



11/24/2014

Certified Mail

Jeromy Woods  
 Advanced Industrial Services  
 1285 Blue Knob Road  
 Marietta, OH 45750

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

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE  
 Facility ID: 0684015019  
 Permit Number: P0116797  
 Permit Type: Initial Installation  
 County: Washington

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](http://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](http://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](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Ohio EPA DAPC, Southeast District Office at (740)385-8501 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: Ohio EPA-SEDO



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
Advanced Industrial Services**

Facility ID:	0684015019
Permit Number:	P0116797
Permit Type:	Initial Installation
Issued:	11/24/2014
Effective:	11/24/2014
Expiration:	11/24/2024





**Division of Air Pollution Control**  
**Permit-to-Install and Operate**  
for  
Advanced Industrial Services

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**Final Permit-to-Install and Operate**  
Advanced Industrial Services  
**Permit Number:** P0116797  
**Facility ID:** 0684015019  
**Effective Date:** 11/24/2014

## Authorization

Facility ID: 0684015019  
Application Number(s): A0050728  
Permit Number: P0116797  
Permit Description: Initial installation PTIO for a coating booth and abrasive blast booth  
Permit Type: Initial Installation  
Permit Fee: \$1,400.00  
Issue Date: 11/24/2014  
Effective Date: 11/24/2014  
Expiration Date: 11/24/2024  
Permit Evaluation Report (PER) Annual Date: Apr 1 - Mar 31, Due May 15

This document constitutes issuance to:

Advanced Industrial Services  
1300 Blue Knob Road  
Marietta, OH 45750

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

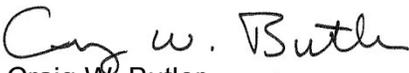
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

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

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



**Final Permit-to-Install and Operate**  
Advanced Industrial Services  
**Permit Number:** P0116797  
**Facility ID:** 0684015019  
**Effective Date:** 11/24/2014

## Authorization (continued)

Permit Number: P0116797  
Permit Description: Initial installation PTIO for a coating booth and abrasive blast booth

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>K001</b>
Company Equipment ID:	paint booth
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P901</b>
Company Equipment ID:	abrasive blasting
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install and Operate**  
Advanced Industrial Services  
**Permit Number:** P0116797  
**Facility ID:** 0684015019  
**Effective Date:** 11/24/2014

## **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**  
Advanced Industrial Services  
**Permit Number:** P0116797  
**Facility ID:** 0684015019  
**Effective Date:** 11/24/2014

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



**Final Permit-to-Install and Operate**

Advanced Industrial Services

**Permit Number:** P0116797

**Facility ID:** 0684015019

**Effective Date:** 11/24/2014

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



**Final Permit-to-Install and Operate**  
Advanced Industrial Services  
**Permit Number:** P0116797  
**Facility ID:** 0684015019  
**Effective Date:** 11/24/2014

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



**1. K001, paint booth**

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

5 gallon/hour metal parts coating paint booth (Marathon Finishing system, SAF-571242-72-OHH, 60,330 VFM fan) equipped with dry filter for a design capture efficiency of 100% and a control efficiency of 95% for particulate emissions, using airless spray gun. Permitted at a maximum of 10 gallons of paint use per day and 3,650 gallons of paint use a year and a maximum of 1 gal/day and 15 gal/month of clean-up solvent.

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., b)(2)c., d)(3)-(6), (e)(4), and (f)(1)c.

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

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 06/30/2008	Install a coating paint booth equipped with a dry filter that shall be designed to have 100% capture efficiency and a minimum of 98% control efficiency for particulate emissions (PE).  Volatile organic compounds (VOC) emissions from coating and cleanup operations combined shall not exceed 0.53 ton per month, averaged over a 12-month, rolling period.  See b)(2) a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 06/30/2008	See b)(2)b. below.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-114-01 and ORC 3704.03(F)(3)(c)	See b)(2)c. below.
d.	OAC rule 3745-17-07(A)	Exempt See b)(2)d. below.
e.	OAC rule 3745-17-11(A)(1)(j)	Exempt See b)(2)e. below.
f.	OAC rule 3745-21-09(U)(2)(e)(iii)	See b)(2)f. below.

(2) Additional Terms and Conditions

- a. This Best Available Control (BAT) emissions limit applies until U.S. EPA approves Ohio Administrative Code (OAC) rule 3745-31-05(A)(3)(a) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
- b. These requirements apply once U.S. EPA approves OAC rule 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE from this air contaminant source since the potential to emit for PE is less than 10 tons/yr.

The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the calculated annual emission rate for VOC is less than 10 tons/yr taking into account the federally enforceable rule limit of 10 gallons of coating usage per day under OAC rule 3745-21-09(U)(e)(iii).

- c. In order to demonstrate compliance with the “Toxic Air Contaminant Statute”, the Director has established, per ORC 3704.03(F)(4)(c), a limit for xylene, which shall not exceed 20.74 pounds per day. This daily allowable emissions rate was calculated by multiplying the approved daily operating schedule submitted in the permit application, by the emission rate modeled (to determine the ground level concentration).
- d. Pursuant to OAC rule 3745-17-07(A)(3)(h), the visible PE limitations in OAC rule 3745-17-07(A)(1) do not apply to a source that is not subject to a mass emission limitation in OAC rule 3745-17-11.
- e. Pursuant to OAC rule 3745-17-11(A)(1)(j), this process is not subject to PE control requirement in OAC rule 3745-17-11 due to it being a surface coating process that employs airless spray application methods.
- f. The permittee shall not employ more than ten gallons of coating per day for the miscellaneous metal parts and products coating line. The daily usage limitation for the coating line shall not include coatings applied to parts or products which are not metal.



c) Operational Restrictions

- (1) The permittee shall install and operate an enclosed coating booth equipped with a dry filter for the control of PE whenever this emissions unit is in operation and shall maintain the control equipment in accordance with the manufacture's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.
- (2) In the event the control equipment is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual(s), with any modifications deemed necessary by the permittee, the control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information each day for this emissions unit:
  - a. The name and identification number of each metal coating employed.
  - b. The number of gallons of each metal coating employed.
  - c. The total number of gallons of all the metal coatings employed.
- (2) The permittee shall collect and record the following information each month for all coatings and cleanup materials employed in emissions units combined:
  - a. the number of gallons of each coating and cleanup material employed during the month;
  - b. the maximum VOC content of each coating and cleanup material employed, in pounds per gallon;
  - c. the total VOC emissions from all coatings and cleanup materials employed [the sum of (a. times b.) for all coatings plus (a. times b.) for all cleanup materials] divided by 2,000, in tons; and
  - d. the tons per month, averaged over a 12-month period i.e., the summation of the total VOC emissions, as recorded in c. above, for the present month plus the previous 11 months of operation, in ton(s) and divided by 12 months.

[Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit.]

- (3) The PTIO application for this emissions unit, K001, 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 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: xylene

TLV (mg/m<sup>3</sup>): 434,192.229

Maximum Hourly Emission Rate (lbs/hr): 10.37 lb/hr

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 9,637

MAGLC (ug/m<sup>3</sup>): 10,337.91022

The permittee, having demonstrated that emissions of xylene, from emissions unitK001, 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).

- (4) 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 PTIO prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

- (5) 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.
- (6) 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.
  - (7) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the control equipment, along with the documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.
  - (8) The permittee shall conduct periodic inspections of the control equipment 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 Ohio EPA upon request.
  - (9) In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the control equipment and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.
  - (10) The permittee shall document each inspection (periodic and annual) of the control equipment 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 of the inspection and any necessary maintenance or repairs were completed and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.



- (11) The permittee shall maintain records that document any time periods when the control equipment was not in service when the emissions unit(s) was/were in operation, as well as, a record of all operations during which the control equipment 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 Ohio EPA upon request.

e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (2) The permittee shall notify the Director in writing of any daily record showing that the dry filters were not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Ohio EPA, Southeast District Office (SEDO) within 30 days after the event occurs.
- (3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (4) The permittee shall include in the annual Permit Evaluation Report (PER) any exceedance of the daily limitation on toxic air emissions or any deviation from a restriction on the process or hours of operation, as established by the Director, in order to maintain any toxic air contaminant below its MAGLC. The permittee shall also include in the PER any changes made, during the calendar year, to a parameter or value entered into 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. Design Efficiency:

Install a coating paint booth equipped with a dry filter that shall be designed to have 100% capture efficiency and a minimum of 98% control efficiency for PE.

Applicable Compliance Method:

Compliance is demonstrated by the following manufacturer's design efficiency of a design capture efficiency of 100% and a design control efficiency of 98% for PE.



b. Emissions Limitation:

VOC emissions from coating and cleanup operations combined shall not exceed 0.53 ton per month, averaged over a 12-month, rolling period.

Applicable Compliance Method:

The emissions limitation was derived by the following calculation:

VOC coating emissions:

$[1 \text{ gal paint})(2.38 \text{ VOC lb/gal of paint}) + (0.2 \text{ gal reducer})(6.8 \text{ lb VOC/gal of reducer})]$  divided by 1.2 gallons = 3.12lb VOC/gallon, as applied

$(3.12 \text{ lb VOC/gallon, as applied})(10 \text{ gallons/day})(365 \text{ days/year})(1 \text{ ton}/2,000 \text{ lbs})$   
= 5.69 TPY

Where:

2.38 VOC lb/gal of paint = VOC content of \*CarbolinePlastite (A/B) prior to addition of reducer (as submitted in permittee's application)

0.2 gal reducer = ratio of reducer to 1 gallon of paint mix (as submitted in permittees application)

6.8 lb VOC/gal of reducer = VOC content of reducer (as submitted in permittee's application)

1.2 gal = the total amount of gals in mix ratio (1 gal of paint: 0.2 gal reducer) (as submitted in permittee's application)

10 gal/day = maximum number of gal of paint applied a day (as submitted in permitt's application)

\*CarbolinePlastite (A/B) was determined to be the highest VOC content coating, as applied of any coating as presented in the permittee's application. Therefore, it was used as the worst case scenario for determining the emission limitation allowable for the coating process.

VOC clean-up emissions:

$(15 \text{ gal of solvent/month})(6.9 \text{ VOC lb/gal of solvent})(12 \text{ month/year})(1 \text{ ton}/2,000 \text{ lbs})$  = 0.621 TPY

Where:

15 gal of solvent/month = maximum solvent use (as submitted in permittee's application)

6.9 lb VOC/gal of solvent = maximum VOC content of solvent (as submitted in permittee's application)



Total VOC emissions:

$$5.69 \text{ TPY} + 0.621 \text{ TPY} = 6.315 \text{ TPY}$$

6.315 TPY/12 months = 0.53 ton per month, averaged over a 12-month, rolling period.

Compliance with the monthly emissions limitation may be determined by the above calculation and the records required in d)(2).

c. Emissions Limitation:

In order to demonstrate compliance with the "Toxic Air Contaminant Statute", the Director has established, per ORC 3704.03(F)(4)(c), a limit for xylene, which shall not exceed 24.6 pounds per day. This daily allowable emissions rate was calculated by multiplying the approved daily operating schedule submitted in the permit application, by the emission rate modeled (to determine the ground level concentration).

Applicable Compliance Method:

The emissions limitation of 20.74 lbs/day of xylene was established by the following worst case calculation:

Coating Xylene Emissions:

$$(1.77 \text{ lb/gal})(5 \text{ gal/hr}) = 8.85 \text{ lb/hr}$$

$$(8.85 \text{ lb/hr})(1 \text{ hr/5 gal})(10 \text{ gal/1 day}) = 17.7 \text{ lb/day}$$

Clean-up Xylene Emissions:

$$(3.036 \text{ lb/gal})(0.5 \text{ gal/1 hr}) = 1.518 \text{ lb/hr}$$

$$(1.518 \text{ lb/hr})(1 \text{ hr/0.5 gal})(1 \text{ gal/1 day}) = 3.036 \text{ lb/day}$$

Total Xylene emissions:

$$17.7 \text{ lb/day} + 3.036 \text{ lb/day} = 20.74 \text{ lb/day of xylene}$$

Where:

1.77 lb/gal = worst case xylene concentration based on SW Hi Temp 1200 Sealer with a density of 16.10 lb/gal and 11% xylene, as applied (as submitted in permittee's application)

5 gal/hr = maximum rating of equipment (as submitted in permittee's application)

10 gal/1 day = maximum daily coating usage as required by OAC rule 3745-21-09(U)(2)(e)(iii).



**Final Permit-to-Install and Operate**

Advanced Industrial Services

**Permit Number:** P0116797

**Facility ID:** 0684015019

**Effective Date:** 11/24/2014

3.036 lb/day = worst case xylene concentration based on SW Reducer with a density of 6.9 lb/gal and 44% xylene (as submitted in permittee's application)

1 hr/0.5 gal = maximum clean-up solvent usage (as submitted in permittee's application)

1 gal/1day = maximum clean-up solvent usage (as submitted in permittee's application)

- (2) Formulation data or USEPA Method 24 shall be used to determine the VOC content of the coatings and cleanup materials.

g) Miscellaneous Requirements

- (1) None.



**2. P901, abrasive blasting**

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

480 lbs of abrasive/hour, indoor, direct pressure abrasive blasting operation (Marco 6 Ton Blaster, 120 cubic foot Big Red Series) using black beauty and garnet for the blasting of carbon steel pipe/misc. steel (120 square feet/hour) equipped with 30'x50' building enclosure (minimum capture efficiency of 95% for PE) with filter curtain door (minimum of 99% capture efficiency for PE) and an exhaust fan equipped with a fabric sock (minimum of 25% control efficiency for PE).

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

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

a. None.

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

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 06/30/2008	Install an abrasive blast booth with the following particulate emissions (PE) control technology:  a fabric curtain that shall be designed to have at least 99% capture efficiency;  an enclosure that shall be designed to have at least 95% capture efficiency for the settling and recycling of blast material; and  an exhaust fan equipped with a fabric sock that shall be designed to have at least 25% control efficiency for blast



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		material that is not captured by the enclosure for recycling.  See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 06/30/2008	See b)(2)b. below.
c.	OAC rule 3745-17-07	Visible PE from the exhaust fan serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
d.	OAC rule 3745-17-11(B)	PE shall not exceed 1.58 lbs per hour.
e.	OAC rule 3745-17-07(B)	Visible fugitive emissions from the egress points shall not exceed 20% opacity as a 3-minute average.
f.	OAC rule 3745-17-08(B)	Reasonable available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.  See b)(2)c. below.

(2) Additional Terms and Conditions

- a. This Best Available Control (BAT) emissions limit applies until U.S. EPA approves Ohio Administrative Code (OAC) rule 3745-31-05(A)(3)(a) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
- b. These rule requirements apply once U.S. EPA approves OAC rule 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE from this air contaminant source since the potential to emit for PE is less than 10 tons/yr.

- c. The permittee shall employ reasonably available control measures on the abrasive blast booth for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee shall install an enclosure equipped with a fabric curtain and an exhaust fan with a fabric sock which is capable of meeting the applicable requirements to ensure compliance. The blasting of material shall be directed away from the opening of the enclosure in order to minimize or eliminate fugitive emissions from the egress points. The enclosure shall be used to allow the blast material to settle in order to recover the material for reuse or recycling. The blast



material that does not settle in the enclosure and is recycled shall be controlled by an exhaust fan equipped with a fabric sock. Nothing in this paragraph shall prohibit the permittee from employing additional control measures to ensure compliance.

c) Operational Restrictions

- (1) The permittee shall install and operate an enclosed blast booth equipped with a fabric curtain and exhaust fan with a fabric sock for the control of PE whenever this emissions unit is in operation and shall maintain the control equipment in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.
- (2) In the event the control equipment is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual(s), with any modifications deemed necessary by the permittee, the control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.

d) Monitoring and/or Recordkeeping Requirements

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

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

- (2) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the control equipment, along with the



documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

- (3) The permittee shall conduct periodic inspections of the control equipment 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 Ohio EPA upon request.
- (4) In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the control equipment and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.
- (5) The permittee shall document each inspection (periodic and annual) of the control equipment 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 of the inspection and any necessary maintenance or repairs were completed and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

- (6) The permittee shall maintain records that document any time periods when the control equipment was not in service when the emissions unit(s) was/were in operation, as well as, a record of all operations during which the control equipment 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 Ohio EPA upon request.
- e) Reporting Requirements
- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
  - (2) The permittee shall notify the Director in writing of any daily record showing that the control equipment was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Ohio EPA, Southeast District Office (SEDO) within 30 days after the event occurs.



- (3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency 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. Design Efficiency:

Install an abrasive blast booth with the following PE control technology:

- i. a fabric curtain that shall be designed to have at least 99% capture efficiency;
- ii. an enclosure that shall be designed to have at least 95% capture efficiency for the settling and recycling of blast material; and
- iii. an exhaust fan equipped with a fabric sock that shall be designed to have at least 25% control efficiency for blast material that is not captured by the enclosure for recycling.

Applicable Compliance Method:

Compliance is demonstrated by the following manufacturer's design efficiency:

- i. a design capture efficiency of 99% for PE from the fabric curtain;
- ii. a design capture efficiency of 95% for PE from the enclosure for the settling and recycling of blast material; and
- iii. a design control efficiency of 25% for the fan equipped with a fabric sock in order to control the blast material that is not captured by the enclosure for recycling.

b. Emissions Limitation:

Visible PE from the exhaust fan serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

Visible fugitive emission from the egress points shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

If required, visible PE shall be determined according to USEPA Method 9.



c. Emissions Limitation:

PE shall not exceed 1.58 lbs per hour.

Applicable Compliance Method:

This emissions limitation was established using Table 1 of the appendix to OAC rule 3745-17-11, and a maximum process weight rate of 480 lbs per hour.

If required, particulate emissions shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources", and the procedures specified in OAC rule 3745 17 03(B)(10). Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

g) Miscellaneous Requirements

(1) None.