

Facility ID: 0857040217 Issuance type: Final State Permit To Operate

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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: 0857040217 Emissions Unit ID: P014 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Aluminum anodizing department system 18, with packed bed scrubber (Tanks: AC.AN.CA.075, AC.AN.HA.669, AC.AN.HA.819, AC.AN.SA.801, AC.AN.SA.812, AC.AP.NA.198, AC.AP.TA.181, AC.CL.NE.808, AC.SF.DS.015, AC.SF.NA.811, AC.ST.AN.835, AK.CL.ET.807, NT.PW.CW.193, NT.PW.HW.037, and NT.SF.HW.809)	OAC rule 3745-31-05(A)(3) PTI 08-3291	0.00006 lb/hour and 0.0003 TPY hydrofluoric acid; 0.004 lb/hour and 0.02 TPY nitric acid; 0.013 lb/hour and 0.057 TPY sulfuric acid; 0.0000986 lb/hour and 0.0004 TPY chromium; 0.059 lb/hour and 0.26 TPY particulate;
Anodizing department system 18, Chromium anodizing tank No. 75 with fume suppressant	40 CFR Part 63, Subpart N	5% opacity visible emissions, as a six-minute average; The permittee shall control chromium emissions discharged to the atmosphere by not allowing the surface tension of the anodizing bath to exceed 45 dynes per centimeter (3.1x10 ⁻³ pound-force per foot) at any time during operation of the tank.
	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- (a) The 0.00006 lb/hour hydrofluoric acid, 0.004 lb/hour nitric acid, and 0.013 lb/hour sulfuric acid limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to establish record keeping and/or reporting requirements to ensure compliance with these limits.

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 shall 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 of 40 CFR Part 63 Subpart N), and the process and control system monitoring equipment, and shall include a standardized checklist to document the operation and maintenance of the equipment.
 - b. If a stalagmometer is used for monitoring, follow the manufacturer's recommendations.
 - 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 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 pressure drop across the scrubber shall be continuously maintained at a value of not less than 2 inches of water at all times while the emissions unit is in operation.
- C. Monitoring and/or Record Keeping Requirements**
- 1. Wetting agent-type or combination wetting agent-type/foam blanket fume suppressants monitoring requirements to demonstrate continuous compliance:

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 45 dynes/cm shall constitute noncompliance with the standards. 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 after the compliance date. 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 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 to comply with the requirements of 40 CFR Part 63 Subpart N, 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 used to comply with the requirements of 40 CFR Part 63 Subpart N, and monitoring equipment.
- c. Records of the occurrence, duration, and cause (if known) of each malfunction of process, add-on air pollution control device used to comply with the requirements of 40 CFR Part 63 Subpart N, 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 used to comply with the requirements of 40 CFR Part 63 Subpart N, 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 used to comply with the requirements of 40 CFR Part 63 Subpart N, 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.
- m. Records of the date and time that fume suppressants are added to the anodizing bath.

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

- 4. The permittee shall properly install, operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

- a. The pressure drop across the scrubber, in inches of water, on a daily basis.
- b. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

D. Reporting Requirements

- 1. The permittee shall fulfill all reporting requirements 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, 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 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 local air agency or district office 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. In accordance with paragraph 3 of the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels for the static pressure drop across the scrubber.

E. Testing Requirements

- 1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):
 - Emission Limitation -
0.00006 lb/hour hydrofluoric acid
 - Applicable Compliance Method -
Compliance with this allowable emission rate shall be determined by multiplying the maximum amount of hydrofluoric acid added to the tanks by a gassing rate of 5% and a packed bed scrubber control efficiency of 95% (1 - 0.95).
 - Emission Limitation -
0.0003 TPY hydrofluoric acid
 - Applicable Compliance Method -
The annual mass emission limitation of 0.0003 TPY was developed by multiplying the hourly emission rate of 0.00006 lb/hour by the maximum operating schedule of 8760 hours/year and dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.
 - Emission Limitation -
0.004 lb/hour nitric acid
 - Applicable Compliance Method -
Compliance with this allowable emission rate shall be determined by multiplying the maximum amount of nitric acid added to the tanks by a gassing rate of 5% and a packed bed scrubber control efficiency of 95% (1 - 0.95).
 - Emission Limitation -
0.02 TPY nitric acid
 - Applicable Compliance Method -

The annual mass emission limitation of 0.02 TPY was developed by multiplying the hourly emission rate of 0.004 lb/hour by the maximum operating schedule of 8760 hours/year and dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

Emission Limitation -
0.013 lb/hour sulfuric acid

Applicable Compliance Method -

Compliance with this allowable emission rate shall be determined by multiplying the maximum amount of sulfuric acid added to the tanks by a gassing rate of 5% and a packed bed scrubber control efficiency of 95% (1 - 0.95).

Emission Limitation -
0.057 TPY sulfuric acid

Applicable Compliance Method -

The annual mass emission limitation of 0.057 TPY was developed by multiplying the hourly emission rate of 0.013 lb/hour by the maximum operating schedule of 8760 hours/year and dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

Emission Limitation -
0.0000986 lb/hour chromium

Applicable Compliance Method -

Compliance shall be determined by multiplying the AP-42 Table 12.20-2 (7/96) emission factor for chromic acid anodizing (0.00075 grains/hr-square foot of tank surface area) by the tank surface area (29.75 square feet). This grain per hour emission rate is then divided by 7000 grains per pound to determine the mass chromium emissions. If required, compliance with this mass emission limitation shall be based on stack testing in accordance with the requirements of 40 CFR Part 63 Subpart N.

Emission Limitation -
0.0004 TPY chromium

Applicable Compliance Method -

The annual mass emission limitation of 0.0004 TPY was developed by multiplying the hourly emission rate of 0.0000986 lb/hour by the maximum operating schedule of 8760 hours/year and dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

Emission Limitation -
0.059 lb/hour particulate

Applicable Compliance Method -

Compliance shall be determined by multiplying the AP-42 Table 12.20-2 (7/96) emission factor for chromic acid anodizing (0.0016 grains/hr-square foot of tank surface area) by the tank surface area (29.75 square feet). This grain per hour emission rate is then divided by 7000 grains per pound to determine 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).

Emission Limitation -
0.26 TPY particulate

Applicable Compliance Method -

The annual mass emission limitation of 0.26 TPY was developed by multiplying the hourly emission rate of 0.059 lb/hour by the maximum operating schedule of 8760 hours/year and dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

Emission Limitation -
5% opacity visible emissions, as a six-minute average

Applicable Compliance Method -

Compliance shall be determined by visible emission evaluations performed in accordance with the procedures specified in USEPA Reference Method 9 (40 CFR Part 60, Appendix A).

Emission Limitation -

The surface tension of the anodizing bath shall not exceed 45 dynes per centimeter (3.1x10⁻³ pound-force per foot) at any time during operation of the tank.

Applicable Compliance Method -

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. Compliance can also be based upon the record keeping requirements specified in C.1. and C.3.

F. Miscellaneous Requirements

1. None