



3/27/2015

Certified Mail

Cara Ahrens
Nexeo Solutions, LLC
3 Waterway Square Place, Suite 1000
The Woodlands, TX 77380

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

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 1677130036
Permit Number: P0115785
Permit Type: Renewal
County: Summit

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) 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. In this letter you will find the information on the following topics:

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

How to appeal this permit

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

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

How to save money, reduce pollution and reduce energy consumption

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

How to give us feedback on your permitting experience

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

How to get an electronic copy of your permit

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

If you have any questions, please contact Akron Regional Air Quality Management District at (330)3752480 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Erica R. Engel-Ishida, Manager
Permit Issuance and Data Management Section, DAPC

Cc: ARAQMD



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Nexeo Solutions, LLC**

Facility ID:	1677130036
Permit Number:	P0115785
Permit Type:	Renewal
Issued:	3/27/2015
Effective:	3/27/2015
Expiration:	3/27/2020



**Division of Air Pollution Control
Permit-to-Install and Operate**

for
Nexeo Solutions, LLC

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Authorization

Facility ID: 1677130036
Application Number(s): A0048872
Permit Number: P0115785
Permit Description: Renewal FEPTIO for two (2) bulk chemical loading racks, five (5) chemical material container filling lines, and three (3) mix tanks. This FEPTIO also serves to establish BAT as it should have been based on when the emissions units were installed.
Permit Type: Renewal
Permit Fee: \$0.00
Issue Date: 3/27/2015
Effective Date: 3/27/2015
Expiration Date: 3/27/2020
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Nexeo Solutions, LLC
1610 EAST HIGHLAND RD
Twinsburg, OH 44087

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

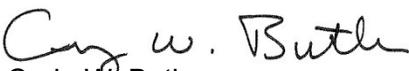
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Akron Regional Air Quality Management District
1867 West Market St.
Akron, OH 44313
(330)375-2480

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


Craig W. Butler
Director



Authorization (continued)

Permit Number: P0115785
 Permit Description: Renewal FEPTIO for two (2) bulk chemical loading racks, five (5) chemical material container filling lines, and three (3) mix tanks. This FEPTIO also serves to establish BAT as it should have been based on when the emissions units were installed.

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

Emissions Unit ID: P011
 Company Equipment ID: Automated small container fill line
 Superseded Permit Number: P0112816
 General Permit Category and Type: Not Applicable

Group Name: Container Filling Lines

Emissions Unit ID:	P001
Company Equipment ID:	Submerged fill container filling line
Superseded Permit Number:	P0107979
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P008
Company Equipment ID:	Submerged fill drumming line
Superseded Permit Number:	P0107979
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P009
Company Equipment ID:	Splash fill drumming line
Superseded Permit Number:	P0107979
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P010
Company Equipment ID:	Tote and pail Splash filling line
Superseded Permit Number:	P0107979
General Permit Category and Type:	Not Applicable

Group Name: Loading Racks

Emissions Unit ID:	J001
Company Equipment ID:	Loading and unloading rack for bulk liquid chemicals
Superseded Permit Number:	P0107979
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	J002
Company Equipment ID:	Loading and unloading rack for bulk liquid chemicals
Superseded Permit Number:	P0107979
General Permit Category and Type:	Not Applicable

Group Name: Mix Tanks

Emissions Unit ID:	P004
Company Equipment ID:	Mixing Tank
Superseded Permit Number:	P0107979
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P005
Company Equipment ID:	Mixing Tank



Final Permit-to-Install and Operate

Nexeo Solutions, LLC

Permit Number: P0115785

Facility ID: 1677130036

Effective Date: 3/27/2015

Superseded Permit Number:	P0107979
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P006
Company Equipment ID:	Mixing Tank
Superseded Permit Number:	P0107979
General Permit Category and Type:	Not Applicable



Final Permit-to-Install and Operate
Nexeo Solutions, LLC
Permit Number: P0115785
Facility ID: 1677130036
Effective Date: 3/27/2015

A. Standard Terms and Conditions



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

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

2. Who is responsible for complying with this permit?

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

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

3. What records must I keep under this permit?

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

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

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

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

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

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

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

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



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

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

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

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

7. What reports must I submit under this permit?

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

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

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions of this permit 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 [DO/LAA] in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

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

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

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

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

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

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

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

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

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

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



change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

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.



Final Permit-to-Install and Operate
Nexeo Solutions, LLC
Permit Number: P0115785
Facility ID: 1677130036
Effective Date: 3/27/2015

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) B.2 through B.6.
2. Facility-wide emissions (total combined emissions from the bulk plant, 1610 East Highland Road, and the warehouse, 1842 Enterprise Parkway) shall not exceed:
 - a) 49.9 tons of volatile organic compounds (VOC) per rolling, 12-month period;
 - b) 9.9 tons of any individual hazardous air pollutant (HAP) per rolling, 12-month period; and
 - c) 24.9 tons of combined HAPs per rolling, 12-month period.
3. The permittee shall not engage in cleaning tank trucks, storage tanks, railcars, totes, or drums unless emissions from such cleaning operations are included against the established facility-wide emissions limitations.
4. The permittee shall collect and record the following information each month on a facility-wide basis (including fugitive emissions from pumps, valves and connectors):
 - a) the company identification for each material employed;
 - b) the amount of VOC, in pounds per gallon, in each material employed
 - c) the amount of individual HAP, in pounds per gallon, in each material employed;
 - d) the number of gallons of each material employed;
 - e) the total VOC emissions, in tons, for all materials employed;
 - f) the individual HAP emissions, in tons, for all materials employed;
 - g) the combined HAPs emissions, in tons, for all materials employed;
 - h) the rolling, 12-month summation of VOC emissions, in tons;
 - i) the rolling, 12-month summation of individual HAP emissions, in tons; and
 - j) the rolling, 12-month summation of combined HAPs emissions, in tons.



5. The permittee shall submit quarterly deviation (excursion) reports that identify:
- 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:
 - (1) 49.9 tons of VOC per rolling, 12-month period;
 - (2) 9.9 tons of any individual HAP per rolling, 12-month period; and
 - (3) 24.9 tons of combined HAPs per rolling, 12-month period.
 - 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 reporting period.

The quarterly reports shall be submitted 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).

6. Compliance with the Emissions Limitations and/or Control Requirements specified in section B.2. of these terms and conditions shall be determined in accordance with the following methods:
- a) Emission Limitations:
 - 49.9 tons VOC per rolling, 12-month period
 - 9.9 tons of any individual HAP per rolling, 12-month period
 - 24.9 tons of combined HAPs per rolling, 12-month period
- Applicable Compliance Method:
- Compliance with the allowable VOC and HAP emission limitations identified above shall be demonstrated by the monitoring and record keeping requirements specified in B.4.

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



Final Permit-to-Install and Operate

Nexeo Solutions, LLC

Permit Number: P0115785

Facility ID: 1677130036

Effective Date: 3/27/2015

fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.



Final Permit-to-Install and Operate
Nexeo Solutions, LLC
Permit Number: P0115785
Facility ID: 1677130036
Effective Date: 3/27/2015

C. Emissions Unit Terms and Conditions



1. P001, Automated container fill line

Operations, Property and/or Equipment Description:

Liquid chemical submerged fill line for drums, totes, and pails.

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. b)(1)b., d)(1) through d)(4), and e)(2).

(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)(1)b.

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), PTI 16-1840 issued 10/14/1999	Volatile organic compound (VOC) emissions shall not exceed 9.97 pounds per 1,000 gallons of liquid loaded. See b)(2)a.
b.	OAC rule 3745-31-05(D) (Synthetic Minor to Avoid Title V and MACT applicability under 40 CFR Part 63, Subpart EEEE)	See Facility-Wide Terms and Conditions B.2 through B.6.
c.	OAC rule 3745-114-01 ORC 3704.03(F)	See d)(1) through d)(4) and e)(2) below.

(2) Additional Terms and Conditions

a. The Best Available Technology (BAT) emission limitation established pursuant to OAC rule 3745-31-05(A)(3) is based on the maximum potential to emit for this



emissions unit. Therefore, no monitoring or record keeping requirements are necessary to ensure ongoing compliance with this emission limitation.

However, the permittee shall apply for and, if required, obtain a final federally enforceable permit-to-install and operate (FEPTIO) prior to making any changes to equipment, type of materials processed, method of operation, or any other changes to this emissions unit that would result in an increase of potential emissions.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The federally enforceable permit-to-install and operate (FEPTIO) application for these emissions unit(s), J001, J002, P001, and P004-P006, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "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 using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
 - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
 - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).



- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., “X” hours per day and “Y” days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

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

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants or “worst case” toxic contaminant(s):

Toxic Contaminant: Methylene Chloride is the “worst case” toxic.

TLV (mg/m³): 50 (methylene chloride)

Maximum Hourly Emission Rate (lbs/hr): 161.32 (methylene chloride, with operating restrictions described in application; includes units J001, J002, P001, and P004).

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 17.23

MAGLC (ug/m³): 17.4

The permittee, having demonstrated that emissions of methylene chloride, from emissions units J001, J002, P001, and P004-P006, is estimated to be equal or greater than eighty per cent, but less than 100 per cent of the maximum acceptable ground level concentration (MAGLC), shall not operate the emissions unit(s) at a rate that would exceed the daily emissions rate, process weight rate, and/or restricted hours of operations, as allowed in this permit; and 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).

- (2) 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", ORC 3704.03(F), 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 FEPTIO 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.

- (3) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute":
 - 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.
- (4) 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 an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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.
- (2) The permittee shall include in the annual Permit Evaluation Report (PER) any changes made to a parameter or value used in the dispersion model, that was used to maintain



compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. 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 Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

VOC emissions shall not exceed 9.97 pounds per 1,000 gallons of liquid loaded.

Applicable Compliance Methods:

The allowable VOC loading loss identified above was established using the worst-case liquid, isopentane, in equation 1 from AP-42, Section 5.2, dated June 2008:

$$L = 12.46 \cdot \text{SPM}/T$$

where:

L = loading loss, pounds per 1000 gallons (lb/10³ gal) of liquid loaded;

S = 0.60, saturation factor (Table 5.2-1, submerged loading: dedicated normal service);

P = 9.623 psia, true vapor pressure of liquid loaded;

M = 72.15 lb/lb-mole, molecular weight of vapors; and

T = 520.67 degrees Rankine (°R), temperature of bulk liquid loaded.

g) Miscellaneous Requirements

(1) None.



2. P011, Automated small container fill line

Operations, Property and/or Equipment Description:

Liquid chemicals splash fill line for 5 gallon and 20 gallon pails.

- 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. b)(1)c., d)(1) through d)(4), and e)(2).
 - (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)(1)b.
- 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), PTI 16-02118 issued 6/20/2002	Volatile organic compound (VOC) emissions shall not exceed 71.3 pounds per day and 13.0 tons per year. See b)(2)a.
b.	OAC rule 3745-31-05(D) (Synthetic Minor to Avoid Title V and MACT applicability under 40 CFR Part 63, Subpart EEEE)	See Facility-Wide Terms and Conditions B.2 through B.6.
c.	OAC rule 3745-114-01 ORC 3704.03(F)	See d)(1) through d)(4) and e)(2) below.

- (2) Additional Terms and Conditions
 - a. The Best Available Technology (BAT) emission limitations established pursuant to OAC rule 3745-31-05(A)(3) are based on the maximum potential to emit for



this emissions unit. Therefore, no monitoring or record keeping requirements are necessary to ensure ongoing compliance with these emission limitations.

However, the permittee shall apply for and, if required, obtain a final federally enforceable permit-to-install and operate (FEPTIO) prior to making any changes to equipment, type of materials processed, method of operation, or any other changes to this emissions unit that would result in an increase of potential emissions.

- b. Emissions unit P011 is part of the facility-wide, federally enforceable emission limitations established for the purpose of avoiding Title V applicability for volatile organic compounds (VOC) and hazardous air pollutants (HAP) under section B.1.b) of this permit.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The FEPTIO application for this emissions unit, P011, was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system (P011 shares a common stack with P001), as specified by the permittee. The "Toxic Air Contaminant Statute," ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A," as follows:

- a. The exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions units, (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. Short Term Exposure Limit (STEL) 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 MAGLC:

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

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

Toxic Contaminant: Methylene Chloride

TLV (mg/m³): 174

Maximum Hourly Emission Rate (lbs/hr): 25.2

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 5.1

MAGLC (ug/m³): 17.4

The permittee, has demonstrated that emissions of methylene chloride, from emissions unit P011, is calculated to be less than 80% of the 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).

- (2) 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 FEPTIO 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.

(3) 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 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.

(4) 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 an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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.
- (2) The permittee shall include in the annual Permit Evaluation Report (PER) any changes made to a parameter or value used in the dispersion model, that was used to maintain compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. 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 Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

VOC emissions shall not exceed 71.3 pounds per day and 13.0 tons per year.

Applicable Compliance Methods:

The daily allowable VOC emission limitation identified above was established using the worst-case liquid, isopentane, in equation 1 from AP-42, Section 5.2, dated June 2008, and multiplying by the emissions unit's maximum daily throughput of 7,000 gallons per day:

$$E = A \times L$$

where:

E = emissions, pounds per day (lbs/day);

A = activity rate, gallons per day (gal/day);

L = loading loss, pounds per 1000 gallons (lbs/10³ gal) of liquid loaded;

and

$$L = 12.46 \times \text{SPM}/T$$

where:

S = 1.45, splash loading saturation factor (AP-42, Table 5.2-1);

P = 3.47 pounds per square inch absolute (psia), true vapor pressure of liquid loaded;

M = 86.17 pounds per pound-mole (lb/lb-mole), molecular weight of vapors, and;

T = 530 degrees Rankine (°R), temperature of bulk liquid loaded.

The annual emission limitation was developed by multiplying the daily allowable particulate emission limitation by the maximum annual operating schedule of 365 days per year, and dividing by a conversion factor of 2,000 pounds per ton. Therefore, as long as compliance with the short-term emission limitation is shown, compliance with the annual emission limitation shall be demonstrated.

g) Miscellaneous Requirements

(1) None.



3. Emissions Unit Group - Container Filling Lines: P008, P009, P010

EU ID	Operations, Property and/or Equipment Description
P008	Liquid chemical submerged fill line for 55 gallon drums. *Located at Enterprise Parkway facility.
P009	Liquid chemical splash fill line for 55-gallon drums. *Located at Enterprise Parkway facility.
P010	Liquid chemical splash fill line for totes (350 and 550 gallon) and smaller containers. *Located at Enterprise Parkway facility.

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. b)(1)b.

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), PTI 16-01986 issued 4/5/2000	<u>For emissions units P008:</u> Volatile organic compound (VOC) emissions shall not exceed 9.97 pounds per 1,000 gallons of liquid loaded. <u>For emissions units P009 and P010:</u> Volatile organic compound (VOC) emissions shall not exceed 24.09 pounds per 1,000 gallons of liquid loaded. See b)(2)a.
b.	OAC rule 3745-31-05(D)	See Facility-Wide Terms and Conditions B.2 through B.6.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	(Synthetic Minor to Avoid Title V and MACT applicability under 40 CFR Part 63, Subpart EEEE)	

(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) emission limitations established pursuant to OAC rule 3745-31-05(A)(3) are based on the maximum potential to emit for this emissions unit. Therefore, no monitoring or record keeping requirements are necessary to ensure ongoing compliance with these emission limitations.

However, the permittee shall apply for and, if required, obtain a final federally enforceable permit-to-install and operate (FEPTIO) prior to making any changes to equipment, type of materials processed, method of operation, or any other changes to this emissions unit that would result in an increase of potential emissions.

- c) Operational Restrictions

- (1) All loading operations performed at emissions unit P008 shall employ submerged or bottom fill. [Emissions units P009 and P010 are splash fill.]

- d) Monitoring and/or Recordkeeping Requirements

- (1) None.

- e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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.

- f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitations:

For emissions units P008, VOC emissions shall not exceed 9.97 pounds per 1,000 gallons of liquid loaded.

For emissions units P009 and P010, VOC emissions shall not exceed 24.09 pounds per 1,000 gallons of liquid loaded.



Applicable Compliance Methods:

The allowable VOC loading losses identified above were established using the worst-case liquid, isopentane, in equation 1 from AP-42, Section 5.2, dated June 2008:

$$L = 12.46 \cdot \text{SPM}/T$$

where:

L = loading loss, pounds per 1000 gallons (lb/10³ gal) of liquid loaded;

S (for P008) = 0.60, saturation factor (Table 5.2-1, submerged loading: dedicated normal service);

S (for P009 and P010) = 1.45, saturation factor (Table 5.2-1, splash loading: dedicated normal service);

P = 9.623 psia, true vapor pressure of liquid loaded;

M = 72.15 lb/lb-mole, molecular weight of vapors; and

T = 520.67 degrees Rankine (°R), temperature of bulk liquid loaded.

g) Miscellaneous Requirements

- (1) None.



4. Emissions Unit Group - Loading Racks: J001, J002

EU ID	Operations, Property and/or Equipment Description
J001	Loading and unloading rack for bulk liquid chemicals
J002	Loading and unloading rack for bulk liquid chemicals

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. b)(1)c., d)(1) through d)(4), and e)(2).

(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)(1)b.

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), PTI 16-1840 issued 10/14/1999	<p>Volatile organic compound (VOC) emissions from emissions unit J001 shall not exceed 131.59 pounds per hour.</p> <p>VOC emissions from emissions unit J002 shall not exceed 394.77 pounds per hour.</p> <p>See b)(2)a.</p>
b.	OAC rule 3745-31-05(D) (Synthetic Minor to Avoid Title V and MACT applicability under 40 CFR Part 63, Subpart EEEE)	See Facility-Wide Terms and Conditions B.2 through B.6.
c.	OAC rule 3745-114-01 ORC 3704.03(F)	See d)(1) through d)(4) and e)(2) below.



(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) emission limitations established pursuant to OAC rule 3745-31-05(A)(3) are based on the maximum potential to emit for this emissions unit. Therefore, no monitoring or record keeping requirements are necessary to ensure ongoing compliance with these emission limitations.

However, the permittee shall apply for and, if required, obtain a final federally enforceable permit-to-install and operate (FEPTIO) prior to making any changes to equipment, type of materials processed, method of operation, or any other changes to this emissions unit that would result in an increase of potential emissions.

c) Operational Restrictions

- (1) All loading operations performed at emissions units J001 and J002 shall employ submerged or bottom fill.

d) Monitoring and/or Recordkeeping Requirements

- (1) The federally enforceable permit-to-install and operate (FEPTIO) application for these emissions unit(s), J001, J002, P001, and P004-P006, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "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 using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
- i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
 - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.



- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., “X” hours per day and “Y” days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

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

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants or “worst case” toxic contaminant(s):

Toxic Contaminant: Methylene Chloride is the “worst case” toxic.

TLV (mg/m³): 50 (methylene chloride)

Maximum Hourly Emission Rate (lbs/hr): 161.32 (methylene chloride, with operating restrictions described in application; includes units J001, J002, P001, and P004).

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 17.23

MAGLC (ug/m³): 17.4

The permittee, having demonstrated that emissions of methylene chloride, from emissions units J001, J002, P001, and P004-P006, is estimated to be equal or greater than eighty per cent, but less than 100 per cent of the maximum acceptable ground level concentration (MAGLC), shall not operate the emissions unit(s) at a rate that would exceed the daily emissions rate, process weight rate, and/or restricted hours of operations, as allowed in this permit; and 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).

- (2) 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", ORC 3704.03(F), 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 FEPTIO 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.

- (3) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute":
 - 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.
- (4) 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 an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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.

- (2) The permittee shall include in the annual Permit Evaluation Report (PER) any changes made to a parameter or value used in the dispersion model, that was used to maintain compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. 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 Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitations:

VOC emissions from emissions unit J001 shall not exceed 131.59 pounds per hour.

VOC emissions from emissions unit J002 shall not exceed 394.77 pounds per hour.

- b. Applicable Compliance Method:

The hourly allowable VOC emission limitations identified above were established using the worst-case liquid, isopentane, in equation 1 from AP-42, Section 5.2, dated June 2008, and multiplying by the maximum pump capacity:

$$E = A \times L$$

where:

E = emissions, pounds per day (lbs/hour);

A (for J001) = 13,200 gallons loaded per hour, maximum pump capacity;

A (for J002) = 39,600 gallons loaded per hour, maximum pump capacity;

L = loading loss, pounds per 1000 gallons (lbs/10³ gal) of liquid loaded;

and

$$L = 12.46 \times \text{SPM}/T$$

where:

S = 0.60, saturation factor (Table 5.2-1, submerged loading: dedicated normal service);

P = 9.623 psia, true vapor pressure of liquid loaded;

M = 72.15 lb/lb-mole, molecular weight of vapors; and

T = 520.67 degrees Rankine (°R), temperature of bulk liquid loaded.



Final Permit-to-Install and Operate

Nexeo Solutions, LLC

Permit Number: P0115785

Facility ID: 1677130036

Effective Date: 3/27/2015

g) Miscellaneous Requirements

(1) None.



5. Emissions Unit Group - Mix Tanks: P004, P005, P006

EU ID	Operations, Property and/or Equipment Description
P004	8,500 gallon, vertical fixed-roof, coned-bottom mixing tank (inside).
P005	8,000 gallon, vertical fixed-roof, coned-bottom mixing tank (outside).
P006	10,000 gallon, vertical fixed-roof, coned-bottom mixing tank (outside).

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. b)(1)c., d)(2) through d)(5) and e)(3).

(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)(1)b.

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), PTI 16-1840 issued 10/14/1999	<u>For emissions units P004:</u> Volatile organic compound (VOC) emissions shall not exceed 132.25 pounds per hour. <u>For emissions unit P005 and P006:</u> VOC emissions from each emissions unit shall not exceed 123.98 pounds per hour. See b)(2)a.
b.	OAC rule 3745-31-05(D) (Synthetic Minor to Avoid Title V and MACT applicability under 40 CFR Part 63, Subpart EEEE)	See Facility-Wide Terms and Conditions B.2 through B.6.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-114-01 ORC 3704.03(F)	See d)(2) through d)(5).

(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) emission limitations established pursuant to OAC rule 3745-31-05(A)(3) are based on the maximum potential to emit for this emissions unit. Therefore, no monitoring or record keeping requirements are necessary to ensure ongoing compliance with these emission limitations.

However, the permittee shall apply for and, if required, obtain a final federally enforceable permit-to-install and operate (FEPTIO) prior to making any changes to equipment, type of materials processed, method of operation, or any other changes to this emissions unit that would result in an increase of potential emissions.

c) Operational Restrictions

- (1) All loading operations performed at emissions units P004, P005, and P006 shall employ submerged or bottom fill.
- (2) The total usage in the mixing tanks (emissions units P004, P005 and P006, combined) for each chemical listed below, shall not exceed 1,788,750 gallons per calendar month:
- a. hydrogen peroxide
 - b. 2-methoxyethanol
 - c. acetic acid
 - d. n, n-dimethylformamide
 - e. furfural
 - f. 2-ethoxyethanol
 - g. n-pentane
 - h. n-hexane
- (3) Operations involving the use of methylene chloride shall be restricted as follows:
- a. No more than 573,750 gallons per month of methylene chloride shall be mixed in emissions unit P004 (inside mixing tank) to form blends.
 - b. There shall be no blends containing methylene chloride made in either of the outside blend tanks (emissions units P005 and P006).



- c. The permittee shall include these restrictions in the Standard Operating Procedures (SOP) for the facility. A copy of the SOP has been submitted to The Akron Regional Air Quality Management District.
- d) **Monitoring and/or Recordkeeping Requirements**
 - (1) The permittee shall record and maintain each month the following information:
 - a. the total amount of throughput, in gallons, of each chemical listed in c)(2) for emissions units P004, P005 and P006, combined; and
 - b. the total amount of throughput, in gallons, of methylene chloride for emissions unit P004.
 - (2) The federally enforceable permit-to-install and operate (FEPTIO) application for these emissions unit(s), J001, J002, P001, and P004-P006, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "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 using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:
 - a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
 - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
 - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
 - b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
 - c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days



per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

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

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants or “worst case” toxic contaminant(s):

Toxic Contaminant: Methylene Chloride is the “worst case” toxic.

TLV (mg/m³): 50 (methylene chloride)

Maximum Hourly Emission Rate (lbs/hr): 161.32 (methylene chloride, with operating restrictions described in application; includes units J001, J002, P001, and P004).

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 17.23

MAGLC (ug/m³): 17.4

The permittee, having demonstrated that emissions of methylene chloride, from emissions units J001, J002, P001, and P004-P006, is estimated to be equal or greater than eighty per cent, but less than 100 per cent of the maximum acceptable ground level concentration (MAGLC), shall not operate the emissions unit(s) at a rate that would exceed the daily emissions rate, process weight rate, and/or restricted hours of operations, as allowed in this permit; and 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”, ORC 3704.03(F), 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 FEPTIO 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":
 - 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 an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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.
- (2) The permittee shall also identify in the annual permit evaluation report the following information concerning the operation during the 12-month reporting period for this emissions unit:



- a. all exceedances of the monthly throughput restriction of 1,788,750 gallons for each chemical listed in c)(2) for emissions units P004, P005, and P006, combined; and
 - b. all exceedances of the methylene chloride monthly throughput restriction of 573,750 for emissions unit P004.
- (3) The permittee shall include in the annual Permit Evaluation Report (PER) any changes made to a parameter or value used in the dispersion model, that was used to maintain compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. 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 Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

For emissions unit P004, VOC emissions shall not exceed 132.25 pounds per hour.

For emissions units P005 and P006, VOC emissions from each emissions unit shall not exceed 123.98 pounds per hour.

Applicable Compliance Methods:

The hourly allowable VOC emission limitations identified above were established using the worst-case liquid, isopentane, in equation 1-29 from AP-42, Section 7.1, dated November 2006:

$$L_W = 0.0010 * M_V P_{VA} Q K_N K_P$$

where:

L_W = working loss, pounds per year;

M_V = 72.15 lb/lb-mole, vapor molecular weight;

P_{VA} = 9.623 psia at 61°F, vapor pressure at daily average liquid surface temperature;

Q (for P004) = 190.48 bbl/hr (8,000 gallons/hour x 1 bbl/42 gallons), maximum throughput;

Q (for P005 and P006) = 178.57 bbl/hr (7,500 gallons/hour x 1 bbl/42 gallons), maximum throughput;

K_N = 1, working loss turnover (saturation) factor;

K_P = 1, number of turnovers per year.



Final Permit-to-Install and Operate

Nexeo Solutions, LLC

Permit Number: P0115785

Facility ID: 1677130036

Effective Date: 3/27/2015

g) Miscellaneous Requirements

(1) None.