Facility ID: 1431483388 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***

**Facility ID: 1431483388 Emissions Unit ID: P004 Issuance type: Final State Permit To Operate**

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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 tank no. 5 with fume suppressants | 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 6-minute average, except as specified by rule. |
| | OAC rule 3745-17-11(B) | The emission limitation established by this rule is less stringent than that established by 40 CFR, Part 63, Subpart N. |

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 0.03 milligram per dry standard cubic meter (mg/dscm) (0.000013 grain per dry standard cubic foot (gr/dscf)).
   The permittee shall control chromium emissions discharged to the atmosphere by not allowing the surface tension of the electroplating or anodizing bath to exceed 45 dynes per centimeter (0.0031 pound-force per foot) at any time during operation of the tank.

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 employ an operation and maintenance plan which includes 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 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.

c. 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.

d. 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.

e. If actions taken by the permittee during periods of malfunction are inconsistent with the procedures specified in the operation and maintenance plan, the permittee shall record the actions taken for that event and shall report such actions within 2 working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within 7 working days after the end of the event, unless the permittee makes alternative reporting arrangements, in advance, with the Hamilton County Department of Environmental Services.
f. The permittee shall keep the written operation and maintenance plan available for inspection, upon request, by the Hamilton County Department of Environmental Services 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 Hamilton County Department of Environmental Services for a period of five years after each revision to the plan.

g. 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.

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

1. Wetting agent-type or combination wetting agent-type/foam blanket fume suppressant monitoring requirements to demonstrate continuous compliance:

a. During the initial performance test, the permittee shall determine the outlet chromium concentration using the procedures described in the "Testing Requirements" section of this permit to comply with the emission limitation through the use of a wetting agent-type or combination wetting agent-type/foam blanket fume suppressant. The permittee shall establish as the site-specific operating parameter the surface tension of the bath using Method 306B of 40 CFR, Part 63, Subpart N, setting the maximum value that corresponds to compliance with the applicable emission limitation. In lieu of establishing the maximum surface tension during the performance test, the owner or operator may accept 45 dynes/cm as the maximum surface tension value that corresponds to compliance with the applicable emission limitation.

b. On and after the date on which the initial performance test is required to be completed under 63.7 of 40 CFR, Part 63, Subpart A, the permittee shall monitor the surface tension of the electroplating or anodizing bath. Operation of the affected emissions unit at a surface tension greater than the value established during the performance test, or greater than 45 dynes/cm if the permittee is using this value as the maximum surface tension value, shall constitute noncompliance with the standards.
c. The surface tension shall be monitored according to the following schedule:

i. The surface tension shall be measured once every four hours during operation of the tank with a stalagmometer or a tensiometer as specified in Method 306B of 40 CFR, Part 63, Subpart N.

ii. The time between monitoring can be increased if there have been no exceedances. The surface tension shall be measured once every four hours of tank operation for the first 40 hours of tank operation. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 8 hours of tank operation. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 40 hours of tank operation on an ongoing basis, until an exceedance occurs. The minimum frequency of monitoring allowed is once every 40 hours of tank operation.

iii. Once an exceedance occurs, as indicated through surface tension monitoring, the original monitoring schedule of once every four hours must be resumed. A subsequent decrease in frequency shall follow the schedule in paragraph (ii) above.

iv. Once a bath solution is drained from the affected tank and a new solution added, the original monitoring schedule of once every four hours must be resumed, with a decrease in monitoring frequency allowed as in paragraph (ii) above.

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

3. The permittee also shall maintain the following records:

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.

m. Records of the date and time that fume suppressants are added to the electroplating or anodizing bath.

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 submit a Notification of Performance Test to the Hamilton County Department of Environmental Services at least 60 calendar days before the performance test is scheduled. In the event that the permittee is unable to conduct the performance as scheduled, the provisions of 63.7(b)(2) of 40 CFR, Part 63, Subpart A apply.

3. The permittee shall submit a Notification of Compliance Status to the Hamilton County Department of Environmental Services 90 days after the performance test is completed, signed by the responsible official who shall certify its accuracy, attesting to whether the affected emissions unit is in compliance. The notification shall list for each affected emissions unit:

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

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

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

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

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

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

   g. A statement that the permittee has completed and has on file the operation and maintenance plan as required by the work practice standards.
   h. A statement by the owner or operator as to whether the emissions unit is in compliance.

   i. Records to support the facility is small.

4. The permittee shall report to the Hamilton County Department of Environmental Services the results of any performance test conducted. The report shall be submitted no later than 90 days following the completion of the performance test, and shall be submitted as part of the notification of compliance status report required by this section.

5. The permittee shall prepare an ongoing compliance status report 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.

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

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

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

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

8. 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.

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

a. For 1 full year (e.g., 2 semiannual or 4 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 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 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 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.

10. 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 address.

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

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

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

f. The anticipated date of (initial) startup.

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

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

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

11. 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 affected the emissions unit ability to comply with the relevant standard and how they do so.

E. **Testing Requirements**

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

Method 306B, "Surface Tension Measurement and Recordkeeping for Tanks Used at Decorative Chromium Electroplating and Anodizing Facilities," shall be used to measure the surface tension of electroplating and anodizing baths.

2. 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.

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

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

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

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

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

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

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

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

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

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

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

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

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

Applicable Compliance Method: Compliance with the emission limitation for this emissions unit identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix A" of 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources," as such Appendix existed on July 1, 1996).

5. Emission Limitation: 0.03 mg of chromium/dscm

Applicable Compliance Method: Compliance shall be determined by using the emission factor (0.014 mg/dscm) developed by the stack testing conducted on April 3, 1997.

F. **Miscellaneous Requirements**

1. None