



State of Ohio Environmental Protection Agency

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P.O. Box 1049  
Columbus, OH 43216-1049

03/31/99

**CERTIFIED MAIL**

**RE: Draft Title V Chapter 3745-77 permit**

13-18-00-5949  
BF Goodrich Landing Gear Division - Plating Operations  
Eric Hilliard  
2800 East 33rd Street  
Cleveland, OH 44115

Dear Eric Hilliard:

You are hereby notified that the Ohio Environmental Protection Agency has prepared the enclosed draft of the Title V permit for the facility referenced above. The purpose of this draft is to solicit public comments. A public notice concerning the draft will appear in the Ohio EPA Weekly Review and the major newspaper in the county where the facility is located. Comments and/or a request for a public hearing from the public and any affected parties will be accepted by Cleveland Division of Air Pollution Control within 30 days of the date of publication in the newspaper. You will be notified in writing if a public hearing is scheduled.

A decision on processing the Title V permit will be made after consideration of written public comments and oral testimony (if a public hearing is conducted). After the comment period, you will be provided with a Preliminary Proposed Title V permit and an opportunity to comment prior to the Proposed Title V permit submittal to USEPA.

**If you have any questions or comments concerning this draft Title V permit, please contact Cleveland Division of Air Pollution Control.**

Very truly yours,

Thomas G. Rigo, Manager  
Field Operations and Permit Section  
Division of Air Pollution Control

cc: USEPA  
Jim Orlemann, DAPC Engineering  
Michael Ahern, DAPC PMU  
Cleveland Division of Air Pollution Control  
Pennsylvania



## Ohio EPA

State of Ohio Environmental Protection Agency

### TITLE V PERMIT

Issue Date: 03/31/99

### DRAFT

Effective Date:

Expiration Date:

This document constitutes issuance to:

BF Goodrich Landing Gear Division - Plating Operations  
2800 East 33rd Street  
Cleveland, OH 44115

of a Title V permit for Facility ID: 13-18-00-5949

Emissions Unit ID (Company ID)/  
Emissions Unit Activity Description:

L002 (Vapor Degreaser)  
Open top vapor degreaser using trichloroethylene

P001 (Hard chrome electroplating tanks 1, 2B, and 2F)  
Hard chrome plating operations - Chrome plating Tanks 1, 2B, and 2F; stripping tanks 1,2,and 3; and SHF tank

P002 (Hard chrome electroplating tanks 8-11)  
Hard chrome plating operations - Tanks 8-11

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-04(A) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

Cleveland Division of Air Pollution Control  
1925 St. Clair  
Cleveland, OH 44114  
(216) 664-2324

**OHIO ENVIRONMENTAL PROTECTION AGENCY**

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Christopher Jones  
Director

# PART I - GENERAL TERMS AND CONDITIONS

## A. State and Federally Enforceable Section

### 1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. These quarterly written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations except malfunctions, which shall be reported in accordance with OAC rule 3745-15-06. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.) See B.8 below if no deviations occurred during the quarter.
  - iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, recordkeeping, and reporting requirements. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

## **2. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports submitted pursuant to OAC rule 3745-15-06 shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of deviations caused by malfunctions or upsets.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

## **3. Risk Management Plans**

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

## **4. Title IV Provisions**

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

## **5. Severability Clause**

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

## **6. General Requirements**

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

## **7. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.

## **8. Marketable Permit Programs**

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

## **9. Reasonably Anticipated Operating Scenarios**

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.

## **10. Reopening for Cause**

This Title V permit will be reopened prior to its expiration date under the following conditions:

- a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

- c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

## **11. Federal and State Enforceability**

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

## **12. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
  - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the appropriate Ohio EPA District Office or local air agency in the following manner and with the following content:

- i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
- ii. Compliance certifications shall include the following:
  - (a) An identification of each term or condition of this permit that is the basis of the certification.
  - (b) The permittee's current compliance status.
  - (c) Whether compliance was continuous or intermittent.
  - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
  - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
- iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

### **13. Permit Shield**

- a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.
- b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

### **14. Operational Flexibility**

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

### **15. Emergencies**

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

### **16. Off Permit Changes**

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

- a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition;
- b. The permittee provides contemporaneous written notice of the change to the director and the administrator, except that no such notice shall be required for changes that qualify as insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change;
- c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F);
- d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes; and
- e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(For further clarification, the permittee can refer to Engineering Guide #63 that is available in their STARSHIP software package.)

## **17. Compliance Method Requirements**

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.

## **B. State Only Enforceable Section**

### **1. Permit to Install Requirement**

Prior to the “installation” or “modification” of any “air contaminant source,” as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

### **2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

### **3. Records Retention Requirements**

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

### **4. Inspections and Information Requests**

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

## **5. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

## **6. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

## **7. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

## **8. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)**

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

## **Part II - Specific Facility Terms and Conditions**

### **A. State and Federally Enforcable Section**

**None**

### **B. State Only Enforceable Section**

1. The following insignificant emissions units are located at this facility:

P018 Embrittlement Oven  
Z001 Gas Fired Boiler  
Z002 Gas Fired Boiler  
Z003 Gas Fired Boiler  
Z004 Gas Fired Heater  
Z005 Storage Tank  
K001 Spray Booth  
P003 Copper Plating Tank  
P004 Copper Stripping Tank  
P006 Shot Peen Cabinet  
P007 Glass Bleed Cabinet  
P008 Nickel Plating Tank  
P009 Nickel Plating Tank  
P011 Abrasive Cleaning  
P012 Polishing Wheel  
P013 Embrittlement Oven  
P015 Sandblast Cabinet  
P016 Shot Peen Cabinet  
P017 Shot Blast Cabinet  
P019 Abrasive Cleaning  
P020 Cadmium Plating  
P021 Cadmium Plating  
P022 Low Cadmium Plating  
P023 Lead Melting Pot

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emissions limitations and / or control requirements contained within a Permit to Install for the emissions unit.



### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Vapor Degreaser (L002)  
**Activity Description:** Open top vapor degreaser using trichloroethylene

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Open top vapor degreaser using trichloroethylene, with solvent/air interface of 73 sq. ft. (Working cover, superheated vapor, and freeboard refrigeration.)	OAC 3745-21-09 (O) 40 CFR Part 63, Subpart T	See additional terms and conditions below.

##### 2. Additional Terms and Conditions

- 2.a The open top vapor degreaser shall employ a cover and safety switches as described below:
  - i. A cover that can be opened and closed easily without disturbing the vapor zone;
  - ii. A condenser flow switch and thermostat or any other device which shuts off the sump heat if the condenser coolant is either not circulating or too warm;
  - iii. A spray safety switch which shuts off the spray pump if the vapor level drops below any fixed spray nozzle;
  - iv. A vapor level control thermostat or any other device which shuts off the sump heat when the vapor level rises too high;
  - v. A water flow switch, water pressure switch, or any other device which shuts off the sump heat if the water in a water-cooled condenser has no flow or no pressure, whichever is being monitored.
- 2.b A freeboard with a freeboard ratio greater than or equal to 0.75 shall be maintained, and if the open top vapor degreaser opening is greater than 10 square feet, the cover must be powered or equipped with mechanical features whereby it can be readily closed when the degreaser is not in use.
- 2.c The permittee shall operate and maintain a refrigerated chiller for the open top vapor degreaser.
- 2.d An enclosed design (i.e., the cover or door opens only when the dry part is actually entering or exiting the open top vapor degreaser) shall be employed to control the VOC emissions.

## **2. Additional Terms and Conditions (continued)**

- 2.e** The open top vapor degreaser shall be operated and maintained in accordance with the following practices to minimize solvent evaporation from the unit:
- i. Keep the cover closed at all times except when processing work loads through the degreaser.
  - ii. Minimize solvent carry-out by:
    - (a) Racking parts so that solvent drains freely and is not trapped.
    - (b) Moving parts in and out of the degreaser at less than 11 feet per minute.
    - (c) Holding the parts in the vapor zone at least 30 seconds or until condensation ceases, whichever is longer.
    - (d) Tipping out any pools of solvent on the cleaned parts before removal from the vapor zone.
    - (e) Allowing parts to dry within the degreaser for at least 15 seconds or until visually dry, whichever is longer.
  - iii. Clean only materials that are neither porous nor absorbent.
  - iv. Occupy no more than one-half of the degreaser's open-top area with a workload.
  - v. Always spray within the vapor level.
  - vi. Repair solvent leaks immediately, or shut down the degreaser.
  - vii. Store waste solvent only in covered containers.
  - viii. Operate the cleaner such that water cannot be visually detected in solvent exiting the water separator.
  - ix. Use no ventilation fans near the degreaser opening.
  - x. When the cover is open, do not expose the open top vapor degreaser to drafts greater than 131 feet per minute, as measured between 3 and 6 feet upwind and at the same elevation as the tank lip.
  - xi. If a lip exhaust is used on the open top vapor degreaser, do not use a ventilation rate that exceeds 65 cubic feet per minute per square foot of degreaser open area, unless a higher rate is necessary to meet Occupational Safety and Health Administration requirements.
  - xii. Provide a permanent, conspicuous label, summarizing the operating procedures.
- 2.f** The permittee shall comply with the following requirements:
- i. Ensure that the temperature of the solvent vapor at the center of the superheated vapor zone is at least 10 degrees Fahrenheit above the solvent's boiling point.
  - ii. Ensure that the manufacturer's specifications for determining the minimum proper dwell time within the superheated vapor system is followed.
  - iii. Ensure that the parts remain within the superheated vapor for at least the minimum proper dwell time.
- 2.g** The permittee shall ensure that the chilled air blanket temperature (in oF), measured at the center of the air blanket, is no greater than 30 percent of the solvent's boiling point.
- 2.h** The permittee shall comply with the following requirements:
- i. Ensure that the cover opens only for a part entrance and removal and completely covers the cleaning machine openings when closed.
  - ii. Ensure that the working-mode cover is maintained free of cracks, holes and other defects.

## 2. Additional Terms and Conditions (continued)

- 2.i** The permittee shall ensure that the solvent cleaning machine conforms to the following design requirements:
- i. Use of an idling and downtime mode cover that shall be in place during the idling mode, and during the downtime mode unless either the solvent has been removed from the machine or maintenance or monitoring is being performed that requires the cover(s) to not be in place. The cover must be able to be readily opened or closed, must completely cover the cleaning machine openings when in place, and must be free of cracks, holes and other defects.
  - ii. The solvent cleaning machine shall have a freeboard ratio of 0.75 or greater.
  - iii. The solvent cleaning machine shall have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minute (11 feet per minute) or less from the initial loading of parts through removal of cleaned parts.
  - iv. The solvent cleaning machine shall be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils.
  - v. The solvent cleaning machine shall be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.
  - vi. The solvent cleaning machine shall have a primary condenser.

## II. Operational Restrictions

- 1.** The permittee shall meet all of the following required work and operational practices:
- 1.a** Control air disturbances across the solvent cleaning machine opening(s) by incorporating the following control equipment or techniques:  
  
Cover(s) for the solvent cleaning machine shall be in place during the idling mode and during the downtime mode unless either the solvent has been removed from the machine or maintenance or monitoring is being performed that requires the cover(s) to not be in place.
  - 1.b** The parts baskets or the parts being cleaned in solvent cleaning machine shall not occupy more than 50 percent of the solvent/air interface area unless the parts baskets or parts are introduced at a speed of 0.9 meter per minute (3 feet per minute) or less.
  - 1.c** Any spraying operations shall be done within the vapor zone or within a section of the solvent cleaning machine that is not directly exposed to the ambient air (i.e., a baffled or enclosed area of the solvent cleaning machine).
  - 1.d** Parts shall be oriented so that the solvent drains from them freely. Parts having cavities or blind holes must be tipped or rotated before being removed from the solvent cleaning machine unless an equally effective approach has been approved by the Director (Cleveland Bureau of Air Pollution Control).
  - 1.e** Parts baskets or parts shall not be removed from the solvent cleaning machine until dripping has stopped.
  - 1.f** During startup of the solvent cleaning machine, the primary condensers shall be turned on before the sump heater.
  - 1.g** During shutdown of the solvent cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.
  - 1.h** When solvent is added or drained from the solvent cleaning machine, the solvent shall be transferred using threaded or other leakproof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface.

## **II. Operational Restrictions (continued)**

- 1.i** The solvent cleaning machine and its associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the satisfaction of the Director (Cleveland Bureau of Air Pollution Control) to achieve the same or better results as those recommended by the manufacturer.
- 1.j** The permittee shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in 40 CFR Part 63, Appendix B if requested during an inspection by the Director (Cleveland Bureau of Air Pollution Control).
- 1.k** Waste solvent, still bottoms, and sump bottoms shall be collected and stored in closed containers. The closed containers may contain a device that would allow pressure relief, but must not allow liquid solvent to drain from the container.
- 1.l** Sponges, fabric, wood, and paper products shall not be cleaned.
- 2.** The open top vapor degreaser shall be operated and maintained in accordance with the following practices to minimize solvent evaporation from the unit:
  - 2.a** Keep the cover closed at all times except when processing work loads through the degreaser.
  - 2.b** Minimize solvent carry-out by:
    - i.** Racking parts so that solvent drains freely and is not trapped.
    - ii.** Moving parts in and out of the degreaser at less than 11 feet per minute.
    - iii.** Holding the parts in the vapor zone at least 30 seconds or until condensation ceases, whichever is longer.
    - iv.** Tipping out any pools of solvent on the cleaned parts before removal from the vapor zone.
    - v.** Allowing parts to dry within the degreaser for at least 15 seconds or until visually dry, whichever is longer.
  - 2.c** Clean only materials that are neither porous nor absorbent.
  - 2.d** Occupy no more than one-half of the degreaser's open-top area with a workload.
  - 2.e** Always spray within the vapor level.
  - 2.f** Repair solvent leaks immediately, or shut down the degreaser.
  - 2.g** Store waste solvent only in covered containers.
  - 2.h** Operate the cleaner such that water cannot be visually detected in solvent exiting the water separator.
  - 2.i** Use no ventilation fans near the degreaser opening.
  - 2.j** When the cover is open, do not expose the open top vapor degreaser to drafts greater than 131 feet per minute, as measured between 3 and 6 feet upwind and at the same elevation as the tank lip.
  - 2.k** If a lip exhaust is used on the open top vapor degreaser, do not use a ventilation rate that exceeds 65 cubic feet per minute per square foot of degreaser open area, unless a higher rate is necessary to meet Occupational Safety and Health Administration requirements.
  - 2.l** Provide a permanent, conspicuous label, summarizing the operating procedures.

## **III. Monitoring and/or Record Keeping Requirements**

- 1.** The permittee shall monitor the hoist speed as described below:

### **III. Monitoring and/or Record Keeping Requirements (continued)**

- 1.a** The permittee shall determine the hoist speed by measuring the time it takes for the hoist to travel a measured distance. The speed is equal to the distance in meters divided by the time in minutes (meters per minute).
- 1.b** The permittee shall conduct monthly monitoring of the hoist speed. If after the first year, no exceedances of the hoist speed are measured, the permittee may begin monitoring the hoist speed quarterly.
- 1.c** If an exceedance of the hoist speed occurs during quarterly monitoring, the permittee shall return to a monthly monitoring frequency until another year of compliance without an exceedance is demonstrated.
- 1.d** If the permittee can demonstrate to the satisfaction of the Director (Cleveland Bureau of Air Pollution Control) in the initial compliance report that the hoist speed cannot exceed a speed of 3.4 meters per minute (11 feet per minute), the required monitoring frequency is quarterly, including during the first year of compliance.
- 2.** The permittee shall conduct monitoring and record the results on a weekly basis for the superheated vapor system by using a thermometer or thermocouple to measure the temperature at the center of the air blanket during the idling mode.
- 3.** The permittee shall conduct monitoring and record the results on a monthly basis for the working-mode cover by conducting a visual inspection to determine if the cover is opening and closing properly, completely covers the cleaning machine openings when closed, and is free of cracks, holes and other defects.
- 4.** The permittee shall maintain the following records in written or electronic form for the lifetime of the solvent cleaning machine:
  - 4.a** Owner's manuals, or if not available, written maintenance and operating procedures for the solvent cleaning machine and control equipment.
  - 4.b** The date of installation for the solvent cleaning machine and all of its control devices. If the exact date for the installation is not known, a letter certifying that the cleaning machine and its control devices were installed prior to, or on, November 29, 1993, or after November 29, 1993, may be substituted.
  - 4.c** Records of the halogenated HAP solvent content for the solvent used in the solvent cleaning machine.
- 5.** The permittee shall maintain the following records in written or electronic form for a period of five years for the solvent cleaning machine:
  - 5.a** The results of control device monitoring required in this section of the permit.
  - 5.b** Information on the actions taken to comply with 40 CFR 63.463 (e) and (f), including records of written or verbal orders for replacement parts, a description of the repair made, and additional monitoring conducted to demonstrate that monitored parameters have returned to acceptable levels.
  - 5.c** Estimates of annual trichloroethylene consumption for the solvent cleaning machine.
- 6.** The permittee shall maintain records of the initial performance test, including the idling emission rate and values of the monitoring parameters measured during the test. These records shall be maintained for the lifetime of the solvent cleaning machine.
- 7.** The permittee shall maintain records of the following information:
  - 7.a** The types of solvents employed in the open top vapor degreaser.
  - 7.b** All control equipment maintenance.

### **IV. Reporting Requirements**

- 1.** The permittee shall submit an initial statement of compliance no later than 150 days after December 2, 1997. Each initial statement of compliance shall contain the following:
  - 1.a** The name and address of the permittee.

#### **IV. Reporting Requirements (continued)**

- 1.b** The address (i.e., physical location) of the solvent cleaning machine.
- 1.c** A list of the control equipment used to achieve compliance.
- 1.d** A list of the parameters that are monitored and the values of these parameters measured on or during the first month after the compliance date for each piece of control equipment required to be monitored.
- 2.** The permittee shall submit an annual report by February 1 of each year for the preceding year. Each annual report shall contain the following:
  - 2.a** A signed statement from the facility owner or their designee stating that, "All operators of solvent cleaning machines have received training on the proper operation of solvent cleaning machines and their control devices sufficient to pass the test required pursuant to 40 CFR 60.463 (d) (10)."
  - 2.b** An estimate of solvent consumption during the reporting period.
  - 2.c** Identification of replacement or repairs made on safety switches, cover, or refrigerated chiller. The report will indicate the following:
    - i. Description of the repairs made, or
    - ii. A statement indicating that no repairs were required.
- 3.** The permittee shall submit an exceedance report on a semiannual basis.

If the temperature of the chilled air blanket, measured at the center of the air blanket, was greater than 30% of the solvent's boiling point, and no correction was made within 15 days of detection or if the cover did not completely cover the cleaning machine openings when in place whenever parts were not in the solvent cleaning machine and/or if the cover had cracks, holes or other defects and no correction was made within 15 days of detection, the permittee shall begin to submit a quarterly report until such time that the permittee requests and receives approval of a less frequent reporting frequency from the Director (Cleveland Bureau of Air Pollution Control).

The permittee may receive approval of less frequent reporting if the following conditions are met: (1) The emissions unit has demonstrated a full year of compliance without an exceedance, (2) the permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in 40 CFR 63.1, General Provisions, and (3) the Director (Cleveland Bureau of Air Pollution Control) does not object to a reduced frequency of reporting for the affected emissions unit as provided in paragraph (e) (3) (iii) of subpart A, 40 CFR 63.1, General Provisions. Each exceedance report shall be delivered or post marked by the 30th day following the reporting period. Each exceedance report shall contain the following:

- 3.a** The reason and a description of the exceedance and action(s) taken to comply with 40 CFR 63.463 (e) and (f) including written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to acceptable levels.
- 3.b** If no exceedance has occurred, a statement to that effect shall be submitted.

#### **V. Testing Requirements**

- 1.** The permittee shall determine the facility's potential to emit (PTE) from all solvent cleaning operations. A facility's total PTE is the sum of the HAP emissions from all solvent cleaning operations plus all HAP emissions from other emissions units from within the facility. The potential to emit shall be determined in accordance with the following procedures:

**V. Testing Requirements (continued)**

2. Determine the potential to emit for each individual solvent cleaning machine using the following equation:

$$PTE_i = H_i * W_i * SAI_i$$

Where:

$PTE_i$  = the potential to emit for the solvent cleaning machine  $i$  (kilograms solvent per year).

$H_i$  = hours of operation for solvent cleaning machine  $i$  (hours per year).

$H_i$  = 8760 hours per year, unless otherwise restricted by a federally enforceable requirement.

$W_i$  = the working mode uncontrolled emission rate (kilograms per square meter per hour).

$W_i$  = 1.95 kilograms per square meter per hour for batch vapor and cold cleaning machines.

$SAI_i$  = solvent/air interface area of solvent cleaning machine  $i$  (square meters). Section 63.461 defines the solvent/air interface area for those machines that have a solvent /air interface.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None



### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Hard chrome electroplating tanks 1, 2B, and 2F (P001)

**Activity Description:** Hard chrome plating operations - Chrome plating Tanks 1, 2B, and 2F; stripping tanks 1,2,and 3; and SHF tank

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Hard chrome plating operations - Chrome plating Tanks 1, 2B, and 2F; stripping tanks 1,2,and 3; and SHF tank, controlled by a composite mesh pad system.	40 CFR Part 63 -- Subpart N National Emissions Stds. for Chromium	The permittee shall not allow the concentration of total chromium in the exhaust gases discharged to the atmosphere to exceed 0.015 milligrams per dry standard cubic meter (mg/dscm) (6.6E-6 grains per dry standard cubic foot (gr/dscf)).
	OAC 3745-17-11	0.551 lbs/hr particulate emissions
	OAC 3745-17-07	20 percent opacity as a six-minute average from the stack, except as provided by rule.

##### 2. Additional Terms and Conditions

- 2.a 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.b Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the operation and maintenance plan.

## **2. Additional Terms and Conditions (continued)**

- 2.c** 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 emission 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:
- i. does not address a malfunction that has occurred;
  - ii. fails to provide for the operation of the emission 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
  - iii. does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control techniques, or monitoring equipment as quickly as practicable.
- 2.d** The permittee shall prepare an operation and maintenance plan to be implemented. 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 emissions limits), and the process and control system monitoring equipment, and shall include a standardized checklist to document the operation and maintenance of the equipment.
- 2.e** 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 washdown of the composite mesh-pads in accordance with the manufacturer's recommendations.
- 2.f** 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.
  - iii. Check pitot tube ends for damage. Replace pitot tube if cracked or fatigued.
- 2.g** The O/M 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.
- 2.h** The O/M 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.
- 2.i** 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.

## **2. Additional Terms and Conditions (continued)**

- 2.j** 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.
- 2.k** 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 emission 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.
- 2.l** 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.

## **II. Operational Restrictions**

**None**

## **III. Monitoring and/or Record Keeping Requirements**

- 1.** Composite mesh-pad (CMP) system monitoring requirements to demonstrate continuous compliance:
  - 1.a** 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 limitations 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.
  - 1.b** 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 section 1 inch of water column from this value as the compliant range.
  - 1.c** 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 emission unit is operating. To be in compliance, the composite mesh-pad system shall be operated within section 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.
- 2.** The permittee shall fulfill all recordkeeping requirements in the General Provisions to 40 CFR Part 63, according to the applicability of subpart A.
- 3.** The permittee also shall maintain the following records:
  - 3.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.
  - 3.b** Records of all maintenance performed on the emissions unit, add-on air pollution control device, and monitoring equipment.
  - 3.c** Records of the occurrence, duration, and cause (if known) of each malfunction of process, add-on air pollution control device, and monitoring equipment.

### III. Monitoring and/or Record Keeping Requirements (continued)

- 3.d** Records of actions taken during periods of malfunction when such actions are inconsistent with the operation and maintenance plan.
- 3.e** Other records, which may take the form of checklists, necessary to demonstrate consistence with the provisions of the operation and maintenance plan.
- 3.f** Test reports documenting results of all performance tests.
- 3.g** All measurements as may be necessary to determine the conditions of performance tests.
- 3.h** Records of monitoring data that are used to demonstrate compliance with the standard including the date and time the data are collected.
- 3.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.
- 3.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.
- 3.k** The total process operating time of the emission unit during the reporting period.
- 3.l** All documentation supporting the notifications and reports as outlined in the Reporting Requirements of this permit and section 63.9 and section 63.10 of 40 CFR Part 63, subpart A.

### IV. 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.
  - 1.a** Submittals sent by U.S. mail shall be postmarked on or before the specified date.
  - 1.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:
  - 2.a** The name, title, and address of the owner or operator.
  - 2.b** The address (i.e., physical location) of the emissions unit.
  - 2.c** Identification of the applicable emission limitations and compliance date.
  - 2.d** A statement of whether the affected emissions unit is located at a major source or at an area source.
  - 2.e** A brief description of each affected emission unit, including the type of process operation performed.
  - 2.f** The maximum potential cumulative rectifier capacity.
  - 2.g** A statement of whether the emissions unit is located at a smaller or a large, hard chromium facility and whether this will be demonstrated through actual or maximum potential cumulative rectifier capacity.
  - 2.h** 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 Compliance Status to the appropriate Ohio EPA District Office or local air agency, 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:

#### **IV. Reporting Requirements (continued)**

- 3.a** The applicable emission limitations and the methods there were used to determine compliance with this limitation.
- 3.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.
- 3.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.)
- 3.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.
- 3.e** The methods that will be used to determine continuous compliance.
- 3.f** A description of the air pollution control technique used for each emission point.
- 3.g** A statement that the permittee has completed and has on file the operation and maintenance plan as required by the work practice standards.
- 3.h** A statement by the owner or operator as to whether the emissions unit is in compliance.
- 4.** 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.
- 5.** The permittee shall prepare an ongoing compliance status 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:
  - 5.a** The company name and address of the emissions unit.
  - 5.b** An identification of the operating parameter that is monitored for compliance determination.
  - 5.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.
  - 5.d** The beginning and ending dates of the reporting period.
  - 5.e** The total operating time of the emissions unit during the reporting period.
  - 5.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.
  - 5.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.
  - 5.h** If the operation and maintenance plan required by this permit was not followed, an explanation of the reasons for not following the provisions, 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.
  - 5.i** A description of any changes in monitoring, processes, or controls since the last reporting period.

#### **IV. Reporting Requirements (continued)**

- 5.j** The name, title, and signature of the responsible official who is certifying the accuracy of the report.
- 5.k** The date of the report.
- 5.m** The report shall be submitted semiannually except when:
  - i. The appropriate Ohio EPA District Office or local air agency determined that more frequent reporting is necessary to accurately assess the compliance status of the emissions unit; or
  - ii. The monitoring data collected by the permittee shows that the emission limit has been exceeded, in which case quarterly reports shall be submitted. Once an exceedance is reported, ongoing compliance status reports shall be submitted quarterly until a request to reduce reporting frequency is approved.
- 6.** 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:
  - 6.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.
  - 6.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.
  - 6.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.
- 7.** 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:
  - 7.a** The permittee's name, title, and address.
  - 7.b** The address (i.e., physical location) or proposed address of the affected emissions unit if different from the permittee's.
  - 7.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.
  - 7.d** An identification of 40 CFR Part 63, subpart N as the basis for the notification.
  - 7.e** The expected commencement and completion dates of the construction or reconstruction.

#### **IV. Reporting Requirements (continued)**

- 7.f** The anticipated date of (initial) startup.
- 7.g** The type of process operation to be performed (hard or decorative chromium electroplating or chromium anodizing).
- 7.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.
- 7.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.
- 8.** If a reconstruction is to occur, the permittee shall submit as soon as practicable the following information to the appropriate Ohio EPA District Office or local air agency:
  - 8.a** A brief description of the affected emissions unit and the components to be replaced.
  - 8.b** A brief description of the present and proposed emission control technique.
  - 8.c** An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new emissions unit.
  - 8.d** The estimated life of the affected emissions unit after the replacements.
  - 8.e** A discussion of any economic or technical limitations the emissions unit may have in complying with relevant standards or other requirements after proposed replacements. The discussion shall be sufficiently detailed to demonstrate to the appropriate Ohio EPA District Office or local air agency satisfaction that the technical or economic limitations affected the emissions unit ability to comply with the relevant standard and how they do so.

#### **V. Testing Requirements**

- 1.** Performance test results shall be documented in complete test reports that contain the following information:
  - 1.a** a brief process description;
  - 1.b** sampling location description(s);
  - 1.c** a description of sampling and analytical procedures and any modifications to standard procedures;
  - 1.d** test results;
  - 1.e** quality assurance procedures and results;
  - 1.f** records of operating conditions during testing, preparation of standards, and calibration procedures;
  - 1.g** raw data sheets for field sampling and field and laboratory analyses;
  - 1.h** documentation of calculations; and
  - 1.i** any other information required by the test method.
- 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:
  - 2.a** The test methods and procedures identified in this permit were used during the performance test.
  - 2.b** The performance test was conducted under representative operating conditions.
  - 2.c** The performance test report contains the elements of paragraph 1.a. through 1.i. in this section.

## V. Testing Requirements (continued)

- 2.d** The permittee has sufficient data to establish the operating parameter value that corresponds to compliance as required for continuous compliance monitoring.
- 3.** The permittee shall use the following test methods to conduct an initial performance test:
- 3.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.
- 3.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.
- 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:
- 5.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.
- iii. On the front side of the first mesh pad and back side of the last mesh pad within the control system.
- 5.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.

## **V. Testing Requirements (continued)**

- 5.c** Pressure taps shall be constructed of either polyethylene, polybutylene, or other nonreactive materials.
- 5.d** Nonreactive plastic tubing shall be used to connect the pressure taps to the device used to measure pressure drop.
- 5.e** Any of the following pressure gauges can be used to monitor pressure drop: a magnehelic gauge, an included manometer, or a "U" tube manometer.
- 5.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.
- 6.** The permittee shall measure the velocity pressure at the inlet to an add-on air pollution control device to establish the site-specific velocity pressure as follows:
  - 6.a** Locate a velocity traverse port in a section of straight duct that connects the hooding on the plating tank or tanks with the control device. The port shall be located as close to the control system as possible, and shall be placed a minimum of 2 duct diameters downstream and 0.5 diameter upstream of any flow disturbance such as a bend, expansion, or contraction. If 2.5 diameters of straight duct work does not exist, locate the port 0.8 of the duct diameter downstream and 0.2 of the duct diameter upstream from any flow disturbance.
  - 6.b** A 12-point velocity traverse of the duct to the control device shall be conducted along a single axis according to Method 2 (40 CFR part 60, appendix A) using an S-type pitot tube measurement of the barometric pressure and duct temperature at each traverse point is not required, but is suggested. Mark the S-type pitot tube as specified in Method 1 (40 CFR part 60, appendix A) with 12 points. Measure the velocity pressure (delta p) values for the velocity points and record. Determine the square root of the individual velocity point delta p values and average. The point with the square root value that comes closest to the average square root value is the point of average velocity. The delta p value measured for this point during the performance test will be used as the reference for future monitoring.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None



### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Hard chrome electroplating tanks 8-11 (P002)  
**Activity Description:** Hard chrome plating operations - Tanks 8-11

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Hard chrome plating tanks 8 - 11 controlled by a composite mesh pad system.	40 CFR Part 63 -- Subpart N National Emissions Stds. for Chromium	The permittee shall not allow the concentration of total chromium in the exhaust gases discharged to the atmosphere to exceed 0.015 milligrams per dry standard cubic meter (mg/dscm) (6.6E-6 grains per dry standard cubic foot (gr/dscf)).
	OAC 3745-17-07	20 percent opacity as a six-minute average from the stack, except as provided by rule.
	OAC 3745-17-11	0.551 lbs/hr particulate emissions

##### 2. Additional Terms and Conditions

- 2.a 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.b Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the operation and maintenance plan.

## **2. Additional Terms and Conditions (continued)**

- 2.c** 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 emission 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:
- i. does not address a malfunction that has occurred;
  - ii. fails to provide for the operation of the emission 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
  - iii. does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control techniques, or monitoring equipment as quickly as practicable.
- 2.d** The permittee shall prepare an operation and maintenance plan to be implemented. 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 emissions limits), and the process and control system monitoring equipment, and shall include a standardized checklist to document the operation and maintenance of the equipment.
- 2.e** 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 washdown of the composite mesh-pads in accordance with the manufacturer's recommendations.
- 2.f** 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.
  - iii. Check pitot tube ends for damage. Replace pitot tube if cracked or fatigued.
- 2.g** The O/M 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.
- 2.h** The O/M 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.
- 2.i** 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.

## 2. Additional Terms and Conditions (continued)

- 2.j 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.
- 2.k 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 emission 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.
- 2.l 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.

## II. Operational Restrictions

None

## III. Monitoring and/or Record Keeping Requirements

- 1. Composite mesh-pad (CMP) system monitoring requirements to demonstrate continuous compliance:
  - 1.a 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 limitations 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.
  - 1.b 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 section 1 inch of water column from this value as the compliant range.
  - 1.c 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 emission unit is operating. To be in compliance, the composite mesh-pad system shall be operated within section 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.
- 2. The permittee shall fulfill all recordkeeping requirements in the General Provisions to 40 CFR Part 63, according to the applicability of subpart A.
- 3. The permittee also shall maintain the following records:
  - 3.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.
  - 3.b Records of all maintenance performed on the emissions unit, add-on air pollution control device, and monitoring equipment.
  - 3.c Records of the occurrence, duration, and cause (if known) of each malfunction of process, add-on air pollution control device, and monitoring equipment.

### III. Monitoring and/or Record Keeping Requirements (continued)

- 3.d** Records of actions taken during periods of malfunction when such actions are inconsistent with the operation and maintenance plan.
- 3.e** Other records, which may take the form of checklists, necessary to demonstrate consistence with the provisions of the operation and maintenance plan.
- 3.f** Test reports documenting results of all performance tests.
- 3.g** All measurements as may be necessary to determine the conditions of performance tests.
- 3.h** Records of monitoring data that are used to demonstrate compliance with the standard including the date and time the data are collected.
- 3.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.
- 3.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.
- 3.k** The total process operating time of the emission unit during the reporting period.
- 3.l** All documentation supporting the notifications and reports as outlined in the Reporting Requirements of this permit and section 63.9 and section 63.10 of 40 CFR Part 63, subpart A.

### IV. 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.
  - 1.a** Submittals sent by U.S. mail shall be postmarked on or before the specified date.
  - 1.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:
  - 2.a** The name, title, and address of the owner or operator.
  - 2.b** The address (i.e., physical location) of the emissions unit.
  - 2.c** Identification of the applicable emission limitations and compliance date.
  - 2.d** A statement of whether the affected emissions unit is located at a major source or at an area source.
  - 2.e** A brief description of each affected emission unit, including the type of process operation performed.
  - 2.f** The maximum potential cumulative rectifier capacity.
  - 2.g** A statement of whether the emissions unit is located at a smaller or a large, hard chromium facility and whether this will be demonstrated through actual or maximum potential cumulative rectifier capacity.
  - 2.h** 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 Compliance Status to the appropriate Ohio EPA District Office or local air agency, 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:

#### **IV. Reporting Requirements (continued)**

- 3.a** The applicable emission limitations and the methods there were used to determine compliance with this limitation.
- 3.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.
- 3.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.)
- 3.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.
- 3.e** The methods that will be used to determine continuous compliance.
- 3.f** A description of the air pollution control technique used for each emission point.
- 3.g** A statement that the permittee has completed and has on file the operation and maintenance plan as required by the work practice standards.
- 3.h** A statement by the owner or operator as to whether the emissions unit is in compliance.
- 4.** 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.
- 5.** The permittee shall prepare an ongoing compliance status 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:
  - 5.a** The company name and address of the emissions unit.
  - 5.b** An identification of the operating parameter that is monitored for compliance determination.
  - 5.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.
  - 5.d** The beginning and ending dates of the reporting period.
  - 5.e** The total operating time of the emissions unit during the reporting period.
  - 5.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.
  - 5.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.
  - 5.h** If the operation and maintenance plan required by this permit was not followed, an explanation of the reasons for not following the provisions, 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.
  - 5.i** A description of any changes in monitoring, processes, or controls since the last reporting period.

#### **IV. Reporting Requirements (continued)**

- 5.j** The name, title, and signature of the responsible official who is certifying the accuracy of the report.
- 5.k** The date of the report.
- 5.m** The report shall be submitted semiannually except when:
  - i. The appropriate Ohio EPA District Office or local air agency determined that more frequent reporting is necessary to accurately assess the compliance status of the emissions unit; or
  - ii. The monitoring data collected by the permittee shows that the emission limit has been exceeded, in which case quarterly reports shall be submitted. Once an exceedance is reported, ongoing compliance status reports shall be submitted quarterly until a request to reduce reporting frequency is approved.
- 6.** 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:
  - 6.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.
  - 6.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.
  - 6.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.
- 7.** 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:
  - 7.a** The permittee's name, title, and address.
  - 7.b** The address (i.e., physical location) or proposed address of the affected emissions unit if different from the permittee's.
  - 7.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.
  - 7.d** An identification of 40 CFR Part 63, subpart N as the basis for the notification.
  - 7.e** The expected commencement and completion dates of the construction or reconstruction.

#### **IV. Reporting Requirements (continued)**

- 7.f** The anticipated date of (initial) startup.
- 7.g** The type of process operation to be performed (hard or decorative chromium electroplating or chromium anodizing).
- 7.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.
- 7.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.
- 8.** If a reconstruction is to occur, the permittee shall submit as soon as practicable the following information to the appropriate Ohio EPA District Office or local air agency:
  - 8.a** A brief description of the affected emissions unit and the components to be replaced.
  - 8.b** A brief description of the present and proposed emission control technique.
  - 8.c** An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new emissions unit.
  - 8.d** The estimated life of the affected emissions unit after the replacements.
  - 8.e** A discussion of any economic or technical limitations the emissions unit may have in complying with relevant standards or other requirements after proposed replacements. The discussion shall be sufficiently detailed to demonstrate to the appropriate Ohio EPA District Office or local air agency satisfaction that the technical or economic limitations affected the emissions unit ability to comply with the relevant standard and how they do so.

#### **V. Testing Requirements**

- 1.** Performance test results shall be documented in complete test reports that contain the following information:
  - 1.a** a brief process description;
  - 1.b** sampling location description(s);
  - 1.c** a description of sampling and analytical procedures and any modifications to standard procedures;
  - 1.d** test results;
  - 1.e** quality assurance procedures and results;
  - 1.f** records of operating conditions during testing, preparation of standards, and calibration procedures;
  - 1.g** raw data sheets for field sampling and field and laboratory analyses;
  - 1.h** documentation of calculations; and
  - 1.i** any other information required by the test method.
- 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:
  - 2.a** The test methods and procedures identified in this permit were used during the performance test.
  - 2.b** The performance test was conducted under representative operating conditions.
  - 2.c** The performance test report contains the elements of paragraph 1.a. through 1.i. in this section.

## V. Testing Requirements (continued)

- 2.d** The permittee has sufficient data to establish the operating parameter value that corresponds to compliance as required for continuous compliance monitoring.
- 3.** The permittee shall use the following test methods to conduct an initial performance test:
- 3.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.
- 3.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.
- 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:
- 5.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.
- iii. On the front side of the first mesh pad and back side of the last mesh pad within the control system.
- 5.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.

## **V. Testing Requirements (continued)**

- 5.c** Pressure taps shall be constructed of either polyethylene, polybutylene, or other nonreactive materials.
- 5.d** Nonreactive plastic tubing shall be used to connect the pressure taps to the device used to measure pressure drop.
- 5.e** Any of the following pressure gauges can be used to monitor pressure drop: a magnehelic gauge, an included manometer, or a "U" tube manometer.
- 5.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.
- 6.** The permittee shall measure the velocity pressure at the inlet to an add-on air pollution control device to establish the site-specific velocity pressure as follows:
  - 6.a** Locate a velocity traverse port in a section of straight duct that connects the hooding on the plating tank or tanks with the control device. The port shall be located as close to the control system as possible, and shall be placed a minimum of 2 duct diameters downstream and 0.5 diameter upstream of any flow disturbance such as a bend, expansion, or contraction. If 2.5 diameters of straight duct work does not exist, locate the port 0.8 of the duct diameter downstream and 0.2 of the duct diameter upstream from any flow disturbance.
  - 6.b** A 12-point velocity traverse of the duct to the control device shall be conducted along a single axis according to Method 2 (40 CFR part 60, appendix A) using an S-type pitot tube measurement of the barometric pressure and duct temperature at each traverse point is not required, but is suggested. Mark the S-type pitot tube as specified in Method 1 (40 CFR part 60, appendix A) with 12 points. Measure the velocity pressure (delta p) values for the velocity points and record. Determine the square root of the individual velocity point delta p values and average. The point with the square root value that comes closest to the average square root value is the point of average velocity. The delta p value measured for this point during the performance test will be used as the reference for future monitoring.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None



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**THIS IS THE LAST PAGE OF THE PERMIT**

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