



7/10/2014

Certified Mail

Thomas Von Bargaen
 Armor Metal Group
 4600 N. Mason-Montgomery Road
 Mason, OH 45040-9176

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

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
 Facility ID: 1483090487
 Permit Number: P0116837
 Permit Type: Renewal
 County: Warren

Dear Permit Holder:

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

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

How to appeal this permit

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

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

How to save money, reduce pollution and reduce energy consumption

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

How to give us feedback on your permitting experience

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

How to get an electronic copy of your permit

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

If you have any questions, please contact Southwest Ohio Air Quality Agency at (513)946-7777 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: SWOAQA



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Armor Metal Group**

Facility ID:	1483090487
Permit Number:	P0116837
Permit Type:	Renewal
Issued:	7/10/2014
Effective:	7/10/2014
Expiration:	7/10/2019



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

for
Armor Metal Group

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Authorization

Facility ID: 1483090487
Application Number(s): A0049799
Permit Number: P0116837
Permit Description: FEPTIO renewal permit for miscellaneous metal parts coating lines and Komatsu dry cutting process plasma cutter including administrative modification to K007.
Permit Type: Renewal
Permit Fee: \$0.00
Issue Date: 7/10/2014
Effective Date: 7/10/2014
Expiration Date: 7/10/2019
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Armor Metal Group
4600 N. Mason-Montgomery Road
Mason, OH 45040-9176

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

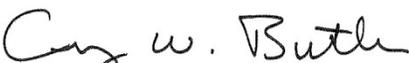
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Southwest Ohio Air Quality Agency
250 William Howard Taft Rd.
Cincinnati, OH 45219
(513)946-7777

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Craig W. Butler
Director



Authorization (continued)

Permit Number: P0116837

Permit Description: FEPTIO renewal permit for miscellaneous metal parts coating lines and Komatsu dry cutting process plasma cutter including administrative modification to K007.

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

Emissions Unit ID:	K001
Company Equipment ID:	Bay A Compliant
Superseded Permit Number:	P0108085
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	K002
Company Equipment ID:	Misc. Metal Parts Spray Painting, Bay A - Non-Compliant Coat
Superseded Permit Number:	P0108093
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	K003
Company Equipment ID:	Bay B Compliant
Superseded Permit Number:	P0104357
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	K004
Company Equipment ID:	K004
Superseded Permit Number:	P0104408
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	K006
Company Equipment ID:	K006
Superseded Permit Number:	P0108093
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	K007
Company Equipment ID:	Bay B Annex Paint Booths
Superseded Permit Number:	P0106850
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P001
Company Equipment ID:	P001
Superseded Permit Number:	P0106084
General Permit Category and Type:	Not Applicable



Final Permit-to-Install and Operate
Armor Metal Group
Permit Number: P0116837
Facility ID: 1483090487
Effective Date: 7/10/2014

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
Armor Metal Group
Permit Number: P0116837
Facility ID: 1483090487
Effective Date: 7/10/2014

B. Facility-Wide Terms and Conditions



1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
 - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (1) 2., 3., 4., 5., & 6.
2. The actual emissions of Hazardous Air Pollutants (HAPs) as identified in Section 112(b) of Title III of the Clean Air Act from emissions units K001 (Bay A – Compliant Coatings), K002 (Bay A – Noncompliant coatings), K003 (Bay B – Compliant Coatings), K004 (Bay B – Noncompliant coatings), K006 (High Bay – Noncompliant coatings), K007 (Bay B Annex Paint Booths), P001 (Plasma Cutter), any de minimis emissions units as defined in OAC rule 3745-15-05, any registration status and/or permit exempt emissions units pursuant to OAC rule 3745-31-03, or future constructed emissions units, combined, shall not exceed 9.9 tons per year (TPY) for any single HAP, as a rolling, 12-month summation and 24.9 TPY for any combination of HAPs, as a rolling, 12-month summation.
3. The permittee shall collect and record the following information each month for all materials containing any hazardous air pollutant (HAP)¹ that are applied in the emissions unit:
 - a) The name and identification number/code of each coating, thinner, additive, cleanup material, and any other material containing any HAP;
 - b) The name/identification of each individual HAP contained in each material applied (and identified in “a” above) and the pound(s) of each HAP per gallon of each HAP-containing material applied;
 - c) The number of gallons of each coating, thinner, additive, cleanup material, and other material applied during the month;
 - d) For each individual HAP, the total emissions from all the materials employed, in ton(s), i.e., for each individual HAP, the summation of the products of “b” times “c” for all the materials applied during the month, divided by 2,000 pounds;
 - e) The total combined HAPs emissions from all the materials employed during the month, in ton(s), i.e., the summation of all the individual HAPs emissions from “d” above;
 - f) For each individual HAP, the total emissions during the rolling, 12-month period, i.e., the summation of the individual HAP emissions, as recorded in “d” above, for the present month plus the previous 11 months of operation, in ton(s); and
 - g) The total combined HAP emissions during the rolling 12-month period, i.e., the summation of all HAP emissions, as recorded in “e” above, for the present month plus the previous 11 months of operation, in ton(s).



¹A listing of the HAPs can be found in Section 112(b) of the Clean Air Act, or can be obtained by contacting your Ohio EPA District Office or local air agency contact. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings and cleanup materials.

4. 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:

<u>Emissions unit IDs</u>	<u>Term & Condition</u>
K001, K002, K003 K004, K006, K007 and P001	B.2.

- b) The probable cause of each deviation (excursion);
- c) Any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d) The magnitude and duration of each deviation (excursion).

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

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

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

a) Emission Limitations:

The allowable emissions of Hazardous Air Pollutants (HAPs) as identified in Section 112(b) of Title III of the Clean Air Act from emissions units, as specified in 2. above, shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be determined based upon a rolling, 12-month summation.

Applicable Compliance Method:

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

6. The Ohio EPA has determined that this facility may be applicable to the requirements of an area source MACT/GACT rule that the Ohio EPA does not have the delegated authority to implement. Although Ohio EPA has determined that an area source MACT (also known as the GACT) may apply, at this time



Final Permit-to-Install and Operate

Armor Metal Group

Permit Number: P0116837

Facility ID: 1483090487

Effective Date: 7/10/2014

Ohio EPA does not have the authority to enforce this standard. Instead, U.S. EPA has the authority to enforce this standard. Please be advised that all requirements associated with these rules are in effect and are enforceable by U.S. EPA. For more information on the area source rules, please refer to the follow U.S. EPA website: <http://www.epa.gov/ttn/atw/area/arearules.html>



Final Permit-to-Install and Operate
Armor Metal Group
Permit Number: P0116837
Facility ID: 1483090487
Effective Date: 7/10/2014

C. Emissions Unit Terms and Conditions



1. K001, Bay A Compliant

Operations, Property and/or Equipment Description:

Misc. Metal Parts Spray Painting, Bay A - Compliant Coatings

- 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)(3) and e)(4).
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)c., b)(2)c., b)(2)d., c)(1), d)(1), e)(3), f)(1)b. and f)(2).
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), As effective 11/30/01	The VOC emissions from this emissions unit shall not exceed 19.7 pounds per hour from all miscellaneous metal parts coating. The pounds per hour emission limitation is based upon the emission units potential to emit, therefore no hourly records are required to demonstrate compliance with the limitation. See b)(2)a.
b.	OAC rule 3745-31-05(C). As effective 12/1/06	The emission limitation established pursuant to this rule is equivalent to the emission limitation established pursuant to OAC rule 3745-31-05(D). See b)(2)b.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(D) Synthetic Minor to avoid Non-Attainment New Source Review, Title V and MACT	The VOC emissions from this emissions unit shall not exceed 8.16 tons per year (TPY), based on a rolling, 12-month summation, from all miscellaneous metal parts coating, pre-coating parts cleaning and cleanup. See Section B.2., b)(2)c., b)(2)d. and c)(1).
d.	OAC rule 3745-21-09(U)(1)(d) for coatings dried at temperatures not exceeding 200 degrees Fahrenheit	No owner or operator may cause, allow or permit the discharge into the ambient air of any volatile organic compounds from the coating line in excess of 3.5 pounds of VOC per gallon of coating, excluding water and exempt solvents.
e.	OAC rule 3745-17-11(C)	See b)(2)e.

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutant less than ten tons per year. However, the rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then the mass NOx, SO2, VOC, PE and PM10, emission limitations no longer apply.
- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan:

Federally Enforceable Permit to Install and Operate (FEPTIO) P0116837 for this emissions unit takes into account the following voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):
 - i. Coating, parts cleaning and cleanup usage limitations outlined in c)(1).
- c. The maximum VOC content of pre-coating parts cleaning material (Oakite 33) shall not exceed 2.2 pounds of VOC per gallon, excluding water.
- d. The maximum VOC content of cleanup materials shall not exceed 7.04 pounds of VOC per gallon.



- e. Any surface coating process not exempt under OAC rule 3745-17-11(C) (A)(1)(h) to (A)(1)(l) shall be controlled by a dry particulate filter, waterwash or equivalent control device or devices.

c) Operational Restrictions

- (1) The maximum annual coating usage for this emissions unit shall not exceed 3700 gallons, excluding water, based upon a rolling, 12-month summation of the coating usage figures. The maximum annual pre-coating parts cleaning material (Oakite 33) usage for this emissions unit shall not exceed 365 gallons, excluding water, based upon a rolling, 12-month summation of the material usage figures. The maximum annual cleanup material usage for this emissions unit shall not exceed 365 gallons based upon a rolling, 12-month summation of the cleanup material usage figures.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information:
 - a. the name and identification number of each coating and the usage, in gallons excluding water, for each month;
 - b. the pre-coating parts cleaning material usage, in gallons excluding water, for each month;
 - c. the cleanup material usage, in gallons, for each month;
 - d. the mass of VOC per volume of each coating (VOC content), excluding water and exempt solvents, as applied, calculated as follows:

$C_{VOC,2}$ is the VOC content in pounds of VOC per gallon of coating, excluding water and exempt solvents calculated as follows:

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

where:

D_C is the density of coating, in pounds of coating per gallon of coating.

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

V_S = the volume fraction of solids in coating, in gallons of solids per gallon of coating.

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

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

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



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

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

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

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

- e. the VOC content of each pre-coating parts cleaning material, in pounds of VOC per gallon, excluding water, and the VOC content of each cleanup material, in pounds of VOC per gallon;
 - f. the rolling, 12-month summations of the coating and pre-coating parts cleaning material figures, in gallons, excluding water, and the rolling, 12-month summation of the cleanup material usage figure, in gallons;
 - g. the VOC emissions, in tons, as calculated by multiplying the coating usage in a by the coating VOC content in d, plus the pre-coating parts cleaning material usage in b by the pre-coating parts cleaning material VOC content in e, plus the cleanup material usage in c by the cleanup material VOC content in e and dividing the summation by 2000 pounds; and
 - h. the rolling, 12-month summation of the VOC emissions, in tons, from the present month plus the previous 11 months of operation.
- (2) The permittee shall maintain daily records of the actual operating hours for this emissions unit.
- (3) The permit to install and operate for emissions unit K001, was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutants:

Pollutant: ethyl benzene

TLV (mg/m³): 434

Maximum Hourly Emission Rate (lbs/hr): 4.51

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 956



MAGLC* (ug/m3): 15500

Pollutant: methyl isobutyl ketone

TLV (mg/m3): 205

Maximum Hourly Emission Rate (lbs/hr): 5.09

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1081

MAGLC* (ug/m3): 7321

Pollutant: Stoddard Solvent

TLV (mg/m3): 573

Maximum Hourly Emission Rate (lbs/hr): 24.84

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5258

MAGLC* (ug/m3): 20464

Pollutant: xylene

TLV (mg/m3): 434

Maximum Hourly Emission Rate (lbs/hr): 7.51

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1592

MAGLC* (ug/m3): 15500

*Where $MAGLC = (TLV/10)(8/16)(5/7)$ adjusted for the duration of the exposure

The above described evaluation determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC. Per ORC 3704.03(F)(4)(d), the owner or operator shall submit an annual report that describes any changes to the emissions unit that affect the air toxic modeling. Changes that can affect the parameters used in applying the "Air Toxic Policy" include 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 compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");



- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

e) Reporting Requirements

- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. the rolling 12-month VOC emissions limitation in b)(1)c;
 - ii. the rolling 12-month coating usage limitation in c)(1);
 - iii. the rolling 12-month HAPs limitation in Section B.2.;
 - iv. all exceedances of the coatings and cleanup material VOC content limits is b)(2)c. and b)(2)d.;
 - 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 each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

- (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 identify any day in which the actual operations exceeded 16 hours to demonstrate compliance with the air toxics evaluation for xylene, where the MAGLC was adjusted (indicated as the maximum operating hours in PTI Application 14-05965). 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.
- (5) The permittee shall also submit annual reports that specify the total VOC emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Synthetic Minor Title V Fee Emissions Report.
- (6) The permittee shall notify the Director (appropriate District Office or local air agency) in writing of each daily record showing the application of a coating with greater than 3.5 pounds VOC per gallon, excluding water and exempt solvents. The notification shall include a copy of each such record and it shall be sent to the appropriate District Office or local air agency within 30 days following the end of the calendar month during which the non-compliant coating was applied.

f) **Testing Requirements**

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

The VOC emissions from this emissions unit shall not exceed 19.7 pounds per hour from all miscellaneous metal parts coating.



Applicable Compliance Method:

The hourly VOC emission limitation was developed from the following equation using the information submitted by the permittee in air PTI application number 14-05965, submitted on July 27, 2007 and was based on the potential to emit:

5.625 gallons of coating/hour x 3.5 pounds of VOC/gallon of coating = 19.7 pounds of VOC/hour.

b. Emission Limitation:

The VOC emissions from this emissions unit shall not exceed 8.16 tons per year (TPY), based on a rolling, 12-month summation, from miscellaneous metal parts coating, pre-coating parts cleaning, and cleanup.

Applicable Compliance Method:

Compliance with the VOC emission limitation shall be demonstrated by the record keeping requirement in term d)(1).

The rolling, 12-month VOC emission limitation was developed from the following equations using the information submitted by the permittee in air PTI application number 14-05965, submitted on July 27, 2007:

3700 gallons of coating/year x 3.5 pounds of VOC/gallon x 1 Ton/2000 pounds = 6.48 TPY of VOC;

365 gallons of pre-coating parts cleaning material/year x 2.2 pounds of VOC/gallon x 1 Ton/2000 pounds = 0.40 TPY of VOC; and

365 gallons of cleaning material/year x 7.04 pounds of VOC/gallon x 1 Ton/2000 pounds = 1.28 TPY of VOC.

c. Emission Limitation:

No owner or operator may cause, allow or permit the discharge into the ambient air of any volatile organic compounds from the coating line in excess of 3.5 pounds of VOC per gallon of coating, excluding water and exempt solvents.

Applicable Compliance Method:

If required, USEPA methods 24 and 24A shall be used to determine the VOC content for coatings. If, pursuant 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.



Final Permit-to-Install and Operate

Armor Metal Group

Permit Number: P0116837

Facility ID: 1483090487

Effective Date: 7/10/2014

d. Emission Limitations:

The maximum VOC content of pre-coating parts cleaning material (Oakite 33) shall not exceed 2.2 pounds of VOC per gallon, excluding water.

The maximum VOC content of cleanup materials shall not exceed 7.04 pounds of VOC per gallon.

Applicable Compliance Method:

Compliance shall be determined by the record keeping in d)(1).

(2) Compliance with the usage limitations in term c)(1). shall be demonstrated by the record keeping in term d)(1).

g) Miscellaneous Requirements

(1) None.



2. K002, Bay A - Non-Compliant Coatings

Operations, Property and/or Equipment Description:

Misc. Metal Parts Spray Painting, Bay A - Non-Compliant Coatings

- 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)(4) and e)(4).
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)c., b)(2)c., b)(2)d., b)(2)e., c)(1), d)(2), e)(3), f)(1)b. and f)(2).
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), As effective 11/30/01	The VOC emissions from this emissions unit shall not exceed 21.21 pounds per day from all miscellaneous metal parts coating. See b)(2)a.
b.	OAC rule 3745-31-05(C). As effective 12/1/06	The emission limitation established pursuant to this rule is equivalent to the emission limitation established pursuant to OAC rule 3745-31-05(D). See b)(2)b.
c.	OAC rule 3745-31-05(D) Synthetic Minor to avoid Non-Attainment New Source Review, Title V and MACT	The VOC emissions from this emissions unit shall not exceed 5.02 tons per year (TPY), based on a rolling, 12-month summation, from all miscellaneous metal parts coating, pre-coating parts cleaning and cleanup.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See Section B.2, b)(2)c., b)(2)d. b)2.e. and c)(1).
d.	OAC rule 3745-21-09(U)(1)	Exempt per OAC rule 3745-21-09(U)(2)(e)(ii) for a miscellaneous metal parts coating line that never uses more than 3 gallons per day. See b)(2)f.
e.	OAC rule 3745-17-11(C)	Exempt per OAC rule 3745-17-11(A)(1)(i). See b)(2)f.

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutant less than ten tons per year. However, the rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then the mass NOx, SO2, VOC, PE and PM10, emission limitations no longer apply.
- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan:

Federally Enforceable Permit to Install and Operate (FEPTIO) P0116837 for this emissions unit takes into account the following voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):
 - i. Coating, parts cleaning and cleanup usage limitations outlined in c)(1).
- c. The maximum VOC content of coatings shall not exceed 7.07 pounds of VOC per gallon.
- d. The maximum VOC content of pre-coating parts cleaning material (Oakite 33) shall not exceed 2.2 pounds of VOC per gallon, excluding water.
- e. The maximum VOC content of cleanup materials shall not exceed 7.04 pounds of VOC per gallon.



- f. The permittee shall not employ more than 3 gallons of coating per day for the miscellaneous metal parts and products coating line.

c) Operational Restrictions

- (1) The maximum annual coating usage for this emissions unit shall not exceed 945 gallons, based upon a rolling, 12-month summation of the coating usage figures. The maximum annual pre-coating parts cleaning material (Oakite 33) usage for this emissions unit shall not exceed 365 gallons, excluding water, based upon a rolling, 12-month summation of the material usage figures. The maximum annual cleanup material usage for this emissions unit shall not exceed 365 gallons based upon a rolling, 12-month summation of the cleanup material usage figures.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information each day for the coating line:
 - a. the name and identification number of each coating employed;
 - b. the volume, in gallons, of each coating employed;
 - c. the total volume, in gallons, of all of the coatings employed; and
 - d. the VOC emissions in pounds per day.

- (2) The permittee shall maintain monthly records of the following information:
 - a. the coating usage, in gallons, for each month;
 - b. the pre-coating parts cleaning material usage, in gallons excluding water, for each month;
 - c. the cleanup material usage, in gallons, for each month;
 - d. the mass of VOC per volume of each coating (VOC content), excluding water and exempt solvents, as applied, calculated as follows:

$C_{VOC,2}$ is the VOC content in pounds of VOC per gallon of coating, excluding water and exempt solvents calculated as follows:

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

where:

D_C is the density of coating, in pounds of coating per gallon of coating.

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

V_S is the volume fraction of solids in coating, in gallons of solids per gallon of coating.



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

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

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

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

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

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

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

- e. the VOC content of each coating, in pounds of VOC per gallon, the VOC content of each pre-coating parts cleaning material, in pounds of VOC per gallon, excluding water and the VOC content of each cleanup material, in pounds of VOC per gallon;
 - f. the rolling, 12-month summation of the coating usage figure, in gallons, the rolling, 12-month summation of the pre-coating parts cleaning material figure, in gallons, excluding water, and the rolling, 12-month summation of the cleanup material usage figure, in gallons;
 - g. the VOC emissions, in tons, as calculated by multiplying the coating usage in a by the coating VOC content in d, plus the pre-coating parts cleaning material usage in b by the pre-coating parts cleaning material VOC content in e, plus the cleanup material usage in c by the cleanup material VOC content in e and dividing the summation by 2000 pounds; and
 - h. the rolling, 12-month summation of the VOC emissions, in tons, from the present month plus the previous 11 months of operation.
- (3) The permittee shall maintain daily records of the actual operating hours for this emissions unit.
- (4) The permit to install and operate (PTIO) for emissions unit K002 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutants:



Pollutant: Stoddard Solvent

TLV (mg/m³): 573

Maximum Hourly Emission Rate (lbs/hr): 18.13

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 3851

MAGLC* (ug/m³): 327429

Pollutant: xylene

TLV (mg/m³): 434

Maximum Hourly Emission Rate (lbs/hr): 12.95

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 2750

MAGLC* (ug/m³): 248000

*Where $MAGLC = (TLV/10)(8/1)(5/7)$ adjusted for the duration of the exposure

The above described evaluation determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC. Per ORC 3704.03(F)(4)(d), the owner or operator shall submit an annual report that describes any changes to the emissions unit that affect the air toxic modeling. Changes that can affect the parameters used in applying the "Air Toxic Policy" include 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 compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

e) Reporting Requirements

- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required



documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.

- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) 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. the rolling 12-month VOC emissions limitation in b)(1)c.;
 - ii. the rolling 12-month coating usage limitation in c)(1);
 - iii. the rolling 12-month HAPs limitation in Section B.2.;
 - iv. All exceedances of the coatings and cleanup material VOC content limits is b)(2)c., b)(2)d. and b)(2)e.;
 - b. the probable cause of each deviation (excursion);
 - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - d. the magnitude and duration of each deviation (excursion).

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

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



- (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 identify any day in which the actual operations exceeded 1 hour to demonstrate compliance with the air toxics evaluation for xylene, where the MAGLC was adjusted (indicated as the maximum operating hours in PTI Application 14-05965). 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
 - (5) The permittee shall also submit annual reports that specify the total VOC emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Synthetic Minor Title V Fee Emissions Report.
 - (6) The permittee shall notify the Southwest Ohio Air Quality Agency in writing of any daily record showing that the coating line employs more than the applicable maximum daily coating usage limit in b)(2)f. The notification shall include a copy of such record and shall be sent to the Southwest Ohio Air Quality Agency within 45 days after the exceedance occurs.
- f) Testing Requirements
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:

The VOC emissions from this emissions unit shall not exceed 21.21 pounds per day from all miscellaneous metal parts coating.

Applicable Compliance Method:

Compliance with the VOC emission limitation shall be demonstrated by the record keeping requirement in terms d)(1).
 - b. Emission Limitation:

The VOC emissions from this emissions unit shall not exceed 5.02 tons per year (TPY), based on a rolling, 12-month summation, from miscellaneous metal parts coating, pre-coating parts cleaning, and cleanup.

Applicable Compliance Method:

Compliance with the VOC emission limitation shall be demonstrated by the record keeping requirement in terms d)(1) and d)(2).



The rolling, 12-month VOC emission limitation was developed from the following equations using the information submitted by the permittee in air PTI number application 14-05965, submitted on July 27, 2007:

945 gallons of coating/year x 7.07 pounds of VOC/gallon x 1 Ton/2000 pounds = 3.34 TPY of VOC.

365 gallons of pre-coating parts cleaning material/year x 2.2 pounds of VOC/gallon x 1 Ton/2000 pounds = 0.40 TPY of VOC.

365 gallons of cleaning material/year x 7.04 pounds of VOC/gallon x 1 Ton/2000 pounds = 1.28 TPY of VOC.

c. Emission Limitation:

The maximum VOC content of coatings shall not exceed 7.07 pounds of VOC per gallon.

Applicable Compliance Method:

If required, USEPA methods 24 and 24A shall be used to determine the VOC content for coatings. If, pursuant 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

d. Emission Limitations:

The maximum VOC content of pre-coating parts cleaning material (Oakite 33) shall not exceed 2.2 pounds of VOC per gallon, excluding water.

The maximum VOC content of cleanup materials shall not exceed 7.04 pounds of VOC per gallon.

Applicable Compliance Method:

Compliance shall be determined by the record keeping in term d)(2).

(2) Compliance with the usage limitations in term c)(1) shall be demonstrated by the record keeping in d)(2).

(3) Compliance with the usage limitations in term b)(1)f. shall be demonstrated by the record keeping in term d)(1).

g) Miscellaneous Requirements

(1) None.



3. K003, Bay B Compliant

Operations, Property and/or Equipment Description:

Misc. Metal Parts Spray Painting, Bay B - Compliant Coatings

- 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(8).
 - (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)c., b)(2)b., b)(2)c., c)(1), d)(2), e)(3), and f)(1)c. and f)(2).
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), As effective 11/30/01	The volatile organic compound (VOC) emissions from this emissions unit shall not exceed 5.63 pounds per hour from coating usage only. See b)(2)a.
b.	OAC rule 3745-31-05(C), As effective 12/01/06	See b)(2)d.
c.	OAC rule 3745-31-05(D) Synthetic Minor for VOC and HAPs to avoid Non-Attainment New Source Review, Title V and MACT	The volatile organic compound (VOC) emissions from this emissions unit shall not exceed 9.9 tons per year (TPY), based on a rolling, 12-month summation, from miscellaneous metals parts coating and cleanup. See Section B.2., b)(2)b., b)(2)c. and c)(1)



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-11(C)	See c)(2) and c)(3).
e.	OAC rule 3745-21-09(U)(1)(d) for coatings dried at temperatures not exceeding 200 degrees Fahrenheit	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D).

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutant less than ten tons per year. However, the rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then the mass NOx, SO2, VOC, PE and PM10, emission limitations no longer apply.

b. Coatings applied in the coating operations shall not exceed 1.0 pound VOC per gallon of coating, excluding water and exempt solvents.

c. Cleanup materials applied in the cleanup operations shall not exceed 6.72 pounds VOC per gallon of cleanup material.

d. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan:

Federally Enforceable Permit to Install and Operate (FEPTIO) P0116837 for this emissions unit takes into account the following voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

i. The emissions of VOC from this emissions unit shall not exceed 9.9 tons per year.

e. The hourly VOC emission limit was established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this short term emission limitation.

c) Operational Restrictions

(1) The maximum annual coating usage for this emissions unit shall not exceed 16,790 gallons, excluding water and exempt solvents, based upon a rolling, 12-month summation of the coating usage figures. The maximum annual cleanup material usage



for this emissions unit shall not exceed 447 gallons, based upon a rolling, 12-month summation of the cleanup material usage figures. This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the coating usage and cleanup material usage upon issuance of this permit.

- (2) The permittee shall install, operate, and maintain a dry particulate filter system for the surface coating operations in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s) with any modifications deemed necessary by the permittee. The dry particulate filter shall be employed during all periods of coating application to control particulate emissions.
- (3) The permittee shall expeditiously repair the dry particulate filter or otherwise return it to normal operations, as recommended by the manufacturer with any modifications deemed necessary by the permittee, whenever it is determined that the control device is not operating in accordance with these requirements.

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

- (1) The permittee, having chosen to demonstrate compliance through the use of compliant coatings, shall collect and record the following information each month for the coating line and shall maintain this information at the facility for a period of three years:
 - a. the name and identification number of each coating, as applied; and
 - b. the mass of VOC per volume of each coating, excluding water and exempt solvents, as applied, calculated as follows:

$C_{VOC,2}$ is the VOC content in pounds of VOC per gallon of coating, excluding water and exempt solvents calculated as follows:

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

where:

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

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

V_S = volume fraction of solids in coating, in gallons of solids per gallon of coating.

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

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

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



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

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

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

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

This information does not have to be kept on a line-by-line basis, unless one or more of the lines or emissions units is subject to specific “gallons/year” and/or “tons/year” limitation in a Permit-to-install, where the above-mentioned information shall be maintained separately for each such line. Also, if the permittee mixes complying coatings at a line, it is not necessary to record the VOC content of the resulting mixture.

- (2) The permittee shall collect and record the following information each month for the coating line:
 - a. the name and identification number of each coating and cleanup material employed;
 - b. the mass of VOC per volume of each cleanup material employed, in pounds of VOC per gallon;
 - c. the volume, in gallons, of each coating employed, excluding water and exempt solvents and the volume, in gallons, of each cleanup material employed;
 - d. the rolling, 12-month summation of the coating usage, in gallons, and the rolling, 12-month summation of the cleanup material usage, in gallons, for the present month plus the previous 11 months of operation;
 - e. the total VOC emissions from all the materials employed, in ton(s), i.e., for VOCs from coating usage, the sum of d)(1)b. multiplied by d)(2)c. for each coating applied during the month, divided by 2,000 pounds and for VOCs from cleanup material usage, the sum of d)(2)b. multiplied by d)(2)c. for each cleanup material applied during the month, divided by 2,000 pounds; and
 - f. the total VOC emissions during the rolling, 12-month period, i.e., the summation of total VOC emissions from coatings and cleanup materials, as recorded in e. above, for the present month plus the previous 11 months of operation, in ton(s).
- (3) 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 appropriate Ohio EPA District Office or local air agency upon request.



- (4) 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 Ohio EPA upon request.
- (5) 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.
- (6) 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 appropriate Ohio EPA District Office or local air agency upon request.

- (7) The permittee shall maintain records that document any time periods when the dry particulate filter was not in service when the emissions unit was 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 Ohio EPA upon request.
- (8) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified FEPTIO prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new FEPTIO.



e) Reporting Requirements

- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. the rolling 12-month VOC emissions limitation in b)(1)c.;
 - ii. the rolling 12-month coating usage limitation in c)(1);
 - iii. the rolling 12-month HAPs limitation in Section B.2.;
 - iv. all exceedances of the coatings and cleanup material VOC content limits is b)(2)b. and b)(2)c.;
 - b. the probable cause of each deviation (excursion);
 - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - d. the magnitude and duration of each deviation (excursion).

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

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to



March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

f) Testing Requirements

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

a. Emission Limitation:

Emissions of volatile organic compounds (VOC) shall not exceed 19.7 pounds per hour from miscellaneous metal parts coating.

Applicable Compliance Method:

If required, compliance with the short-term VOC emission limitation shall be demonstrated by Method 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

The VOC emission limitation was established using information provided by the permittee in PTIO application A0036710 for FEPTIO P0104357. The applicable emission limitation equals the uncontrolled PTE VOC:

$12 \text{ oz./min} \times 60 \text{ min/hr} \times \text{gal}/128 \text{ oz} \times 1.0 \text{ lb of VOC/gal} = 5.63 \text{ pounds VOC per hour}$

b. Emission Limitations

Coatings applied in the coating operations shall not exceed 1.0 pound of VOC per gallon of coating, excluding water and exempt solvents.

Cleanup materials applied in the cleanup operations shall not exceed 6.72 pounds of VOC per gallon of cleanup material.

Applicable Compliance Method

OAC rule 3745-21-10(B) shall be used to determine the VOC contents of each coating, thinner, additive, cleanup material, and other material applied. If pursuant to 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or Method 24A cannot be used, the permittee shall notify the Administrator of USEPA and shall use formulation data for the material to demonstrate compliance until USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

c. Emission Limitation and Usage Restrictions

The volatile organic compound (VOC) emissions from this emissions unit shall not exceed 9.9 tons per year (TPY), based on a rolling, 12-month summation, from miscellaneous metals parts coating and cleanup.



The maximum annual coating usage for this emissions unit shall not exceed 16,790 gallons, based upon a rolling, 12-month summation of the coating usage figures.

The maximum annual cleanup material usage for this emissions unit shall not exceed 447 gallons, based upon a rolling, 12-month summation of the cleanup material usage figures.

Applicable Compliance Method

Compliance with the emission limitation and usage restrictions shall be demonstrated by the methods outlined in the recordkeeping requirements in d)(2) above.

The VOC emission limitation was established using information provided by the permittee in PTIO application A0036710 for FEPTIO P0104357 in the following equations:

$16,790 \text{ gal coatings} - \text{H}_2\text{O and exempt solvents} \times 1.0 \text{ lbs VOC/gal coatings} - \text{H}_2\text{O and exempt solvents} \times 1 \text{ Ton}/2000 \text{ lbs} = 8.40 \text{ TPY VOC.}$

$447 \text{ gal cleanup materials/yr} \times 6.72 \text{ lbs VOC/gal cleanup materials} \times 1 \text{ Ton}/2000 \text{ lbs} = 1.50 \text{ TPY VOC.}$

Total $8.40 \text{ TPY VOC} + 1.50 \text{ TPY VOC} = 9.9 \text{ TPY VOC}$ emission limitation.

(2) Compliance with the usage limitations in term c)(1) shall be demonstrated by the record keeping in term d)(2).

g) Miscellaneous Requirements

(1) None.



4. K004, Bay B - Non-Compliant Coatings

Operations, Property and/or Equipment Description:

Misc. Metal Parts Spray Painting, Bay B - Non-Compliant Coatings

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. d)(2).
 - (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)c., b)(2)c., b)(2)d., c)(1), d)(1), e)(3), f)(1)c.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), As effective 11/30/01	The VOC emissions from this emissions unit shall not exceed 16.29 pounds per day from all miscellaneous metal parts coating. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(b) As effective 12/01/06	See b)(2)e.
c.	OAC rule 3745-31-05(D) Synthetic Minor for VOC and HAPs to avoid Non-Attainment New Source Review, Title V and MACT	The volatile organic compound (VOC) emissions from this emissions unit shall not exceed 3.19 tons per year (TPY), based on a rolling, 365-day summation, from miscellaneous metals parts coating and cleanup. See Section B.2., b)(2)c. b)(2)d. and c)(1).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-11(C)	Exempt per OAC rule 3745-17-11(A)(1)(i). See b)(2)b.
e.	OAC rule 3745-21-09(U)(1)	Exempt per OAC rule 3745-21-09(U)(2)(e)(ii) for a miscellaneous metal parts coating line that never uses more than 3 gallons per day. See b)(2)b.

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutant less than ten tons per year. However, the rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then the mass NOx, SO2, VOC, PE and PM10, emission limitations no longer apply.
- b. The permittee shall not use more than 3 gallons of coating material per day in this emissions unit for the coating of miscellaneous metal parts.
- c. Coatings applied in this emissions unit shall not exceed 5.43 pounds VOC per gallon of coating.
- d. Cleanup materials applied in this emissions unit shall not exceed 7.04 pounds VOC per gallon of cleanup material.
- e. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC 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 VOCs is less than 10 tons/yr taking into account the federally enforceable rule limit of 3 gallons of coating material per day for the coating of miscellaneous parts under OAC rule 3745-21-09(U)(2)(e)(ii).



c) Operational Restrictions

- (1) This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 365-day summation of the coating usage and cleanup material usage upon issuance of this permit. The maximum annual coating usage for this emissions unit shall not exceed 703 gallons, based upon a rolling, 365-day summation of the coating usage figures. The maximum annual cleanup material usage for this emissions unit shall not exceed 365 gallons, based upon a rolling, 365-day summation of the cleanup material usage figures.

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 coating and each cleanup material employed;
 - b. the VOC content of each coating and each cleanup material employed, in pounds per gallon, as applied;
 - c. the number of gallons of each coating and each cleanup material employed;
 - d. the total number of gallons of all the coatings employed;
 - e. the rolling, 365-day summation of the coating usage, in gallons, and the rolling, 365-day summation of the cleanup material usage, in gallons, for the present day plus the previous 364 days of operation;
 - f. the total VOC emissions from all the coatings and all the cleanup materials employed, in pounds, i.e., the sum of d)(1)b. multiplied by d)(1)c. for each coating employed and each cleanup material employed; and
 - g. the total VOC emissions during the rolling, 365-day period, i.e., the summation of total VOC emissions from coatings and cleanup materials, as recorded in f. above, for the present day plus the previous 364 days of operation, in ton(s).
- (2) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified FEPTIO prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new FEPTIO.

e) Reporting Requirements

- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio



EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.

- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. the rolling 12-month VOC emissions limitation in b)(1)c.;
 - ii. the rolling 12-month coating usage limitation in c)(1);
 - iii. the rolling 12-month HAPs limitation in Section B.2;
 - iv. all exceedances of the coatings and cleanup material VOC content limits is b)(2)c. and b)(2)d.;
 - b. the probable cause of each deviation (excursion);
 - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - d. the magnitude and duration of each deviation (excursion).

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

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



- (4) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing that the coating line employs more than the applicable maximum daily coating usage limit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the exceedance occurs.
- (5) The permittee shall also submit annual reports that specify the total VOC emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Synthetic Minor Title V Fee Emissions Report.

f) Testing Requirements

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

a. Emission Limitation:

The VOC emissions from this emissions unit shall not exceed 16.29 pounds per day from all miscellaneous metal parts coating.

Applicable Compliance Method:

Compliance with the VOC emission limitation shall be demonstrated by the record keeping requirement in terms d)(1).

b. Emission Limitations

Coatings applied in the coating operations shall not exceed 5.43 pounds VOC per gallon of coating.

Cleanup materials applied in the cleanup operations shall not exceed 7.04 pounds VOC per gallon of cleanup material.

Applicable Compliance Method

OAC rule 3745-21-10(B) shall be used to determine the VOC contents of each coating, thinner, additive, cleanup material, and other material applied. If pursuant to 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or Method 24A cannot be used, the permittee shall notify the Administrator of USEPA and shall use formulation data for the material to demonstrate compliance until USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

c. Emission Limitation and Usage Restrictions

The volatile organic compound (VOC) emissions from this emissions unit shall not exceed 3.19 tons per year (TPY), based on a rolling, 365-day summation, from miscellaneous metals parts coating and cleanup.



Final Permit-to-Install and Operate

Armor Metal Group

Permit Number: P0116837

Facility ID: 1483090487

Effective Date: 7/10/2014

The permittee shall not use more than 3 gallons of coating material per day for the coating of miscellaneous metal parts.

The maximum annual coating usage for this emissions unit shall not exceed 703 gallons, based upon a rolling, 365-day summation of the coating usage figures.

The maximum annual cleanup material usage for this emissions unit shall not exceed 365 gallons, based upon a rolling, 365-day summation of the cleanup material usage figures.

Applicable Compliance Method

Compliance with the emission limitations and usage restrictions shall be demonstrated by the methods outlined in the recordkeeping requirements in d)(1) above.

The VOC emission limitations were established using information provided by the permittee in PTIO application A0036710 for FEPTIO P0104408 in the following equations:

$$703 \text{ gal coatings} \times 5.43 \text{ lbs VOC/gal coatings} \times 1 \text{ Ton}/2000 \text{ lbs} = 1.91 \text{ TPY VOC.}$$

$$365 \text{ gal cleanup materials/yr} \times 7.04 \text{ lbs VOC/gal cleanup materials} \times 1 \text{ Ton}/2000 \text{ lbs} = 1.28 \text{ TPY VOC.}$$

$$\text{Total } 1.91 \text{ TPY VOC} + 1.28 \text{ TPY VOC} = 3.19 \text{ TPY VOC emission limitation.}$$

g) **Miscellaneous Requirements**

(1) None.



5. K006, High Bay - Non-Compliant Coatings

Operations, Property and/or Equipment Description:

Misc. Metal Parts Spray Painting, High Bay - Non-Compliant Coatings

- 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)(4) and e)(6).
 - (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)c., b)(2)c., b)(2)d. b)2.e, c)(1), d)(2), e)(3), f)(1)b. and f)(2).
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), As effective 11/30/01	The VOC emissions from this emissions unit shall not exceed 21.21 pounds per day from all miscellaneous metal parts coating. See b)(2)a.
b.	OAC rule 3745-31-05(C), As effective 12/1/06	The emission limitation established pursuant to this rule is equivalent to the emission limitation established pursuant to OAC rule 3745-31-05(D). See b)(2)b.
c.	OAC rule 3745-31-05(D) Synthetic Minor to avoid Non-Attainment New Source Review, Title V and MACT	The VOC emissions from this emissions unit shall not exceed 5.02 tons per year (TPY), based on a rolling, 12-month summation, from all miscellaneous metal parts coating, pre-coating parts cleaning and cleanup.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See Section B.2, b)(2)c., b)(2)d. b)2.e. and c)(1).
d.	OAC rule 3745-21-09(U)(1)	Exempt per OAC rule 3745-21-09(U)(2)(e)(ii) for a miscellaneous metal parts coating line that never uses more than 3 gallons per day. See b)(2)f.
e.	OAC rule 3745-17-11(C)	Exempt per OAC rule 3745-17-11(A)(1)(i). See b)(2)f.

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutant less than ten tons per year. However, the rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then the mass NO_x, SO₂, VOC, PE and PM₁₀, emission limitations no longer apply.
- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan:

Permit to Install and Operate (PTIO) P0108085 for this air contaminant source takes into account the following voluntary restrictions as proposed by the permittee for the purposes of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):
 - i. Coating, parts cleaning and cleanup usage limitations outlined in c)(1).
- c. The maximum VOC content of coatings shall not exceed 7.07 pounds of VOC per gallon.
- d. The maximum VOC content of pre-coating parts cleaning material (Oakite 33) shall not exceed 2.2 pounds of VOC per gallon, excluding water.
- e. The maximum VOC content of cleanup materials shall not exceed 7.04 pounds of VOC per gallon.



- f. The permittee shall not employ more than 3 gallons of coating per day for the miscellaneous metal parts and products coating line.

c) Operational Restrictions

- (1) The maximum annual coating usage for this emissions unit shall not exceed 945 gallons, based upon a rolling, 12-month summation of the coating usage figures. The maximum annual pre-coating parts cleaning material (Oakite 33) usage for this emissions unit shall not exceed 365 gallons, excluding water, based upon a rolling, 12-month summation of the material usage figures. The maximum annual cleanup material usage for this emissions unit shall not exceed 365 gallons based upon a rolling, 12-month summation of the cleanup material usage figures.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information each day for the coating line:
 - a. the name and identification number of each coating employed;
 - b. the volume, in gallons, of each coating employed;
 - c. the total volume, in gallons, of all of the coatings employed; and
 - d. the VOC emissions in pounds per day.
- (2) The permittee shall maintain monthly records of the following information:
 - a. the coating usage, in gallons, for each month;
 - b. the pre-coating parts cleaning material usage, in gallons excluding water, for each month;
 - c. the cleanup material usage, in gallons, for each month;
 - d. the mass of VOC per volume of each coating (VOC content), excluding water and exempt solvents, as applied, calculated as follows:

$C_{VOC,2}$ is the VOC content in pounds of VOC per gallon of coating, excluding water and exempt solvents calculated as follows:

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

where:

D_C is the density of coating, in pounds of coating per gallon of coating.

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

V_S is the volume fraction of solids in coating, in gallons of solids per gallon of coating.



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

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

V_W = weight fraction of water in coating, in pound of water per pound of coating.

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

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

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

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

- e. the VOC content of each coating, in pounds of VOC per gallon, the VOC content of each pre-coating parts cleaning material, in pounds of VOC per gallon, excluding water and the VOC content of each cleanup material, in pounds of VOC per gallon;
 - f. the rolling, 12-month summation of the coating usage figure, in gallons, the rolling, 12-month summation of the pre-coating parts cleaning material figure, in gallons, excluding water, and the rolling, 12-month summation of the cleanup material usage figure, in gallons;
 - g. the VOC emissions, in tons, as calculated by multiplying the coating usage in a by the coating VOC content in d, plus the pre-coating parts cleaning material usage in b by the pre-coating parts cleaning material VOC content in e, plus the cleanup material usage in c by the cleanup material VOC content in e and dividing the summation by 2000 pounds; and
 - h. the rolling, 12-month summation of the VOC emissions, in tons, from the present month plus the previous 11 months of operation.
- (3) The permittee shall maintain daily records of the actual operating hours for this emissions unit.
- (4) The permit to install and operate (PTIO) for emissions unit K006 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).



The following summarizes the results of the modeling for the “worst case” pollutants:

Pollutant: Stoddard Solvent

TLV (mg/m³): 573

Maximum Hourly Emission Rate (lbs/hr): 18.13

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 3755

MAGLC* (ug/m³): 327429

Pollutant: xylene

TLV (mg/m³): 434

Maximum Hourly Emission Rate (lbs/hr): 12.95

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 2681

MAGLC* (ug/m³): 248000

*Where $MAGLC = (TLV/10)(8/1)(5/7)$ adjusted for the duration of the exposure

The above described evaluation determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC. Per ORC 3704.03(F)(4)(d), the owner or operator shall submit an annual report that describes any changes to the emissions unit that affect the air toxic modeling. Changes that can affect the parameters used in applying the “Air Toxic Policy” include 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 compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists’ (ACGIH’s) handbook entitled “TLVs and BEIs” (“Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices”);
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

e) Reporting Requirements

- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio



EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.

- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) 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. the rolling 12-month VOC emissions limitation in b)(1)c.;
 - ii. the rolling 12-month coating usage limitation in c)(1);
 - iii. the rolling 12-month HAPs limitation in Section B.2;
 - iv. all exceedances of the coatings and cleanup material VOC content limits is b)(2)c., b)(2)d. and b)(2)e.;
 - b. the probable cause of each deviation (excursion);
 - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - d. the magnitude and duration of each deviation (excursion).

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

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



- (4) The permittee shall notify the Southwest Ohio Air Quality Agency in writing of any daily record showing that the coating line employs more than the applicable maximum daily coating usage limit in b)(2)f. The notification shall include a copy of such record and shall be sent to the Southwest Ohio Air Quality Agency within 45 days after the exceedance occurs.
- (5) The permittee shall also submit annual reports that specify the total VOC emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Synthetic Minor Title V Fee Emissions Report.
- (6) 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 identify any day in which the actual operations exceeded 1 hour to demonstrate compliance with the air toxics evaluation for xylene, where the MAGLC was adjusted (indicated as the maximum operating hours in PTI Application 14-05965). 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. **Emission Limitation:**

The VOC emissions from this emissions unit shall not exceed 21.21 pounds per day from all miscellaneous metal parts coating.

Applicable Compliance Method:

Compliance with the VOC emission limitation shall be demonstrated by the record keeping requirement in terms d)(1).
 - b. **Emission Limitation:**

The VOC emissions from this emissions unit shall not exceed 5.02 tons per year (TPY), based on a rolling, 12-month summation, from miscellaneous metal parts coating, pre-coating parts cleaning, and cleanup.

Applicable Compliance Method:

Compliance with the VOC emission limitation shall be demonstrated by the record keeping requirement in terms d)(1) and d)(2).



The rolling, 12-month VOC emission limitation was developed from the following equations using the information submitted by the permittee in air PTI number application 14-05965, submitted on July 27, 2007:

945 gallons of coating/year x 7.07 pounds of VOC/gallon x 1 Ton/2000 pounds = 3.34 TPY of VOC.

365 gallons of pre-coating parts cleaning material/year x 2.2 pounds of VOC/gallon x 1 Ton/2000 pounds = 0.40 TPY of VOC.

365 gallons of cleaning material/year x 7.04 pounds of VOC/gallon x 1 Ton/2000 pounds = 1.28 TPY of VOC.

c. Emission Limitation:

The maximum VOC content of coatings shall not exceed 7.07 pounds of VOC per gallon.

Applicable Compliance Method:

If required, USEPA methods 24 and 24A shall be used to determine the VOC content for coatings. If, pursuant 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

d. Emission Limitations:

The maximum VOC content of pre-coating parts cleaning material (Oakite 33) shall not exceed 2.2 pounds of VOC per gallon, excluding water.

The maximum VOC content of cleanup materials shall not exceed 7.04 pounds of VOC per gallon.

Applicable Compliance Method:

Compliance shall be determined by the record keeping in term d)(2).

(2) Compliance with the usage limitations in term c)(1) shall be demonstrated by the record keeping in d)(2).

(3) Compliance with the usage limitations in term b)(1)f. shall be demonstrated by the record keeping in term d)(1).

g) Miscellaneous Requirements

(1) None.



6. K007, Bay B Annex Paint Booths

Operations, Property and/or Equipment Description:

Bay B Annex Paint Booths

- 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)(8).
 - (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)c., b)(2)c., c)(1), d)(2), e)(4), f)(1)b. and f)(2).
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), As effective 11/30/01	Emissions of volatile organic compounds (VOC) shall not exceed 0.83 ton per month averaged over a 12-month rolling period from miscellaneous metal parts coating and cleanup. See b)(2)a.
b.	OAC rule 3745-31-05(C), As effective 12/01/06	See b)(2)b.
c.	OAC rule 3745-31-05(D) Synthetic Minor for HAPs and VOC to avoid New Source Review, Title V and MACT.	Emissions of VOC shall not exceed 9.96 TPY based on a rolling, 12-month summation, from miscellaneous metal parts coating and cleanup. See Section B.2., b)(2)c. and c)(1).
d.	OAC rule 3745-17-11(C)	See c)(2), and c)(3).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	OAC rule 3745-21-09(D) for coatings dried at temperatures not exceeding 200 degrees Fahrenheit	Coatings applied in the coating operations shall not exceed 3.5 pounds of VOC per gallon of coating, excluding water and exempt solvents.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Federally Enforceable Permit to Install and Operate (FEPTIO) P0106850 for this air contaminant sources takes into account the following voluntary restrictions (including the use of any air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

- i. Limiting the coating and cleanup material usages to the annual limits outlined in c)(1); and
- ii. Limiting the annual VOC emissions to 9.96 TPY from miscellaneous metal parts coating and cleanup.

c. Coatings and cleanup materials applied in this emissions unit shall not exceed the following VOC content limits, in pounds of VOC per gallon of coating, excluding water and exempt solvents:

- i. Hentzen CARC topcoat 1.00 pound VOC per gallon
- ii. PPG Primer Gray 3.50 pounds VOC per gallon
- iii. PPG White 2.75 pounds VOC per gallon
- iv. PPG Black 2.80 pounds VOC per gallon



- v. Hentzen Black 3.50 pounds VOC per gallon
- vi. Cleanup solvent 7.04 pounds VOC per gallon

c) Operational Restrictions

- (1) The maximum annual coating usage for this emissions unit shall not exceed the following limitations, based upon rolling, 12-month summations of the coating and cleanup material usage figures:

<u>Month(s)</u>	<u>No.1*</u>	<u>No.2*</u>	<u>No.3*</u>	<u>No.4*</u>	<u>No.5*</u>	<u>No.6*</u>
1-12	12750	600	250	250	50	497

Compliance with the annual coating usage limitations shall be based upon rolling, 12-month summations of the coating and cleanup material usage figures.

*No. 1 coating is Hentzen CARC Topcoat; No. 2 coating is PPG Primer Gray; No. 3 Coating is PPG White; No. 4 coating is PPG Black; No. 5 coating is Hentzen Black; No. 6 is cleanup material

- (2) 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.
- (3) In the event the particulate filter system is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, 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, having chosen to demonstrate compliance through the use of compliant coatings, shall collect and record the following information each month for the coating operations and shall maintain this information at the facility for a period of three years:

- a. The name and identification number of each coating, as applied; and
- b. The mass of VOC per volume (pounds/gallon) of each coating, excluding water and exempt solvents, as applied, calculated as follows for $C_{VOC,2}$:

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

where:

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

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

V_S = volume fraction of solids in coating, in gallons of solids per gallon of coating.



$$V_{\text{VOC}} = V_{\text{VM}} - V_{\text{W}} - V_{\text{ES}}$$

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

W_{W} = weight fraction of water in coating, in pound of water per pound of coating.

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

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

V_{W} = volume fraction of water in coating, in gallon of water per gallon of coating.

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

This information does not have to be kept on a line-by-line basis, unless one or more of the lines or emissions units is subject to specific gallons/year and/or tons/year limitation in a PTIO, where the above-mentioned information shall be maintained separately for each such line. Also, if the permittee mixes complying coatings at a line, it is not necessary to record the VOC content of the resulting mixture.

- (2) The permittee shall maintain monthly records of the following information:
 - a. The coatings and cleanup material usage, in gallons, for each month, for each of the coatings and cleanup material listed in c)(1).;
 - b. The rolling, 12-month summation of the coatings and cleanup material usage figures, in gallons, for each of the coatings and cleanup material listed in c)(1);
 - c. The total VOC emission rate, in tons, for each month of operations from the usage of all coatings and cleanup material, combined; and
 - d. The rolling, 12-month summation of the total VOC emissions, in tons, from the usage of all coatings and cleanup material, combined. The total VOC emissions rate shall be the summation of the total VOC emissions as recorded in d)(2)c. for the present month plus the previous 11 months of operation.
- (3) 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 appropriate Ohio EPA District Office or local air agency upon request.
- (4) 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 Ohio EPA upon request.

- (5) 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.
- (6) 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 appropriate Ohio EPA District Office or local air agency upon request.

- (7) 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 Ohio EPA upon request.
- (8) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified FEPTIO prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new FEPTIO.

e) Reporting Requirements

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



identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.

- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying coatings. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.
- (4) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. all exceedances of the coatings and cleanup material VOC content limits is b)(2)c.;
 - ii. all exceedances of the rolling, 12-month limitations on coatings and cleanup material usage; c)(1);
 - iii. all exceedances of the rolling, 12-month emission limitation for VOC in b)(1)c.;
 - iv. the rolling 12-month HAPs limitation in Section B.2;
 - b. The probable cause of each deviation (excursion);
 - c. Any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - d. The magnitude and duration of each deviation (excursion).

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

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



- (5) The permittee shall also submit annual reports that specify the total VOC emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Synthetic Minor Title V Fee Emissions Report.

f) Testing Requirements

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

- a. Emission Limitation:

Emissions of volatile organic compounds (VOC) shall not exceed 0.83 ton per month averaged over a 12-month rolling period from miscellaneous metal parts coating and cleanup.

Applicable Compliance Method:

If required, compliance with the short-term VOC emission limitation shall be demonstrated by Method 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

The applicable emission limitation was established based on information supplied by the permittee in Application A0040206, September 2010, for FEPTIO P0106850. The applicable emission limitation equals the uncontrolled PTE VOC:

VOC emissions (tons per month averaged over a twelve-month rolling period) = $\sum \text{VOC emissions, in pounds per month (from d)(2)} \times \text{ton}/2000 \text{ lbs} \times 1 \text{ year}/12 \text{ months}$

- b. Emission Limitation:

Emissions of VOC shall not exceed 9.96 TPY based on a rolling, 12-month summation, from miscellaneous metal parts coating and cleanup.

Applicable Compliance Method:

Compliance with the annual VOC emission limitation shall be demonstrated by the recordkeeping requirement in d)(2).

The applicable emission limitation was established based on information supplied by the permittee in Application A0040206, September 2010, for FEPTIO P0106850:

12,750 gal Hentzen CARC Topcoat/yr x 1.0 lb VOC/gal x 1 Ton/2000 lbs = 6.38 TPY

600 gal PPG Primer Gray/yr x 3.50 lbs VOC/gal x 1 Ton/2000 lbs = 1.05 TPY



250 gal PPG White/yr x 2.75 lbs VOC/gal x 1 Ton/2000 lbs = 0.34 TPY

250 gal PPG Black/yr x 2.80 lbs VOC/gal x 1 Ton/2000 lbs = 0.35 TPY

50 gal Hentzen Black/yr x 3.50 lbs VOC/gal x 1 Ton/2000 lbs = 0.09 TPY

497 gal cleanup solvent/yr x 7.04 lbs VOC/gal x 1 Ton/2000 lbs = 1.75 TPY

Total VOC = **9.96 TPY**

c. Emission Limitations:

Coatings applied in the coating operations shall not exceed 3.5 pounds of VOC per gallon of coating, excluding water and exempt solvents

Coatings and cleanup materials applied in this emissions unit shall not exceed the following VOC content limits, in pounds of VOC per gallon of coating, excluding water and exempt solvents:

Hentzen CARC topcoat 1.00 pound VOC per gallon

PPG Primer Gray 3.50 pounds VOC per gallon

PPG White 2.75 pounds VOC per gallon

PPG Black 2.80 pounds VOC per gallon

Hentzen Black 3.50 pounds VOC per gallon

Cleanup solvent 7.04 pounds VOC per gallon.

Applicable Compliance Method:

USEPA Method 24 or other method approved by the director shall be used to determine the VOC content of each coating and cleanup material.

- (2) Compliance with the usage limitations in term c)(1). shall be demonstrated by the record keeping in term d)(2)

g) Miscellaneous Requirements

- (1) None.



7. P001, Komatsu dry cutting process

Operations, Property and/or Equipment Description:

Komatsu dry cutting process plasma cutter with oxygen as the plasma gas

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

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

a. d)(2).

(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 11/30/01	Particulate Emissions (PE) and Particulate Emissions 10 microns and less in diameter (PM10) shall not exceed 1.88 pounds per hour and 8.23 TPY. Nitrogen Oxide Emissions (NOx) shall not exceed 0.97 pound per hour and 4.25 TPY. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/1/06	See b)(2)b.
c.	OAC rule 3745-31-05(C), as effective 12/1/06	See b)(2)c.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001,



in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutant less than ten tons per year. However, the rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the nitrogen oxides (NOx) emissions from this air contaminant source since the uncontrolled potential to emit for NOx is less than ten tons per year.

- c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Permit to Install/Operate (PTIO) P0105280 for this air contaminant sources takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) for particulate emissions (PE) and particulate emissions 10 microns and less in diameter:

- i. the use of oxygen as the plasma gas; and
- ii. the emissions of PE/PM10 from this emissions unit shall not exceed 8.23 tons per year.

- d. The hourly mass emission allowables are based upon potential to emit and therefore hourly records to demonstrate compliance are not required.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of any instance when plasma gas other than oxygen was used in this emissions unit.
- (2) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified PTIO prior to making a "modification" as defined by OAC rule



3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTIO.

e) Reporting Requirements

- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

f) Testing Requirements

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

a. Emission Limitation:

Particulate Emissions (PE) and Particulate Emissions 10 microns and less in diameter (PM10) shall not exceed 1.88 pounds per hour and 8.23 TPY.

Applicable Compliance Method:

The 1.88 pounds of PE/PM10 per hour emission factor is based upon data from Hypertherm, Inc. and is the result of fume emissions testing for plasma arc cutting.

The annual emissions were calculated using the following equation:

$$1.88 \text{ lb PE/PM10/hr} \times 8760 \text{ hr/yr} \times 1 \text{ Ton/2000 lbs} = 8.23 \text{ TPY of PE/PM10.}$$



b. Emission Limitation:

The permittee has requested a voluntary restriction to maintain the PE/PM10 to less than 10 tons per year - the emissions of PE/PM10 from this emissions unit shall not exceed 8.23 tons per year.

Applicable Compliance Method:

The annual PE voluntary restriction established through OAC rule 3745-31-05(C) was developed from the following equation using the information submitted by the permittee in PTIO Administrative Modification Request Application M0000533, August 10, 2009, for PTIO P0105280:

$$1.88 \text{ lb PE/hr} \times 8760 \text{ hr/yr} \times 1 \text{ Ton}/2000 \text{ lbs} = 8.23 \text{ TPY of PE.}$$

c. Emission Limitation:

Nitrogen Oxide Emissions (NOx) shall not exceed 0.97 pound per hour and 4.25 TPY.

Applicable Compliance Method:

The 0.97 pound of NOx per hour emission factor is based upon data from Hypertherm, Inc. and is the result of fume emissions testing for plasma arc cutting.

The annual emissions were calculated using the following equation:

$$0.97 \text{ lbNOx/hr} \times 8760 \text{ hr/yr} \times 1 \text{ Ton}/2000 \text{ lbs} = 4.25 \text{ TPY NOx.}$$

d. Emission Limitation:

The annual NOx emissions were calculated from the following equation using the information submitted by the permittee in the application for PTI 14-05965, 1/29/2008:

$$0.97 \text{ lbNOx/hr} \times 8760 \text{ hr/yr} \times 1 \text{ Ton}/2000 \text{ lbs} = 4.25 \text{ TPY NOx.}$$

g) Miscellaneous Requirements

- (1) None.