



Environmental Protection Agency

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

9/25/2012

William Jepson  
DEMAG CRANES AND COMPONENTS, CORP.  
29201 Aurora Road.  
Solon, OH 44139

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE  
Facility ID: 1318535255  
Permit Number: P0110608  
Permit Type: Initial Installation  
County: Cuyahoga

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
Yes	MODELING SUBMITTED
Yes	SYNTHETIC MINOR TO AVOID TITLE V
Yes	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

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 Cleveland Division of Air Quality at (216)664-2297 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPCWeb 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: CDAQ





**FINAL**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
DEMAG CRANES AND COMPONENTS, CORP.**

Facility ID:	1318535255
Permit Number:	P0110608
Permit Type:	Initial Installation
Issued:	9/25/2012
Effective:	9/25/2012
Expiration:	9/25/2017





Division of Air Pollution Control
Permit-to-Install and Operate
for
DEMAG CRANES AND COMPONENTS, CORP.

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## Authorization

Facility ID: 1318535255  
Application Number(s): A0045272  
Permit Number: P0110608  
Permit Description: Initial FEPTIO permit for a new paint spray booth (K004) that will be used for coating of crane girders and other large metal parts that will replace the existing Bay 1 Booth, K001.  
Permit Type: Initial Installation  
Permit Fee: \$200.00  
Issue Date: 9/25/2012  
Effective Date: 9/25/2012  
Expiration Date: 9/25/2017  
Permit Evaluation Report (PER) Annual Date: Apr 1 - Mar 31, Due May 15

This document constitutes issuance to:

DEMAG CRANES AND COMPONENTS, CORP.  
29201 AURORA RD.  
Solon, OH 44139

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

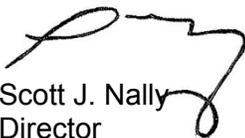
Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Cleveland Division of Air Quality  
2nd Floor  
75 Erievue Plaza  
Cleveland, OH 44114  
(216)664-2297

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: P0110608

Permit Description: Initial FEPTIO permit for a new paint spray booth (K004) that will be used for coating of crane girders and other large metal parts that will replace the existing Bay 1 Booth, K001.

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

<b>Emissions Unit ID:</b>	<b>K004</b>
Company Equipment ID:	Bay 1 Crane Booth
Superseded Permit Number:	
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 Cleveland Division of Air Quality 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.

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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).

**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.

## **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) c), d), e), f), and g)

c) 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(D)(1)(b)	See c)(2), d)(1), and d)(2) below.

(2) Additional Terms and Conditions

a. The maximum annual Hazardous Air Pollutant (HAP) emissions generated at this facility (see c)(2)b.) shall not exceed 9.9 tons per year for any individual HAP and 24.9 tons per year for any combined HAPs, based on a rolling, 12-month summation of emissions.

b. The facility-wide HAP restrictions apply to all emissions units that generate HAP emissions at this facility including permitted emissions units, De Minimis, and OAC rule 3745-31-03(A)(1) exempt emissions units.

d) Operational Restrictions

(1) The maximum annual individual HAP material usage for the facility (see c)(2)b.) shall not exceed 9.9 tons, based upon a rolling 12-month summation of the individual HAP material usage figures.

(2) The maximum annual combined HAP material usage for the facility (see c)(2)b.) shall not exceed 24.9 tons, based upon a rolling 12-month summation of the combined HAP material usage figures.

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

- (1) The permittee shall collect and record the following information each month for the coating operations at this facility (K002 - K004):
  - a. the name and ID number of each coating and cleanup material employed;
  - b. the amount, in gallons, of each coating material employed as applied;
  - c. the individual and combined HAP content for each coating material employed, as applied, in pounds/gallon;
  - d. the total individual and combined HAP material usage from all coatings employed calculated by summing the records of [(1)b. x (1)c.] for each coating, (in pounds per month); and
  - e. the total individual and combined HAP emissions generated from all coatings employed calculated by summing the records of [(1)b. x (1)c.] for each coating, (in pounds per month).
  
- (2) The permittee shall collect and record the following information for each month for the coating operations at this facility (K002 – K004):
  - a. the company identification of each cleanup material employed;
  - b. the number of gallons of each cleanup material employed;
  - c. the HAP content of each cleanup material employed, in pounds per gallon;
  - d. the total HAP emissions and material usage from all cleanup materials employed, in pounds, i.e., the sum of (2)b. times (2)c. for each cleanup employed;
  - e. if cleanup materials are collected for off-site disposal and/or recovery, the following records shall be maintained if a credit is to be applied to the monthly VOC emissions:
    - i. the amount of cleanup material recovered during the month\* for off-site disposal and/or recovery, in gallons (or pounds, if records of recovered cleanup material is maintained by weight and HAP content in percent by weight);
    - ii. the HAP content of the recovered cleanup material shall be based on the lowest HAP content of any cleanup material collected, in pounds per gallon (or percent by weight); or it may be based upon a laboratory analyses provided by the facility to which the waste solvent is shipped;
    - iii. the date the recovered cleanup material was shipped, the amount shipped (minus the container), and the name and address of the receiving, disposal, and/or recovery facility; and

- f. the total monthly HAP emission from cleanup operations, in pounds, i.e., [(2)d.] – [(2)e.i. x e)(2)e.ii.].

\* A daily log may be required for recovered waste cleanup solvents, where a record of the monthly total volume or weight of the collected material cannot be accurately maintained. This amount shall be adjusted if the volume or weight shipped is less than the sum of the monthly recovered solvent added to the container.

- (3) The permittee shall calculate and record the total rolling, 12-month summation of the single and combined HAP emissions and material usage from coatings and cleanup materials, i.e., the sum of the monthly emission/usage rates from the coating materials for the calendar year in e)(1)e. plus the sum of the monthly emissions/usage rates from cleanup materials for the calendar year in e)(2)d. or e)(2)f.. The total rolling, 12-month summation shall also include the actual single and combined HAP emissions from all De Minimis and/or OAC rule 3745-31-03(A)(1) exempt emissions units that generate HAPs.

f) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports for the following emissions unit(s) 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:
    - i. an identification for each month during which the rolling, 12-month individual HAP material usage exceeded 9.9 tons/yr based on a rolling, 12-month summation;
    - ii. an identification for each month during which the rolling, 12-month individual HAP emissions exceeded 9.9 tons/yr based on a rolling, 12-month summation;
    - iii. an identification for each month during which the rolling, 12-month combined HAP material usage exceeded 24.9 tons/yr based on a rolling, 12-month summation; and
    - iv. an identification for each month during which the rolling, 12-month combined HAP emissions exceeded 24.9 tons/yr based on a rolling, 12-month summation.
  - 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 Cleveland Division of Air Quality.

g) Testing Requirements

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

a. Emission Limitation:

9.9 tons individual HAP emissions per rolling, 12-month period for this facility (see c)(2)b.)

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in e)(1), e)(2), and e)(3) above.

b. Emission Limitation:

24.9 tons combined HAP emissions per rolling, 12-month period for this facility (see c)(2)b.)

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in e)(1), e)(2), and e)(3) above.

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



1. K004, Bay 1 Crane Booth

Operations, Property and/or Equipment Description:

Paint spray booth for coating of metal crane girders and other large metal parts controlled with dry filter

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)(9) – d)(12), 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)d.

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.	ORC 3704.03(T)	The BAT requirements of this rule are equivalent to the requirements of OAC rule 3745-21-09(U)(1)(d).
a.	OAC Rule 3745-31-05(F)	VOC emissions from this emissions unit shall not exceed 105 lbs/day and 19.2 TPY from coatings and 1.4 TPY from cleanup material.
b.	OAC rule 3745-17-11(C)	See c)(1) and d)(4) – d)(8) below.
c.	OAC rule 3745-21-09(U)(1)(d)	See b)(2)a. below.
d.	OAC rule 3745-31-05(D)(1)(b) FEPTIO to avoid Title V and MACT	Facility-wide HAP emission limitations, see Section B. above.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	OAC rule 3745-114-01	See d)(9) – d)(12) and e)(3) below.

(2) Additional Terms and Conditions

a. The VOC content of the coatings employed shall not exceed a daily volume-weighted average of 3.5 pounds of VOC per gallon, as applied, excluding water and exempt solvents.

c) Operational Restrictions

(1) The permittee shall install and operate a dry filtration system for the control of particulate emissions whenever this emissions unit is in operation and shall maintain the dry particulate filter in accordance with the manufacturer’s recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record the following information each day for the coating operations:

- a. the name and identification number of each coating applied;
- b. the VOC content of each coating as applied, in lbs/gallon;
- c. the amount, in gallons, of each coating applied;
- d. the VOC emissions from each coating applied, i.e., (1)b. times (1)c. for each coating, in pounds of VOC/day;
- e. the daily VOC emissions from all the coatings applied, i.e., the sum of (1)d. for all coatings, in pounds of VOC/day;
- f. the VOC content (excluding water and exempt solvents) of each coating as applied, calculated in accordance with f)(1)c. and the equation specified in paragraph (B)(8) of OAC rule 3745-21-10 for  $C_{VOC,2}$ , in pounds VOC/gallon of coating; and
- g. the daily volume-weighted average VOC content of all the coatings (excluding water and exempt solvents), as applied, calculated in accordance with f)(1)c. and the equation specified in paragraph (B)(9) of OAC rule 3745-21-10 for  $(C_{VOC,2})_A$ .

- (2) The permittee shall collect and record the following information for each month for this emissions unit:
- a. the company identification of each cleanup material employed;
  - b. the number of gallons of each cleanup material employed;
  - c. the VOC content of each cleanup material employed, in pounds per gallon;
  - d. the total VOC emissions from all cleanup materials employed, in pounds, i.e., the sum of (2)b. times (2)c. for each cleanup employed;
  - e. if cleanup materials are collected for off-site disposal and/or recovery, the following records shall be maintained if a credit is to be applied to the monthly VOC emissions:
    - i. the amount of cleanup material recovered during the month\* for off-site disposal and/or recovery, in gallons (or pounds, if records of recovered cleanup material is maintained by weight and VOC content in percent by weight);
    - ii. the VOC content of the recovered cleanup material shall be based on the lowest VOC content of any cleanup material collected, in pounds per gallon (or percent by weight); or it may be based upon a laboratory analyses provided by the facility to which the waste solvent is shipped;
    - iii. the date the recovered cleanup material was shipped, the amount shipped (minus the container), and the name and address of the receiving, disposal, and/or recovery facility; and
  - f. the total monthly VOC emission from cleanup operations, in pounds, i.e., [(2)d.] – [(2)e.i. x (2)e.ii.).]
- \* A daily log may be required for recovered waste cleanup solvents, where a record of the monthly total volume or weight of the collected material cannot be accurately maintained. This amount shall be adjusted if the volume or weight shipped is less than the sum of the monthly recovered solvent added to the container.
- (3) The permittee shall calculate and record the total annual VOC emissions from coatings and cleanup materials, i.e., the sum of the daily VOC emission rates from the coating materials for the calendar year in d)(1)e. plus the sum of the monthly emissions from cleanup materials for the calendar year in d)(2)d. or d)(2)f..
- (4) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the dry particulate filter, along with documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the Cleveland Division of Air Quality (Cleveland DAQ) upon request.

- (5) The permittee shall conduct periodic inspections of the dry particulate filter to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency and it shall be made available to the Cleveland DAQ upon request.
- (6) In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the dry particulate filter while the emissions unit is shut down and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.
- (7) The permittee shall document each inspection (periodic and annual) of the dry particulate filter system and shall maintain the following information:
  - a. the date of the inspection;
  - b. a description of each/any problem identified and the date it was corrected;
  - c. a description of any maintenance and repairs performed; and
  - d. the name of person who performed the inspection.

These records shall be maintained at the facility for not less than five years from the date the inspection and any necessary maintenance or repairs were completed and shall be made available to the Cleveland DAQ upon request.

- (8) The permittee shall maintain records that document any time periods when the dry particulate filter was not in service when the emissions unit(s) was/were in operation, as well as, a record of all operations during which the dry particulate filter was not operated according to the manufacturer's recommendations with any documented modifications made by the permittee. These records shall be maintained for a period of not less than five years and shall be made available to the Cleveland DAQ upon request.
- (9) The FEPTIO application for this emissions unit, K004, was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this emissions unit 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 SCREEN3. The predicted 1-hour maximum ground-level concentration result from the SCREEN3 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, (as determined from the coatings 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 then adjusted to account for the duration of the exposure or the operating hours of the emissions unit, i.e., "24" hours per day and "7" 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):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/24 \times 7 = TLV/42 = MAGLC$$

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

Toxic Contaminant: Xylene.

TLV (mg/m<sup>3</sup>): 86.84

Maximum Hourly Emission Rate (lbs/hr): 13

Predicted 1-Hour Maximum Ground-Level Concentration (μg/m<sup>3</sup>): 278.2

MAGLC (μg/m<sup>3</sup>): 10337.91

Toxic Contaminant: Ethyl benzene

TLV (mg/m<sup>3</sup>): 434.19

Maximum Hourly Emission Rate (lbs/hr): 13

Predicted 1-Hour Maximum Ground-Level Concentration (μg/m<sup>3</sup>): 277.8

MAGLC (μg/m<sup>3</sup>): 2067.58

The permittee, has demonstrated that emissions of Xylene and/or Ethylbenzen, from emissions unit K004, are 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).

- (10) 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.

- (11) 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.
- (12) 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 completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services 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 notify the Cleveland Division of Air Quality (Cleveland DAQ) in writing of each daily record showing a daily volume-weighted average greater than 3.5 pounds VOC per gallon, as applied, excluding water and exempt solvents. The notification shall include a copy of such record and shall be sent to the Cleveland DAQ within 45 days after the exceedance occurs.
- (3) 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.
- (4) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- f) Testing Requirements
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in b) of these terms and conditions shall be determined in accordance with the following methods:
- a. Emissions Limitation:
- 105 lbs VOC/day from coatings
- Applicable Compliance Method:
- Compliance shall be demonstrated based on the record keeping in d)(1).

b. Emissions Limitation:

19.2 tons of VOC per year from coatings

Applicable Compliance Method:

Compliance shall be based on the record keeping specified in d)(3).

c. Emissions Limitation:

1.4 tons of VOC per year from cleanup materials

Applicable Compliance Method:

Compliance shall be based on the record keeping specified in d)(3).

d. Emissions Limitation:

The VOC content of the coatings employed shall not exceed a daily volume-weighted average of 3.5 pounds of VOC per gallon, as applied, excluding water and exempt solvents.

Applicable Compliance Method:

Compliance shall be based upon the record keeping specified in d)(1). The mass of VOC per volume of each coating, excluding water and exempt solvents, as applied, shall be calculated as follows:

$$C_{VOC,2} = (D_C)(W_{VOC}) / (V_S + V_{VOC})$$

Where:

$C_{VOC,2}$  = VOC content in pounds of VOC per gallon of coating, excluding water and exempt solvents

$D_C$  = density of coating, in pounds of coating per gallon of coating.

$V_S$  = volume fraction of solids (nonvolatile matter) in coating, in gallon of solids per gallon of coating.

$$V_{VOC} = V_{VM} - V_W - V_{ES}$$

$$W_{VOC} = W_{VM} - W_W - W_{ES}$$

$V_{VOC}$  = volume fraction of VOC in a coating.

$W_{VOC}$  = weight fraction of VOC in a coating.

$V_{VM}$  = volume fraction of volatile matter in coating, in gallon of volatile matter per gallon of coating.

$W_{VM}$  = weight fraction of volatile matter in coating, in pound of volatile matter per pound of coating.

$V_W$  = volume fraction of water in coating, in gallon of water per gallon of coating.

$W_W$  = weight fraction of water in coating, in pound of water per pound of coating.

$V_{ES}$  = volume fraction of exempt solvent in coating, in gallon of exempt solvent per gallon of coating.

$W_{ES}$  = weight fraction of exempt solvent in coating, in pound of exempt solvent per pound of coating.

The daily volume-weighted average VOC content (excluding water and exempt solvents) shall be determined using the following equation from OAC rule 3745-21-10(B)(9):

$$(C_{VOC,2})_A = \frac{\sum_{i=1}^n C_{VOC,2i} L_{Ci} (V_{Si} + V_{VOCi})}{\sum_{i=1}^n L_{Ci} (V_{Si} + V_{VOCi})}$$

Where,

A = subscript denoting that the indicated VOC content is a weighted average of the coatings employed during time period t.

$L_C$  = liquid volume of coating employed during time period t, in gallons of coating.

i = subscript denoting a specific coating employed during time period t.

n = total number of coatings employed during time period t.

t = time period specified for the weighted average VOC content.

- (2) In accordance with OAC rule 3745-21-04(B)(5), the permittee shall use U.S. EPA Method 24 to determine the VOC contents of the coatings. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 cannot be used for a particular coating, the permittee shall so notify the Administrator of the U.S. EPA and shall use formulation data for that coating to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24.

- (3) USEPA Method 24 or formulation data shall be used to determine the VOC contents of the cleanup materials.

g) Miscellaneous Requirements

- (1) The currently active/permitted emissions unit K001 will be shutdown, and this new emissions unit K004 will replace K001.