then the mass NO<sub>x</sub>, SO<sub>2</sub>, VOC, PE and PM<sub>10</sub>, emission limitations no longer apply.
  - b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan:

The Best Available Technology (BAT) requirements under OAC 3745-31-05(A)(3) do not apply to the volatile organic compound emissions from this air contaminant source since the potential to emit for VOC is less than ten tons per year.
  - c. The hourly emission limitation is based upon the emissions unit's potential to emit. Therefore, no hourly records are required to demonstrate compliance with this limitation.
  - d. The volatile organic compound (VOC) emissions from emissions units P007 (South Premix Tanks Solvent Based Production), P008 (South Toning Mixer A and Tanks Solvent Based Production), P009 (South Toning Mixer B and Tanks Solvent Based Production), P010 (North Premix Tanks and Mills Aqueous Based Production), P011 (West Toning Mixture and Tanks Aqueous Based Production), P012 (East Toning Mixer and Tanks Aqueous Based Production), P013 (MMT Mixer A and Tanks Aqueous Based Production), P014 (MMT Mixer B and Tanks Aqueous Based Production), P015 (MMT Mixer C and Tanks Aqueous Based Production), P016 (West Stir-in Mixer and Tank Aqueous Based Production), P017 (East Stir-in Mixer and Tanks Aqueous Based Production), P019 (Mixer and Tank V4043), P020 (Mixer and Tank V4071 with associated Mill) and P021 (Mixer and Tank V4072 with associated Mill) shall not exceed 80.07 TPY. Compliance with the above limitations shall be based on a rolling, 12-month summation.
  - e. On February 18, 2008, OAC rule 3745-21 was revised to reserve paragraph (G); therefore, paragraph (G) does not contain specific requirements as currently listed in Ohio's State Implementation Plan (SIP). However, at the time of the issuance of this permit, the rule revision has not been submitted to U.S. EPA as a revision to Ohio's State Implementation Plan (SIP) and until the U.S. EPA approves the revisions to OAC rule 3745-21, the requirements of OAC rule 3745-21-07(G)(2) still exists as part of the federally-approved SIP for Ohio.

- c) Operational Restrictions
- (1) The maximum annual production rate in emissions units P007 through P017 and P019 through P021, combined shall not exceed 74,500,000 pounds of colorant per year, based on a rolling 12-month summation of the production rates.
  - (2) The permittee shall use fitted covers on this emissions unit while in operation or holding any material containing organic compounds.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall collect and record the following information each month for emissions units P007 - P017 and P019 - P021:
    - a. The name and identification number of each colorant produced.
    - b. The number of pounds of each colorant produced.
    - c. The organic compound content, in percent by weight, of each colorant produced.
    - d. The total organic compound emission rate for all colorants produced, in pounds or tons.
    - e. The updated rolling, 12-month summation of the total colorant usage, in pounds; (This shall include the information for the current month and the preceding eleven months.).
    - f. The rolling, 12-month summation of the OC emissions, in tons (This shall include the information for the current month and the preceding eleven months.).
  - (2) The permit to install for this/these emissions unit(s) [P007 - P017 and P019 - P021] was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee in the permit application. The "Toxic Air Contaminant Statute", 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 SCREEN 3.0, 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

Pollutant: Ethylene Glycol

TLV (ug/m<sup>3</sup>): 100,000

Maximum Hourly Emission Rate (lbs/hr): 6.8

Predicted 1-Hour Maximum Ground-Level

Concentration (ug/m<sup>3</sup>): 842

MAGLC (ug/m<sup>3</sup>): 2381

The permittee, has demonstrated that emissions of ethylene glycol, from emissions unit(s) [P007 - P017 and P019 - P021], 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 "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (3) 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 "Toxic 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 "Toxic 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 PTIO 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.

- (4) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic 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 "Toxic Air Contaminant Statute", 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 "Toxic Air Contaminant Statute", 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 "Toxic Air Contaminant Statute", 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.
- (5) 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 "Toxic Air Contaminant Statute", 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.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation reports which identify any exceedance of the OC emission limitation set forth in b)(2)d. If no deviations occurred during the reporting period, the permittee shall state so in the report.

The reports shall be submitted to the Director (the Hamilton County Department of Environmental Services) by January 31, April 30, July 31 and October 31 of each year and shall cover the previous three calendar months (October through December, January through March, April through June and July through September, respectively.)

- (2) The permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify all exceedances of the rolling, 12-month colorant production limitation in term c)(1). If no deviations occurred during the reporting period, the permittee shall state so in the report.

The reports shall be submitted to the Director (the Hamilton County Department of Environmental Services) by January 31, April 30, July 31 and October 31 of each year and shall cover the previous three calendar months (October through December, January through March, April through June and July through September, respectively.)

- (3) 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
- (4) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:
  - a. Emission Limitation:

Volatile Organic Compound (VOC) emissions shall not exceed 1.29 pounds per hour and 5.6 TPY.



Applicable Compliance Method:

Compliance with the hourly VOC emission rate from the colorant production shall be determined by the following equation:

$$E = A \times 0.0005 \text{ ton/lb} \times F$$

Where,

E is the VOC emission rate, pounds per hour

A is the maximum hourly colorant production in pounds

F is the emission factor in lb(s) per ton provided in the PTI application 14-06016 submitted on January 23, 2008.

Compliance with the annual VOC emission rate from the colorant production shall be determined by the following equation:

$$E = A \times 0.0005 \text{ ton/lb} \times F \times 8760 \text{ hours per year} \times 1 \text{ ton per 2000 lbs.}$$

E is the OC emission rate, tons per year.

A is the maximum hourly colorant production in pounds.

F is the emission factor in lb(s) per ton provided in the PTI application 14-06016 submitted on January 23, 2008.

b. Emission Limitation:

VOC emissions shall not exceed 80.07 TPY for emission units P007 through P017 and P019 through P021 based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements as specified in d)(1).

The VOC emission rate from emission units P007 through P017 and P019 through P021 shall be determined by the following equation:

$$E = A \times 0.0005 \text{ ton/lb} \times F \times 0.0005 \text{ ton/lb}$$

E is the VOC emission rate, TPY

A is the annual colorant production in pounds

F is the emission factor for the colorant provided in the PTI application 14-06016 submitted on January 23, 2008.

- (2) Compliance with the rolling, 12-month colorant production limitation in c)(1) shall be based upon the record keeping requirements specified in term and condition d)(1).

- g) Miscellaneous Requirements
  - (1) None.



6. P015, Mixer & Aqueous Prod.

Operations, Property and/or Equipment Description:

MMT Mixer C and Tanks Aqueous Based Production

- 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. d)(2), d)(3), d)(4), d)(5) and e)(4).
  - (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. b)(2)d., c)(1) and c)(2).
- 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>Volatile Organic Compound (VOC) emissions shall not exceed 1.29 pounds per hour and 5.6 TPY.</p> <p>See b)(2)a. and c)(2).</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).</p>
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/1/06	See b)(2)b.
c.	OAC rule 3745-31-05(D) Synthetic Minor to avoid New Source Review (NSR), Title V permitting and MACT requirements.	<p>See b)(2)d., c)(1) and c)(2).</p> <p>See Section B.2.</p>
d.	OAC rule 3745-21-07(G)	<p>Exempt, due to Ohio Supreme Court decision of July 11, 2001 and the Ohio EPA permitting call held July 18, 2002.</p> <p>See b)(2)e.</p>

- (2) Additional Terms and Conditions
- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 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 regulations for NAAQS pollutant less than ten tons per year. However, the 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 revisions 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 3745-31-05, then the mass NO<sub>x</sub>, SO<sub>2</sub>, VOC, PE and PM<sub>10</sub>, emission limitations no longer apply.
  - b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan:

The Best Available Technology (BAT) requirements under OAC 3745-31-05(A)(3) do not apply to the volatile organic compound emissions from this air contaminant source since the potential to emit for VOC is less than ten tons per year.
  - c. The hourly emission limitation is based upon the emissions unit's potential to emit. Therefore, no hourly records are required to demonstrate compliance with this limitation.
  - d. The volatile organic compound (VOC) emissions from emissions units P007 (South Premix Tanks Solvent Based Production), P008 (South Toning Mixer A and Tanks Solvent Based Production), P009 (South Toning Mixer B and Tanks Solvent Based Production), P010 (North Premix Tanks and Mills Aqueous Based Production), P011 (West Toning Mixture and Tanks Aqueous Based Production), P012 (East Toning Mixer and Tanks Aqueous Based Production), P013 (MMT Mixer A and Tanks Aqueous Based Production), P014 (MMT Mixer B and Tanks Aqueous Based Production), P015 (MMT Mixer C and Tanks Aqueous Based Production), P016 (West Stir-in Mixer and Tank Aqueous Based Production), P017 (East Stir-in Mixer and Tanks Aqueous Based Production), P019 (Mixer and Tank V4043), P020 (Mixer and Tank V4071 with associated Mill) and P021 (Mixer and Tank V4072 with associated Mill) shall not exceed 80.07 TPY. Compliance with the above limitations shall be based on a rolling, 12-month summation.
  - e. On February 18, 2008, OAC rule 3745-21 was revised to reserve paragraph (G); therefore, paragraph (G) does not contain specific requirements as currently listed in Ohio's State Implementation Plan (SIP). However, at the time of the issuance of this permit, the rule revision has not been submitted to U.S. EPA as a revision to Ohio's State Implementation Plan (SIP) and until the U.S. EPA approves the revisions to OAC rule 3745-21, the requirements of OAC rule 3745-21-07(G)(2) still exists as part of the federally-approved SIP for Ohio.

- c) Operational Restrictions
- (1) The maximum annual production rate in emissions units P007 through P017 and P019 through P021, combined shall not exceed 74,500,000 pounds of colorant per year, based on a rolling 12-month summation of the production rates.
  - (2) The permittee shall use fitted covers on this emissions unit while in operation or holding any material containing organic compounds.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall collect and record the following information each month for emissions units P007 - P017 and P019 - P021:
    - a. The name and identification number of each colorant produced.
    - b. The number of pounds of each colorant produced.
    - c. The organic compound content, in percent by weight, of each colorant produced.
    - d. The total organic compound emission rate for all colorants produced, in pounds or tons.
    - e. The updated rolling, 12-month summation of the total colorant usage, in pounds; (This shall include the information for the current month and the preceding eleven months.).
    - f. The rolling, 12-month summation of the OC emissions, in tons (This shall include the information for the current month and the preceding eleven months.).
  - (2) The permit to install for this/these emissions unit(s) [P007 - P017 and P019 - P021] was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee in the permit application. The "Toxic Air Contaminant Statute", 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 SCREEN 3.0, 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

Pollutant: Ethylene Glycol

TLV (ug/m<sup>3</sup>): 100,000

Maximum Hourly Emission Rate (lbs/hr): 6.8

Predicted 1-Hour Maximum Ground-Level

Concentration (ug/m<sup>3</sup>): 842

MAGLC (ug/m<sup>3</sup>): 2381

The permittee, has demonstrated that emissions of ethylene glycol, from emissions unit(s) [P007 - P017 and P019 - P021], 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 "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (3) 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 "Toxic 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 "Toxic 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 PTIO 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.

- (4) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic 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 "Toxic Air Contaminant Statute", 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 "Toxic Air Contaminant Statute", 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 "Toxic Air Contaminant Statute", 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.
- (5) 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 "Toxic Air Contaminant Statute", 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.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation reports which identify any exceedance of the OC emission limitation set forth in b)(2)d. If no deviations occurred during the reporting period, the permittee shall state so in the report.

The reports shall be submitted to the Director (the Hamilton County Department of Environmental Services) by January 31, April 30, July 31 and October 31 of each year and shall cover the previous three calendar months (October through December, January through March, April through June and July through September, respectively.)

- (2) The permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify all exceedances of the rolling, 12-month colorant production limitation in term c)(1). If no deviations occurred during the reporting period, the permittee shall state so in the report.

The reports shall be submitted to the Director (the Hamilton County Department of Environmental Services) by January 31, April 30, July 31 and October 31 of each year and shall cover the previous three calendar months (October through December, January through March, April through June and July through September, respectively.)

- (3) 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
- (4) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitation:

Volatile Organic Compound (VOC) emissions shall not exceed 1.29 pounds per hour and 5.6 TPY.

Applicable Compliance Method:

Compliance with the hourly VOC emission rate from the colorant production shall be determined by the following equation:

$$E = A \times 0.0005 \text{ ton/lb} \times F$$

Where,

E is the VOC emission rate, pounds per hour

A is the maximum hourly colorant production in pounds

F is the emission factor in lb(s) per ton provided in the PTI application 14-06016 submitted on January 23, 2008.

Compliance with the annual VOC emission rate from the colorant production shall be determined by the following equation:

$$E = A \times 0.0005 \text{ ton/lb} \times F \times 8760 \text{ hours per year} \times 1 \text{ ton per 2000 lbs.}$$

E is the OC emission rate, tons per year.

A is the maximum hourly colorant production in pounds.

F is the emission factor in lb(s) per ton provided in the PTI application 14-06016 submitted on January 23, 2008.

b. Emission Limitation:

VOC emissions shall not exceed 80.07 TPY for emission units P007 through P017 and P019 through P021 based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements as specified in d)(1).

The VOC emission rate from emission units P007 through P017 and P019 through P021 shall be determined by the following equation:

$$E = A \times 0.0005 \text{ ton/lb} \times F \times 0.0005 \text{ ton/lb}$$

E is the VOC emission rate, TPY

A is the annual colorant production in pounds

F is the emission factor for the colorant provided in the PTI application 14-06016 submitted on January 23, 2008.

- (2) Compliance with the rolling, 12-month colorant production limitation in c)(1) shall be based upon the record keeping requirements specified in term and condition d)(1).

- g) Miscellaneous Requirements
  - (1) None.



7. P016, Mixer & Aqueous Prod.

Operations, Property and/or Equipment Description:

West Stir-in Mixer and Tank Aqueous Based Production

- 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. d)(2), d)(3), d)(4), d)(5) and e)(4).
  - (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. b)(2)c., c)(1) and c)(2).
- 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)	<p>Volatile Organic compound (OC) emissions from this emissions unit shall not exceed 2.36 pounds per hour.</p> <p>See c)(2).</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).</p>
b.	OAC rule 3745-31-05(D) Synthetic Minor to avoid New Source Review (NSR), Title V permitting and MACT requirements.	See b)(2)c. and c)(1) and c)(2).
c.	OAC rule 3745-21-07(G)	<p>Exempt, due to Ohio Supreme Court decision of July 11, 2001 and the Ohio EPA permitting call held July 18, 2002.</p> <p>See b)(2)d.</p>

- (2) Additional Terms and Conditions
- a. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the emission limitations and the use of a cover.
  - b. The hourly emission limitation is based upon the emissions unit's potential to emit. Therefore, no hourly records are required to demonstrate compliance with this limitation.
  - c. The organic compound (OC) emissions from emissions units P007 (South Premix Tanks Solvent Based Production), P008 (South Toning Mixer A and Tanks Solvent Based Production), P009 (South Toning Mixer B and Tanks Solvent Based Production), P010 (North Premix Tanks and Mills Aqueous Based Production), P011 (West Toning Mixture and Tanks Aqueous Based Production), P012 (East Toning Mixer and Tanks Aqueous Based Production), P013 (MMT Mixer A and Tanks Aqueous Based Production), P014 (MMT Mixer B and Tanks Aqueous Based Production), P015 (MMT Mixer C and Tanks Aqueous Based Production), P016 (West Stir-in Mixer and Tank Aqueous Based Production), P017 (East Stir-in Mixer and Tanks Aqueous Based Production), P019 (Mixer and Tank V4043), P020 (Mixer and Tank V4071 with associated Mill) and P021 (Mixer and Tank V4072 with associated Mill) shall not exceed 80.07 TPY. Compliance with the above limitations shall be based on a rolling, 12-month summation.
  - d. On February 18, 2008, OAC rule 3745-21 was revised to reserve paragraph (G); therefore, paragraph (G) does not contain specific requirements as currently listed in Ohio's State Implementation Plan (SIP). However, at the time of the issuance of this permit, the rule revision has not been submitted to U.S. EPA as a revision to Ohio's State Implementation Plan (SIP) and until the U.S. EPA approves the revisions to OAC rule 3745-21, the requirements of OAC rule 3745-21-07(G)(2) still exists as part of the federally-approved SIP for Ohio.
- c) Operational Restrictions
- (1) The maximum annual production rate in emissions units P007 through P017 and P019 through P021, combined shall not exceed 74,500,000 pounds of colorant per year, based on a rolling 12-month summation of the production rates.
  - (2) The permittee shall use fitted covers on this emissions unit while in operation or holding any material containing organic compounds.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall collect and record the following information each month for emissions units P007 - P017 and P019 - P021:
    - a. The name and identification number of each colorant produced.
    - b. The number of pounds of each colorant produced.
    - c. The organic compound content, in percent by weight, of each colorant produced.

- d. The total organic compound emission rate for all colorants produced, in pounds or tons.
  - e. The updated rolling, 12-month summation of the total colorant usage, in pounds; (This shall include the information for the current month and the preceding eleven months.).
  - f. The rolling, 12-month summation of the OC emissions, in tons (This shall include the information for the current month and the preceding eleven months.).
- (2) The permit to install for this/these emissions unit(s) [P007 - P017 and P019 - P021] was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee in the permit application. The "Toxic Air Contaminant Statute", 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 SCREEN 3.0, 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

Pollutant: Ethylene Glycol

TLV ( $\mu\text{g}/\text{m}^3$ ): 100,000

Maximum Hourly Emission Rate (lbs/hr): 6.8

Predicted 1-Hour Maximum Ground-Level

Concentration ( $\mu\text{g}/\text{m}^3$ ): 842

MAGLC ( $\mu\text{g}/\text{m}^3$ ): 2381

The permittee, has demonstrated that emissions of ethylene glycol, from emissions unit(s) [P007 - P017 and P019 - P021], 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 “Toxic Air Contaminant Statute”, ORC 3704.03(F).

- (3) 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:
- 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;
  - 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
  - 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 “Toxic 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 “Toxic 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 PTIO 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.

- (4) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic 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 "Toxic Air Contaminant Statute", 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 "Toxic Air Contaminant Statute", 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 "Toxic Air Contaminant Statute", 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.
- (5) 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 "Toxic Air Contaminant Statute", 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.
- e) Reporting Requirements
- (1) The permittee shall submit quarterly deviation reports which identify any exceedance of the OC emission limitation set forth in b)(2)c. If no deviations occurred during the reporting period, the permittee shall state so in the report.  
  
The reports shall be submitted to the Director (the Hamilton County Department of Environmental Services) by January 31, April 30, July 31 and October 31 of each year and shall cover the previous three calendar months (October through December, January through March, April through June and July through September, respectively.)
  - (2) The permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify all exceedances of the rolling, 12-month colorant production limitation in term c)(1). If no deviations occurred during the reporting period, the permittee shall state so in the report.  
  
The reports shall be submitted to the Director (the Hamilton County Department of Environmental Services) by January 31, April 30, July 31 and October 31 of each year and shall cover the previous three calendar months (October through December, January through March, April through June and July through September, respectively.)

- (3) 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
- (4) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.
- f) Testing Requirements
- (1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:
- a. Emission Limitation:
- Volatile Organic compound (OC) emissions from this emissions unit shall not exceed 2.36 pounds per hour.
- Applicable Compliance Method:
- Compliance with the hourly VOC emission rate from the colorant production shall be determined by the following equation:
- $$E = A \times 0.0005 \text{ ton/lb} \times F$$
- Where,
- E is the VOC emission rate, pounds per hour
- A is the maximum hourly colorant production in pounds
- F is the emission factor in lb(s) per ton provided in the PTI application 14-06016 submitted on January 23, 2008.
- b. Emission Limitation:
- VOC emissions shall not exceed 80.07 TPY for emission units P007 through P017 and P019 through P021 based upon a rolling, 12-month summation.
- Applicable Compliance Method:
- Compliance shall be based upon the record keeping requirements as specified in d)(1).
- The VOC emission rate from emission units P007 through P017 and P019 through P021 shall be determined by the following equation:

$$E = A \times 0.0005 \text{ ton/lb} \times F \times 0.0005 \text{ ton/lb}$$

E is the VOC emission rate, TPY

A is the annual colorant production in pounds

F is the emission factor in lb(s) per ton provided in the PTI application 14-06016 submitted on January 23, 2008.

- (2) Compliance with the rolling, 12-month colorant production limitation in c)(1) shall be based upon the record keeping requirements specified in term and condition d)(1).
- g) Miscellaneous Requirements
  - (1) None.



8. P017, Mixer & Aqueous Prod.

Operations, Property and/or Equipment Description:

East Stir-in Mixer and Tanks Aqueous Based Production

- 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. d)(2), d)(3), d)(4), d)(5) and e)(4).
  - (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. b)(2)c., c)(1) and c)(2).
- 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)	<p>Volatile Organic compound (OC) emissions from this emissions unit shall not exceed 2.36 pounds per hour.</p> <p>See c)(2).</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).</p>
b.	OAC rule 3745-31-05(D) Synthetic Minor to avoid New Source Review (NSR), Title V permitting and MACT requirements.	See b)(2)c. and c)(1) and c)(2).
c.	OAC rule 3745-21-07(G)	<p>Exempt, due to Ohio Supreme Court decision of July 11, 2001 and the Ohio EPA permitting call held July 18, 2002.</p> <p>See b)(2)d.</p>

- (2) Additional Terms and Conditions
- a. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the emission limitations and the use of a cover.
  - b. The hourly emission limitation is based upon the emissions unit's potential to emit. Therefore, no hourly records are required to demonstrate compliance with this limitation.
  - c. The organic compound (OC) emissions from emissions units P007 (South Premix Tanks Solvent Based Production), P008 (South Toning Mixer A and Tanks Solvent Based Production), P009 (South Toning Mixer B and Tanks Solvent Based Production), P010 (North Premix Tanks and Mills Aqueous Based Production), P011 (West Toning Mixture and Tanks Aqueous Based Production), P012 (East Toning Mixer and Tanks Aqueous Based Production), P013 (MMT Mixer A and Tanks Aqueous Based Production), P014 (MMT Mixer B and Tanks Aqueous Based Production), P015 (MMT Mixer C and Tanks Aqueous Based Production), P016 (West Stir-in Mixer and Tank Aqueous Based Production), P017 (East Stir-in Mixer and Tanks Aqueous Based Production), P019 (Mixer and Tank V4043), P020 (Mixer and Tank V4071 with associated Mill) and P021 (Mixer and Tank V4072 with associated Mill) shall not exceed 80.07 TPY. Compliance with the above limitations shall be based on a rolling, 12-month summation.
  - d. On February 18, 2008, OAC rule 3745-21 was revised to reserve paragraph (G); therefore, paragraph (G) does not contain specific requirements as currently listed in Ohio's State Implementation Plan (SIP). However, at the time of the issuance of this permit, the rule revision has not been submitted to U.S. EPA as a revision to Ohio's State Implementation Plan (SIP) and until the U.S. EPA approves the revisions to OAC rule 3745-21, the requirements of OAC rule 3745-21-07(G)(2) still exists as part of the federally-approved SIP for Ohio.
- c) Operational Restrictions
- (1) The maximum annual production rate in emissions units P007 through P017 and P019 through P021, combined shall not exceed 74,500,000 pounds of colorant per year, based on a rolling 12-month summation of the production rates.
  - (2) The permittee shall use fitted covers on this emissions unit while in operation or holding any material containing organic compounds.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall collect and record the following information each month for emissions units P007 - P017 and P019 - P021:
    - a. The name and identification number of each colorant produced.
    - b. The number of pounds of each colorant produced.
    - c. The organic compound content, in percent by weight, of each colorant produced.

- d. The total organic compound emission rate for all colorants produced, in pounds or tons.
  - e. The updated rolling, 12-month summation of the total colorant usage, in pounds; (This shall include the information for the current month and the preceding eleven months.).
  - f. The rolling, 12-month summation of the OC emissions, in tons (This shall include the information for the current month and the preceding eleven months.).
- (2) The permit to install for this/these emissions unit(s) [P007 - P017 and P019 - P021] was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee in the permit application. The "Toxic Air Contaminant Statute", 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 SCREEN 3.0, 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

Pollutant: Ethylene Glycol

TLV ( $\mu\text{g}/\text{m}^3$ ): 100,000

Maximum Hourly Emission Rate (lbs/hr): 6.8

Predicted 1-Hour Maximum Ground-Level

Concentration ( $\mu\text{g}/\text{m}^3$ ): 842

MAGLC ( $\mu\text{g}/\text{m}^3$ ): 2381

The permittee, has demonstrated that emissions of ethylene glycol, from emissions unit(s) [P007 - P017 and P019 - P021], 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 “Toxic Air Contaminant Statute”, ORC 3704.03(F).

- (3) 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 “Toxic 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 “Toxic 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 PTIO 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.

- (4) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic 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 "Toxic Air Contaminant Statute", 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 "Toxic Air Contaminant Statute", 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 "Toxic Air Contaminant Statute", 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.
- (5) 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 "Toxic Air Contaminant Statute", 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.
- e) Reporting Requirements
- (1) The permittee shall submit quarterly deviation reports which identify any exceedance of the OC emission limitation set forth in b)(2)c. If no deviations occurred during the reporting period, the permittee shall state so in the report.  
  
The reports shall be submitted to the Director (the Hamilton County Department of Environmental Services) by January 31, April 30, July 31 and October 31 of each year and shall cover the previous three calendar months (October through December, January through March, April through June and July through September, respectively.)
  - (2) The permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify all exceedances of the rolling, 12-month colorant production limitation in term c)(1). If no deviations occurred during the reporting period, the permittee shall state so in the report.  
  
The reports shall be submitted to the Director (the Hamilton County Department of Environmental Services) by January 31, April 30, July 31 and October 31 of each year and shall cover the previous three calendar months (October through December, January through March, April through June and July through September, respectively.)

- (3) 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
- (4) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.
- f) Testing Requirements
- (1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:
- a. Emission Limitation:
- Volatile Organic compound (OC) emissions from this emissions unit shall not exceed 2.36 pounds per hour.
- Applicable Compliance Method:
- Compliance with the hourly VOC emission rate from the colorant production shall be determined by the following equation:
- $$E = A \times 0.0005 \text{ ton/lb} \times F$$
- Where,
- E is the VOC emission rate, pounds per hour
- A is the maximum hourly colorant production in pounds
- F is the emission factor in lb(s) per ton provided in the PTI application 14-06016 submitted on January 23, 2008.
- b. Emission Limitation:
- VOC emissions shall not exceed 80.07 TPY for emission units P007 through P017 and P019 through P021 based upon a rolling, 12-month summation.
- Applicable Compliance Method:
- Compliance shall be based upon the record keeping requirements as specified in d)(1).
- The VOC emission rate from emission units P007 through P017 and P019 through P021 shall be determined by the following equation:



$$E = A \times 0.0005 \text{ ton/lb} \times F \times 0.0005 \text{ ton/lb}$$

E is the VOC emission rate, TPY

A is the annual colorant production in pounds

F is the emission factor in lb(s) per ton provided in the PTI application 14-06016 submitted on January 23, 2008.

- (2) Compliance with the rolling, 12-month colorant production limitation in c)(1) shall be based upon the record keeping requirements specified in term and condition d)(1).

g) Miscellaneous Requirements

- (1) None.



9. P018, Bag Stations

Operations, Property and/or Equipment Description:

Dump Stations 1-13

- 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 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)	Particulate emissions (PE)* and Particulate Matter 10 microns and less in diameter (PM10) emissions from the dump stations shall not exceed 0.36 pound per hour and 1.58 tons per year.  * PE = PM10  See b)(2)b.
b.	OAC rule 3745-17-07(A)(1)	The emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-11(B)	The emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).



- (2) Additional Terms and Conditions
  - a. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the emissions limitations, opacity limitation, and use of covers and a fabric filter.
  - b. Visible particulate emissions from any stack shall not exceed 10 percent opacity, as a six- minute average.
- c) Operational Restrictions
  - (1) None.
- d) Monitoring and/or Recordkeeping Requirements
  - (1) None.
- e) Reporting Requirements
  - (1) None.
- f) Testing Requirements
  - (1) Compliance with the emissions limitations in Section A. of these terms and conditions shall be determined in accordance with the following methods:
    - a. Emissions Limitation:  
0.36 lb/hr PE/PM10  
  
Applicable Compliance Method:  
  
The hourly PE emission rate is based on the emissions unit's potential to emit. The potential to emit was calculated by: [(maximum production rate of 37,714 pounds per hour) x (9.48 lbs PE/1,000,000 lbs product controlled emission factor provided in the PTI application 14-05811 received on January 23, 2006)]. PM10 emissions are assumed equivalent to the PE.
    - b. Emissions Limitation:  
1.58 TPY PE/PM10  
  
Applicable Compliance Method:  
  
The annual PE emission rate is based on the emissions unit's PTE and the calculation provided in the PTI application 14-05811 received on January 23, 2006. As long as compliance with the hourly emissions limitation is maintained, compliance with the annual emissions limitation is assured.
    - c. Emissions Limitation:  
  
Visible particulate emissions from any stack shall not exceed 10 percent opacity, as a six- minute average.



Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

g) Miscellaneous Requirements

- (1) None.