



State of Ohio Environmental Protection Agency

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Columbus, OH 43216-1049

3/10/2009

Dee Meyer
ROSENBOOM MACHINE & TOOL INC
1032 S. MAPLE ST.
P.O. Box 408
Bowling Green, OH 43402

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0387020162
Permit Number: P0087912
Permit Type: Renewal
County: Wood

Certified Mail

Yes	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR
No	CEMS
Yes	MACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install and Operate ("PTIO") which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully.

Ohio EPA maintains a document entitled "Frequently Asked Questions about the PTIO". The document can be downloaded from the DAPC Web page, www.epa.state.oh.us/dapc, from the "Permits" link. This document contains additional information related to your permit, such as what activities are covered under the PTIO, who has enforcement authority over the permit and Ohio EPA's authorization to inspect your facility and records. Please contact the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469 if you need assistance.

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of \$70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, OH 43215

If you have any questions regarding this permit, please contact the Ohio EPA DAPC, Northwest District Office. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page www.epa.state.oh.us/dapc.

Sincerely,

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

Cc: Ohio EPA-NWDO

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director



**State of Ohio Environmental Protection Agency
Division of Air Pollution Control**

FINAL

**Air Pollution Permit-to-Install and Operate
for
ROSENBOOM MACHINE & TOOL INC**

Facility ID: 0387020162
Permit Number: P0087912
Permit Type: Renewal
Issued: 3/10/2009
Effective: 3/10/2009
Expiration: 11/21/2018



Air Pollution Permit-to-Install and Operate
for
ROSENBOOM MACHINE & TOOL INC

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Final Permit-to-Install and Operate
Permit Number: P0087912
Facility ID: 0387020162
Effective Date: 3/10/2009

Authorization

Facility ID: 0387020162
Application Number(s): A0019003
Permit Number: P0087912
Permit Description: Renewal PTIO
Permit Type: Renewal
Permit Fee: \$0.00
Issue Date: 3/10/2009
Effective Date: 3/10/2009
Expiration Date: 11/21/2018
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

ROSENBOOM MACHINE & TOOL INC
1032 S. MAPLE ST.
P.O. Box 408
Bowling Green, OH 43402

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

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

Ohio EPA DAPC, Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402
(419)352-8461

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

Chris Korleski
Director



Authorization (continued)

Permit Number: P0087912
Permit Description: Renewal PTIO

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:	Spray Booth
Superseded Permit Number:	03-3008
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	K002
Company Equipment ID:	Metal parts coating line
Superseded Permit Number:	03-17177
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P001
Company Equipment ID:	Lg Plating Tank
Superseded Permit Number:	P0031376
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P002
Company Equipment ID:	Sm Plating Tank
Superseded Permit Number:	P0031377
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P003
Company Equipment ID:	Hard Chrome Electroplating Tank
Superseded Permit Number:	03-13324
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	R001
Company Equipment ID:	Paint Booth
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



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Permit Number: P0087912

Facility ID: 0387020162

Effective Date: 3/10/2009

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 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 Ohio EPA DAPC, Northwest District Office 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



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Division of Air Pollution Control

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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.



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B. Facility-Wide Terms and Conditions



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate

Permit Number: P0087912

Facility ID: 0387020162

Effective Date: 3/10/2009

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



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Effective Date: 3/10/2009

C. Emissions Unit Terms and Conditions



1. K001, Spray Booth

Operations, Property and/or Equipment Description:

Spray booth for coating miscellaneous metal parts

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. d)(3), d)(4), d)(5)
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operations(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. 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)	3.5 lbs volatile organic compounds (VOC)/hr and 15.33 tons of VOC/yr from application of coating 1500 lbs VOC/month and 9.0 tons VOC/yr from application of cleanup materials 24.33 tons VOC/yr combined from coating and cleanup operations 0.10 lb particulate emissions (PE)/hr and 0.44 tons PE/yr Visible PE shall not exceed 0 percent opacity as a 6-minute average See b)(2)a.
b.	OAC rule 3745-21-09(U)(1)(c)	3.5 lbs VOC/gal excluding water and exempt solvents
c.	OAC rule 3745-17-11(B)(2)	See b)(2)b. and b)(2)d.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-07(A)	See b)(2)c. and b)(2)d.
e.	OAC rule 3745-17-11(C)	See c)(1) and b)(2)e.

(2) Additional Terms and Conditions

- a. The requirements of OAC rule 3745-31-05 (A) (3) shall also include compliance with OAC rule 3745-21-09 (U) (1) (c).
- b. The emission limitation established by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- c. The visible emission limitation established by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- d. The requirements to comply with this rule shall terminate on the date the U.S. EPA approves the requirements based on OAC rule 3745-17-11(C) as a revision to the Ohio SIP for particulate emissions.
- e. On February 1, 2008, OAC rule 3745-17-11 was revised to include paragraph (C) pertaining to requirements for controlling of particulate emissions from surface coating processes. Paragraph (C) of OAC rule 3745-17-11, and c)(1) of this permit for this emissions unit, shall be federally enforceable on the date the U.S. EPA approves paragraph (C) of OAC rule 3745-17-11 as a revision to the Ohio State Implementation Plan.

c) Operational Restrictions

- (1) The spray coating operation for this emissions unit shall be controlled by a dry particulate filter. The permittee shall follow all of these work practices:
 - a. The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the dry filtration system with any modifications deemed necessary by the permittee during the time period in which the dry filtrations system is utilized.
 - b. The permittee shall operate the dry filtration system in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee.
 - c. The permittee shall conduct periodic inspections of the dry filtration system to determine whether the device is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee. The periodic inspections of each control device shall be performed at a frequency that is based upon the recommendation of the manufacturer of the control device, and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency. In addition to these periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the dry filtration system while the emissions unit is shut down and perform any needed maintenance and repair for



the control device to ensure that it is able to routinely operate in accordance with the manufacturer's recommendations.

- d. The permittee shall document each inspection of the dry filtration system by maintaining a record that includes the date of the inspection, a description of each problem identified and the date it was corrected, a description of the maintenance and repairs performed, and the name of the person who performed the inspection.
- e. In the event that the dry filtration system is not operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee, the control devices shall be expeditiously repaired or otherwise returned to operation in accordance with such requirements. The permittee shall maintain documentation of those periods when the control device is not operating in accordance with such requirements.

Any documentation required under c)(1)a. shall be maintained for not less than five years, and shall be made available to Ohio EPA upon request.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information each month for the coating operation:
 - a. the name and identification number of each coating employed;
 - b. the VOC content of each coating (excluding water and exempt solvents), as applied, in lbs/gal [the VOC content excluding water and exempt solvents shall be calculated in accordance with the equation specified in paragraph (B) (8) of OAC rule 3745-21-10 for $C_{voc,2}$];
- (2) The permittee shall collect and record monthly the following information for emissions unit K001:
 - a. the name and identification number of each coating employed;
 - b. the VOC content of each coating, as applied, in lbs/gal;
 - c. the number of gallons of each coating employed;
 - d. the VOC emissions from each coating employed, in lbs;
 - e. the total VOC emissions from all coatings employed, in tons; and,
 - f. the annual year to date OC emissions, in tons, from all coatings employed.
- (3) The permit to install for this 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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Toluene

TLV (mg/m³): 188

Maximum Hourly Emission Rate (lbs/hr): 0.375

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 15.02

MAGLC (ug/m³): 4.48

- (4) Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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 (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the compositions 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.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

- (5) The permittee shall collect, record, and retain the following information when it conducts evaluation to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"
- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.)
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and



- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (2) The permittee shall notify the Northwest District Office in writing of any monthly record showing the use of noncomplying coatings (i.e., coatings that exceed the 3.5 lbs of VOC/gallon of coating, as applied) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Northwest District Office within 30 days following the end of the calendar month.

f) Testing Requirements

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

- a. Emission Limitations:
3.5 lbs VOC/hr and 15.33 tons of VOC/yr from all coating operations

Applicable Compliance Method:

The hourly VOC limits for coatings operations are based on the emission unit's potential to emit. Therefore, no daily recordkeeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with these limits.

Compliance with the annual allowable VOC emission limitation shall be assumed as long as compliance with the hourly allowable VOC emission limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760 and dividing by 2000).

- b. Emission Limitation:
1500 lbs VOC/month and 9.0 tons VOC/yr from application of cleanup materials

Applicable Compliance Method:

The monthly VOC limit for cleanup operations is based on the emission unit's potential to emit. Therefore, no daily recordkeeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with these limits.

Compliance with the annual allowable VOC emission limitation shall be assumed as long as compliance with the monthly allowable VOC emission limitation is maintained (the annual limitation was calculated by multiplying the monthly limitation by 12 and dividing by 2000).



- c. Emission Limitation:
24.33 tons of VOC/yr from all coating and cleanup materials

Applicable Compliance Methods:
Compliance shall be based upon the recordkeeping requirements specified in d)(2) of this permit.

- d. Emission Limitation:
3.5 lbs VOC/gallon excluding water and exempt solvents

Applicable Compliance Methods:
Compliance shall be based upon the recordkeeping requirements specified in d)(1) of this permit. Formulation data or USEPA Method 24 shall be used to determine the VOC contents of the coatings.

- e. Emission Limitation:
0.10 lb particulate matter (PE)/hr and 0.44 ton PE/yr

Applicable Compliance Method:
To determine the actual worst case particulate rate (E), the following equation shall be used for the paint spraying operations:

E = particulate matter emissions rate (lbs/hr)
 $E = \text{maximum coating solids usage rate in pounds per hour} \times (1-TE) \times (1-CE)$
 TE = transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used (60 percent considering 40 CFR 60.453)
 CE = control efficiency of the control equipment (assumed to be 90 percent)

If required, the permittee shall demonstrate compliance with the hourly PE emissions limit above pursuant to 40 CFR Part 60, Appendix A, Method 5.

Annual emissions may be calculated based on multiplying E by the annual operating schedule for the emissions unit.

- f. Emission Limitation:
Visible PE shall not exceed 0 % opacity as a six minute average

Applicable Compliance Method:
If required, compliance with the visible emission limitation shall be determined in accordance with "Test Method 9 as set forth in Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

g) Miscellaneous Requirements

- (1) None.



2. K002, Metal parts coating line

Operations, Property and/or Equipment Description:

Miscellaneous metal parts coating line: prime booth with manual electrostatic spray gun; topcoat booth with manual electrostatic spray, and; associated oven.

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

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

a. None.

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

a. d)(3) and d)(4)

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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)	7.0 lb organic compound (OC)/hr & 30.66 tons OC/yr from coating operations 60.5 lbs OC/month & 0.36 ton OC/yr from cleanup operations See b)(2)a.
b.	OAC rule 3745-21-09 (U)(1)(c)	3.5 lbs VOC/gallon minus water and exempt solvents for an extreme performance coating
c.	OAC rule 3745-17-11(C)	See c)(1) and b)(2)c.
d.	OAC rule 3745-17-07(A)	See b)(2)d. and b)(2)f.
e.	OAC rule 3745-17-11(B)	See b)(2)e. and b)(2)f.

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with OAC rule 3745-21-09 (U) (1)(c).



- b. The hourly emission limitation represents the potential to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with this emission limitation.
 - c. On February 1, 2008, OAC rule 3745-17-11 was revised to include paragraph (C) pertaining to requirements for controlling of particulate emissions from surface coating processes. Paragraph (C) of OAC rule 3745-17-11, and c)(1) of this permit for this emissions unit, shall be federally enforceable on the date the U.S. EPA approves paragraph (C) of OAC rule 3745-17-11 as a revision to the Ohio State Implementation Plan.
 - d. This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to any mass emission limitations in OAC rule 3745-17-11.
 - e. The emission limitation established by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
 - f. The requirements to comply with this rule shall terminate on the date the U.S. EPA approves the requirements based on OAC rule 3745-17-11(C) as a revision to the Ohio SIP for particulate emissions.
- c) Operational Restrictions
- (1) The spray coating operation for this emissions unit shall be controlled by a dry particulate filter, waterwash, or equivalent control device or devices. The permittee shall follow all of these work practices:
 - a. The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the control devices with any modifications deemed necessary by the permittee during the time period in which the control devices are utilized.
 - b. The permittee shall operate the control devices in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee.
 - c. The permittee shall conduct periodic inspections of the control devices to determine whether the devices are operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee. The periodic inspections of each control device shall be performed at a frequency that is based upon the recommendation of the manufacturer of the control device, and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency. In addition to these periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the control device while the emissions unit is shut down and perform any needed maintenance and repair for the control device to ensure that it is able to routinely operate in accordance with the manufacturer's recommendations.



- d. The permittee shall document each inspection of a control device by maintaining a record that includes the date of the inspection, a description of each problem identified and the date it was corrected, a description of the maintenance and repairs performed, and the name of the person who performed the inspection.
- e. In the event that the control devices are not operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee, the control devices shall be expeditiously repaired or otherwise returned to operation in accordance with such requirements. The permittee shall maintain documentation of those periods when the control devices are not operating in accordance with such requirements.

Any documentation required under c)(1)a. shall be maintained for not less than five years, and shall be made available to Ohio EPA upon request

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record the following information each month for coating usage in emissions unit K002:

- a. the name and identification number of each coating employed;
- b. the number of gallons of each coating employed;
- c. the VOC content of each coating (excluding water and exempt solvents), as applied, in lbs/gal [the VOC content excluding water and exempt solvents shall be calculated in accordance with the equation specified in paragraph (B) (8) of OAC rule 3745-21-10 for $C_{VOC,2}$];
- d. the OC content of each coating, as applied, in lbs/gal;
- e. the OC emissions from each coating employed, in lbs [(d)(1)b. x d)(1)d].;
- f. the total OC emissions from all coatings, in tons, (sum of d)(1)e. x 1 ton/2000 lbs); and
- g. the annual year-to-date OC emissions, in tons, from all coatings employed (summation of d)(1)f. for each calendar month to date from January to December).

(2) The permittee shall collect and record the following information each month for cleanup material usage in emissions unit K002:

- a. the name and identification number of each cleanup material employed;
- b. the number of gallons of each cleanup material employed;
- c. the OC content of each cleanup material, as applied, in lbs/gal;
- d. the OC emissions from each cleanup material employed, in lbs, (d)(2)b. x d)(2)c.;



The company may calculate OC emissions from cleanup operations in accordance with the following formula if waste cleanup materials are sent off-site for reclamation/disposal:

OC emissions from cleanup operations = (total gallons of cleanup material used x solvent density of cleanup material) - (total gallons cleanup material sent off-site for disposal or reclamation [minus solids content of said material] x solvent density.

- e. the total OC emissions from all cleanup materials, in tons, (sum of d)(2)d. x 1 ton/2000 lbs); and
- f. the annual year-to-date OC emissions, in tons, from all cleanup materials employed (summation of d)(2)e.for each calendar month to date from January to December).

- (3) The permit to install for 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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Methyl propyl ketone
 TLV (mg/m³): 200 ppm
 Maximum Hourly Emission Rate (lbs/hr): 1.40 lbs Methyl propyl ketone/hr
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 41.72
 MAGLC (ug/m³): 25174

Pollutant: tert-Butyl acetate
 TLV (mg/m³): 200 ppm
 Maximum Hourly Emission Rate (lbs/hr): 0.42 lbs tert-Butyl acetate/hr
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 12.52
 MAGLC (ug/m³): 22623

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters; the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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 (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most



recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any 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.).
- (4) If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
- e) Reporting Requirements
- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
 - (2) The permittee shall notify the Northwest District Office in writing of any monthly record showing the use of noncomplying coatings (i.e., coatings that exceed the 3.5 lbs of VOC/gallon of coating, as applied) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Northwest District Office within 30 days following the end of the calendar month.



f) Testing Requirements

(1) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation:
7.00 lb OC/hr from coating operations

Applicable Compliance Method:

The hourly allowable OC emission limitation above represents the potential to emit for this emission unit and was established by multiplying the maximum hourly coatings usage rate (2.0 gallons per hour) by the maximum OC content of all the coatings (3.5 pounds per gallon).

If required, the permittee shall demonstrate compliance with the hourly allowable VOC emission limitation above in accordance with 40 CFR Part 60 Appendix A, Methods 1 through 4 and 18, 25, or 25A, as appropriate.

b. Emission Limitation:
30.66 tons OC/yr from coating operations

Applicable Compliance Method:

Compliance shall be based upon the recordkeeping requirements specified in Section d)(1) of this permit.

c. Emission Limitation:
60.5 lbs OC/month & 0.36 ton OC/yr from cleanup operations

Applicable Compliance Method:

Compliance shall be based upon the recordkeeping requirements specified in Section d)(2) of this permit.

d. Emission Limitation:
3.5 lbs VOC per gallon of coating, excluding water and exempt solvents for an extreme performance coating

Applicable Compliance Method:

Compliance shall be based upon the recordkeeping requirements specified in Section d)(1) of this permit. Formulation data or USEPA Method 24 shall be used to determine the VOC contents of the coatings.

g) Miscellaneous Requirements

(1) None.



3. P001, Lg Plating Tank

Operations, Property and/or Equipment Description:

Hard Chromium electroplating tank (930 gallons).

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operations(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. 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)	<u>Scrubber Stack for P001 and P002 combined:</u> 0.07 ton chromium/year <u>Evaporator Stack:</u> 0.0004 lb chromium/hour 0.001 ton chromium/year
b.	40 CFR Part 63, Subpart N (40 CFR 63.340-348) [In accordance with 40 CFR 63.342(c)(1)(i), this emissions unit is an existing open surface hard chromium electroplating unit].	See b)(2)a.
c.	40 CFR 63.1-15 [40 CFR 63.340(b)]	Table 1 of Subpart N of 40 CFR Part 63 – Applicability of General Provisions to Subpart N shows which part of the General Provisions in 40 CFR Part 63.1-15 apply.



(2) Additional Terms and Conditions

- a. The permittee shall not allow the concentration of total chromium in the exhaust gases discharged to the atmosphere to exceed 0.015 mg/dscm (6.6×10^{-6} gr/dscf).

c) Operational Restrictions

- (1) At all times, including periods of startup, shutdown, and malfunction, the permittee shall operate and maintain any chromium electroplating or anodizing tank, including associated air pollution control devices and monitoring equipment, in a manner consistent with the operation and maintenance plan required by these terms and conditions.
- (2) Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the operation and maintenance plan.
- (3) Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Ohio EPA, Northwest District Office, which may include, but is not limited to, monitoring results; review of the operation and maintenance plan, procedures, and records; and inspection of the emissions unit. Based on this information, the Ohio EPA may require that the permittee makes changes to the operation and maintenance plan if that plan:
 - a. does not address a malfunction that has occurred;
 - b. fails to provide for the operation of the emissions units, the air pollution control techniques, or the control system and process monitoring equipment during a malfunction in a manner consistent with good air pollution practices; or,
 - c. does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control techniques, or monitoring equipment as quickly as practicable.
- (4) The permittee shall prepare an operation and maintenance plan to be implemented no later than 60 days after issuance of this permit. The plan shall be incorporated by reference into the Title V permit and shall include the following elements:
 - a. the plan shall specify the operation and maintenance criteria for the affected source, the add-on air pollution control device (if such a device is used to comply with the emission limits), and the process and control system monitoring equipment, and shall include a standardized checklist to document the operation and maintenance of the equipment;
 - b. the O/M plan shall incorporate the following work practice standards:
 - i. visually inspect the device at least once per quarter to ensure there is proper drainage, no chromic acid buildup on the pads, and no evidence of chemical attack on the structural integrity of the device;
 - ii. visually inspect at least once per quarter the back portion of the mesh pad closest to the fan to ensure there is no breakthrough of chromic acid mist;



- iii. visually inspect at least once per quarter the ductwork from tank to control device to ensure there are no leaks; and,
- iv. perform washdown of the composite mesh-pads in accordance with manufacturer's recommendations.

If a Pitot tube is used for monitoring, the O/M plan shall incorporate the following work practice standards to be performed at least once per quarter:

- i. backflush with water, or remove from the duct and rinse with fresh water;
 - ii. replace in the duct and rotate 180 degrees to ensure that the same zero reading is obtained; and,
 - iii. check pitot tube ends for damage. Replace pitot tube if cracked or fatigued.
- c. the plan shall specify procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur;
 - d. the plan shall include a systematic procedure for identifying malfunctions of process equipment, add-on air pollution control devices, and process and control system monitoring equipment, and for implementing corrective actions to address such malfunctions.
 - e. if the operation and maintenance plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the permittee shall revise the operation and maintenance plan within 45 days after such an event occurs;
 - f. if actions taken by the permittee during periods of malfunction are inconsistent with the procedures specified in the operation and maintenance plan, the permittee shall record the actions taken for that event and shall report such actions within 2 working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within 7 working days after the end of the event, unless the permittee makes alternative reporting arrangement, in advance, with the Ohio EPA, NWDO.
 - g. the permittee shall keep the written operation and maintenance plan on record after it is developed to be made available for inspection, upon request, by the Ohio EPA, Northwest District Office for the life of the emissions unit. If the operations and maintenance plan is revised, the permittee shall keep previous versions of the plan on record to be made available for inspection, upon request, by the Ohio EPA, NWDO for a period of five years after each revision to the plan; and,
 - h. the permittee may use applicable standard operating procedures (SOP) manuals, OSHA plans or other existing plans to meet the operation and maintenance plan requirements as long as the alternative plans meet the requirements.



d) Monitoring and/or Recordkeeping Requirements

- (1) During the initial performance test, the permittee shall determine the outlet chromium concentration using the methods as described in the "Testing Requirements" section of this permit to comply with the emission limitation through the use of a packed-bed scrubber and composite mesh-pad system. The permittee shall establish as a site-specific operating parameter the pressure drop across the system, setting the value that corresponds to compliance with the applicable emission limitation, using the procedures in the "Testing Requirements" section of this permit.
- (2) The permittee may conduct multiple performance tests to establish a range of compliant pressure drops values, or may set as the compliance value the average pressure drop measured over the three test runs of one performance test and accept +/- 1 inch of water column from this value as the compliant range.
- (3) On and after the date on which the initial performance test is required to be completed under Section 63.7 of 40 CFR Part 63, Subpart A, the permittee shall monitor and record the pressure drop across the composite mesh-pad system once each day that the emissions unit is operating. To be in compliance, the composite mesh-pad system shall be operated within +/- 1 inch of water column of the pressure drop value established during the initial performance test, or shall be operated within the range of compliant values for pressure drop established during multiple performance tests.
- (4) The permittee shall fulfill all recordkeeping requirements in the General Provisions to 40 CFR Part 63, according to the applicability of subpart A.
- (5) The permittee shall maintain the following records:
 - a. inspection records for the add-on air pollution control device, if such a device is used, and monitoring equipment, to document that the inspection and maintenance required by the work practice standards of this permit have taken place. The record can take the form of a checklist and should identify the device inspected, and date of inspection, a brief description of the working condition of the device during the inspection, and any actions taken to correct deficiencies found during the inspection;
 - b. records of all maintenance performed on the emissions unit, add-on air pollution control device, and monitoring equipment;
 - c. records of the occurrence, duration, and cause (if known) of each malfunction of process, add-on air pollution control device, and monitoring equipment;
 - d. records of actions taken during periods of malfunction when such actions are inconsistent with the operation and maintenance plan;
 - e. other records, which may take the form of checklists, necessary to demonstrate consistence with the provisions of the operation and maintenance plan;
 - f. test reports documenting results of all performance tests;
 - g. all measurements as may be necessary to determine the conditions of performance tests;



- h. records of monitoring data that are used to demonstrate compliance with the standard including the date and time the data re collected;
 - i. the specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during malfunction of the process, add-on air pollution control device, or monitoring equipment;
 - j. the specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during periods other than malfunction of the process, add-on air pollution control device, or monitoring equipment;
 - k. the total process operating time of the emission unit during the reporting period; and,
 - l. all documentation supporting the notifications and reports as outlined in the Reporting Requirements of this permit and Section 63.9 and 63.10 of 40 CFR Part 63, Subpart A.
- (6) All records shall be maintained for a period of five years.
- e) Reporting Requirements
- (1) The permittee shall fulfill all reporting requirements as outlined in 40 CFR Part 63 Subpart A. These reports shall be made to the Ohio Environmental Protection Agency, Northwest District Office and shall be sent by U.S. mail, fax or by another courier.
 - a. submittals sent by U.S. mail shall be postmarked on or before the specified date; and,
 - b. submittals sent by other methods shall be received by the Ohio EPA, NWDO on or before the specified date.
 - (2) The permittee shall submit a Notification of Performance Test to the Ohio EPA, NWDO at least 60 calendar days before the performance test is scheduled. In the event that the permittee is unable to conduct the performance test as scheduled, the provision of Section 63.7(b) of 40 CFR Part 63, Subpart A applies.
 - (3) The permittee shall submit a Notification of Compliance Status to the Ohio EPA, NWDO 90 days after the performance test is completed, signed by the responsible official who shall certify its accuracy, attesting to whether the affected emissions unit is in compliance. The notification shall list for each affected emissions unit:
 - a. the applicable emission limitation and the methods that were used to determine compliance with this limitation;
 - b. if a performance test is required, the test report documenting the results of the performance test, which includes the elements required in the Test Requirements section of this permit, including measurements and calculations to support special compliance provisions for multiple emissions units controlled by a common add-on air pollution control device;



- c. the type and quantity of hazardous air pollutants emitted by the emissions unit reported in mg/dscm or mg/hr if the emissions unit is using the special provisions for multiple emissions units controlled by a common add-on air pollution control device. (For emissions units not required to conduct a performance test, the surface tension measurement may fulfill this requirement);
 - d. for each monitored parameter for which a compliant value was established, the specific operating parameter value, or range of values, that corresponds to compliance with the applicable emission limit;
 - e. the methods that will be used to determine continuous compliance;
 - f. a description of the air pollution control technique used for each emission point;
 - g. a statement that the permittee has completed and has on file the operation and maintenance plan as required by the work practice standards; and,
 - h. a statement by the owner or operator as to whether the emissions unit is in compliance.
- (4) The permittee shall report to the Ohio EPA, NWDO the results of any performance test conducted. The report shall be submitted no later than 90 days following the completion of the performance test, and shall be submitted as part of the notification of compliance status report required by this section.
- (5) The permittee shall submit a summary report semiannually (unless a request to reduce frequency of ongoing compliance status reports has been approved) to the Ohio EPA, NWDO to document the ongoing compliance status of the emissions unit. This report shall include the following:
- a. the company name and address of the emissions unit;
 - b. an identification of the operating parameter that is monitored for compliance determination;
 - c. the relevant emission limitation for the emissions unit, and the operating parameter value, or range of values, that correspond to compliance with this emission limitation as specified in the Notification of Compliance Status required by this section;
 - d. the beginning and ending dates of the reporting period;
 - e. the total operating time of the emissions unit during the reporting period;
 - f. a summary of operating parameter values, including the total duration of excess emissions during the reporting period as indicated by those values, the total duration of excess emissions expressed as a percent of the total emissions unit operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to process upsets, control equipment malfunctions, other known causes, and unknown causes;



- g. a certification by a responsible official that the work practice standards in this permit were followed in accordance with this operation and maintenance plan for this emissions unit;
 - h. if the operation and maintenance plan required by this permit was not followed, an explanation of the reasons for not following the provision, as assessment of whether any excess emission and/or parameter monitoring exceedances are believed to have occurred, and a copy of the reports required by the work practices in this permit;
 - i. a description of any changes in monitoring, processes, or controls since the last reporting period;
 - j. the name, title, and signature of the responsible official who is certifying the accuracy of the report;
 - k. the date of the report; and,
 - l. the report shall be completed annually and retained on site, and made available to the Ohio EPA, NWDO upon request.
- (6) The permittee shall submit semiannual reports if the following conditions are met:
- a. the total duration of excess emissions is one percent or greater of the total operating time for the reporting period; and,
 - b. the total duration of malfunctions of the add-on air pollution control device and monitoring equipment is 5 percent or greater of the total operating time.
- (7) Once the permittee reports exceedances, ongoing compliance status reports shall be submitted semiannually until a request to reduce reporting frequency is approved.
- (8) The Ohio EPA, NWDO may determine on a case-by-case basis that the summary report shall be completed more frequently and submitted, or that the annual report shall be submitted instead of being retained on site, if these measures are necessary to accurately assess the compliance status of the emissions unit.
- (9) The permittee who is required to submit ongoing compliance status reports on a semiannual (or more frequent) basis, or is required to submit its annual report instead of retaining it on site, may reduce the frequency of reporting to annual and/or be allowed to maintain the annual report on site if all of the following conditions are met:
- a. for 1 full year (e.g., 2 semiannual or 4 quarter reporting periods), the ongoing compliance status reports demonstrate that the affected emissions unit is in compliance with the relevant emission limit;
 - b. the permittee continues to comply with all applicable recordkeeping and monitoring requirements of 40 CFR Part 63, Subpart A and this permit; and,
 - c. the Ohio EPA, NWDO does not object to a reduced reporting frequency. The frequency of submitting ongoing compliance status reports may be reduced if the following requirements are met:



- i. the permittee notifies the Ohio EPA, NWDO in writing of its intention to make such a change. The district office may review information concerning the facility's previous performance history during the 5-year recordkeeping period prior to the intended change, or the recordkeeping period since the emission unit's compliance date, whichever is shorter. Records subject to review include performance test results, monitoring data, and evaluations of the permittee's conformance with emission limitations and work practice standards. If the permittee's request is disapproved, the Ohio EPA, NWDO will notify the permittee in writing within 45 days after receiving the notice. This notification will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted; and,
 - ii. if monitoring data show that the emissions unit is not in compliance with the relevant emission limit, the frequency of reporting shall revert to semiannual, and the permittee shall state the exceedances in the ongoing compliance status report for the next reporting period. After demonstrating ongoing compliance with the relevant emission limit for another full year, the permittee may again request approval to reduce the reporting frequency.
 - (10) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- f) Testing Requirements
- (1) Emission Limitation:
0.015 mg/dscm, 0.07 ton/yr (Scrubber Stack for P001 and P002 combined)
 - Applicable Compliance Method:
The permittee shall demonstrate compliance with the emission limitation above based upon the results of emission testing for chromium conducted in accordance with 40 CFR Part 60, Appendix A, Method 306.
 - Provided compliance is shown with the short term limit of 0.015 mg/dscm, compliance will also be shown with the annual limitation.
 - Emission Limitation:
0.0004 lb Cr/hr, 0.001 ton Cr/yr (Evaporator Stack)
 - Applicable Compliance Method:
Compliance with the chrome emissions limitation shall be determined in accordance with the test methods and procedures in Method 306 or Method 306A, "Determination of Chromium Emissions From Decorative and Hard Chromium Electroplating and Anodizing Operations". In the absence of Ohio EPA requiring such testing, the permittee may calculate the actual emission rate utilizing the vendor supplied calculations as submitted in the PTI application number 03-13324.



The tons per year limitation was developed by multiplying the lbs/hr allowable mass emissions rate by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- (1) Performance test results shall be documented in complete test reports that contain the following information:
 - a. a brief process description;
 - b. sampling location description;
 - c. a description of sampling and analytical procedures and any modifications to standard procedures;
 - d. test results;
 - e. quality assurance procedures and results;
 - f. records of operating conditions during testing, preparation of standards, and calibration procedures;
 - g. raw data sheets for field sampling and field laboratory analysis;
 - h. documentation of calculations; and,
 - i. any other information required by the test method.

The test plan shall be made available to the Ohio EPA, NWDO prior to testing, if required.

- (2) If the permittee conducts performance testing at startup to obtain a permit to install, the results of such testing may be used to demonstrate compliance if:
 - a. the test methods and procedures identified in this permit were used during the performance test;
 - b. the performance test was conducted under representative operating conditions;
 - c. the performance test report contains the elements of paragraph (2)a. through (2)i. in this section; and,
 - d. the permittee has sufficient data to establish the operating parameter value that corresponds to compliance as required for continuous compliance monitoring.

The results of tests conducted prior to Decemeber 1991, in which 306A was used to demonstrate the performance of a control technique, are not acceptable.

- (3) The permittee shall use the following test methods to conduct an initial performance test:
 - a. Method 306 or Method 306A, "Determination of Chromium Emissions from Decorative and Hard Chromium Electroplating and Anodizing Operations" shall



be used to determine the chromium concentration from hard or decorative chromium electroplating tanks or chromium anodizing tanks:

- i. the sampling time and sample volume for each run of Methods 306 and 306A shall be at least 120 minutes and 1.7 dscm (60dscf), respectively; and,
 - ii. Methods 306 and 306A allow the measurement of either total chromium or hexavalent chromium emissions. Emissions units using chromic acid baths can demonstrate compliance with the emission limits by measuring either the total chromium or hexavalent chromium concentration. Hence, the hexavalent chromium concentration measured by these methods is equal to the total chromium concentration for the affected operations.
- b. the California Air Resources Board (CARB) Method 425 may be used to determine the chromium concentration from hard and decorative chromium electroplating tanks and chromium anodizing tanks if the following conditions are met:
- i. if a calorimetric analysis method is used, the sampling time and volume shall be sufficient to result in 33-36 micrograms of catch in the sampling train;
 - ii. if an Atomic Absorption Graphite Furnace (AAGF) or Ion Chromatography (with a Post-column Reactor (ICPCR) analysis) is used, the sampling time and volume should be sufficient to result in a sample catch that is 5 to 10 times the minimum detection limit of the analytical method (i.e., 1.0 microgram per liter of sample for AAGF and 0.5 microgram per liter of sample for ICPCR); and ,
 - iii. a minimum of three separate runs must be conducted. The other requirements of Section 63.7 of 40 CFR Part 63, Subpart A must also be met.
- (4) All monitoring equipment shall be installed such that representative measurements of emissions or process parameters from the affected emissions unit are obtained. For monitoring equipment purchased from a vendor, verification of the operational status of the monitoring equipment shall include execution of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system. Specifications for differential pressure measurement devices used to measure pressure drop across a control system shall be in accordance with the manufacturer's accuracy specifications.
- (5) The permittee shall measure the pressure drop across the add-on air pollution control device in accordance with the following guidelines:
- a. pressure taps shall be installed at any of the following locations:
 - i. at the inlet and outlet of the control system. The inlet tap should be installed in the ductwork just prior to the control device and the corresponding outlet pressure tap should be installed on the outlet side of



- the control device prior to the blower or on the downstream side of the blower;
 - ii. on each side of the packed bed within the control system or on each side of each mesh pad within the control system; and,
 - iii. on the front side of the first mesh-pad and back side of the last mesh pad within the control system.
 - b. pressure taps shall be sited at locations that are:
 - i. as free from plugage as possible and way from any flow disturbances such as cyclonic demisters; and,
 - ii. situated such that no air infiltration at the measurement site will occur that could bias the measurement.
 - c. pressure taps shall be constructed of either polyethylene, polybutylene, or other nonreactive materials;
 - d. nonreactive plastic tubing shall be used to connect the pressure taps to the device used to measure pressure drop;
 - e. any of the following pressure gauges can be used to monitor pressure drop: a magnahelic gauge, and included manometer, or a "U" tube manomeer; and,
 - f. prior to connecting any pressure lines to the pressure gauge, each gauge shall be zeroed. No calibration of the pressure gauge is required.
- g) Miscellaneous Requirements
- (1) When multiple affected emissions units performing the same type of operation (e.g, all are performing hard chromium electroplating), and subject to the same emission limitations, are controlled with an add-on air pollution control device that is not controlling emissions from any other type of affected operation or from any nonaffected emissions unit, the emission limitation of 0.015 mg/dscm. (6.6×10^{-6} gr/dscf) must be met at the outlet of the add-on air pollution control device.
 - (2) When multiple affected emissions units performing the same type of operation and subject to the same emission limitation are controlled with a common add-on air pollution control device that is also controlling emissions from emissions units not affected by the Chromium Electroplating MACT, the following procedure shall be followed to determine compliance with the emission limitation of 0.015 mg/dscf (6.6×10^{-6} gr/dscf):
 - a. calculate the cross-sectional area of each inlet duct (i.e, uptakes from each hood including those emissions units not subject to 40 CFR Part 63, Subpart N;
 - b. determine the total sample time per test run by dividing the total inlet area from all tanks connected to the control system by the total inlet area for all ducts associated with subject emissions units, and then multiplying this number by 2 hours. The calculated time is the minimum sample time required per test run;
 - c. perform Method 306 testing and calculate an outlet mass emission rate;



- d. determine the total ventilation rate from the affected tanks by using the following equation:

$$VR_{tot} \times (IDA_i / \sum (IA_{total})) = VR_{inlet}$$

Where

VR_{tot} is the average total ventilation rate in dscm.min for the three test runs as determined at the outlet by means of the Method 306 testing;

IDA_i is the total inlet area for all the ducts associated with the affected tanks;

IA_{total} is the sum of all the inlet duct areas from both affected and nonaffected tanks; and,

VR_{inlet} is the total ventilation rate from all inlet ducts associated with affected tanks.

- e. establish the allowable mass emission rate of the system (AMR_{sys}) in milligrams of total chromium per hour (mg/hr) using the following equation:

$$\sum VR_{inlet} \times EL \times 60 \text{ minutes/hour} = AMR_{sys}$$

Where

$\sum VR_{inlet}$ is the total ventilation rate in dscm/min from affected tanks, and EL is the applicable emission limitation. The allowable mass emission rate (AMR_{sys}) should be equal to or less than the outlet three-run average mass emission rate determined from Method 306 testing for the tank to be in compliance.

- (3) When multiple affected tanks performing different types of operations (e.g, hard chromium electroplating, decorative chromium electroplating, or chromium anodizing) are controlled by a common add-on air pollution control device that may or may not also be controlling emissions from tanks not affected by 40 CFR Part 63, Subpart N, or if the affected emission units controlled by the common add-on air pollution control device perform the same operation but are subject to different emission limitations (e.g, because one is a new hard chromium electroplating tank), the following procedures shall be used to determine compliance with the applicable emission limit:

- calculate the cross sectional area of each inlet duct (i.e., uptakes from each hood);
- determine the total sample time per test run by dividing the total inlet area from all tanks connected to the control system by the total inlet area for all ducts associated with affected tanks, and then multiply this number by 2 hours. The calculated time is the minimum sample time required per test run;
- perform Method 306 testing and calculate an outlet mass emission rate;
- determine the total ventilation rate for each type of affected tank using the following equation:



$$VR_{tot} \times (IDA_{i,a} / \sum IA_{total}) = VR_{inlet,a}$$

where VR_{tot} is the average total ventilate in dscm/min for the three test runs as determined at the outlet by means of the Method 306 testing; $IDA_{i,a}$ is the total inlet duct area for all ducts conveying chromic acid from type of affected tank performing the same operation, or each type of affected tank subject to the same emission limitation; IA_{total} is the sum of all duct area from both affected and nonaffected tanks; and $VR_{inlet,a}$ is the total ventilation rate from all inlet ducts conveying chromic acid from each type of affected tank performing the same operation, or each type of affected tank subject to the same emission limitation;

- e. establish the allowable mass emission rate in mg/hr for each type of affected tank that is controlled by the add-on air pollution control device using the appropriate equation:

$$VR_{he1} \times EL_{he1} \times 60 \text{ minutes/hour} = AMR_{he1}$$

$$VR_{he2} \times EL_{he3} \times 60 \text{ minutes/hour} = AMR_{he2}$$

$$VR_{de} \times EL_{de} \times 60 \text{ minutes/hour} = AMR_{de}$$

$$VR_{ca} \times EL_{ca} \times 60 \text{ minutes/hour} = AMR_{ca}$$

Where “he” applies to the total of ventilation rates for all hard chromium electroplating tanks subject to the same emission limitation, “de” applies to the total of ventilation rates for the decorative chromium electroplating tanks, “ca” applies to the total of ventilation rates for the chromium anodizing tanks and EL is the application emission limitation in mg/dscm. There are two equations for hard chromium electroplating tanks because different emission limitations may apply (e.g., a new tank versus an existing, small tank);

- f. establish the allowable mass emission rate (AMR) in mg/hr should be equal to or more than the outlet three-run average mass emission rate determined from Method 306 testing to be in compliance;
- g. the permittee shall submit the measurements and calculations with the notification of compliance status report; and,
- h. the permittee shall repeat these procedures if a tank is added or removed from the control system regardless of whether that tank is a nonaffected emissions unit. If the new nonaffected tank replaces an existing nonaffected tank of the same size and is connected to the control system through the same size inlet duct, then the procedure does not have to be replaced.



4. P002, Sm Plating Tank

Operations, Property and/or Equipment Description:

Hard Chromium Electroplating tank (730 gallons)

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operations(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. 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)	<u>Scrubber Stack for P001 and P002 combined:</u> 0.07 ton chromium/year <u>Evaporator Stack:</u> 0.0004 lb chromium/hour 0.001 ton chromium/year
b.	40 CFR Part 63, Subpart N (40 CFR 63.340-348) [In accordance with 40 CFR 63.342(c)(1)(i), this emissions unit is an existing open surface hard chromium electroplating unit].	See b)(2)a.
c.	40 CFR 63.1-15 [40 CFR 63.340(b)]	Table 1 of Subpart N of 40 CFR Part 63 – Applicability of General Provisions to Subpart N shows which part of the General Provisions in 40 CFR Part 63.1-15 apply.



(2) Additional Terms and Conditions

- a. The permittee shall not allow the concentration of total chromium in the exhaust gases discharged to the atmosphere to exceed 0.015 mg/dscm (6.6×10^{-6} gr/dscf).

c) Operational Restrictions

- (1) At all times, including periods of startup, shutdown, and malfunction, the permittee shall operate and maintain any chromium electroplating or anodizing tank, including associated air pollution control devices and monitoring equipment, in a manner consistent with the operation and maintenance plan required by these terms and conditions.
- (2) Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the operation and maintenance plan.
- (3) Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Ohio EPA, Northwest District Office, which may include, but is not limited to, monitoring results; review of the operation and maintenance plan, procedures, and records; and inspection of the emissions unit. Based on this information, the Ohio EPA may require that the permittee makes changes to the operation and maintenance plan if that plan:
 - a. does not address a malfunction that has occurred;
 - b. fails to provide for the operation of the emissions units, the air pollution control techniques, or the control system and process monitoring equipment during a malfunction in a manner consistent with good air pollution practices; or,
 - c. does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control techniques, or monitoring equipment as quickly as practicable.
- (4) The permittee shall prepare an operation and maintenance plan to be implemented no later than 60 days after issuance of this permit. The plan shall include the following elements:
 - a. the plan shall specify the operation and maintenance criteria for the affected source, the add-on air pollution control device (if such a device is used to comply with the emission limits), and the process and control system monitoring equipment, and shall include a standardized checklist to document the operation and maintenance of the equipment;
 - b. the O/M plan shall incorporate the following work practice standards:
 - i. visually inspect the device at least once per quarter to ensure there is proper drainage, no chromic acid buildup on the pads, and no evidence of chemical attack on the structural integrity of the device;
 - ii. visually inspect at least once per quarter the back portion of the mesh pad closest to the fan to ensure there is no breakthrough of chromic acid mist;



- iii. visually inspect at least once per quarter the ductwork from tank to control device to ensure there are no leaks; and,
- iv. perform washdown of the composite mesh-pads in accordance with manufacturer's recommendations.

If a Pitot tube is used for monitoring, the O/M plan shall incorporate the following work practice standards to be performed at least once per quarter:

- v. backflush with water, or remove from the duct and rinse with fresh water;
 - vi. replace in the duct and rotate 180 degrees to ensure that the same zero reading is obtained; and,
 - vii. check pitot tube ends for damage. Replace pitot tube if cracked or fatigued.
- c. the plan shall specify procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur;
 - d. the plan shall include a systematic procedure for identifying malfunctions of process equipment, add-on air pollution control devices, and process and control system monitoring equipment, and for implementing corrective actions to address such malfunctions.
 - e. if the operation and maintenance plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the permittee shall revise the operation and maintenance plan within 45 days after such an event occurs;
 - f. if actions taken by the permittee during periods of malfunction are inconsistent with the procedures specified in the operation and maintenance plan, the permittee shall record the actions taken for that event and shall report such actions within 2 working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within 7 working days after the end of the event, unless the permittee makes alternative reporting arrangement, in advance, with the Ohio EPA, NWDO.
 - g. the permittee shall keep the written operation and maintenance plan on record after it is developed to be made available for inspection, upon request, by the Ohio EPA, Northwest District Office for the life of the emissions unit. If the operations and maintenance plan is revised, the permittee shall keep previous versions of the plan on record to be made available for inspection, upon request, by the Ohio EPA, NWDO for a period of five years after each revision to the plan; and,
 - h. the permittee may use applicable standard operating procedures (SOP) manuals, OSHA plans or other existing plans to meet the operation and maintenance plan requirements as long as the alternative plans meet the requirements.



d) Monitoring and/or Recordkeeping Requirements

- (1) During the initial performance test, the permittee shall determine the outlet chromium concentration using the methods as described in the "Testing Requirements" section of this permit to comply with the emission limitation through the use of a packed-bed scrubber and composite mesh-pad system. The permittee shall establish as a site-specific operating parameter the pressure drop across the system, setting the value that corresponds to compliance with the applicable emission limitation, using the procedures in the "Testing Requirements" section of this permit.
- (2) The permittee may conduct multiple performance tests to establish a range of compliant pressure drops values, or may set as the compliance value the average pressure drop measured over the three test runs of one performance test and accept +/- 1 inch of water column from this value as the compliant range.
- (3) On and after the date on which the initial performance test is required to be completed under Section 63.7 of 40 CFR Part 63, Subpart A, the permittee shall monitor and record the pressure drop across the composite mesh-pad system once each day that the emissions unit is operating. To be in compliance, the composite mesh-pad system shall be operated within +/- 1 inch of water column of the pressure drop value established during the initial performance test, or shall be operated within the range of compliant values for pressure drop established during multiple performance tests.
- (4) The permittee shall fulfill all recordkeeping requirements in the General Provisions to 40 CFR Part 63, according to the applicability of subpart A.
- (5) The permittee shall maintain the following records:
 - a. inspection records for the add-on air pollution control device, if such a device is used, and monitoring equipment, to document that the inspection and maintenance required by the work practice standards of this permit have taken place. The record can take the form of a checklist and should identify the device inspected, and date of inspection, a brief description of the working condition of the device during the inspection, and any actions taken to correct deficiencies found during the inspection;
 - b. records of all maintenance performed on the emissions unit, add-on air pollution control device, and monitoring equipment;
 - c. records of the occurrence, duration, and cause (if known) of each malfunction of process, add-on air pollution control device, and monitoring equipment;
 - d. records of actions taken during periods of malfunction when such actions are inconsistent with the operation and maintenance plan;
 - e. other records, which may take the form of checklists, necessary to demonstrate consistence with the provisions of the operation and maintenance plan;
 - f. test reports documenting results of all performance tests;
 - g. all measurements as may be necessary to determine the conditions of performance tests;



- h. records of monitoring data that are used to demonstrate compliance with the standard including the date and time the data re collected;
 - i. the specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during malfunction of the process, add-on air pollution control device, or monitoring equipment;
 - j. the specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during periods other than malfunction of the process, add-on air pollution control device, or monitoring equipment;
 - k. the total process operating time of the emission unit during the reporting period; and,
 - l. all documentation supporting the notifications and reports as outlined in the Reporting Requirements of this permit and Section 63.9 and 63.10 of 40 CFR Part 63, Subpart A.
- (6) All records shall be maintained for a period of five years.
- e) Reporting Requirements
- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
 - (2) The permittee shall fulfill all reporting requirements as outlined in 40 CFR Part 63 Subpart A. These reports shall be made to the Ohio Environmental Protection Agency, Northwest District Office and shall be sent by U.S. mail, fax or by another courier.
 - a. submittals sent by U.S. mail shall be postmarked on or before the specified date; and,
 - b. submittals sent by other methods shall be received by the Ohio EPA, NWDO on or before the specified date.
 - (3) The permittee shall submit a Notification of Performance Test to the Ohio EPA, NWDO at least 60 calendar days before the performance test is scheduled. In the event that the permittee is unable to conduct the performance test as scheduled, the provision of Section 63.7(b) of 40 CFR Part 63, Subpart A applies.
 - (4) The permittee shall submit a Notification of Compliance Status to the Ohio EPA, NWDO 90 days after the performance test is completed, signed by the responsible official who shall certify its accuracy, attesting to whether the affected emissions unit is in compliance. The notification shall list for each affected emissions unit:



- a. the applicable emission limitation and the methods that were used to determine compliance with this limitation;
 - b. if a performance test is required, the test report documenting the results of the performance test, which includes the elements required in the Test Requirements section of this permit, including measurements and calculations to support special compliance provisions for multiple emissions units controlled by a common add-on air pollution control device;
 - c. the type and quantity of hazardous air pollutants emitted by the emissions unit reported in mg/dscm or mg/hr if the emissions unit is using the special provisions for multiple emissions units controlled by a common add-on air pollution control device. (For emissions units not required to conduct a performance test, the surface tension measurement may fulfill this requirement);
 - d. for each monitored parameter for which a compliant value was established, the specific operating parameter value, or range of values, that corresponds to compliance with the applicable emission limit;
 - e. the methods that will be used to determine continuous compliance;
 - f. a description of the air pollution control technique used for each emission point;
 - g. a statement that the permittee has completed and has on file the operation and maintenance plan as required by the work practice standards; and,
 - h. a statement by the owner or operator as to whether the emissions unit is in compliance.
- (5) The permittee shall report to the Ohio EPA, NWDO the results of any performance test conducted. The report shall be submitted no later than 90 days following the completion of the performance test, and shall be submitted as part of the notification of compliance status report required by this section.
- (6) The permittee shall submit a summary report semiannually (unless a request to reduce frequency of ongoing compliance status reports has been approved) to the Ohio EPA, NWDO to document the ongoing compliance status of the emissions unit. This report shall include the following:
- a. the company name and address of the emissions unit;
 - b. an identification of the operating parameter that is monitored for compliance determination;
 - c. the relevant emission limitation for the emissions unit, and the operating parameter value, or range of values, that correspond to compliance with this emission limitation as specified in the Notification of Compliance Status required by this section;
 - d. the beginning and ending dates of the reporting period;
 - e. the total operating time of the emissions unit during the reporting period;



- f. a summary of operating parameter values, including the total duration of excess emissions during the reporting period as indicated by those values, the total duration of excess emissions expressed as a percent of the total emissions unit operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to process upsets, control equipment malfunctions, other known causes, and unknown causes;
 - g. a certification by a responsible official that the work practice standards in this permit were followed in accordance with this operation and maintenance plan for this emissions unit;
 - h. if the operation and maintenance plan required by this permit was not followed, an explanation of the reasons for not following the provision, an assessment of whether any excess emission and/or parameter monitoring exceedances are believed to have occurred, and a copy of the reports required by the work practices in this permit;
 - i. a description of any changes in monitoring, processes, or controls since the last reporting period;
 - j. the name, title, and signature of the responsible official who is certifying the accuracy of the report;
 - k. the date of the report; and,
 - l. the report shall be completed annually and retained on site, and made available to the Ohio EPA, NWDO upon request.
- (7) The permittee shall submit semiannual reports if the following conditions are met:
- a. the total duration of excess emissions is one percent or greater of the total operating time for the reporting period; and,
 - b. the total duration of malfunctions of the add-on air pollution control device and monitoring equipment is 5 percent or greater of the total operating time.
- (8) Once the permittee reports exceedances, ongoing compliance status reports shall be submitted semiannually until a request to reduce reporting frequency is approved.
- (9) The Ohio EPA, NWDO may determine on a case-by-case basis that the summary report shall be completed more frequently and submitted, or that the annual report shall be submitted instead of being retained on site, if these measures are necessary to accurately assess the compliance status of the emissions unit.
- (10) The permittee who is required to submit ongoing compliance status reports on a semiannual (or more frequent) basis, or is required to submit its annual report instead of retaining it on site, may reduce the frequency of reporting to annual and/or be allowed to maintain the annual report on site if all of the following conditions are met:



- a. for 1 full year (e.g., 2 semiannual or 4 quarter reporting periods), the ongoing compliance status reports demonstrate that the affected emissions unit is in compliance with the relevant emission limit;
- b. the permittee continues to comply with all applicable recordkeeping and monitoring requirements of 40 CFR Part 63, Subpart A and this permit; and,
- c. the Ohio EPA, NWDO does not object to a reduced reporting frequency. The frequency of submitting ongoing compliance status reports may be reduced if the following requirements are met:
 - i. the permittee notifies the Ohio EPA, NWDO in writing of its intention to make such a change. The district office may review information concerning the facility's previous performance history during the 5-year recordkeeping period prior to the intended change, or the recordkeeping period since the emission unit's compliance date, whichever is shorter. Records subject to review include performance test results, monitoring data, and evaluations of the permittee's conformance with emission limitations and work practice standards. If the permittee's request is disapproved, the Ohio EPA, NWDO will notify the permittee in writing within 45 days after receiving the notice. This notification will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted; and,
 - ii. if monitoring data show that the emissions unit is not in compliance with the relevant emission limit, the frequency of reporting shall revert to semiannual, and the permittee shall state the exceedances in the ongoing compliance status report for the next reporting period. After demonstrating ongoing compliance with the relevant emission limit for another full year, the permittee may again request approval to reduce the reporting frequency.

f) Testing Requirements

- (1) Emissions Limitation:
0.015 mg/dscm, 0.07 ton/yr (Scrubber Stack for P001 and P002 combined)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the emission limitations above based upon the results of emission testing for chromium conducted in accordance with 40 CFR Part 60, Appendix A, Method 306.

Provided compliance is shown with the short term limit of 0.015 mg/dscm, compliance will also be shown with the annual limitation.

Emissions Limitation:

0.0004 lb Cr/hr, 0.001 ton Cr/yr (Evaporator Stack)

Applicable Compliance Method:

Compliance with the chrome emissions limitation shall be determined in accordance with the test methods and procedures in Method 306 or Method 306A, "Determination of Chromium Emissions From Decorative and Hard Chromium Electroplating and



Anodizing Operations". In the absence of Ohio EPA requiring such testing, the permittee may calculate the actual emission rate utilizing the vendor supplied calculations as submitted in the PTI application number 03-13324.

The tons per year limitation was developed by multiplying the lbs/hr allowable mass emissions rate by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- (1) Performance test results shall be documented in complete test reports that contain the following information:
 - a. a brief process description;
 - b. sampling location description;
 - c. a description of sampling and analytical procedures and any modifications to standard procedures;
 - d. test results;
 - e. quality assurance procedures and results;
 - f. records of operating conditions during testing, preparation of standards, and calibration procedures;
 - g. raw data sheets for field sampling and field laboratory analysis;
 - h. documentation of calculations; and,
 - i. any other information required by the test method.

The test plan shall be made available to the Ohio EPA, NWDO prior to testing, if required.

- (2) If the permittee conducts performance testing at startup to obtain a permit to install, the results of such testing may be used to demonstrate compliance if:
 - a. the test methods and procedures identified in this permit were used during the performance test;
 - b. the performance test was conducted under representative operating conditions;
 - c. the performance test report contains the elements of paragraph 1.a. through 1.i. in this section; and,
 - d. the permittee has sufficient data to establish the operating parameter value that corresponds to compliance as required for continuous compliance monitoring.

The results of tests conducted prior to Decemeber 1991, in which 306A was used to demonstrate the performance of a control technique, are not acceptable.



- (3) The permittee shall use the following test methods to conduct an initial performance test:
 - a. Method 306 or Method 306A, "Determination of Chromium Emissions from Decorative and Hard Chromium Electroplating and Anodizing Operations" shall be used to determine the chromium concentration from hard or decorative chromium electroplating tanks or chromium anodizing tanks:
 - i. the sampling time and sample volume for each run of Methods 306 and 306A shall be at least 120 minutes and 1.7 dscm (60dscf), respectively; and,
 - ii. Methods 306 and 306A allow the measurement of either total chromium or hexavalent chromium emissions. Emissions units using chromic acid baths can demonstrate compliance with the emission limits by measuring either the total chromium or hexavalent chromium concentration. Hence, the hexavalent chromium concentration measured by these methods is equal to the total chromium concentration for the affected operations.
 - b. the California Air Resources Board (CARB) Method 425 may be used to determine the chromium concentration from hard and decorative chromium electroplating tanks and chromium anodizing tanks if the following conditions are met:
 - i. if a calorimetric analysis method is used, the sampling time and volume shall be sufficient to result in 33-36 micrograms of catch in the sampling train;
 - ii. if an Atomic Absorption Graphite Furnace (AAGF) or Ion Chromatography (with a Post-column Reactor (ICPCR) analysis) is used, the sampling time and volume should be sufficient to result in a sample catch that is 5 to 10 times the minimum detection limit of the analytical method (i.e., 1.0 microgram per liter of sample for AAGF and 0.5 microgram per liter of sample for ICPCR); and ,
 - iii. a minimum of three separate runs must be conducted. The other requirements of Section 63.7 of 40 CFR Part 63, Subpart A must also be met.
- (4) All monitoring equipment shall be installed such that representative measurements of emissions or process parameters from the affected emissions unit are obtained. For monitoring equipment purchased from a vendor, verification of the operational status of the monitoring equipment shall include execution of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system. Specifications for differential pressure measurement devices used to measure pressure drop across a control system shall be in accordance with the manufacturer's accuracy specifications.
- (5) The permittee shall measure the pressure drop across the add-on air pollution control device in accordance with the following guidelines:
 - a. pressure taps shall be installed at any of the following locations:



- i. at the inlet and outlet of the control system. The inlet tap should be installed in the ductwork just prior to the control device and the corresponding outlet pressure tap should be installed on the outlet side of the control device prior to the blower or on the downstream side of the blower;
 - ii. on each side of the packed bed within the control system or on each side of each mesh pad within the control system; and,
 - iii. on the front side of the first mesh-pad and back side of the last mesh pad within the control system.
 - b. pressure tape shall be sited at locations that are:
 - i. as free from plugage as possible and way from any flow disturbances such as cyclonic demisters; and,
 - ii. situated such that no air infiltration at the measurement site will occur that could bias the measurement.
 - c. pressure taps shall be constructed of either polyethylene, polybutylene, or other nonreactive materials;
 - d. nonreactive plastic tubing shall be used to connect the pressure taps to the device used to measure pressure drop;
 - e. any of the following pressure gauges can be used to monitor pressure drop: a magnahelic gauge, and included manometer, or a "U" tube manomeer; and,
 - f. prior to connecting any pressure lines to the pressure gauge, each gauge shall be zeroed. No calibration of the pressure gauge is required.
- g) Miscellaneous Requirements
 - (1) When multiple affected emissions units performing the same type of operation (e.g, all are performing hard chromium electroplating), and subject to the same emission limitations, are controlled with an add-on air pollution control device that is not controlling emissions from any other type of affected operation or from any nonaffected emissions unit, the emission limitation of 0.015 mg/dscm. (6.6×10^{-6} gr/dscf) must be met at the outlet of the add-on air pollution control device.
 - (2) When multiple affected emissions units performing the same type of operation and subject to the same emission limitation are controlled with a common add-on air pollution control device that is also controlling emissions from emissions units not affected by the Chromium Electroplating MACT, the following procedure shall be followed to determine compliance with the emission limitation of 0.015 mg/dscf (6.6×10^{-6} gr/dscf):
 - a. calculate the cross-sectional area of each inlet duct (i.e, uptakes from each hood including those emissions units not subject to 40 CFR Part 63, Subpart N;
 - b. determine the total sample time per test run by dividing the total inlet area from all tanks connected to the control system by the total inlet area for all ducts



associated with subject emissions units, and then multiplying this number by 2 hours. The calculated time is the minimum sample time required per test run;

- c. perform Method 306 testing and calculate an outlet mass emission rate;
- d. determine the total ventilation rate from the affected tanks by using the following equation:

$$VR_{tot} \times (IDA_i / \sum (IA_{total})) = VR_{inlet}$$

Where

VR_{tot} is the average total ventilation rate in dscm.min for the three test runs as determined at the outlet by means of the Method 306 testing;

IDA_i is the total inlet area for all the ducts associated with the affected tanks;

IA_{total} is the sum of all the inlet duct areas from both affected and nonaffected tanks; and,

VR_{inlet} is the total ventilation rate from all inlet ducts associated with affected tanks.

- e. establish the allowable mass emission rate of the system (AMR_{sys}) in milligrams of total chromium per hour (mg/hr) using the following equation:

$$\sum VR_{inlet} \times EL \times 60 \text{ minutes/hour} = AMR_{sys}$$

Where

$\sum VR_{inlet}$ is the total ventilation rate in dscm/min from affected tanks, and EL is the applicable emission limitation. The allowable mass emission rate (AMR_{sys}) should be equal to or less than the outlet three-run average mass emission rate determined from Method 306 testing for the tank to be in compliance.

- (3) When multiple affected tanks performing different types of operations (e.g, hard chromium electroplating, decorative chromium electroplating, or chromium anodizing) are controlled by a common add-on air pollution control device that may or may not also be controlling emissions from tanks not affected by 40 CFR Part 63, Subpart N, or if the affected emission units controlled by the common add-on air pollution control device perform the same operation but are subject to different emission limitations (e.g, because one is a new hard chromium electroplating tank), the following procedures shall be used to determine compliance with the applicable emission limit:

- a. calculate the cross sectional area of each inlet duct (i.e., uptakes from each hood);
- b. determine the total sample time per test run by dividing the total inlet area from all tanks connected to the control system by the total inlet area for all ducts associated with affected tanks, and then multiply this number by 2 hours. The calculated time is the minimum sample time required per test run;



- c. perform Method 306 testing and calculate an outlet mass emission rate;
- d. determine the total ventilation rate for each type of affected tank using the following equation:

$$VR_{tot} \times (IDA_{i,a} / \sum IA_{total}) = VR_{inlet,a}$$

where VR_{tot} is the average total ventilate in dscm/min for the three test runs as determined at the outlet by means of the Method 306 testing; $IDA_{i,a}$ is the total inlet duct area for all ducts conveying chromic acid from type of affected tank performing the same operation, or each type of affected tank subject to the same emission limitation; IA_{total} is the sum of all duct area from both affected and nonaffected tanks; and $VR_{inlet,a}$ is the total ventilation rate from all inlet ducts conveying chromic acid from each type of affected tank performing the same operation, or each type of affected tank subject to the same emission limitation;

- e. establish the allowable mass emission rate in mg/hr for each type of affected tank that is controlled by the add-on air pollution control device using the appropriate equation:

$$VR_{he1} \times EL_{he1} \times 60 \text{ minutes/hour} = AMR_{he1}$$

$$VR_{he2} \times EL_{he3} \times 60 \text{ minutes/hour} = AMR_{he2}$$

$$VR_{de} \times EL_{de} \times 60 \text{ minutes/hour} = AMR_{de}$$

$$VR_{ca} \times EL_{ca} \times 60 \text{ minutes/hour} = AMR_{ca}$$

Where “he” applies to the total of ventilation rates for all hard chromium electroplating tanks subject to the same emission limitation, “de” applies to the total of ventilation rates for the decorative chromium electroplating tanks, “ca” applies to the total of ventilation rates for the chromium anodizing tanks and EL is the application emission limitation in mg/dscm. There are two equations for hard chromium electroplating tanks because different emission limitations may apply (e.g., a new tank versus an existing, small tank);

- f. establish the allowable mass emission rate (AMR) in mg/hr should be equal to or more than the outlet three-run average mass emission rate determined from Method 306 testing to be in compliance;
- g. the permittee shall submit the measurements and calculations with the notification of compliance status report; and,
- h. the permittee shall repeat these procedures if a tank is added or removed from the control system regardless of whether that tank is a nonaffected emissions unit. If the new nonaffected tank replaces an existing nonaffected tank of the same size and is connected to the control system through the same size inlet duct, then the procedure does not have to be replaced.



5. P003, Hard Chrome Electroplating Tank

Operations, Property and/or Equipment Description:

1,400 gallon chrome electroplating tank w/CMP and cooling evaporator

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

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

a. None.

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

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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)	0.00035 lb hexavalent chrome/hr from cooling evaporator 0.00153 tons/year from cooling evaporator
b.	40 CFR Part 63, Subpart N (40 CFR 63.340-348) [In accordance with 40 CFR 63.342(c)(1)(i), this emissions unit is an existing open surface hard chromium electroplating unit].	See b)(2)a.
c.	40 CFR 63.1-15 [40 CFR 63.340(b)]	Table 1 of Subpart N of 40 CFR Part 63 – Applicability of General Provisions to Subpart N shows which part of the General Provisions in 40 CFR Part 63.1-15 apply.



- (2) Additional Terms and Conditions
 - a. The permittee shall not allow the concentration of total chromium in the exhaust gases discharged to the atmosphere to exceed 0.015 mg/dscm.
- c) Operational Restrictions
 - (1) At all times, including periods of startup, shutdown, and malfunction, the permittee shall operate and maintain any chromium electroplating or anodizing tank, including associated air pollution control devices and monitoring equipment, in a manner consistent with the operation and maintenance plan required by these terms and conditions.
 - (2) Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the operation and maintenance plan.
 - (3) Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the appropriate Ohio EPA District Office or local air agency, which may include, but is not limited to, monitoring results; review of the operation and maintenance plan, procedures, and records; and inspection of the emissions unit. Based on this information, the appropriate Ohio EPA District Office or local air agency may require that the permittee make changes to the operation and maintenance plan if that plan:
 - a. does not address a malfunction that has occurred;
 - b. fails to provide for the operation of the emissions units, the air pollution control techniques, or the control system and process monitoring equipment during a malfunction in a manner consistent with good air pollution practices; or
 - c. does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control techniques, or monitoring equipment as quickly as practicable.
 - (4) The permittee shall prepare an operation and maintenance plan to be implemented no later than January 26, 1996. The plan shall include the following elements:
 - a. The plan shall specify the operation and maintenance criteria for the affected source, the add-on air pollution control device (if such a device is used to comply with the emission limits), and the process and control system monitoring equipment, and shall include a standardized checklist to document the operation and maintenance of the equipment.
 - b. The O/M plan shall incorporate the following work practice standards:
 - i. Visually inspect the device at least once per quarter to ensure there is proper drainage, no chromic acid buildup on the pads, and no evidence of chemical attack on the structural integrity of the device.
 - ii. Visually inspect at least once per quarter the back portion of the mesh pad closest to the fan to ensure there is no breakthrough of chromic acid mist.



- iii. Visually inspect at least once per quarter the ductwork from tank to the control device to ensure there are no leaks.
 - iv. Perform wash down of the composite mesh-pads in accordance with manufacturer's recommendations.
 - c. The plan shall specify procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur.
 - d. The plan shall include a systematic procedure for identifying malfunctions of process equipment, add-on air pollution control devices, and process and control system monitoring equipment, and for implementing corrective actions to address such malfunctions.
 - e. If the operation and maintenance plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the permittee shall revise the operation and maintenance plan within 45 days after such an event occurs.
 - f. If actions taken by the permittee during periods of malfunction are inconsistent with the procedures specified in the operation and maintenance plan, the permittee shall record the actions taken for that event and shall report such actions within 2 working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within 7 working days after the end of the event, unless the permittee makes alternative reporting arrangements, in advance, with the appropriate Ohio EPA District Office or local air agency.
 - g. The permittee shall keep the written operation and maintenance plan on record after it is developed to be made available for inspection, upon request, by the appropriate Ohio EPA District Office or local air agency for the life of the emissions unit. If the operation and maintenance plan is revised, the permittee shall keep previous versions of the plan on record to be made available for inspection, upon request, by the appropriate Ohio EPA District Office or local air agency for a period of five years after each revision to the plan.
 - h. The permittee may use applicable standard operating procedure (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans or other existing plans to meet the operation and maintenance plan requirements as long as the alternative plans meet the requirements.
- d) **Monitoring and/or Recordkeeping Requirements**
- (1) During the initial performance test, the permittee shall determine the outlet chromium concentration using the methods as described in the "Testing Requirements" section of this permit to comply with the emission limitation through the use of a composite mesh-pad system. The permittee shall establish as a site-specific operating parameter the pressure drop across the system, setting the value that corresponds to compliance with the applicable emission limitation, using the procedures in the "Testing Requirements" section of this permit.



- (2) The permittee may conduct multiple performance tests to establish a range of compliant pressure drop values, or may set as the compliance value the average pressure drop measured over the three test runs of one performance test and accept + 1 inch of water column from this value as the compliant range.
- (3) On and after the date on which the initial performance test is required to be completed under Section 63.7 of 40 CFR Part 63, Subpart A, the permittee shall monitor and record the pressure drop across the composite mesh-pad system once each day that the emissions unit is operating. To be in compliance, the composite mesh-pad system shall be operated within + 1 inch of water column of the pressure drop value established during the initial performance test, or shall be operated within the range of compliant values for pressure drop established during multiple performance tests.
- (4) The permittee shall fulfill all recordkeeping requirements in the General Provisions to 40 CFR Part 63, according to the applicability of Subpart A.
- (5) The permittee shall maintain the following records for the hard chrome plating tanks:
 - a. Inspection records for the add-on air pollution control device, if such a device is used, and monitoring equipment, to document that the inspection and maintenance required by the work practice standards of this permit have taken place. The record can take the form of a checklist and should identify the device inspected, the date of inspection, a brief description of the working condition of the device during the inspection, and any actions taken to correct deficiencies found during the inspection.
 - b. Records of all maintenance performed on the emissions unit, add-on air pollution control device, and monitoring equipment.
 - c. Records of the occurrence, duration, and cause (if known) of each malfunction of process, add-on air pollution control device, and monitoring equipment.
 - d. Records of actions taken during periods of malfunction when such actions are inconsistent with the operation and maintenance plan.
 - e. Other records, which may take the form of checklists, necessary to demonstrate consistence with the provisions of the operation and maintenance plan.
 - f. Test reports documenting results of all performance tests.
 - g. All measurements as may be necessary to determine the conditions of performance tests.
 - h. Records of monitoring data that are used to demonstrate compliance with the standard including the date and time the data are collected.
 - i. The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during malfunction of the process, add-on air pollution control device, or monitoring equipment.



- j. The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during periods other than malfunction of the process, add-on air pollution control device, or monitoring equipment.
 - k. The total process operating time of the emission unit during the reporting period.
 - l. All documentation supporting the notifications and reports as outlined in the Reporting Requirements of this permit and Section 63.9 and 63.10 of 40 CFR Part 63, subpart A.
- (6) All records shall be maintained for a period of five years.
- e) Reporting Requirements
- (1) The permittee shall fulfill all reporting requirements as outlined in 40 CFR part 63 subpart A. These reports shall be made to the appropriate Ohio EPA District Office or local air agency and shall be sent by U.S. mail, fax or by another courier.
 - a. Submittals sent by U.S. mail shall be postmarked on or before the specified date.
 - b. Submittals sent by other methods shall be received by the appropriate Ohio EPA District Office or local air agency on or before the specified date.
 - (2) The permittee shall submit to the appropriate Ohio EPA District Office or local air agency an initial notification report that contains the following information:
 - a. The name, title, and address of the owner or operator;
 - b. The address (i.e., physical location) of the emissions unit;
 - c. Identification of the applicable emission limitations and compliance date;
 - d. A statement of whether the affected emissions unit is located at a major source or at an area source;
 - e. The maximum potential cumulative potential rectifier capacity;
 - f. A statement of whether the emissions unit is located as a small or a large, hard chromium facility and whether this will be demonstrated through actual or maximum potential cumulative rectifier capacity;
 - g. A statement of whether the permittee will limit the maximum potential cumulative rectifier capacity such that the hard chromium electroplating facility is considered small.
 - (3) The permittee shall submit a Notification of Performance Test to the appropriate Ohio EPA District Office or local air agency at least 60 calendar days before the performance test is scheduled. In the event that the permittee is unable to conduct the performance test as scheduled, the provision of Section 63.7(b) of 40 CFR Part 63, subpart A apply.
 - (4) The permittee shall submit a Notification of Compliance Status to the appropriate Ohio EPA District Office or local air agency 90 days after the performance test is completed,



signed by the responsible official who shall certify its accuracy, attesting to whether the affected emissions unit is in compliance. The notification shall list for each affected emissions unit:

- a. The applicable emission limitations and the methods that were used to determine compliance with this limitation.
 - b. If a performance test is required, the test report documenting the results of the performance test, which includes the elements required in the Test Requirements section of this permit, including measurements and calculations to support special compliance provisions for multiple emissions units controlled by a common add-on air pollution control device.
 - c. The type and quantity of hazardous air pollutants emitted by the emissions unit reported in mg/dscm or mg/hr if the emissions unit is using the special provisions for multiple emissions units controlled by a common add-on air pollution control device. (For emissions units not required to conduct a performance test, the surface tension measurement may fulfill this requirement.)
 - d. For each monitored parameter for which a complaint value was established, the specific operating parameter value, or range of values, that corresponds to compliance with the applicable emission limit.
 - e. The methods that will be used to determine continuous compliance.
 - f. A description of the air pollution control technique used for each emission point.
 - g. A statement that the permittee has completed and has on file the operation and maintenance plan as required by the work practice standards.
 - h. A statement by the owner or operator as to whether the emissions unit is in compliance.
- (5) The permittee shall report to the appropriate Ohio EPA District Office or local air agency the results of any performance test conducted. The report shall be submitted no later than 90 days following the completion of the performance test, and shall be submitted as part of the notification of compliance status report required by this section.
- (6) The permittee shall submit a summary report semiannually (unless a request to reduce frequency of ongoing compliance status reports has been approved) to the appropriate Ohio EPA District Office or local air agency to document the ongoing compliance status of the emissions unit. This report shall include the following:
- a. The company name and address of the emissions unit.
 - b. An identification of the operating parameter that is monitored for compliance determination.
 - c. The relevant emission limitation for the emissions unit, and the operating parameter value, or range of values, that correspond to compliance with this emission limitation as specified in the Notification of Compliance Status required by this section.



- d. The beginning and ending dates of the reporting period.
 - e. The total operating time of the emissions unit during the reporting period.
 - f. A summary of operating parameter values, including the total duration of excess emissions during the reporting period as indicated by those values, the total duration of excess emissions expressed as a percent of the total emissions unit operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to process upsets, control equipment malfunctions, other known causes, and unknown causes.
 - g. A certification by a responsible official that the work practice standards in this permit were followed in accordance with the operation and maintenance plan for the emissions unit.
 - h. If the operation and maintenance plan required by this permit was not followed, an explanation of the reasons for not following the provision, an assessment of whether any excess emission and/or parameter monitoring exceedances are believed to have occurred, and a copy of the reports required by the work practices in this permit.
 - i. A description of any changes in monitoring, processes, or controls since the last reporting period.
 - j. The name, title, and signature of the responsible official who is certifying the accuracy of the report.
 - k. The date of the report.
- (7) The permittee who is required to submit ongoing compliance status reports on a quarterly (or more frequent basis) may reduce the frequency of reporting to semiannual if all of the following conditions are met:
- a. For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods), the ongoing compliance status reports demonstrate that the affected emissions unit is in compliance with the relevant emission limit.
 - b. The permittee continues to comply with all applicable recordkeeping and monitoring requirements of 40 CFR Part 63 subpart A and others listed in this permit.
 - c. The appropriate Ohio EPA District Office or local air agency does not object to a reduced reporting for the affected emissions unit and if the following requirements are met:
 - i. The permittee notifies the appropriate Ohio EPA District Office or local air agency in writing of its intention to make such a change, and the appropriate Ohio EPA District Office or local air agency does not object to the intended change. In deciding whether to approve a reduced reporting frequency, the appropriate Ohio EPA District Office or local air agency may review information concerning the facility's entire previous



performance history during the 5-year recordkeeping period prior to the intended change, or the recordkeeping period since the facility's compliance date, whichever is shorter. Records subject to review may include performance test results, monitoring data, and evaluations of a permittee's conformance with emission limitations and work practice standards. If the request is disapproved, the permittee will be notified in writing within 45 days after receiving notice of the permittee's intention. The notification will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted

- ii. As soon as the monitoring data show that the facility is not in compliance with the relevant emission limit, the frequency of reporting shall revert to quarterly, and the permittee shall state this exceedance in the ongoing compliance status report for the next reporting period. After demonstrating ongoing compliance with the relevant emission limit for another full year, the permittee may again request approval to reduce the reporting frequency.
- (8) The permittee shall submit a notification of construction or reconstruction as soon as practicable before the construction or reconstruction has commenced to the appropriate Ohio EPA District Office or local air agency which includes the following:
- a. The permittee's name, title, and address.
 - b. The address (i.e., physical location) or proposed address of the affected emissions unit if different from the permittee's.
 - c. A notification of intention to construct or make any physical or operational changes to an affected emissions unit that may meet or has been determined to meet the criteria for a reconstruction as defined in 40 CFR Part 63.2.
 - d. An identification of 40 CFR Part 63, subpart N as the basis for the notification.
 - e. The expected commencement and completion dates of the construction or reconstruction.
 - f. The anticipated date of (initial) startup.
 - g. The type of process operation to be performed (hard or decorative chromium electroplating or chromium anodizing).
 - h. A description of the air pollution control technique to be used to control emissions, such as preliminary design drawings and design capacity if an add-on air pollution control device is used.
 - i. An estimate of emissions based on engineering calculations and vendor information on control device efficiency, expressed in units consistent with the emissions limits of 40 CFR Part 63, subpart N. Calculations of emission estimates should be in sufficient detail to permit assessment of the validity of the calculations.



- (9) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the emission limitations in section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emissions Limitation:
0.015 mg/dscm

Applicable Compliance Method:

The permittee shall demonstrate compliance with the emission limitation above based upon the results of emission testing for chromium conducted in accordance with 40 CFR Part 60, Appendix A, Method 306.

- b. Emission Limitation:
0.00035 lb hexavalent Cr/hr, 0.00153 tons hexavalent Cr/yr (Cooling Evaporator)

Applicable Compliance Method:

Compliance with the chrome emissions limitation shall be determined in accordance with the test methods and procedures in Method 306 or Method 306A, "Determination of Chromium Emissions From Decorative and Hard Chromium Electroplating and Anodizing Operations". In the absence of Ohio EPA requiring such testing, the permittee may calculate the actual emission rate utilizing the vendor supplied calculations as submitted in the PTI application number 03-13324.

The tons per year limitation was developed by multiplying the lbs/hr allowable mass emissions rate by the maximum operating schedule of 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- (2) Performance test results shall be documented in complete test reports that contain the following information:

- a. a brief process description;
- b. sampling location description(s);
- c. a description of sampling and analytical procedures and any modifications to standard procedures;
- d. test results;
- e. quality assurance procedures and results;



- f. records of operating conditions during testing, preparation of standards, and calibration procedures;
- g. raw data sheets for field sampling and field and laboratory analyses;
- h. documentation of calculations; and
- i. any other information required by the test method.

The test plan shall be made available to the appropriate Ohio EPA District Office or local air agency prior to testing, if requested.

- (3) If the permittee conducts performance testing at startup to obtain a permit to install, the results of such testing may be used to demonstrate compliance if:
- a. The test methods and procedures identified in this permit were used during the performance test.
 - b. The performance test was conducted under representative operating conditions.
 - c. The performance test report contains the elements of paragraph 1.a. through 1.i. in this section.
 - d. The permittee has sufficient data to establish the operating parameter value that corresponds to compliance as required for continuous compliance monitoring.

The results of tests conducted prior to December 1991, in which 306A was used to demonstrate the performance of a control technique, are not acceptable.

- (4) The permittee shall use the following test methods to conduct an initial performance test:
- a. Method 306 or Method 306A, "Determination of Chromium Emissions From Decorative and Hard Chromium Electroplating and Anodizing Operations" shall be used to determine the chromium concentration from hard or decorative chromium electroplating tanks or chromium anodizing tanks.
 - i. The sampling time and sample volume for each run of Methods 306 and 306A shall be at least 120 minutes and 1.7 dscm (60 dscf), respectively.
 - ii. Methods 306 and 306A allow the measurement of either total chromium or hexavalent chromium emissions. Emissions units using chromic acid baths can demonstrate compliance with the emission limits by measuring either the total chromium or hexavalent chromium concentration. Hence, the hexavalent chromium concentration measured by these methods is equal to the total chromium concentration for the affected operations.
 - b. The California Air Resources Board (CARB) Method 425 may be used to determine the chromium concentration from hard and decorative chromium electroplating tanks and chromium anodizing tanks if the following conditions are met:



- i. If a colorimetric analysis method is used, the sampling time and volume shall be sufficient to result in 33-66 micrograms of catch in the sampling train.
 - ii. If an Atomic Absorption Graphite Furnace (AAGF) or Ion Chromatography (with a Post-column Reactor (ICPCR) analyses) is used, the sampling time and volume should be sufficient to result in a sample catch that is 5 to 10 times the minimum detection limit of the analytical method (i.e., 1.0 microgram per liter of sample for AAGF and 0.5 microgram per liter of sample for ICPCR).
 - iii. A minimum of three separate runs must be conducted. The other requirements of Section 63.7 of 40 CFR Part 63, subpart A must also be met.
- (5) All monitoring equipment shall be installed such that representative measurements of emissions or process parameters from the affected emissions unit are obtained. For monitoring equipment purchased from a vendor, verification of the operational status of the monitoring equipment shall include execution of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system. Specifications for differential pressure measurement devices used to measure pressure drop across a control system shall be in accordance with the manufacturer's accuracy specifications.
- (6) The permittee shall measure the pressure drop across the add-on air pollution control device in accordance with the following guidelines:
 - a. Pressure taps shall be installed at any of the following locations:
 - i. At the inlet and outlet of the control system. The inlet tap should be installed in the ductwork just prior to the control device and the corresponding outlet pressure tap should be installed on the outlet side of the control device prior to the blower or on the downstream side of the blower.
 - ii. On each side of each mesh pad within the control system.
 - iii. On the front side of the first mesh pad and back side of the last mesh pad within the control system.
 - b. Pressure taps shall be sited at locations that are:
 - i. As free from pluggage as possible and away from any flow disturbances such as cyclonic demisters.
 - ii. Situated such that no air infiltration at the measurement site will occur that could bias the measurement.
 - c. Pressure taps shall be constructed of either polyethylene, polybutylene, or other nonreactive materials.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate

Permit Number: P0087912

Facility ID: 0387020162

Effective Date: 3/10/2009

- d. Nonreactive plastic tubing shall be used to connect the pressure taps to the device used to measure pressure drop.
 - e. Any of the following pressure gauges can be used to monitor pressure drop: a magnahelic gauge, and included manometer, or a "U" tube manometer.
 - f. Prior to connecting any pressure lines to the pressure gauge(s), each gauge shall be zeroed. No calibration of the pressure gauges is required.
- g) Miscellaneous Requirements
- (1) None.



6. R001, Paint Booth

Operations, Property and/or Equipment Description:

Miscellaneous metal paint spray booth

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. d)(4), d)(5), d)(6)
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operations(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. 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)	3.5 lbs volatile organic compounds (VOC)/hr and 15.33 tons of VOC/yr from application of coating 3.6 tons VOC/yr from application of cleanup materials 0.10 lb particulate emissions (PE)/hr and 0.6 tons PE/yr Visible PE shall not exceed 0 percent opacity as a 6-minute average See b)(2)a.
b.	OAC rule 3745-21-09(U)(1)(d)	3.5 lbs VOC/gal excluding water and exempt solvents
c.	OAC rule 3745-17-11(B)(2)	See b)(2)b. and b)(2)d.
d.	OAC rule 3745-17-07(A)	See b)(2)c. and b)(2)d.
e.	OAC rule 3745-17-11(C)	See c)(1) and b)(2)e.



(2) Additional Terms and Conditions

- a. The requirements of OAC rule 3745-31-05 (A) (3) shall also include compliance with OAC rule 3745-21-09 (U) (1) (d).
- b. The emission limitation established by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- c. The visible emission limitation established by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- d. The requirements to comply with this rule shall terminate on the date the U.S. EPA approves the requirements based on OAC rule 3745-17-11(C) as a revision to the Ohio SIP for particulate emissions.
- e. On February 1, 2008, OAC rule 3745-17-11 was revised to include paragraph (C) pertaining to requirements for controlling of particulate emissions from surface coating processes. Paragraph (C) of OAC rule 3745-17-11, and c)(1) of this permit for this emissions unit, shall be federally enforceable on the date the U.S. EPA approves paragraph (C) of OAC rule 3745-17-11 as a revision to the Ohio SIP.

c) Operational Restrictions

- (1) The permittee shall employ dry filtration system for the control of particulate emissions whenever this emissions unit is in operation.
 - a. The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the dry filtration system with any modifications deemed necessary by the permittee during the time period in which the dry filtrations system is utilized.
 - b. The permittee shall operate the dry filtration system in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee.
 - c. The permittee shall conduct periodic inspections of the dry filtration system to determine whether the device is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee. The periodic inspections of each control device shall be performed at a frequency that is based upon the recommendation of the manufacturer of the control device, and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency. In addition to these periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the dry filtration system while the emissions unit is shut down and perform any needed maintenance and repair for the control device to ensure that it is able to routinely operate in accordance with the manufacturer's recommendations.
 - d. The permittee shall document each inspection of the dry filtration system by maintaining a record that includes the date of the inspection, a description of each problem identified and the date it was corrected, a description of the



maintenance and repairs performed, and the name of the person who performed the inspection.

- e. In the event that the dry filtration system is not operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee, the control devices shall be expeditiously repaired or otherwise returned to operation in accordance with such requirements. The permittee shall maintain documentation of those periods when the control device is not operating in accordance with such requirements.

Any documentation required under c)(1)a. shall be maintained for not less than five years, and shall be made available to Ohio EPA upon request.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information each month for the coating operation:
 - a. the name and identification number of each coating employed;
 - b. the VOC content of each coating (excluding water and exempt solvents), as applied, in lbs/gal [the VOC content excluding water and exempt solvents shall be calculated in accordance with the equation specified in paragraph (B) (8) of OAC rule 3745-21-10 for $C_{voc,2}$];
- (2) The permittee shall collect and record the following information each month for the coating operation R001:
 - a. the name and identification number of each coating employed;
 - b. the number of gallons of each coating employed;
 - c. the OC content of each coating, as applied, in lbs/gal;
 - d. the OC emissions from each coating employed, in lbs, [d)(1)b. x d)(1)d.];
 - e. the total OC emissions from all coatings employed, in tons [sum of d)(1)e.]; and
 - f. the annual year to date OC emissions, in tons, from all coatings employed (summation of d)(1)f. for each calendar month to date from January to December).
- (3) The permittee shall collect and record the following information each month for the cleanup materials operation R001:
 - a. the name and identification number of each coating employed;
 - b. the number of gallons of each coating employed;
 - c. the OC content of each coating, as applied, in lbs/gal;
 - d. the OC emissions from each coating employed, in lbs, [d)(1)b. x d)(1)d.];



- e. the total OC emissions from all coatings employed, in tons [sum of d)(1)e.]; and
 - f. the annual year to date OC emissions, in tons, from all coatings employed (summation of d)(1)f. for each calendar month to date from January to December).
- (4) The permit to install for this emissions unit R001 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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):
- Pollutant: Trimethylbenzene
TLV (mg/m3): 123,000
Maximum Hourly Emission Rate (lbs/hr): 3.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 230
MAGLC (ug/m3): 2928
- (5) Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters; the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. 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 (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the compositions 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.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other



provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

- (6) The permittee shall collect, record, and retain the following information when it conducts evaluation to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"
 - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.)
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (2) The permittee shall notify the Northwest District Office in writing of any monthly record showing the use of noncomplying coatings (i.e., coatings that exceed the 3.5 lbs of VOC/gallon of coating, as applied) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Northwest District Office within 30 days following the end of the calendar month.

f) Testing Requirements

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

- a. Emission Limitations:
3.5 lbs VOC/hr and 15.33 tons of VOC/yr from all coating operations

Applicable Compliance Method:

These hourly VOC limits for coatings operations are based on the emission unit's potential to emit. Therefore, no daily recordkeeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with these limits.

Compliance with the annual limitation shall be based upon the recordkeeping requirements specified in d)(2) of this permit.

- b. Emission Limitation:
3.6 tons VOC/yr from application of cleanup materials



Applicable Compliance Method:

These monthly VOC limits for cleanup operations are based on the emission unit's potential to emit. Therefore, no daily recordkeeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with these limits.

Compliance shall be based upon the recordkeeping requirements specified in d)(3) of this permit.

c. Emission Limitation:

3.5 lbs VOC/gallon excluding water and exempt solvents

Applicable Compliance Methods:

Compliance shall be based upon the recordkeeping requirements specified in Section d)(1) of this permit. Formulation data or USEPA Method 24 shall be used to determine the VOC contents of the coatings.

d. Emission Limitation:

0.10 lb particulate matter (PE)/hr, 0.6 ton PE/yr

Applicable Compliance Method:

To determine the actual worst case particulate rate (E), the following equation shall be used for the paint spraying operations:

E = particulate matter emissions rate (lbs/hr)

E = maximum coating solids usage rate in pounds per hour X (1-TE) X (1-CE)

TE = transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used (60 percent considering 40 CFR 60.453)

CE = control efficiency of the control equipment (assumed to be 90 percent)

If required, the permittee shall demonstrate compliance with the hourly PE emissions limit above pursuant to 40 CFR Part 60, Appendix A, Method 5.

Annual emissions may be calculated based on multiplying E by the annual operating schedule for the emissions unit.

e. Emission Limitation:

Visible PE shall not exceed 0 % opacity as a six minute average

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be determined in accordance with "Test Method 9 as set forth in Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

g) Miscellaneous Requirements

(1) None.