



State of Ohio Environmental Protection Agency

Street Address:

Mailing Address:

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

Lazarus Gov.  
Center

**RE: DRAFT PERMIT TO INSTALL MODIFICATION  
MONTGOMERY COUNTY  
Application No: 08-03274**

**CERTIFIED MAIL**

**DATE:** 3/22/2001

Hohman Plating & Mfg Inc  
Connie Bramel  
814 Hillrose Avenue  
Dayton, OH

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install modification for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit modification. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit modification should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install modification may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install modification a fee of \$ 0 will be due. Please do not submit any payment now.

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. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Very truly yours,

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

cc: USEPA

RAPCA



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**Permit To Install  
Terms and Conditions**

**Issue Date: To be entered upon final issuance  
Effective Date: To be entered upon final issuance**

**DRAFT MODIFICATION OF PERMIT TO INSTALL 08-03274**

Application Number: 08-03274  
APS Premise Number: 0857040217  
Permit Fee: **To be entered upon final issuance**  
Name of Facility: Hohman Plating & Mfg Inc  
Person to Contact: Connie Bramel  
Address: 814 Hillrose Avenue  
Dayton, OH 454041199

Location of proposed air contaminant source(s) [emissions unit(s)]:

**814 Hillrose Ave  
Dayton, Ohio**

Description of proposed emissions unit(s):

**hard chrome plating operations and chromic acid rinse; administrative modification to PTI 08-03274 issued August 2, 1995.**

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification 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 source(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 included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

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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

**Hohman Plating & Mfg Inc**

**Facility ID: 0857040217**

**PTI Application: 08-03274**

**Issued: To be entered upon final issuance**

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 cannot meet the requirements of this permit 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 cannot meet the requirements of this permit 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**

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule

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3745-77-08(C)(3)(d).

- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. 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 source(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**

<u>Pollutant</u>	<u>Tons Per Year</u>
chromium	0.00206
sulfuric acid	0.000156

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**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P024 - Hard chrome plating tank 845, with fume suppressant and composite mesh pad control shared by emissions units P024, P025, P026, and P035 (Tanks: AC.SF.CR.526 and AC.EP.HC.845) (modification)	OAC rule 3745-31-05(A)(3)	0.000659 lb/hour and 0.00206 TPY chromium total combined emissions from P024, P025, P026, and P035;
		0.00005 lb/hour and 0.000156 TPY sulfuric acid total combined emissions from P024, P025, P026, and P035
	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 mg/dscm (6.6x10 <sup>-6</sup> gr/dscf).
	OAC rule 3745-17-11(B)(1)	0.551 lb/hour particulates
	OAC rule 3745-17-07(A)(1)	Visible emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule

**2. Additional Terms and Conditions**

- 2.a None

**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 January 25, 1997. The plan shall be incorporated by reference into the Title V permit, if and when a Title V permit is required, 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.
- v. 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:
  - (a) Backflush with water, or remove from the duct and rinse with fresh water.
  - (b) Replace in the duct and rotate 180 degrees to ensure that the same zero reading is obtained.
  - (c) Check pitot tube ends for damage. Replace pitot tube if cracked or fatigued.
- c. The plan shall specify procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur.
- d. The plan shall include a systematic procedure for identifying malfunctions of process equipment, add-on air pollution control devices, and process and control system monitoring equipment, and for implementing corrective actions to address such malfunctions.
- e. If the operation and maintenance plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the permittee shall revise the operation and maintenance plan within 45 days after such an event occurs.
- f. If actions taken by the permittee during periods of malfunction are inconsistent with the procedures specified in the operation and maintenance plan, the permittee shall record the actions taken for that event and shall report such actions by phone within 2 working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within 7 working days after the end of the event, unless the permittee makes alternative reporting arrangements, in advance, with the appropriate Ohio EPA District Office or local air agency.
- g. The permittee shall keep the written operation and maintenance plan on record after it is developed to be made available for inspection, upon request, by the appropriate Ohio EPA

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Emissions Unit ID: **P024**

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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.

- h. The permittee may use applicable standard operating procedure (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans to meet the operation and maintenance plan requirements as long as the alternative plans meet the requirements.
5. The maximum annual operating hours for this emissions unit shall not exceed 6,240.

**C. Monitoring and/or Recordkeeping Requirements**

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

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 plus or minus 1 inch of water column of the pressure drop value (1.5 inch of water) established during the initial performance test conducted on September 6, 1995.

2. The permittee shall fulfill all recordkeeping requirements in the General Provisions to 40 CFR Part 63, according to the applicability of Subpart A as identified in Table 1 to Subpart N.
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 consistency 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 Sections 63.9 and 63.10 of 40 CFR Part 63, Subpart A.

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

4. The permittee shall maintain monthly records of the operating hours for this emissions unit.

**D. Reporting Requirements**

1. The permittee shall fulfill all reporting requirement as outlined in 40 CFR Part 63 Subpart A as

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identified in Table 1 to Subpart N. 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 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.
  - l. The report shall be completed annually and retained on site, and made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.
3. 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.
4. 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.
5. 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 recordkeeping 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

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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 appropriate Ohio EPA district office or local air agency may review information concerning the facility's previous performance history during the 5-year recordkeeping period prior to the intended change, or the recordkeeping period since the emission unit's compliance date, whichever is shorter. Records subject to review include performance test results, monitoring data, and evaluations of the permittee's conformance with emission limitations and work practice standards. If the permittee's request is disapproved, the 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.
6. The permittee shall submit annual reports which identify any exceedances of the annual operating hours limitation as well as any corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year.

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation -  
0.000659 lb/hour chromium combined emissions from P024, P025, P026, and P035  
  
Applicable Compliance Method -  
Compliance with this allowable emission rate was demonstrated in a performance test conducted on September 6, 1995 with results showing an average total chromium emission rate of 0.000347 lb/hour. Compliance is also based upon additional performance

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testing as specified in E.2. Ongoing compliance shall be based upon the established operating parameters for the pressure drop across the composite mesh pad control system.

- b. Emission Limitation -  
0.00206 TPY chromium combined emissions from P024, P025, P026 and P035

Applicable Compliance Method -

The 0.00206 TPY emissions limitation was developed by multiplying the 0.000659 lb/hour by a maximum annual operating schedule of 6240 hours/year. Therefore, compliance shall be based upon the 12-month summation of the operating hours times the 0.000659 lb/hour emission limitation, divided by 2,000 pounds per ton.

- c. Emission Limitation -  
0.00005 lb/hour sulfuric acid combined emissions from P024, P025, P026, and P035

Applicable Compliance Method -

Compliance with this allowable emission rate shall be determined by multiplying the maximum amount of sulfuric acid added to each of the plating tanks in emissions units P024, P025, P026, and P035 by a gassing rate of 10% and a composite mesh pad control efficiency of 90% (1 - 0.90).

- d. Emission Limitation -  
0.000156 TPY sulfuric acid combined emissions from P024, P025, P026 and P035

Applicable Compliance Method -

The 0.000156 TPY emission limitation was developed by multiplying the 0.00005 lb/hour by a maximum operating schedule of 6240 hours per year. Therefore, compliance shall be based upon the 12-month summation of the operating hours times the 0.00005 lb/hour emission limitation, divided by 2,000 pounds per ton.

- e. Emission Limitation -  
0.015 mg/dscm (6.6 E-06 gr/dscf) total chromium in exhaust gases

Applicable Compliance Method -

A performance test was conducted on September 6, 1995 with results showing a chromium emission rate of 0.0063 mg/dscm. Compliance is also based upon additional performance testing as specified in E.2. Ongoing compliance shall be based upon the established operating parameters for the pressure drop across the composite mesh pad control system.

- f. Emission Limitation -

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0.551 lb/hour particulates

Applicable Compliance Method -

Compliance shall be determined by multiplying the AP-42 Table 12.20-1 (7/96) emission factor for hard chromium electroplating (0.25 gr/A-hr) by the maximum current of the plating bath (6425 A). This grain per hour emission rate is then divided by 7000 grains per pound to obtain the mass particulate emissions. If required, compliance with this mass emission limitation shall be based upon stack testing in accordance with OAC rule 3745-17-03(B)(10).

- g. Emission Limitation -  
20% opacity, as a six-minute average

Applicable Compliance Method -

Compliance shall be determined by visible emission evaluations performed in accordance with procedures specified in OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

2. When multiple affected emissions units performing the same type of operation and subject to the same emission limitation are controlled with a common add-on air pollution control device that is also controlling emissions from emissions units not affected by the Chromium Electroplating MACT, the following procedure shall be followed to determine compliance with the emission limitation of 0.015 mg/dscm ( $6.6 \times 10^{-6}$  gr/dscf):

- a. Calculate the cross-sectional area of each inlet duct (i.e., uptakes from each hood) including those emissions units not subject to 40 CFR Part 63 Subpart N.
- b. Determine the total sample time per test run by dividing the total inlet area from all tanks connected to the control system by the total inlet area for all ducts associated with subject emissions units, and then multiply this number by 2 hours. The calculated time is the minimum sample time required per test run.
- c. Perform Method 306 testing and calculate an outlet mass emission rate.
- d. Determine the total ventilation rate from the affected tanks by using the following equation:

$$VR(\text{tot}) \times [(IDA(i))/(\sum IA(\text{total}))] = VR(\text{inlet})$$

where:

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VR(tot) is the average total ventilation rate in dscm/min for the three test runs as determined at the outlet by means of the Method 306 testing;

IDA(i) is the total inlet area for all ducts associated with affected tanks;

[sum] IA(total) is the sum of all inlet duct areas from both affected and nonaffected tanks; and,

VR(inlet) is the total ventilation rate from all inlet ducts associated with affected tanks.

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

$$[\text{sum}] \text{VR}(\text{inlet}) \times \text{EL} \times 60 \text{ minutes/hour} = \text{AMR}(\text{sys})$$

where:

[sum] VR(inlet) is the total ventilation rate in dscm/min from the affected tanks, and EL is the applicable emission limitation. The allowable mass emission rate (AMR(sys)) should be equal to or greater than the outlet three-run average mass emission rate determined from Method 306 testing for the tank to be in compliance.

**F. Miscellaneous Requirements**

None

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**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P025 - hard chrome plating tank 1951 system No. 11, with fume suppressant and composite mesh pad control shared by emissions units P024, P025, P026, and P035 (Tank AC.EP.HC.S51) (modification)	OAC rule 3745-31-05(A)(3)	0.000659 lb/hour and 0.00206 TPY chromium total combined emissions from P024, P025, P026, and P035;
	40 CFR Part 63, Subpart N	0.00005 lb/hour and 0.000156 TPY sulfuric acid total combined emissions from P024, P025, P026, and P035
	OAC rule 3745-17-11(B)(1)	The permittee shall not allow the concentration of total chromium in the exhaust gases discharged to the atmosphere to exceed 0.015 mg/dscm (6.6x10 <sup>-6</sup> gr/dscf).
	OAC rule 3745-17-07(A)(1)	0.551 lb/hour particulates
		Visible emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

**2. Additional Terms and Conditions**

- 2.a None

**B. Operational Restrictions**

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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 January 25, 1997. The plan shall be incorporated by reference into the Title V permit, if and when a Title V permit is required, 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

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- 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.
  - v. 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:
    - (a) Backflush with water, or remove from the duct and rinse with fresh water.
    - (b) Replace in the duct and rotate 180 degrees to ensure that the same zero reading is obtained.
    - (c) Check pitot tube ends for damage. Replace pitot tube if cracked or fatigued.
  - c. The plan shall specify procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur.
  - d. The plan shall include a systematic procedure for identifying malfunctions of process equipment, add-on air pollution control devices, and process and control system monitoring equipment, and for implementing corrective actions to address such malfunctions.
  - e. If the operation and maintenance plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the permittee shall revise the operation and maintenance plan within 45 days after such an event occurs.
  - f. If actions taken by the permittee during periods of malfunction are inconsistent with the procedures specified in the operation and maintenance plan, the permittee shall record the actions taken for that event and shall report such actions by phone within 2 working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within 7 working days after the end of the event, unless the permittee makes alternative reporting arrangements, in advance, with the appropriate Ohio EPA District Office or local air agency.
  - g. The permittee shall keep the written operation and maintenance plan on record after it is

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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.

- h. The permittee may use applicable standard operating procedure (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans to meet the operation and maintenance plan requirements as long as the alternative plans meet the requirements.
5. The maximum annual operating hours for this emissions unit shall not exceed 6,240.

**C. Monitoring and/or Recordkeeping Requirements**

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

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 plus or minus 1 inch of water column of the pressure drop value (1.5 inch of water) established during the initial performance test conducted on September 6, 1995.

2. The permittee shall fulfill all recordkeeping requirements in the General Provisions to 40 CFR Part 63, according to the applicability of Subpart A as identified in Table 1 to Subpart N.
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

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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 consistency 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 Sections 63.9 and 63.10 of 40 CFR Part 63, Subpart A.

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

4. The permittee shall maintain monthly records of the operating hours for this emissions unit.

**D. Reporting Requirements**

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1. The permittee shall fulfill all reporting requirement as outlined in 40 CFR Part 63 Subpart A as identified in Table 1 to Subpart N. 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 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,

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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.
  - l. The report shall be completed annually and retained on site, and made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.
3. 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.
4. 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.
5. 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 recordkeeping and monitoring requirements of 40 CFR Part 63, Subpart A and this permit.

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- 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 appropriate Ohio EPA district office or local air agency may review information concerning the facility's previous performance history during the 5-year recordkeeping period prior to the intended change, or the recordkeeping period since the emission unit's compliance date, whichever is shorter. Records subject to review include performance test results, monitoring data, and evaluations of the permittee's conformance with emission limitations and work practice standards. If the permittee's request is disapproved, the 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.
6. The permittee shall submit annual reports which identify any exceedances of the annual operating hours limitation as well as any corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year.

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation -  
0.000659 lb/hour chromium combined emissions from P024, P025, P026, and P035  
  
Applicable Compliance Method -  
Compliance with this allowable emission rate was demonstrated in a performance test conducted on September 6, 1995 with results showing an average total chromium

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emission rate of 0.000347 lb/hour. Compliance is also based upon additional performance testing as specified in E.2. Ongoing compliance shall be based upon the established operating parameters for the pressure drop across the composite mesh pad control system.

- b. Emission Limitation -  
0.00206 TPY chromium combined emissions from P024, P025, P026 and P035

Applicable Compliance Method -

The 0.00206 TPY emissions limitation was developed by multiplying the 0.000659 lb/hour by a maximum annual operating schedule of 6240 hours/year. Therefore, compliance shall be based upon the 12-month summation of the operating hours times the 0.000659 lb/hour emission limitation, divided by 2,000 pounds per ton.

- c. Emission Limitation -  
0.00005 lb/hour sulfuric acid combined emissions from P024, P025, P026, and P035

Applicable Compliance Method -

Compliance with this allowable emission rate shall be determined by multiplying the maximum amount of sulfuric acid added to each of the plating tanks in emissions units P024, P025, P026, and P035 by a gassing rate of 10% and a composite mesh pad control efficiency of 90% (1 - 0.90).

- d. Emission Limitation -  
0.000156 TPY sulfuric acid combined emissions from P024, P025, P026 and P035

Applicable Compliance Method -

The 0.000156 TPY emission limitation was developed by multiplying the 0.00005 lb/hour by a maximum operating schedule of 6240 hours per year. Therefore, compliance shall be based upon the 12-month summation of the operating hours times the 0.00005 lb/hour emission limitation, divided by 2,000 pounds per ton.

- e. Emission Limitation -  
0.015 mg/dscm (6.6 E-06 gr/dscf) total chromium in exhaust gases

Applicable Compliance Method -

A performance test was conducted on September 6, 1995 with results showing a chromium emission rate of 0.0063 mg/dscm. Compliance is also based upon additional performance testing as specified in E.2. Ongoing compliance shall be based upon the established operating parameters for the pressure drop across the composite mesh pad control system.

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- f. Emission Limitation -  
0.551 lb/hour particulates

Applicable Compliance Method -

Compliance shall be determined by multiplying the AP-42 Table 12.20-1 (7/96) emission factor for hard chromium electroplating (0.25 gr/A-hr) by the maximum current of the plating bath (6425 A). This grain per hour emission rate is then divided by 7000 grains per pound to obtain the mass particulate emissions. If required, compliance with this mass emission limitation shall be based upon stack testing in accordance with OAC rule 3745-17-03(B)(10).

- g. Emission Limitation -  
20% opacity, as a six-minute average

Applicable Compliance Method -

Compliance shall be determined by visible emission evaluations performed in accordance with procedures specified in OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

- 2. When multiple affected emissions units performing the same type of operation and subject to the same emission limitation are controlled with a common add-on air pollution control device that is also controlling emissions from emissions units not affected by the Chromium Electroplating MACT, the following procedure shall be followed to determine compliance with the emission limitation of 0.015 mg/dscm (6.6x10<sup>-6</sup> gr/dscf):

- a. Calculate the cross-sectional area of each inlet duct (i.e., uptakes from each hood) including those emissions units not subject to 40 CFR Part 63 Subpart N.
- b. Determine the total sample time per test run by dividing the total inlet area from all tanks connected to the control system by the total inlet area for all ducts associated with subject emissions units, and then multiply this number by 2 hours. The calculated time is the minimum sample time required per test run.
- c. Perform Method 306 testing and calculate an outlet mass emission rate.
- d. Determine the total ventilation rate from the affected tanks by using the following equation:

$$VR(\text{tot}) \times [(IDA(i))/([\text{sum}] IA(\text{total}))] = VR(\text{inlet})$$

where:

VR(tot) is the average total ventilation rate in dscm/min for the three test runs as determined at the outlet by means of the Method 306 testing;

IDA(i) is the total inlet area for all ducts associated with affected tanks;

[sum] IA(total) is the sum of all inlet duct areas from both affected and nonaffected tanks; and,

VR(inlet) is the total ventilation rate from all inlet ducts associated with affected tanks.

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

$$[\text{sum}] \text{VR}(\text{inlet}) \times \text{EL} \times 60 \text{ minutes/hour} = \text{AMR}(\text{sys})$$

where:

[sum] VR(inlet) is the total ventilation rate in dscm/min from the affected tanks, and EL is the applicable emission limitation. The allowable mass emission rate (AMR(sys)) should be equal to or greater than the outlet three-run average mass emission rate determined from Method 306 testing for the tank to be in compliance.

**F. Miscellaneous Requirements**

None

**Issued: To be entered upon final issuance**

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P026 - black oxide and phosphate coatings; tank 1526 system No. 8 (modification)	OAC rule 3745-31-05(A)(3)	0.000659 lb/hour and 0.00206 TPY chromium total combined emissions from P024, P025, P026, and P035;
		0.00005 lb/hour and 0.000156 TPY sulfuric acid total combined emissions from P024, P025, P026, and P035
	OAC rule 3745-17-11(B)(1)	0.551 lb/hour particulates
	OAC rule 3745-17-07(A)(1)	Visible emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

**2. Additional Terms and Conditions**

- 2.a None

**B. Operational Restrictions**

1. The maximum annual operating hours for this emissions unit shall not exceed 6,240.

**C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall maintain monthly records of the operating hours for this emissions unit.

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**D. Reporting Requirements**

1. The permittee shall submit annual reports which identify any exceedances of the annual operating hours limitation as well as any corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year.

**E. Testing Requirements**

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

- a. Emission Limitation -  
0.000659 lb/hour chromium combined emissions from P024, P025, P026, and P035

Applicable Compliance Method -

Compliance with this allowable emission rate was demonstrated in a performance test conducted on September 6, 1995 with results showing an average total chromium emission rate of 0.000347 lb/hour. Compliance is also based upon additional performance testing as specified in E.2. Ongoing compliance shall be based upon the established operating parameters for the pressure drop across the composite mesh pad control system.

- b. Emission Limitation -  
0.00206 TPY chromium combined emissions from P024, P025, P026 and P035

Applicable Compliance Method -

The 0.00206 TPY emissions limitation was developed by multiplying the 0.000659 lb/hour by a maximum annual operating schedule of 6240 hours/year. Therefore, compliance shall be based upon the 12-month summation of the operating hours times the 0.000659 lb/hour emission limitation, divided by 2,000 pounds per ton.

- c. Emission Limitation -  
0.00005 lb/hour sulfuric acid combined emissions from P024, P025, P026, and P035

Applicable Compliance Method -

Compliance with this allowable emission rate shall be determined by multiplying the maximum amount of sulfuric acid added to each of the plating tanks in emissions units P024, P025, P026, and P035 by a gassing rate of 10% and a composite mesh pad control efficiency of 90% (1 - 0.90).

- d. Emission Limitation -  
0.000156 TPY sulfuric acid combined emissions from P024, P025, P026 and P035

Applicable Compliance Method -

The 0.000156 TPY emission limitation was developed by multiplying the 0.00005 lb/hour by a maximum operating schedule of 6240 hours per year. Therefore, compliance shall be based upon the 12-month summation of the operating hours times the 0.00005 lb/hour emission limitation, divided by 2,000 pounds per ton.

- e. Emission Limitation -  
0.551 lb/hour particulates

Applicable Compliance Method -

If required, compliance with this mass emission limitation shall be based upon stack testing in accordance with OAC rule 3745-17-03(B)(10).

- g. Emission Limitation -  
20% opacity, as a six-minute average

Applicable Compliance Method -

Compliance shall be determined by visible emission evaluations performed in accordance with procedures specified in OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

**F. Miscellaneous Requirements**

None

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**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P035 - hard chrome plating tank 1508 system No. 10, with fume suppressant and composite mesh pad control shared by emissions units P024, P025, P026, and P035 (Tank: AC.EP.HC.N08) (modification)	OAC rule 3745-31-05(A)(3)	0.000659 lb/hour and 0.00206 TPY chromium total combined emissions from P024, P025, P026, and P035;
	40 CFR Part 63, Subpart N	0.00005 lb/hour and 0.000156 TPY sulfuric acid total combined emissions from P024, P025, P026, and P035
	OAC rule 3745-17-11(B)(1)	The permittee shall not allow the concentration of total chromium in the exhaust gases discharged to the atmosphere to exceed 0.015 mg/dscm (6.6x10 <sup>-6</sup> gr/dscf).
	OAC rule 3745-17-07(A)(1)	0.551 lb/hour particulates
		Visible emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

**2. Additional Terms and Conditions**

- 2.a None

**B. Operational Restrictions**

**Issued: To be entered upon final issuance**

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 January 25, 1997. The plan shall be incorporated by reference into the Title V permit, if and when a Title V permit is required, 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

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- 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.
  - v. 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:
    - (a) Backflush with water, or remove from the duct and rinse with fresh water.
    - (b) Replace in the duct and rotate 180 degrees to ensure that the same zero reading is obtained.
    - (c) Check pitot tube ends for damage. Replace pitot tube if cracked or fatigued.
  - c. The plan shall specify procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur.
  - d. The plan shall include a systematic procedure for identifying malfunctions of process equipment, add-on air pollution control devices, and process and control system monitoring equipment, and for implementing corrective actions to address such malfunctions.
  - e. If the operation and maintenance plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the permittee shall revise the operation and maintenance plan within 45 days after such an event occurs.
  - f. If actions taken by the permittee during periods of malfunction are inconsistent with the procedures specified in the operation and maintenance plan, the permittee shall record the actions taken for that event and shall report such actions by phone within 2 working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within 7 working days after the end of the event, unless the permittee makes alternative reporting arrangements, in advance, with the appropriate Ohio EPA District Office or local air agency.
  - g. The permittee shall keep the written operation and maintenance plan on record after it is

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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.

- h. The permittee may use applicable standard operating procedure (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans to meet the operation and maintenance plan requirements as long as the alternative plans meet the requirements.
5. The maximum annual operating hours for this emissions unit shall not exceed 6,240.

**C. Monitoring and/or Recordkeeping Requirements**

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

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 plus or minus 1 inch of water column of the pressure drop value (1.5 inch of water) established during the initial performance test conducted on September 6, 1995.

2. The permittee shall fulfill all recordkeeping requirements in the General Provisions to 40 CFR Part 63, according to the applicability of Subpart A as identified in Table 1 to Subpart N.
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 consistency 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 Sections 63.9 and 63.10 of 40 CFR Part 63, Subpart A.

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

4. The permittee shall maintain monthly records of the operating hours for this emissions unit.

**D. Reporting Requirements**

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1. The permittee shall fulfill all reporting requirement as outlined in 40 CFR Part 63 Subpart A as identified in Table 1 to Subpart N. 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 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,

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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.
  - l. The report shall be completed annually and retained on site, and made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.
3. 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.
4. 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.
5. 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 recordkeeping and monitoring requirements of 40 CFR Part 63, Subpart A and this permit.

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- 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 appropriate Ohio EPA district office or local air agency may review information concerning the facility's previous performance history during the 5-year recordkeeping period prior to the intended change, or the recordkeeping period since the emission unit's compliance date, whichever is shorter. Records subject to review include performance test results, monitoring data, and evaluations of the permittee's conformance with emission limitations and work practice standards. If the permittee's request is disapproved, the 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.
6. The permittee shall submit annual reports which identify any exceedances of the annual operating hours limitation as well as any corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year.

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation -  
0.000659 lb/hour chromium combined emissions from P024, P025, P026, and P035  
  
Applicable Compliance Method -  
Compliance with this allowable emission rate was demonstrated in a performance test conducted on September 6, 1995 with results showing an average total chromium

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emission rate of 0.000347 lb/hour. Compliance is also based upon additional performance testing as specified in E.2. Ongoing compliance shall be based upon the established operating parameters for the pressure drop across the composite mesh pad control system.

- b. Emission Limitation -  
0.00206 TPY chromium combined emissions from P024, P025, P026 and P035

Applicable Compliance Method -

The 0.00206 TPY emissions limitation was developed by multiplying the 0.000659 lb/hour by a maximum annual operating schedule of 6240 hours/year. Therefore, compliance shall be based upon the 12-month summation of the operating hours times the 0.000659 lb/hour emission limitation, divided by 2,000 pounds per ton.

- c. Emission Limitation -  
0.00005 lb/hour sulfuric acid combined emissions from P024, P025, P026, and P035

Applicable Compliance Method -

Compliance with this allowable emission rate shall be determined by multiplying the maximum amount of sulfuric acid added to each of the plating tanks in emissions units P024, P025, P026, and P035 by a gassing rate of 10% and a composite mesh pad control efficiency of 90% (1 - 0.90).

- d. Emission Limitation -  
0.000156 TPY sulfuric acid combined emissions from P024, P025, P026 and P035

Applicable Compliance Method -

The 0.000156 TPY emission limitation was developed by multiplying the 0.00005 lb/hour by a maximum operating schedule of 6240 hours per year. Therefore, compliance shall be based upon the 12-month summation of the operating hours times the 0.00005 lb/hour emission limitation, divided by 2,000 pounds per ton.

- e. Emission Limitation -  
0.015 mg/dscm (6.6 E-06 gr/dscf) total chromium in exhaust gases

Applicable Compliance Method -

A performance test was conducted on September 6, 1995 with results showing a chromium emission rate of 0.0063 mg/dscm. Compliance is also based upon additional performance testing as specified in E.2. Ongoing compliance shall be based upon the established operating parameters for the pressure drop across the composite mesh pad control system.

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- f. Emission Limitation -  
0.551 lb/hour particulates

Applicable Compliance Method -

Compliance shall be determined by multiplying the AP-42 Table 12.20-1 (7/96) emission factor for hard chromium electroplating (0.25 gr/A-hr) by the maximum current of the plating bath (6425 A). This grain per hour emission rate is then divided by 7000 grains per pound to obtain the mass particulate emissions. If required, compliance with this mass emission limitation shall be based upon stack testing in accordance with OAC rule 3745-17-03(B)(10).

- g. Emission Limitation -  
20% opacity, as a six-minute average

Applicable Compliance Method -

Compliance shall be determined by visible emission evaluations performed in accordance with procedures specified in OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

2. When multiple affected emissions units performing the same type of operation and subject to the same emission limitation are controlled with a common add-on air pollution control device that is also controlling emissions from emissions units not affected by the Chromium Electroplating MACT, the following procedure shall be followed to determine compliance with the emission limitation of 0.015 mg/dscm ( $6.6 \times 10^{-6}$  gr/dscf):
- a. Calculate the cross-sectional area of each inlet duct (i.e., uptakes from each hood) including those emissions units not subject to 40 CFR Part 63 Subpart N.
- b. Determine the total sample time per test run by dividing the total inlet area from all tanks connected to the control system by the total inlet area for all ducts associated with subject emissions units, and then multiply this number by 2 hours. The calculated time is the minimum sample time required per test run.
- c. Perform Method 306 testing and calculate an outlet mass emission rate.
- d. Determine the total ventilation rate from the affected tanks by using the following equation:

$$VR(\text{tot}) \times [(IDA(i))/(\sum IA(\text{total}))] = VR(\text{inlet})$$

where:

VR(tot) is the average total ventilation rate in dscm/min for the three test runs as determined at the outlet by means of the Method 306 testing;

IDA(i) is the total inlet area for all ducts associated with affected tanks;

[sum] IA(total) is the sum of all inlet duct areas from both affected and nonaffected tanks; and,

VR(inlet) is the total ventilation rate from all inlet ducts associated with affected tanks.

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

$$[\text{sum}] \text{VR}(\text{inlet}) \times \text{EL} \times 60 \text{ minutes/hour} = \text{AMR}(\text{sys})$$

where:

[sum] VR(inlet) is the total ventilation rate in dscm/min from the affected tanks, and EL is the applicable emission limitation. The allowable mass emission rate (AMR(sys)) should be equal to or greater than the outlet three-run average mass emission rate determined from Method 306 testing for the tank to be in compliance.

**F. Miscellaneous Requirements**

None