Street Address:

State of Ohio Environmental Protection Agency

Lazarus Gov. Center **TELE:** (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address: Lazarus Gov. Center

RE: PERMIT TO INSTALL FINAL
SUMMIT COUNTY
Application No: 16-1926

CERTIFIED MAIL

DATE: August 18, 1999

Universal Plating Inc.
Jesse R Melton
478 Morgan Avenue
Akron, OH 44311

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo

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

cc: USEPA
Akron Regional Air Quality Mgmt

Permit To Install Terms and Conditions

Issue Date: August 18, 1999
Effective Date: August 18, 1999

FINAL PERMIT TO INSTALL 16-1926

Application Number:	16-1926
APS Premise Number:	1677010293
Permit Fee:	**$200**
Name of Facility:	Universal Plating Inc.
Person to Contact:	Jesse R Melton
Address:	478 Morgan Avenue Akron, OH 44311

Location of proposed air contaminant source(s) [emissions unit(s)]:
478 Morgan Avenue
Akron, **OHIO**

Description of proposed emissions unit(s):
HARD CHROME PLATING TANK #3.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

_____
Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

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. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities prove to be inadequate or cannot meet applicable standards.

10. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

11. Applicability

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit to Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

13. Source Operation and Operating Permit Requirements After Completion of

Construction

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the emissions unit(s) covered by this permit.

14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. 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. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

Pollutant	Tons Per Year
Chromium	0.001
Particulates	0.23

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Hard chrome plating tank #3	OAC rule 3745-31-05	0.05 lb/hr particulates 0.23 tpy particulates 2.83×10^{-4} lb/hr chromium 0.001 tpy chromium 5% opacity as a 6-minute average
	OAC rule 3745-17-07	See A.2.a below.
	OAC rule 3745-17-11	See A.2.a below.
	40 CFR Part 63 Subpart N	The permittee shall not allow the concentration of total chromium in the exhaust gases discharged to the atmosphere to exceed 0.015 milligrams of total chromium per dry standard cubic meter (mg/dscm) of ventilation air (6.6×10^{-6} grains per dry standard cubic foot [gr/dscf]).

2. Additional Terms and Conditions

2.a The emissions limit based on this applicable rule is less stringent that the limit established pursuant to OAC rule 3745-31-05.

B. Operational Restrictions

1. At all times, including periods of startup, shutdown, and malfunction, the permittee shall operate and maintain any chromium electroplating or anodizing tank, including associated air pollution control devices and monitoring equipment, in a manner consistent with the operation and maintenance plan required by these terms and conditions.

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

3. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the appropriate Ohio EPA District Office or local air agency, which may include, but is not limited to, monitoring results; review of the operation and maintenance plan, procedures, and records; and inspection of the 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:

   a. does not address a malfunction that has occurred;

   b. 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

   c. does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control techniques, or monitoring equipment as quickly as practicable.

4. The permittee shall prepare an operation and maintenance plan to be implemented no later than immediately upon startup of the source. The plan shall be incorporated by reference into the Title V permit and include the following elements:

   a. The plan shall specify the operation and maintenance criteria for the affected source, the add-on air pollution control device (if such a device is used to comply with the 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.

   b. The O/M plan shall incorporate the following work practice standards:

i. Visually inspect the device at least once per quarter to ensure there is proper drainage, no chromic acid buildup on the pads, and no evidence of chemical attack on the structural integrity of the device.

ii. Visually inspect at least once per quarter the back portion of the mesh pad closest to the fan to ensure there is no breakthrough of chromic acid mist.

iii. Visually inspect at least once per quarter the ductwork from tank to the control device to ensure there are no leaks.

iv. Perform washdown of the composite mesh-pads in accordance with the manufacturer's recommendations.

C. Monitoring and/or Recordkeeping Requirements

1. Composite mesh-pad (CMP) system monitoring requirements to demonstrate continuous compliance

   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.

   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 ±1 inch of water column from this value as the compliant range.

   c. On and after the date on which the initial performance test is required to be completed under §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 ±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 record keeping 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:

   a. Inspection records for the add-on air pollution control device, if such a device is used, and monitoring equipment, to document that the inspection and maintenance required by the work practice standards of this permit have taken place. The record can take the form of a checklist and should identify the device inspected, the date of inspection, a brief

description of the working condition of the device during the inspection, and any actions taken to correct deficiencies found during the inspection.

b. Records of all maintenance performed on the emissions unit, add-on air pollution control device, and monitoring equipment.

c. Records of the occurrence, duration, and cause (if known) of each malfunction of process, add-on air pollution control device, and monitoring equipment.

d. Records of actions taken during periods of malfunction when such actions are inconsistent with the operation and maintenance plan.

e. Other records, which may take the form of checklists, necessary to demonstrate consistence with the provisions of the operation and maintenance plan.

f. Test reports documenting results of all performance tests.

g. All measurements as may be necessary to determine the conditions of performance tests.

h. Records of monitoring data that are used to demonstrate compliance with the standard including the date and time the data are collected.

i. The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during malfunction of the process, add-on air pollution control device, or monitoring equipment.

j. The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during periods other than malfunction of the process, add-on air pollution control device, or monitoring equipment.

k. The total process operating time of the emission unit during the reporting period.

l. All documentation supporting the notifications and reports as outlined in the Reporting Requirements of this permit and §63.9 and §63.10 of 40 CFR Part 63, Subpart A.

4. All records shall be maintained for a period of five years.

D. Reporting Requirements

1. The permittee shall fulfill all reporting requirement as outlined in 40 CFR part 63 Subpart A. These reports shall be made to the appropriate Ohio EPA District Office or local air agency and shall be sent by U.S. mail, fax or by another courier.

a. Submittals sent by U.S. mail shall be postmarked on or before the specified date.

b. Submittals sent by other methods shall be received by the appropriate Ohio EPA District Office or local air agency on or before the specified date.

2. The permittee shall submit to the appropriate Ohio EPA District Office or local air agency an initial notification report, as soon as practicable before the construction is planned to commence, that contains the following information:

a. the name, title, and address of the owner or operator;

b. the address (i.e., physical location) of the emissions unit;

c. identification of the applicable emission limitations and compliance date;

d. a statement of whether the affected emissions unit is located at a major source or at an area source;

e. a brief description of each affected emission unit, including the type of process operation performed;

f. the maximum potential cumulative potential rectifier capacity;

g. a statement of whether the emissions unit is located at a small or a large, hard chromium facility and whether this will be demonstrated through actual or maximum potential cumulative rectifier capacity; and,

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 Performance Test to the appropriate Ohio EPA District Office or local air agency at least 60 calendar days before the performance test is scheduled. In the event that the permittee is unable to conduct the performance as scheduled, the provisions of §63.7(b)(2) of 40 CFR Part 63, Subpart A apply.

4. The permittee shall submit a Notification of Compliance Status to the appropriate Ohio EPA District Office or local air agency 90 days after the performance test is completed, signed by the responsible official who shall certify its accuracy, attesting to whether the

affected emissions unit is in compliance. The notification shall list for each affected emissions unit:

a. The applicable emission limitations and the methods there were used to determine compliance with this limitation.

b. If a performance test is required, the test report documenting the results of the performance test, which includes the elements required in the Test Requirements section of this permit, including measurements and calculations to support special compliance provisions for multiple emissions units controlled by a common add-on air pollution control device.

c. The type and quantity of hazardous air pollutants emitted by the emissions unit reported in mg/dscm or mg/hr if the emissions unit is using the special provisions for multiple emissions units controlled by a common add-on air pollution control device. (For emissions units not required to conduct a performance test, the surface tension measurement may fulfill this requirement.)

d. For each monitored parameter for which a compliant value was established, the specific operating parameter value, or range of values, that corresponds to compliance with the applicable emission limit.

e. The methods that will be used to determine continuous compliance.

f. A description of the air pollution control technique used for each emission point.

g. A statement that the permittee has completed and has on file the operation and maintenance plan as required by the work practice standards.

h. A statement by the owner or operator as to whether the emissions unit is in compliance.

5. The permittee shall report to the appropriate Ohio EPA District Office or local air agency the results of any performance test conducted. The report shall be submitted no later than 90 days following the completion of the performance test, and shall be submitted as part of the notification of compliance status report required by this section.

6. The permittee shall prepare an ongoing compliance status report annually (unless a request to reduce frequency of ongoing compliance status reports has been approved) to the appropriate Ohio EPA District Office or local air agency to document the ongoing

compliance status of the emissions unit. This report shall include the following:

a. The company name and address of the emissions unit.

b. An identification of the operating parameter that is monitored for compliance determination.

c. The relevant emission limitation for the emissions unit, and the operating parameter value, or range of values, that correspond to compliance with this emission limitation as specified in the Notification of Compliance Status required by this section.

d. The beginning and ending dates of the reporting period.

e. The total operating time of the emissions unit during the reporting period.

f. A summary of operating parameter values, including the total duration of excess emissions during the reporting period as indicated by those values, the total duration of excess emissions expressed as a percent of the total emissions unit operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to process upsets, control equipment malfunctions, other known causes, and unknown causes.

g. A certification by a responsible official that the work practice standards in this permit were followed in accordance with the operation and maintenance plan for the emissions unit.

h. If the operation and maintenance plan required by this permit was not followed, an explanation of the reasons for not following the 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.

i. A description of any changes in monitoring, processes, or controls since the last reporting period.

j. The name, title, and signature of the responsible official who is certifying the accuracy of the report.

k. The date of the report.

7. The permittee shall submit semiannual reports if the following conditions are met:

   a. the total duration of excess emissions is one percent or greater of the total operating time for the reporting period; and,

   b. the total duration of malfunctions of the add-on air pollution control device and monitoring equipment is 5 percent or greater of the total operating time.

8. Once the permittee reports an exceedance, ongoing compliance status reports shall be submitted semiannually until a request to reduce reporting frequency is approved.

9. The appropriate Ohio EPA District Office or local air agency may determine on a case-by-case basis that the summary report shall be completed more frequently and submitted, or that the annual report shall be submitted instead of being retained on site, if these measures are necessary to accurately assess the compliance status of the emissions unit.

10. The permittee who is required to submit ongoing compliance status reports on a semiannual (or more frequent) basis, or is required to submit its annual report instead of retaining it on site, may reduce the frequency of reporting to annual and/or be allowed to maintain the annual report on site if all of the following conditions are met:

a. For 1 full year (e.g., 2 semiannual or 4 quarterly reporting periods), the ongoing compliance status reports demonstrate that the affected emissions unit is in compliance with the relevant emission limit.

b. The permittee continues to comply with all applicable record keeping and monitoring requirements of 40 CFR Part 63, Subpart A and this permit.

c. The appropriate Ohio EPA District Office or local air agency does not object to a reduced reporting frequency. The frequency of submitting ongoing compliance status reports may be reduced if the following requirements are met:

i. The permittee notifies the appropriate Ohio EPA District Office or local air agency in writing of its intentions to make such a change. The Akron Regional Air Quality Management District may review information concerning the facility's previous performance history during the 5-year record keeping period prior to the intended change, or the record keeping period since the emission unit's compliance date, whichever is shorter. Records subject to review include performance test results, monitoring data, and evaluations of the permittee's conformance with emission limitations and work practice standards. If the permittee's request is disapproved, the appropriate Ohio EPA District Office or local air agency will notify the permittee in writing within 45 days after receiving notice. This notification will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

ii. If monitoring data show that the emissions unit is not in compliance with the relevant emission limit, the frequency of reporting shall revert to semiannual, and the permittee shall state 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.

11. The permittee shall submit a notification of construction or reconstruction as soon as practicable before the construction or reconstruction has commenced to the appropriate Ohio EPA District Office or local air agency which includes the following:

a. The permittee's name, title, and address.

b. The address (i.e., physical location) or proposed address of the affected emissions unit if different from the permittee's.

c. A notification of intention to construct or make any physical or operational changes to an affected emissions unit that may meet or has been determined to meet the criteria for a reconstruction as defined in 40 CFR part 63.2.

d. An identification of 40 CFR Part 63, Subpart N as the basis for the notification.

e. The expected commencement and completion dates of the construction or reconstruction.

f. The anticipated date of (initial) startup.

g. The type of process operation to be performed (hard or decorative chromium electroplating or chromium anodizing).

h. A description of the air pollution control technique to be used to control emissions, such as preliminary design drawings and design capacity if an add-on air pollution control device is used.

i. An estimate of emissions based on engineering calculations and vendor information on control device efficiency, expressed in units consistent with the emissions limits of 40 CFR Part 63, Subpart N. Calculations of emission estimates should be in sufficient detail to permit assessment of the validity of the calculations.

E. Testing Requirements

1. Performance test results shall be documented in complete test reports that contain the following information:

a. a brief process description;

b. sampling location description(s);

c. a description of sampling and analytical procedures and any modifications to standard procedures;

d. test results;

e. quality assurance procedures and results;

f. records of operating conditions during testing, preparation of standards, and calibration procedures;

g. raw data sheets for field sampling and field and laboratory analyses;

h. documentation of calculations; and

i. any other information required by the test method.

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

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

2. If the permittee conducts performance testing at startup to obtain a permit to install, the results of such testing may be used to demonstrate compliance if:

   a. The test methods and procedures identified in this permit were used during the performance test.

   b. The performance test was conducted under representative operating conditions.

   c. The performance test report contains the elements of paragraph 1.a. through 1.i. in this section.

   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:

   a. Method 306 or Method 306A, "Determination of Chromium Emissions From Decorative and Hard Chromium Electroplating and Anodizing Operations" shall be used to determine the chromium concentration from hard or decorative chromium electroplating tanks or chromium anodizing tanks.

      i. The sampling time and sample volume for each run of Methods 306 and 306A shall be at least 120 minutes and 1.7 dscm (60 dscf), respectively.

      ii. Methods 306 and 306A allow the measurement of either total chromium or hexavalent chromium emissions. Emissions units using chromic acid baths can demonstrate compliance with the emission limits by measuring either the total chromium or hexavalent chromium concentration. Hence, the hexavalent chromium concentration measured by these methods is equal to the total chromium concentration for the affected operations.

   b. The California Air Resources Board (CARB) Method 425 may be used to determine the chromium concentration from hard and decorative chromium

electroplating tanks and chromium anodizing tanks if the following conditions are met:

i. If a colorimetric analysis method is used, the sampling time and volume shall be sufficient to result in 33-66 micrograms of catch in the sampling train.

ii. If an Atomic Absorption Graphite Furnace (AAGF) or Ion Chromatography (with a Post-column Reactor (ICPCR) analyses) is used, the sampling time and volume should be sufficient to result in a sample catch that is 5 to 10 times the minimum detection limit of the analytical method (i.e., 1.0 microgram per liter of sample for AAGF and 0.5 microgram per liter of sample for ICPCR).

iii. A minimum of three separate runs must be conducted. The other requirements of §63.7 of 40 CFR Part 63, Subpart A must also be met.

4. All monitoring equipment shall be installed such that representative measurements of emissions or process parameters from the affected emissions unit are obtained. For monitoring equipment purchased from a vendor, verification of the operational status of the monitoring equipment shall include execution of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system. Specifications for differential pressure measurement devices used to measure pressure drop across a control system shall be in accordance with the manufacturer's accuracy specifications.

5. The permittee shall measure the pressure drop across the add-on air pollution control device in accordance with the following guidelines:

a. Pressure taps shall be installed at any of the following locations:

i. At the inlet and outlet of the control system. The inlet tap should be installed in the ductwork just prior to the control device and the corresponding outlet pressure tap should be installed on the outlet side of the control device prior to the blower or on the downstream side of the blower.

ii. On each side of the packed bed within the control system or on each side of each mesh pad within the control system.

iii. On the front side of the first mesh pad and back side of the last mesh pad within the control system.

b. Pressure taps shall be sited at locations that are:

i. As free from pluggage as possible and away from any flow disturbances such as cyclonic demisters.

ii. Situated such that no air infiltration at the measurement site will occur that could bias the measurement.

c. Pressure taps shall be constructed of either polyethylene, polybutylene, or other nonreactive materials.

d. Nonreactive plastic tubing shall be used to connect the pressure taps to the device used to measure pressure drop.

e. Any of the following pressure gauges can be used to monitor pressure drop: a magnehelic gauge, an included manometer, or a "U" tube manometer.

f. Prior to connecting any pressure lines to the pressure gauge(s), each gauge shall be zeroed. No calibration of the pressure gauges is required.

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

a. Calculate the cross-sectional area of each inlet duct (i.e., uptakes from each hood).

b. Determine the total sample time per test run by dividing the total inlet area from all tanks connected to the control system by the total inlet area for all ducts associated with affected tanks, and then multiple this number by 2 hours. The calculated time is the minimum sample time required per test run.

c. Perform Method 306 testing and calculate an outlet mass emission rate.

d. Determine the total ventilation rate for each type of affected tank using the following equation:

$$VR(tot) \times \frac{IDA(i,a)}{[sum]\ IA(total)} = VR(inlet,a)$$

where VR(tot) is the average total ventilation in dscm/min for the three test runs as determined at the outlet by means of the Method 306 testing; IDA(i,a) is the total inlet duct area for all ducts conveying chromic acid from type of affected tank performing the same operation, or each type of affected tank subject to the same emission limitation; IA(total) is the sum of all duct areas from both affected

and nonaffected tanks; and VR(inlet,a) is the total ventilation rate from all inlet ducts conveying chromic acid from each type of affected tank performing the same operation, or each type of affected tank subject to the same emission limitation.

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

VR(hc1) x EL(hc1) x 60 minutes/hour = AMR(hc1)

VR(hc2) x EL(hc2) x 60 minutes/hour = AMR(hc2)

VR(dc) x EL(dc) x 60 minutes/hour = AMR(dc)

VR(ca) x EL(ca) x 60 minutes/hour = AMR(ca)

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

f. Establish the allowable mass emission rate (AMR) in mg/hr for the system, including each affected tank, using the following equation:

AMR(hc1) + AMR(hc2) + AMR(dc) + AMR(ca) = AMR(sys)

The allowable mass emission rate (AMR) in mg/hr should be equal to or more than the outlet three-run average mass emission rate determined from Method 306 testing to be in compliance.

g. The permittee shall submit the measurements and calculations with the notification of compliance status report.

h. The permittee shall repeat these procedures if a tank is added or removed from the control system regardless of whether that tank is a nonaffected emissions unit. If the new tank nonaffected tank replaces an existing nonaffected tank of the same size and is connected to the control system through the same size inlet

duct then the procedure does not have to be repeated.

7. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 3 months after startup of this source.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for chromium.

c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate: Method 306 or 306A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District

Office or local air agency.

8. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

a. **Emission Limitation:**

0.05 lb/hr particulates
0.23 tpy particulates

Applicable Compliance Method:

Multiply the AP-42 (7/96) Table 12.20-1 particulate emission factor of 8×10^{-6} grains per dscf of ventilation air by the maximum dscf of ventilation air per hour and convert the result to lbs/hr.

b. **Emission Limitation:**

0.15 mg/dscm total chromium

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 306 or 306A of 40 CFR Part 60, Appendix A.

c. **Emission Limitation:**

2.83×10^{-4} lb/hr chromium
0.001 tpy chromium

Applicable Compliance Method:

Compliance shall be determined by multiplying the results of the most recent stack test by the maximum cfm of ventilation air and then converting the results to lbs/hr.

d. **Emission Limitation:**

5% opacity as a 6-minute average

Applicable Compliance Method:

OAC rule 3745-17-03(B)(1)

F. Miscellaneous Requirements

None.