Facility ID: 1431153902 Issuance type: Final State Permit To Operate

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

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Part II - Special Terms and Conditions

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

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

   (a) None.

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

   (a) None.

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
hard chrome plating operation with mesh pad and mist eliminator	OAC rule 3745-31-05 (PTI 14-3961)	0.00017 lb of chromium (Cr)/hr and 0.00074 TPY of Cr
	40 CFR, Part 63, Subpart N	See section A.2. below.
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-11(B)(1)	The emission limitation established by this rule is less stringent than those established pursuant to OAC rule 3745-31-05.

2. **Additional Terms and Conditions**

   (a) The permittee shall not allow the concentration of total chromium in the exhaust gases discharged to the atmosphere to exceed 0.015 mg/dscm.

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 Hamilton County Department of Environmental Services, which may include, but is not limited to, monitoring results; review of the operation and maintenance plan, procedures, and records; and inspection of the emissions unit. Based on this information, the Hamilton County Department of Environmental Services may require that the permittee make changes to the operation and maintenance plan if that plan:

   a. Does not address a malfunction that has occurred;

   b. Fails to provide for the operation of the emissions units, the air pollution control techniques, or the control system and process monitoring equipment during a malfunction in a manner consistent with good air pollution practices; or

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

4. The permittee shall implement an operation and maintenance (O&M) plan that includes the following elements:

   a. The plan shall specify the O&M criteria for the affected emissions unit, the add-on air pollution control device (if such a device is used to comply with the emissions limit), and the process and control system monitoring equipment, and shall include a standardized checklist to document the O&M 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. If a pitot tube is used for monitoring, the O&M plan shall incorporate the following work practice standards to be performed at least once per quarter:

i. Backflush with water, or remove from the duct and rinse with fresh water.

ii. Replace in the duct and rotate 180 degrees to ensure that the same zero reading is obtained.

iii. Check pitot tube ends for damage. Replace pitot tube if cracked or fatigued.
d. 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.

e. 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.

f. If the O&M 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.

g. If actions taken by the permittee during periods of malfunction are inconsistent with the procedures specified in the O&M plan, the permittee shall record the actions taken for that event and shall report such actions within 2 working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within 7 working days after the end of the event, unless the permittee makes alternative reporting arrangements, in advance, with the Hamilton County Department of Environmental Services.

h. The permittee shall keep the written O&M plan on record after it is developed to be made available for inspection, upon request, by the Hamilton County Department of Environmental Services for the life of the emissions unit. If the O&M plan is revised, the permittee shall keep previous versions of the plan on record to be made available for inspection, upon request, by the Hamilton County Department of Environmental Services for a period of five years after each revision to the plan.

i. The permittee may use applicable standard operating procedure (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans to meet the O&M plan requirements as long as the alternative plans meet the requirements.

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

1. The permittee shall fulfill all record keeping requirements in the General Provisions to 40 CFR, Part 63, according to the applicability of Subpart A.

2. 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 emissions 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.

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

3. 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 limitation through the use of a CMP 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 plus or minus 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 Section 63.7 of 40 CFR, Part 63, Subpart A, the permittee shall monitor and record the pressure drop across the CMP system once each day that the emission unit is operating. To be in compliance, the CMP system shall be operated within the range of compliant values for pressure drop established during performance tests.

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 Hamilton County Department of Environmental Services 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 Hamilton County Department of Environmental Services 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 Hamilton County Department of Environmental Services 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.

The report shall be completed annually and retained on site, and made available to the Hamilton County Department of Environmental Services 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. Once the permittee reports an exceedance, ongoing compliance status reports shall be submitted semiannually until a request to reduce reporting frequency is approved.

5. The Hamilton County Department of Environmental Services 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.

6. 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 Hamilton County Department of Environmental Services 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 Hamilton County Department of Environmental Services in writing of its intentions to make such a change. The Hamilton County Department of Environmental Services 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 Hamilton County Department of Environmental Services 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.

7. The permittee shall submit a notification of construction or reconstruction as soon as practicable before the construction or reconstruction has commenced to the Hamilton County Department of Environmental Services 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 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.

8. If a reconstruction is to occur, the permittee shall submit as soon as practicable the following information to the Hamilton County Department of Environmental Services:

   a. A brief description of the affected emissions unit and the components to be replaced.

   b. A brief description of the present and proposed emission control technique.

   c. An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new emissions unit.

   d. The estimated life of the affected emissions unit after the replacements.

   e. A discussion of any economic or technical limitations the emissions unit may have in complying with relevant standards or other requirements after proposed replacements. The discussion shall be sufficiently detailed to demonstrate to the Hamilton County Department of Environmental Services' satisfaction that the technical or economic limitations will affect the emissions unit's ability to comply with the relevant standard and how they will do so.

E. **Testing Requirements**

1. 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.

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

   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 the 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.

3. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation -
0.015 mg/dscm (6.6 E-06 gr/dscf) total chromium in exhaust gases
0.00017 lb of Cr/hr

Applicable Compliance Method -
Initial performance tests shall be conducted in accordance with the test methods and procedures specified in 40 CFR, Part 63, Subpart N. If required, additional performance testing shall be conducted in accordance with the test methods and procedures specified in 40 CFR, Part 63, Subpart N. Ongoing compliance shall be based upon the established operating parameters for the pressure drop across the composite mesh-pad emission control system, during the initial performance tests.

b. Emission Limitation:
20% opacity, as a 6-minute average

Applicable Compliance Method:
Compliance with this emission limitation shall be determined in accordance with the method specified in OAC rule 3745-17-03(B)(1).

F. **Miscellaneous Requirements**

1. None