

Facility ID: 0448010041 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.

- [Go to Part II for Emissions Unit P011](#)
- [Go to Part II for Emissions Unit P012](#)
- [Go to Part II for Emissions Unit P013](#)
- [Go to Part II for Emissions Unit P014](#)
- [Go to Part II for Emissions Unit P015](#)

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Facility ID: 0448010041 Emissions Unit ID: P011 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**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>
P011 - Hard chrome plating tank #10 controlled by a composite mesh pad system	OAC rule 3745-31-05(A)(3) (PTI 04-01094, issued 2/4/1998) OAC rule 3745-17-07(A)(1)	Chromium emissions shall not exceed 4.4 E-3 ton per year combined for P011 through P015. Visible particulate emissions (PE) shall not exceed 20% opacity as a six-minute average, unless otherwise specified by the rule.
	OAC rule 3745-17-11(B)(1) 40 CFR Part 63, Subpart N	PE shall not exceed 0.551 pound per hour. See sections A.2.a through A.2.c.

**2. Additional Terms and Conditions**

- (a) The application and enforcement of the provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 63, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 63 are also federally enforceable.  
The permittee shall not allow the concentration of total chromium in the exhaust gas stream discharged from the open surface, hard chromium electroplating operation(s), P011-P015, to exceed 0.015 mg/dscm (6.6x10<sup>-6</sup> gr/dscf). This limitation also applies during startup and shutdown operations, but not during periods of malfunction where work practice standards address and correct any malfunction event.  
The permittee, having a maximum potential cumulative rectifier capacity of 60 million ampere-hours per year or more, shall be considered a small hard chromium electroplating facility as long as the actual cumulative rectifier capacity is less than 60 million ampere-hours per year and the permittee has maintained and continues to maintain monthly records showing the actual ampere-hour usage for each 12-month rolling period (following the compliance date) to be less than 60 million ampere-hours and these records have been documented by using non-resettable ampere-hour meter(s).  
  
If monthly records demonstrate that 60 million ampere-hours has been met or exceeded over any 12-month rolling period, the hard chromium electroplating tanks shall be subject to the emission limitation (s) applicable to those located at a large hard chromium electroplating facility.

**B. Operational Restrictions**

1. The permittee shall implement the following operational, maintenance, and work practices standards for the chromium electroplating and anodizing tanks:
  - a. At all times, including periods of startup, shutdown, and malfunction, the permittee shall operate and maintain the chromium electroplating or anodizing tank(s), including the associated air pollution control device(s) and monitoring equipment, in a manner consistent with the operation and maintenance plan required by these terms and conditions.
  - b. Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the operation and maintenance plan.

- c. Determination of whether acceptable operation and maintenance procedures are being used shall be based on the facility records, which shall be made available to the Toledo Division of Environmental Services upon request, and which may include, but not be 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 Toledo Division of Environmental Services may require that the permittee make changes to the operation and maintenance plan if that plan:
    - i. does not address a malfunction that has occurred;
    - ii. fails to provide for the proper operation of the emissions unit, 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
    - iii. does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control equipment, and/or monitoring equipment as quickly as practicable.
  - d. The standards and limitations that apply to chromic acid baths shall not be met by using a reducing agent to change the form of chromium from hexavalent to trivalent.
2. The permittee shall prepare an operation and maintenance plan to be implemented no later than the startup of the unit or the compliance date. The plan 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, 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 incorporate the work practice standards for the add-on air pollution control device and monitoring equipment required to demonstrate compliance with the standard.
    - 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 device(s), and process and control system monitoring equipment, and for implementing corrective actions to address any 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. The revised plan shall include procedures for operating and maintaining the process equipment, add-on air pollution control device, or monitoring equipment during similar malfunction events, and a program for corrective action for such events.
    - 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 to the Toledo Division of Environmental Services within 2 working days following the actions performed inconsistent with the plan. This verbal report shall be followed by a letter within 7 working days following the event, unless the permittee makes alternative reporting arrangements, in advance, with the Toledo Division of Environmental Services.
    - g. The permittee shall maintain the written operation and maintenance plan on record at the facility; and it shall be made readily available for inspection, at the request of the Toledo Division of Environmental Services and for the life of the emissions unit. If the operation and maintenance plan is revised, the permittee shall maintain previous versions of the plan at the facility for a period of five years following each revision; the superceded version(s) of the plan shall also be made available for inspection, if so requested by the Toledo Division of Environmental Services.
    - 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 of 40 CFR 63.342(f)(3).
  3. The operation and maintenance plan shall incorporate the following work practice standards for the composite mesh-pad control system; the plan shall provide procedures for:
    - a. quarterly visual inspections of the composite mesh-pad system, 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;
    - b. quarterly visual inspections of the back portion of the mesh pad closest to the fan, to ensure there is no breakthrough of chromic acid mist;
    - c. quarterly visual inspections of the ductwork from tank to the composite mesh-pad system, to ensure there are no leaks; and
    - d. washdown of the composite mesh-pads in accordance with the manufacturer's recommendations.
  4. If a pitot tube is used for monitoring emissions, the operation and maintenance plan shall incorporate the necessary work practice standards to ensure the accuracy of the instrument. These work practice standards shall be performed at least once per quarter and shall include:
    - a. inspection of the pitot tube for damage or cracks, with replacement if any are found;
    - b. cleaning of the pitot tube;
    - c. verification of a zero reading with a 180 degree rotation within the duct; and
    - d. a record of the findings of each inspection.
- C. Monitoring and/or Record Keeping Requirements**
1. In addition to fulfilling all record keeping requirements contained in the General Provisions to 40 CFR Part 63, Subpart A, as they apply to the emissions unit, the permittee shall also maintain the following records:
    - a. inspection records for the add-on air pollution control device and monitoring equipment, to document that the inspection and maintenance required by the work practice standards contained in this permit have been performed. 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 emissions unit during the reporting period;
  - l. all documentation supporting the notifications and reports as outlined in the "Reporting Requirements" section of this permit and the general reporting requirements in 40 CFR 63.9 and 40 CFR 63.10, from subpart A; and
  - m. records of the actual cumulative rectifier capacity of hard chromium electroplating tanks expended during each month of the reporting period, and the total capacity expended to date for a reporting period.

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

2. The permittee shall perform the following monitoring and record keeping requirements in order to demonstrate compliance through the use of the composite mesh-pad system:
  - a. During the initial performance test, the permittee shall determine the outlet chromium concentration using the methods described in the "Testing Requirements" section of this permit. The pressure drop across the composite mesh-pad system shall be established as a site-specific operating parameter, setting the value that corresponds to compliance with the applicable emission limitation, as established during performance testing.
  - b. The permittee may conduct multiple performance tests to establish a range of compliant pressure drop values; or may set as the compliant value, the average pressure drop measured over the three test runs of one performance test and accept 1 inch of water column from this value as the compliant range.
  - c. On and after the date on which the initial performance test is required to be completed under 40 CFR 63.7, the permittee shall monitor and record the pressure drop across the composite mesh-pad system once each day that the emissions unit is in operation. To be in compliance, the composite mesh-pad system shall be operated within 1 inch of water column of the pressure drop value established during compliance performance testing, or shall be operated within the range of compliant values for pressure drop established during multiple performance tests.
  - d. The permittee may repeat the performance test, as above, and establish a new site-specific operating parameter for the pressure drop across the composite mesh-pad system if the following conditions are met:
    - i. the outlet chromium concentration is determined using the test methods and procedures in the "Testing Requirements" section of this permit;
    - ii. the site-specific operating parameter value is established using the procedures established in the "Testing Requirements" section of this permit;
    - iii. the record keeping requirements contained in this permit are met;
    - iv. the proper notification of the test date (at least 60 days before the test is scheduled) is provided to the Toledo Division of Environmental Services; and
    - v. the results of the performance test are submitted to the Toledo Division of Environmental Services, as required in the "Reporting Requirements" section of this permit.
  - e. The requirement to operate the composite mesh-pad system within 1 inch of water column of the pressure drop value established during compliance performance testing does not apply during automatic washdown cycles of the composite mesh-pad system.

**D. Reporting Requirements**

1. The permittee shall submit a "Notification of Performance Test" or "Intent to Test" to the regulating agency (appropriate Ohio EPA Division of Air Pollution Control, District Office or local air agency) at least 60 calendar days before the performance test is scheduled. The permittee shall notify the regulating agency as soon as practicable if the performance test cannot be conducted as scheduled, and shall specify the date it will be rescheduled (provisions of 40 CFR 63.7(b)(2)).
2. The permittee shall report, to the Toledo Division of Environmental Services, the results of any performance test conducted within 30 days of completion of such test. Reports of performance test results shall also be submitted in the "Notification of Compliance Status Report", no later than 90 days following the completion of the performance test. Performance test results shall be documented in complete test reports that contain the

following information:

- a. a brief description of the process;
- b. a description of the sampling location(s);
- c. a description of sampling and analytical procedures and any modifications to standard procedures;
- d. the test results;
- e. quality assurance procedures and results;
- f. records of operating conditions during testing, preparation of standards, and calibration procedures;
- g. raw data sheets for field sampling and field and laboratory analyses;
- h. documentation of calculations; and
- i. any other information required by the test method.

The permittee shall have sufficient data to establish the operating parameter value(s) that corresponds to compliance as required for continuous compliance monitoring.

3. Unless a more frequent reporting frequency has been determined, the permittee shall prepare and submit semiannual "Ongoing Compliance Status Reports" to the Toledo Division of Environmental Services in order 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. a description of the source, type of process performed, and the air pollution control method and monitoring device(s) that is/are/shall be used to demonstrate continuous compliance;
- c. an identification of the operating parameter(s) that is/are/shall be monitored for compliance determination;
- d. the relevant emission limitation for the emissions unit, and the operating parameter value(s), or range of values, established during compliance testing and reported in the notification of compliance status report(s);
- e. the beginning and ending dates of the reporting period;
- f. the total operating time of the emissions unit during the reporting period;
- g. 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;
- h. the actual cumulative rectifier capacity expended during the reporting period, on a month-by-month basis;
- i. 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;
- j. 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;
- k. a description of any changes in monitoring, processes, or controls since the last reporting period;
- l. the date of the report; and
- m. the name, title, and signature of the responsible official who is certifying the accuracy of the report.

The "Ongoing Compliance Status Reports" shall be submitted semiannually except when:

- a. the regulating agency has determined that more frequent reporting is necessary to accurately assess the compliance status of the emissions unit; or
- b. the monitoring data collected by the permittee show that the emission limit has been exceeded, in which case quarterly reports shall be submitted.

Once an exceedance is reported, the "Ongoing Compliance Status Reports" shall be submitted quarterly until a request to reduce reporting frequency is submitted and approved, as required in this permit, by the Toledo Division of Environmental Services.

4. The permittee, if required to submit "Ongoing Compliance Status Reports" on a quarterly (or more frequent) basis, may request that the reporting frequency be reduced to semiannual if all of the following conditions are met:

- a. for 1 full year (e.g., 4 quarterly or 12 monthly 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; and
- c. the permittee submits a request (in writing) for approval from the Toledo Division of Environmental Services to reduce the frequency of reporting.

In deciding whether to approve a reduced reporting frequency, the Toledo Division of Environmental Services may request to review information concerning the facility's entire previous performance history during the 5-year record keeping period prior to the intended change in the reporting frequency, or the record keeping period since the facility's compliance date, whichever is shorter. Records subject to review may include performance test results, monitoring data, and evaluations of a permittee's conformance with emission limitations and work practice standards. If the request is disapproved, the permittee will be notified in writing within 45 days after receiving notice of the permittee's intention. The notification will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval shall be automatically granted.

As soon as the monitoring data show that the facility is not in compliance with the relevant emission limit, the frequency of reporting shall revert to quarterly, 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 to semiannual reports.

**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):

Emission Limitation:

Chrome emissions shall not exceed 4.4 E-3 ton per year combined for P011 through P015.

Applicable Compliance Method:

This emission limitation was developed by multiplying the allowable chromium emission limitation (0.0000066 gr/dscf) by the maximum volumetric flow rate to the control device (18,000 cfm), by 60 min/hr and 8,760 hr/yr, and then dividing by 7,000 gr/lb and 2,000 lb/ton. Therefore, if compliance is shown with the allowable chromium emission limitation, compliance shall also be shown with the annual emission limitation.

Emission Limitation:

20 percent opacity, as a six-minute average.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emissions limitation through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(1). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

Emission Limitation:

PE shall not exceed 0.551 pound per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emissions limitation through emissions testing performed in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

Emission Limitation:

Chrome emissions shall not exceed 6.6 E-6 gr/dscf.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emissions limitation through emissions testing performed in accordance with Method 306 or Method 306A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements, in order to demonstrate compliance with the chromium emission limitation contained in this permit:

a. The emission testing shall be conducted within 6 months of permit issuance and 6 months of permit expiration.

b. One of the following test methods shall be employed to demonstrate compliance:

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

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

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

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

a. Specifications for differential pressure measurement devices used to measure pressure drop across a control system shall be in accordance with the manufacturer's accuracy specifications.

b. 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; and

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

- c. 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; and
  - ii. situated such that no air infiltration at the measurement site will occur that could bias the measurement;
- d. pressure taps shall be constructed of either polyethylene, polybutylene, or other nonreactive materials;
- e. nonreactive plastic tubing shall be used to connect the pressure taps to the device used to measure pressure drop;
- f. any of the following pressure gauges may be used to monitor pressure drop: a magnehelic gauge, an inclined manometer, or a "U" tube manometer;
- g. prior to connecting any pressure lines to the pressure gauge(s), each gauge shall be zeroed (calibration of the pressure gauges is not required, with every required reading); and
- h. all monitoring equipment shall be installed such that representative measurements of emissions or process parameters from the affected emissions unit are obtained. Verification of the operational status of the monitoring equipment shall include execution of the manufacturer's written accuracy specifications or recommendations for installation, operation, and calibration of the system(s).
- 4. The composite mesh-pad system controls multiple affected emissions units, P011-P015, performing the same type of operation and subject to the same emission limitation, therefore the emission limitation of 6.6 E-6 gr/dscf must be met at the outlet of this control device regardless of the number of emissions units vented to the device.

**F. Miscellaneous Requirements**

- 1. The following permit restrictions are federally enforceable permit restrictions: all.

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Facility ID: 0448010041 Emissions Unit ID: P012 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**Part II - Special Terms and Conditions**

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- 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>
P012 - Hard chrome plating tank #11 controlled by a composite mesh pad system	OAC rule 3745-31-05(A)(3) (PTI 04-01094, issued 2/4/1998)	Chrome emissions shall not exceed 4.4 E-3 ton per year combined for P011 through P015.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) shall not exceed 20% opacity as a six-minute average, unless otherwise specified by the rule.
	OAC rule 3745-17-11(B)(1) 40 CFR Part 63, Subpart N	PE shall not exceed 0.551 pound per hour. See sections A.2.a through A.2.c.

**2. Additional Terms and Conditions**

- (a) The application and enforcement of the provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 63, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 63 are also federally enforceable.
 

The permittee shall not allow the concentration of total chromium in the exhaust gas stream discharged from the open surface, hard chromium electroplating operation(s), P011-P015, to exceed 0.015 mg/dscm (6.6x10-6 gr/dscf). This limitation also applies during startup and shutdown operations, but not during periods of malfunction where work practice standards address and correct any malfunction event.

The permittee, having a maximum potential cumulative rectifier capacity of 60 million ampere-hours per year or more, shall be considered a small hard chromium electroplating facility as long as the actual cumulative rectifier capacity is less than 60 million ampere-hours per year and the permittee has

maintained and continues to maintain monthly records showing the actual ampere-hour usage for each 12-month rolling period (following the compliance date) to be less than 60 million ampere-hours and these records have been documented by using non-resettable ampere-hour meter(s).

If monthly records demonstrate that 60 million ampere-hours has been met or exceeded over any 12-month rolling period, the hard chromium electroplating tanks shall be subject to the emission limitation (s) applicable to those located at a large hard chromium electroplating facility.

**B. Operational Restrictions**

1. The permittee shall implement the following operational, maintenance, and work practices standards for the chromium electroplating and anodizing tanks:
  - a. At all times, including periods of startup, shutdown, and malfunction, the permittee shall operate and maintain the chromium electroplating or anodizing tank(s), including the associated air pollution control device(s) and monitoring equipment, in a manner consistent with the operation and maintenance plan required by these terms and conditions.
  - b. Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the operation and maintenance plan.
  - c. Determination of whether acceptable operation and maintenance procedures are being used shall be based on the facility records, which shall be made available to the Toledo Division of Environmental Services upon request, and which may include, but not be 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 Toledo Division of Environmental Services may require that the permittee make changes to the operation and maintenance plan if that plan:
    - i. does not address a malfunction that has occurred;
    - ii. fails to provide for the proper operation of the emissions unit, 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
    - iii. does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control equipment, and/or monitoring equipment as quickly as practicable.
  - d. The standards and limitations that apply to chromic acid baths shall not be met by using a reducing agent to change the form of chromium from hexavalent to trivalent.
2. The permittee shall prepare an operation and maintenance plan to be implemented no later than the startup of the unit or the compliance date. The plan 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, 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 incorporate the work practice standards for the add-on air pollution control device and monitoring equipment required to demonstrate compliance with the standard.
  - 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 device(s), and process and control system monitoring equipment, and for implementing corrective actions to address any 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. The revised plan shall include procedures for operating and maintaining the process equipment, add-on air pollution control device, or monitoring equipment during similar malfunction events, and a program for corrective action for such events.
  - 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 to the Toledo Division of Environmental Services within 2 working days following the actions performed inconsistent with the plan. This verbal report shall be followed by a letter within 7 working days following the event, unless the permittee makes alternative reporting arrangements, in advance, with the Toledo Division of Environmental Services.
  - g. The permittee shall maintain the written operation and maintenance plan on record at the facility; and it shall be made readily available for inspection, at the request of the Toledo Division of Environmental Services and for the life of the emissions unit. If the operation and maintenance plan is revised, the permittee shall maintain previous versions of the plan at the facility for a period of five years following each revision; the superceded version(s) of the plan shall also be made available for inspection, if so requested by the Toledo Division of Environmental Services.
  - 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 of 40 CFR 63.342(f)(3).
3. The operation and maintenance plan shall incorporate the following work practice standards for the composite mesh-pad control system; the plan shall provide procedures for:
  - a. quarterly visual inspections of the composite mesh-pad system, 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;
  - b. quarterly visual inspections of the back portion of the mesh pad closest to the fan, to ensure there is no breakthrough of chromic acid mist;
  - c. quarterly visual inspections of the ductwork from tank to the composite mesh-pad system, to ensure there are

no leaks; and

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

4. If a pitot tube is used for monitoring emissions, the operation and maintenance plan shall incorporate the necessary work practice standards to ensure the accuracy of the instrument. These work practice standards shall be performed at least once per quarter and shall include:

- a. inspection of the pitot tube for damage or cracks, with replacement if any are found;
- b. cleaning of the pitot tube;
- c. verification of a zero reading with a 180 degree rotation within the duct; and
- d. a record of the findings of each inspection.

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

1. In addition to fulfilling all record keeping requirements contained in the General Provisions to 40 CFR Part 63, Subpart A, as they apply to the emissions unit, the permittee shall also maintain the following records:

a. inspection records for the add-on air pollution control device and monitoring equipment, to document that the inspection and maintenance required by the work practice standards contained in this permit have been performed. 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 emissions unit during the reporting period;

l. all documentation supporting the notifications and reports as outlined in the "Reporting Requirements" section of this permit and the general reporting requirements in 40 CFR 63.9 and 40 CFR 63.10, from subpart A; and

m. records of the actual cumulative rectifier capacity of hard chromium electroplating tanks expended during each month of the reporting period, and the total capacity expended to date for a reporting period.

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

2. The permittee shall perform the following monitoring and record keeping requirements in order to demonstrate compliance through the use of the composite mesh-pad system:

a. During the initial performance test, the permittee shall determine the outlet chromium concentration using the methods described in the "Testing Requirements" section of this permit. The pressure drop across the composite mesh-pad system shall be established as a site-specific operating parameter, setting the value that corresponds to compliance with the applicable emission limitation, as established during performance testing.

b. The permittee may conduct multiple performance tests to establish a range of compliant pressure drop values; or may set as the compliant value, the average pressure drop measured over the three test runs of one performance test and accept 1 inch of water column from this value as the compliant range.

c. On and after the date on which the initial performance test is required to be completed under 40 CFR 63.7, the permittee shall monitor and record the pressure drop across the composite mesh-pad system once each day that the emissions unit is in operation. To be in compliance, the composite mesh-pad system shall be operated within 1 inch of water column of the pressure drop value established during compliance performance testing, or shall be operated within the range of compliant values for pressure drop established during multiple performance tests.

d. The permittee may repeat the performance test, as above, and establish a new site-specific operating parameter for the pressure drop across the composite mesh-pad system if the following conditions are met:

- i. the outlet chromium concentration is determined using the test methods and procedures in the "Testing Requirements" section of this permit;
- ii. the site-specific operating parameter value is established using the procedures established in the "Testing Requirements" section of this permit;
- iii. the record keeping requirements contained in this permit are met;

- iv. the proper notification of the test date (at least 60 days before the test is scheduled) is provided to the Toledo Division of Environmental Services; and
  - v. the results of the performance test are submitted to the Toledo Division of Environmental Services, as required in the "Reporting Requirements" section of this permit.
- e. The requirement to operate the composite mesh-pad system within 1 inch of water column of the pressure drop value established during compliance performance testing does not apply during automatic washdown cycles of the composite mesh-pad system.

**D. Reporting Requirements**

1. The permittee shall submit a "Notification of Performance Test" or "Intent to Test" to the regulating agency (appropriate Ohio EPA Division of Air Pollution Control, District Office or local air agency) at least 60 calendar days before the performance test is scheduled. The permittee shall notify the regulating agency as soon as practicable if the performance test cannot be conducted as scheduled, and shall specify the date it will be rescheduled (provisions of 40 CFR 63.7(b)(2)).
2. The permittee shall report, to the Toledo Division of Environmental Services, the results of any performance test conducted within 30 days of completion of such test. Reports of performance test results shall also be submitted in the "Notification of Compliance Status Report", no later than 90 days following the completion of the performance test. Performance test results shall be documented in complete test reports that contain the following information:
  - a. a brief description of the process;
  - b. a description of the sampling location(s);
  - c. a description of sampling and analytical procedures and any modifications to standard procedures;
  - d. the test results;
  - e. quality assurance procedures and results;
  - f. records of operating conditions during testing, preparation of standards, and calibration procedures;
  - g. raw data sheets for field sampling and field and laboratory analyses;
  - h. documentation of calculations; and
  - i. any other information required by the test method.

The permittee shall have sufficient data to establish the operating parameter value(s) that corresponds to compliance as required for continuous compliance monitoring.

3. Unless a more frequent reporting frequency has been determined, the permittee shall prepare and submit semiannual "Ongoing Compliance Status Reports" to the Toledo Division of Environmental Services in order 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. a description of the source, type of process performed, and the air pollution control method and monitoring device(s) that is/are/shall be used to demonstrate continuous compliance;
  - c. an identification of the operating parameter(s) that is/are/shall be monitored for compliance determination;
  - d. the relevant emission limitation for the emissions unit, and the operating parameter value(s), or range of values, established during compliance testing and reported in the notification of compliance status report(s);
  - e. the beginning and ending dates of the reporting period;
  - f. the total operating time of the emissions unit during the reporting period;
  - g. 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;
  - h. the actual cumulative rectifier capacity expended during the reporting period, on a month-by-month basis;
  - i. 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;
  - j. 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;
  - k. a description of any changes in monitoring, processes, or controls since the last reporting period;
  - l. the date of the report; and
  - m. the name, title, and signature of the responsible official who is certifying the accuracy of the report.

The "Ongoing Compliance Status Reports" shall be submitted semiannually except when:

- a. the regulating agency has determined that more frequent reporting is necessary to accurately assess the compliance status of the emissions unit; or
- b. the monitoring data collected by the permittee show that the emission limit has been exceeded, in which case quarterly reports shall be submitted.

Once an exceedance is reported, the "Ongoing Compliance Status Reports" shall be submitted quarterly until a request to reduce reporting frequency is submitted and approved, as required in this permit, by the Toledo Division of Environmental Services.

4. The permittee, if required to submit "Ongoing Compliance Status Reports" on a quarterly (or more frequent) basis, may request that the reporting frequency be reduced to semiannual if all of the following conditions are met:
- for 1 full year (e.g., 4 quarterly or 12 monthly reporting periods), the "Ongoing Compliance Status Reports" demonstrate that the affected emissions unit is in compliance with the relevant emission limit;
  - the permittee continues to comply with all applicable record keeping and monitoring requirements of 40 CFR Part 63 subpart A and this permit; and
  - the permittee submits a request (in writing) for approval from the Toledo Division of Environmental Services to reduce the frequency of reporting.

In deciding whether to approve a reduced reporting frequency, the Toledo Division of Environmental Services may request to review information concerning the facility's entire previous performance history during the 5-year record keeping period prior to the intended change in the reporting frequency, or the record keeping period since the facility's compliance date, whichever is shorter. Records subject to review may include performance test results, monitoring data, and evaluations of a permittee's conformance with emission limitations and work practice standards. If the request is disapproved, the permittee will be notified in writing within 45 days after receiving notice of the permittee's intention. The notification will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval shall be automatically granted.

As soon as the monitoring data show that the facility is not in compliance with the relevant emission limit, the frequency of reporting shall revert to quarterly, 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 to semiannual reports.

**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):

Emission Limitation:

Chrome emissions shall not exceed 4.4 E-3 ton per year combined for P011 through P015.

Applicable Compliance Method:

This emission limitation was developed by multiplying the allowable chromium emission limitation (0.0000066 gr/dscf) by the maximum volumetric flow rate to the control device (18,000 cfm), by 60 min/hr and 8,760 hr/yr, and then dividing by 7,000 gr/lb and 2,000 lb/ton. Therefore, if compliance is shown with the allowable chromium emission limitation, compliance shall also be shown with the annual emission limitation.

Emission Limitation:

20 percent opacity, as a six-minute average.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emissions limitation through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(1). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

Emission Limitation:

PE shall not exceed 0.551 pound per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emissions limitation through emissions testing performed in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

Emission Limitation:

Chrome emissions shall not exceed 6.6 E-6 gr/dscf.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emissions limitation through emissions testing performed in accordance with Method 306 or Method 306A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements, in order to demonstrate compliance with the chromium emission limitation contained in this permit:
- The emission testing shall be conducted within 6 months of permit issuance and 6 months of permit expiration.
  - One of the following test methods shall be employed to demonstrate compliance:
    - Method 306 or Method 306A, "Determination of Chromium Emissions From Decorative and Hard Chromium Electroplating and Anodizing Operations" shall be used to determine the chromium concentration from the electroplating or anodizing tank.
- The sampling time and sample volume for each run of Methods 306 and 306A shall be at least 120 minutes and 1.7 dscm (60 dscf), respectively.
  - Methods 306 and 306A allow the measurement of either total chromium or hexavalent chromium emissions. Emissions units using chromic acid baths can demonstrate compliance with the emission

limits by measuring either the total chromium or hexavalent chromium concentration. The hexavalent chromium concentration measured by these methods is equal to the total chromium concentration for the affected operations.

3. The permittee shall measure the pressure drop across the add-on air pollution control device in accordance with the following guidelines:
  - a. Specifications for differential pressure measurement devices used to measure pressure drop across a control system shall be in accordance with the manufacturer's accuracy specifications.
  - b. 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; and
    - iii. on the front side of the first mesh pad and back side of the last mesh pad within the control system.
  - c. 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; and
    - ii. situated such that no air infiltration at the measurement site will occur that could bias the measurement;
  - d. pressure taps shall be constructed of either polyethylene, polybutylene, or other nonreactive materials;
  - e. nonreactive plastic tubing shall be used to connect the pressure taps to the device used to measure pressure drop;
  - f. any of the following pressure gauges may be used to monitor pressure drop: a magnehelic gauge, an inclined manometer, or a "U" tube manometer;
  - g. prior to connecting any pressure lines to the pressure gauge(s), each gauge shall be zeroed (calibration of the pressure gauges is not required, with every required reading); and
  - h. all monitoring equipment shall be installed such that representative measurements of emissions or process parameters from the affected emissions unit are obtained. Verification of the operational status of the monitoring equipment shall include execution of the manufacturer's written accuracy specifications or recommendations for installation, operation, and calibration of the system(s).
4. The composite mesh-pad system controls multiple affected emissions units, P011-P015, performing the same type of operation and subject to the same emission limitation, therefore the emission limitation of 6.6 E-6 gr/dscf must be met at the outlet of this control device regardless of the number of emissions units vented to the device.

**F. Miscellaneous Requirements**

1. The following permit restrictions are federally enforceable permit restrictions: all.

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

Facility ID: 0448010041 Emissions Unit ID: P013 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**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>
P013 - Hard chrome plating tank #12 controlled by a composite mesh pad system	OAC rule 3745-31-05(A)(3) (PTI 04-01094, issued 2/4/1998) OAC rule 3745-17-07(A)(1)	Chrome emissions shall not exceed 4.4 E-3 ton per year combined for P011 through P015. Visible particulate emissions (PE) shall not exceed

20% opacity as a six-minute average, unless otherwise specified by the rule.

OAC rule 3745-17-11(B)(1)

PE shall not exceed 0.551 pound per hour.

40 CFR Part 63, Subpart N

See sections A.2.a through A.2.c.

**2. Additional Terms and Conditions**

- (a) The application and enforcement of the provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 63, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 63 are also federally enforceable.

The permittee shall not allow the concentration of total chromium in the exhaust gas stream discharged from the open surface, hard chromium electroplating operation(s), P011-P015, to exceed 0.015 mg/dscm (6.6x10<sup>-6</sup> gr/dscf). This limitation also applies during startup and shutdown operations, but not during periods of malfunction where work practice standards address and correct any malfunction event.

The permittee, having a maximum potential cumulative rectifier capacity of 60 million ampere-hours per year or more, shall be considered a small hard chromium electroplating facility as long as the actual cumulative rectifier capacity is less than 60 million ampere-hours per year and the permittee has maintained and continues to maintain monthly records showing the actual ampere-hour usage for each 12-month rolling period (following the compliance date) to be less than 60 million ampere-hours and these records have been documented by using non-resettable ampere-hour meter(s).

If monthly records demonstrate that 60 million ampere-hours has been met or exceeded over any 12-month rolling period, the hard chromium electroplating tanks shall be subject to the emission limitation (s) applicable to those located at a large hard chromium electroplating facility.

**B. Operational Restrictions**

1. The permittee shall implement the following operational, maintenance, and work practices standards for the chromium electroplating and anodizing tanks:

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

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

c. Determination of whether acceptable operation and maintenance procedures are being used shall be based on the facility records, which shall be made available to the Toledo Division of Environmental Services upon request, and which may include, but not be 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 Toledo Division of Environmental Services may require that the permittee make changes to the operation and maintenance plan if that plan:

- i. does not address a malfunction that has occurred;
  - ii. fails to provide for the proper operation of the emissions unit, 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
  - iii. does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control equipment, and/or monitoring equipment as quickly as practicable.
- d. The standards and limitations that apply to chromic acid baths shall not be met by using a reducing agent to change the form of chromium from hexavalent to trivalent.

2. The permittee shall prepare an operation and maintenance plan to be implemented no later than the startup of the unit or the compliance date. The plan 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, 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 incorporate the work practice standards for the add-on air pollution control device and monitoring equipment required to demonstrate compliance with the standard.

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 device(s), and process and control system monitoring equipment, and for implementing corrective actions to address any 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. The revised plan shall include procedures for operating and maintaining the process equipment, add-on air pollution control device, or monitoring equipment during similar malfunction events, and a program for corrective action for such events.

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 to the Toledo Division of Environmental Services within 2 working days following the actions performed inconsistent with the plan. This verbal report shall be followed by a letter within 7 working days following the event, unless the permittee makes alternative reporting arrangements, in advance, with the Toledo Division of Environmental Services.

g. The permittee shall maintain the written operation and maintenance plan on record at the facility; and it shall

be made readily available for inspection, at the request of the Toledo Division of Environmental Services and for the life of the emissions unit. If the operation and maintenance plan is revised, the permittee shall maintain previous versions of the plan at the facility for a period of five years following each revision; the superceded version(s) of the plan shall also be made available for inspection, if so requested by the Toledo Division of Environmental Services.

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 of 40 CFR 63.342(f)(3).

3. The operation and maintenance plan shall incorporate the following work practice standards for the composite mesh-pad control system; the plan shall provide procedures for:
  - a. quarterly visual inspections of the composite mesh-pad system, 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;
  - b. quarterly visual inspections of the back portion of the mesh pad closest to the fan, to ensure there is no breakthrough of chromic acid mist;
  - c. quarterly visual inspections of the ductwork from tank to the composite mesh-pad system, to ensure there are no leaks; and
  - d. washdown of the composite mesh-pads in accordance with the manufacturer's recommendations.
4. If a pitot tube is used for monitoring emissions, the operation and maintenance plan shall incorporate the necessary work practice standards to ensure the accuracy of the instrument. These work practice standards shall be performed at least once per quarter and shall include:
  - a. inspection of the pitot tube for damage or cracks, with replacement if any are found;
  - b. cleaning of the pitot tube;
  - c. verification of a zero reading with a 180 degree rotation within the duct; and
  - d. a record of the findings of each inspection.

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

1. In addition to fulfilling all record keeping requirements contained in the General Provisions to 40 CFR Part 63, Subpart A, as they apply to the emissions unit, the permittee shall also maintain the following records:
  - a. inspection records for the add-on air pollution control device and monitoring equipment, to document that the inspection and maintenance required by the work practice standards contained in this permit have been performed. 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 emissions unit during the reporting period;
  - l. all documentation supporting the notifications and reports as outlined in the "Reporting Requirements" section of this permit and the general reporting requirements in 40 CFR 63.9 and 40 CFR 63.10, from subpart A; and
  - m. records of the actual cumulative rectifier capacity of hard chromium electroplating tanks expended during each month of the reporting period, and the total capacity expended to date for a reporting period.

All records shall be maintained for a period of five years.
2. The permittee shall perform the following monitoring and record keeping requirements in order to demonstrate compliance through the use of the composite mesh-pad system:
  - a. During the initial performance test, the permittee shall determine the outlet chromium concentration using the methods described in the "Testing Requirements" section of this permit. The pressure drop across the composite mesh-pad system shall be established as a site-specific operating parameter, setting the value that corresponds to compliance with the applicable emission limitation, as established during performance testing.

b. The permittee may conduct multiple performance tests to establish a range of compliant pressure drop values; or may set as the compliant value, the average pressure drop measured over the three test runs of one performance test and accept 1 inch of water column from this value as the compliant range.

c. On and after the date on which the initial performance test is required to be completed under 40 CFR 63.7, the permittee shall monitor and record the pressure drop across the composite mesh-pad system once each day that the emissions unit is in operation. To be in compliance, the composite mesh-pad system shall be operated within 1 inch of water column of the pressure drop value established during compliance performance testing, or shall be operated within the range of compliant values for pressure drop established during multiple performance tests.

d. The permittee may repeat the performance test, as above, and establish a new site-specific operating parameter for the pressure drop across the composite mesh-pad system if the following conditions are met:

- i. the outlet chromium concentration is determined using the test methods and procedures in the "Testing Requirements" section of this permit;
- ii. the site-specific operating parameter value is established using the procedures established in the "Testing Requirements" section of this permit;
- iii. the record keeping requirements contained in this permit are met;
- iv. the proper notification of the test date (at least 60 days before the test is scheduled) is provided to the Toledo Division of Environmental Services; and
- v. the results of the performance test are submitted to the Toledo Division of Environmental Services, as required in the "Reporting Requirements" section of this permit.

e. The requirement to operate the composite mesh-pad system within 1 inch of water column of the pressure drop value established during compliance performance testing does not apply during automatic washdown cycles of the composite mesh-pad system.

**D. Reporting Requirements**

1. The permittee shall submit a "Notification of Performance Test" or "Intent to Test" to the regulating agency (appropriate Ohio EPA Division of Air Pollution Control, District Office or local air agency) at least 60 calendar days before the performance test is scheduled. The permittee shall notify the regulating agency as soon as practicable if the performance test cannot be conducted as scheduled, and shall specify the date it will be rescheduled (provisions of 40 CFR 63.7(b)(2)).
2. The permittee shall report, to the Toledo Division of Environmental Services, the results of any performance test conducted within 30 days of completion of such test. Reports of performance test results shall also be submitted in the "Notification of Compliance Status Report", no later than 90 days following the completion of the performance test. Performance test results shall be documented in complete test reports that contain the following information:
  - a. a brief description of the process;
  - b. a description of the sampling location(s);
  - c. a description of sampling and analytical procedures and any modifications to standard procedures;
  - d. the test results;
  - e. quality assurance procedures and results;
  - f. records of operating conditions during testing, preparation of standards, and calibration procedures;
  - g. raw data sheets for field sampling and field and laboratory analyses;
  - h. documentation of calculations; and
  - i. any other information required by the test method.

The permittee shall have sufficient data to establish the operating parameter value(s) that corresponds to compliance as required for continuous compliance monitoring.

3. Unless a more frequent reporting frequency has been determined, the permittee shall prepare and submit semiannual "Ongoing Compliance Status Reports" to the Toledo Division of Environmental Services in order 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. a description of the source, type of process performed, and the air pollution control method and monitoring device(s) that is/are/shall be used to demonstrate continuous compliance;
  - c. an identification of the operating parameter(s) that is/are/shall be monitored for compliance determination;
  - d. the relevant emission limitation for the emissions unit, and the operating parameter value(s), or range of values, established during compliance testing and reported in the notification of compliance status report(s);
  - e. the beginning and ending dates of the reporting period;
  - f. the total operating time of the emissions unit during the reporting period;
  - g. 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;
  - h. the actual cumulative rectifier capacity expended during the reporting period, on a month-by-month basis;
  - i. 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;
  - j. 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;

- k. a description of any changes in monitoring, processes, or controls since the last reporting period;
- l. the date of the report; and
- m. the name, title, and signature of the responsible official who is certifying the accuracy of the report.

The "Ongoing Compliance Status Reports" shall be submitted semiannually except when:

- a. the regulating agency has determined that more frequent reporting is necessary to accurately assess the compliance status of the emissions unit; or
- b. the monitoring data collected by the permittee show that the emission limit has been exceeded, in which case quarterly reports shall be submitted.

Once an exceedance is reported, the "Ongoing Compliance Status Reports" shall be submitted quarterly until a request to reduce reporting frequency is submitted and approved, as required in this permit, by the Toledo Division of Environmental Services.

- 4. The permittee, if required to submit "Ongoing Compliance Status Reports" on a quarterly (or more frequent) basis, may request that the reporting frequency be reduced to semiannual if all of the following conditions are met:
  - a. for 1 full year (e.g., 4 quarterly or 12 monthly 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; and
  - c. the permittee submits a request (in writing) for approval from the Toledo Division of Environmental Services to reduce the frequency of reporting.

In deciding whether to approve a reduced reporting frequency, the Toledo Division of Environmental Services may request to review information concerning the facility's entire previous performance history during the 5-year record keeping period prior to the intended change in the reporting frequency, or the record keeping period since the facility's compliance date, whichever is shorter. Records subject to review may include performance test results, monitoring data, and evaluations of a permittee's conformance with emission limitations and work practice standards. If the request is disapproved, the permittee will be notified in writing within 45 days after receiving notice of the permittee's intention. The notification will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval shall be automatically granted.

As soon as the monitoring data show that the facility is not in compliance with the relevant emission limit, the frequency of reporting shall revert to quarterly, 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 to semiannual reports.

#### 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):

Emission Limitation:

Chromium emissions shall not exceed 4.4 E-3 ton per year combined for P011 through P015.

Applicable Compliance Method:

This emission limitation was developed by multiplying the allowable chromium emission limitation (0.0000066 gr/dscf) by the maximum volumetric flow rate to the control device (18,000 cfm), by 60 min/hr and 8,760 hr/yr, and then dividing by 7,000 gr/lb and 2,000 lb/ton. Therefore, if compliance is shown with the allowable chromium emission limitation, compliance shall also be shown with the annual emission limitation.

Emission Limitation:

20 percent opacity, as a six-minute average.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emissions limitation through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(1). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

Emission Limitation:

PE shall not exceed 0.551 pound per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emissions limitation through emissions testing performed in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

Emission Limitation:

Chromium emissions shall not exceed 6.6 E-6 gr/dscf.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emissions limitation through emissions testing

- performed in accordance with Method 306 or Method 306A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.
2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements, in order to demonstrate compliance with the chromium emission limitation contained in this permit:
    - a. The emission testing shall be conducted within 6 months of permit issuance and 6 months of permit expiration.
    - b. One of the following test methods shall be employed to demonstrate compliance:
      - i. Method 306 or Method 306A, "Determination of Chromium Emissions From Decorative and Hard Chromium Electroplating and Anodizing Operations" shall be used to determine the chromium concentration from the electroplating or anodizing tank.
    - (a) The sampling time and sample volume for each run of Methods 306 and 306A shall be at least 120 minutes and 1.7 dscm (60 dscf), respectively.
    - (b) Methods 306 and 306A allow the measurement of either total chromium or hexavalent chromium emissions. Emissions units using chromic acid baths can demonstrate compliance with the emission limits by measuring either the total chromium or hexavalent chromium concentration. The hexavalent chromium concentration measured by these methods is equal to the total chromium concentration for the affected operations.
  3. The permittee shall measure the pressure drop across the add-on air pollution control device in accordance with the following guidelines:
    - a. Specifications for differential pressure measurement devices used to measure pressure drop across a control system shall be in accordance with the manufacturer's accuracy specifications.
    - b. 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; and
      - iii. on the front side of the first mesh pad and back side of the last mesh pad within the control system.
    - c. 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; and
      - ii. situated such that no air infiltration at the measurement site will occur that could bias the measurement;
    - d. pressure taps shall be constructed of either polyethylene, polybutylene, or other nonreactive materials;
    - e. nonreactive plastic tubing shall be used to connect the pressure taps to the device used to measure pressure drop;
    - f. any of the following pressure gauges may be used to monitor pressure drop: a magnehelic gauge, an inclined manometer, or a "U" tube manometer;
    - g. prior to connecting any pressure lines to the pressure gauge(s), each gauge shall be zeroed (calibration of the pressure gauges is not required, with every required reading); and
    - h. all monitoring equipment shall be installed such that representative measurements of emissions or process parameters from the affected emissions unit are obtained. Verification of the operational status of the monitoring equipment shall include execution of the manufacturer's written accuracy specifications or recommendations for installation, operation, and calibration of the system(s).
  4. The composite mesh-pad system controls multiple affected emissions units, P011-P015, performing the same type of operation and subject to the same emission limitation, therefore the emission limitation of 6.6 E-6 gr/dscf must be met at the outlet of this control device regardless of the number of emissions units vented to the device.

**F. Miscellaneous Requirements**

1. The following permit restrictions are federally enforceable permit restrictions: all.

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

Facility ID: 0448010041 Emissions Unit ID: P014 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**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>
P014 - Hard chrome plating tank #13 controlled by a composite mesh pad system	OAC rule 3745-31-05(A)(3) (PTI 04-01094, issued 2/4/1998) OAC rule 3745-17-07(A)(1)  OAC rule 3745-17-11(B)(1) 40 CFR Part 63, Subpart N	Chrome emissions shall not exceed 4.4 E-3 ton per year combined for P011 through P015. Visible particulate emissions (PE) shall not exceed 20% opacity as a six-minute average, unless otherwise specified by the rule. PE shall not exceed 0.551 pound per hour. See sections A.2.a through A.2.c.

**2. Additional Terms and Conditions**

- (a) The application and enforcement of the provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 63, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 63 are also federally enforceable.  
The permittee shall not allow the concentration of total chromium in the exhaust gas stream discharged from the open surface, hard chromium electroplating operation(s), P011-P015, to exceed 0.015 mg/dscm (6.6x10<sup>-6</sup> gr/dscf). This limitation also applies during startup and shutdown operations, but not during periods of malfunction where work practice standards address and correct any malfunction event.  
The permittee, having a maximum potential cumulative rectifier capacity of 60 million ampere-hours per year or more, shall be considered a small hard chromium electroplating facility as long as the actual cumulative rectifier capacity is less than 60 million ampere-hours per year and the permittee has maintained and continues to maintain monthly records showing the actual ampere-hour usage for each 12-month rolling period (following the compliance date) to be less than 60 million ampere-hours and these records have been documented by using non-resettable ampere-hour meter(s).  
  
If monthly records demonstrate that 60 million ampere-hours has been met or exceeded over any 12-month rolling period, the hard chromium electroplating tanks shall be subject to the emission limitation (s) applicable to those located at a large hard chromium electroplating facility.

**B. Operational Restrictions**

1. The permittee shall implement the following operational, maintenance, and work practices standards for the chromium electroplating and anodizing tanks:
  - a. At all times, including periods of startup, shutdown, and malfunction, the permittee shall operate and maintain the chromium electroplating or anodizing tank(s), including the associated air pollution control device(s) and monitoring equipment, in a manner consistent with the operation and maintenance plan required by these terms and conditions.
  - b. Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the operation and maintenance plan.
  - c. Determination of whether acceptable operation and maintenance procedures are being used shall be based on the facility records, which shall be made available to the Toledo Division of Environmental Services upon request, and which may include, but not be 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 Toledo Division of Environmental Services may require that the permittee make changes to the operation and maintenance plan if that plan:
    - i. does not address a malfunction that has occurred;
    - ii. fails to provide for the proper operation of the emissions unit, 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
    - iii. does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control equipment, and/or monitoring equipment as quickly as practicable.
  - d. The standards and limitations that apply to chromic acid baths shall not be met by using a reducing agent to change the form of chromium from hexavalent to trivalent.
2. The permittee shall prepare an operation and maintenance plan to be implemented no later than the startup of the unit or the compliance date. The plan 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, 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 incorporate the work practice standards for the add-on air pollution control device and monitoring equipment required to demonstrate compliance with the standard.
  - 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 device(s), and process and control system monitoring equipment, and for implementing corrective actions to address any 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. The revised plan shall include procedures for operating and maintaining the process equipment, add-on air pollution control device, or monitoring equipment during similar malfunction events, and a program for corrective action for such events.
- 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 to the Toledo Division of Environmental Services within 2 working days following the actions performed inconsistent with the plan. This verbal report shall be followed by a letter within 7 working days following the event, unless the permittee makes alternative reporting arrangements, in advance, with the Toledo Division of Environmental Services.
- g. The permittee shall maintain the written operation and maintenance plan on record at the facility; and it shall be made readily available for inspection, at the request of the Toledo Division of Environmental Services and for the life of the emissions unit. If the operation and maintenance plan is revised, the permittee shall maintain previous versions of the plan at the facility for a period of five years following each revision; the superceded version(s) of the plan shall also be made available for inspection, if so requested by the Toledo Division of Environmental Services.
- 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 of 40 CFR 63.342(f)(3).
3. The operation and maintenance plan shall incorporate the following work practice standards for the composite mesh-pad control system; the plan shall provide procedures for:
- quarterly visual inspections of the composite mesh-pad system, to ensure there is proper drainage, no chronic acid buildup on the pads, and no evidence of chemical attack on the structural integrity of the device;
  - quarterly visual inspections of the back portion of the mesh pad closest to the fan, to ensure there is no breakthrough of chromic acid mist;
  - quarterly visual inspections of the ductwork from tank to the composite mesh-pad system, to ensure there are no leaks; and
  - washdown of the composite mesh-pads in accordance with the manufacturer's recommendations.
4. If a pitot tube is used for monitoring emissions, the operation and maintenance plan shall incorporate the necessary work practice standards to ensure the accuracy of the instrument. These work practice standards shall be performed at least once per quarter and shall include:
- inspection of the pitot tube for damage or cracks, with replacement if any are found;
  - cleaning of the pitot tube;
  - verification of a zero reading with a 180 degree rotation within the duct; and
  - a record of the findings of each inspection.
- C. Monitoring and/or Record Keeping Requirements**
1. In addition to fulfilling all record keeping requirements contained in the General Provisions to 40 CFR Part 63, Subpart A, as they apply to the emissions unit, the permittee shall also maintain the following records:
- inspection records for the add-on air pollution control device and monitoring equipment, to document that the inspection and maintenance required by the work practice standards contained in this permit have been performed. 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;
  - records of all maintenance performed on the emissions unit, add-on air pollution control device, and monitoring equipment;
  - records of the occurrence, duration, and cause (if known) of each malfunction of process, add-on air pollution control device, and monitoring equipment;
  - records of actions taken during periods of malfunction when such actions are inconsistent with the operation and maintenance plan;
  - other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the operation and maintenance plan;
  - test reports documenting results of all performance tests;
  - all measurements as may be necessary to determine the conditions of performance tests;
  - records of monitoring data that are used to demonstrate compliance with the standard including the date and time the data are collected;
  - 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;
  - 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" section of this permit and the general reporting requirements in 40 CFR 63.9 and 40 CFR 63.10, from subpart A; and

m. records of the actual cumulative rectifier capacity of hard chromium electroplating tanks expended during each month of the reporting period, and the total capacity expended to date for a reporting period.

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

2. The permittee shall perform the following monitoring and record keeping requirements in order to demonstrate compliance through the use of the composite mesh-pad system:

a. During the initial performance test, the permittee shall determine the outlet chromium concentration using the methods described in the "Testing Requirements" section of this permit. The pressure drop across the composite mesh-pad system shall be established as a site-specific operating parameter, setting the value that corresponds to compliance with the applicable emission limitation, as established during performance testing.

b. The permittee may conduct multiple performance tests to establish a range of compliant pressure drop values; or may set as the compliant value, the average pressure drop measured over the three test runs of one performance test and accept 1 inch of water column from this value as the compliant range.

c. On and after the date on which the initial performance test is required to be completed under 40 CFR 63.7, the permittee shall monitor and record the pressure drop across the composite mesh-pad system once each day that the emissions unit is in operation. To be in compliance, the composite mesh-pad system shall be operated within 1 inch of water column of the pressure drop value established during compliance performance testing, or shall be operated within the range of compliant values for pressure drop established during multiple performance tests.

d. The permittee may repeat the performance test, as above, and establish a new site-specific operating parameter for the pressure drop across the composite mesh-pad system if the following conditions are met:

i. the outlet chromium concentration is determined using the test methods and procedures in the "Testing Requirements" section of this permit;

ii. the site-specific operating parameter value is established using the procedures established in the "Testing Requirements" section of this permit;

iii. the record keeping requirements contained in this permit are met;

iv. the proper notification of the test date (at least 60 days before the test is scheduled) is provided to the Toledo Division of Environmental Services; and

v. the results of the performance test are submitted to the Toledo Division of Environmental Services, as required in the "Reporting Requirements" section of this permit.

e. The requirement to operate the composite mesh-pad system within 1 inch of water column of the pressure drop value established during compliance performance testing does not apply during automatic washdown cycles of the composite mesh-pad system.

**D. Reporting Requirements**

1. The permittee shall submit a "Notification of Performance Test" or "Intent to Test" to the regulating agency (appropriate Ohio EPA Division of Air Pollution Control, District Office or local air agency) at least 60 calendar days before the performance test is scheduled. The permittee shall notify the regulating agency as soon as practicable if the performance test cannot be conducted as scheduled, and shall specify the date it will be rescheduled (provisions of 40 CFR 63.7(b)(2)).

2. The permittee shall report, to the Toledo Division of Environmental Services, the results of any performance test conducted within 30 days of completion of such test. Reports of performance test results shall also be submitted in the "Notification of Compliance Status Report", no later than 90 days following the completion of the performance test. Performance test results shall be documented in complete test reports that contain the following information:

a. a brief description of the process;

b. a description of the sampling location(s);

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

d. the test results;

e. quality assurance procedures and results;

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

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

h. documentation of calculations; and

i. any other information required by the test method.

The permittee shall have sufficient data to establish the operating parameter value(s) that corresponds to compliance as required for continuous compliance monitoring.

3. Unless a more frequent reporting frequency has been determined, the permittee shall prepare and submit semiannual "Ongoing Compliance Status Reports" to the Toledo Division of Environmental Services in order 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. a description of the source, type of process performed, and the air pollution control method and monitoring device(s) that is/are/shall be used to demonstrate continuous compliance;

c. an identification of the operating parameter(s) that is/are/shall be monitored for compliance determination;

d. the relevant emission limitation for the emissions unit, and the operating parameter value(s), or range of values, established during compliance testing and reported in the notification of compliance status report(s);

- e. the beginning and ending dates of the reporting period;
- f. the total operating time of the emissions unit during the reporting period;
- g. 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;
- h. the actual cumulative rectifier capacity expended during the reporting period, on a month-by-month basis;
- i. 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;
- j. 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;
- k. a description of any changes in monitoring, processes, or controls since the last reporting period;
- l. the date of the report; and
- m. the name, title, and signature of the responsible official who is certifying the accuracy of the report.

The "Ongoing Compliance Status Reports" shall be submitted semiannually except when:

- a. the regulating agency has determined that more frequent reporting is necessary to accurately assess the compliance status of the emissions unit; or
- b. the monitoring data collected by the permittee show that the emission limit has been exceeded, in which case quarterly reports shall be submitted.

Once an exceedance is reported, the "Ongoing Compliance Status Reports" shall be submitted quarterly until a request to reduce reporting frequency is submitted and approved, as required in this permit, by the Toledo Division of Environmental Services.

- 4. The permittee, if required to submit "Ongoing Compliance Status Reports" on a quarterly (or more frequent) basis, may request that the reporting frequency be reduced to semiannual if all of the following conditions are met:
  - a. for 1 full year (e.g., 4 quarterly or 12 monthly 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; and
  - c. the permittee submits a request (in writing) for approval from the Toledo Division of Environmental Services to reduce the frequency of reporting.

In deciding whether to approve a reduced reporting frequency, the Toledo Division of Environmental Services may request to review information concerning the facility's entire previous performance history during the 5-year record keeping period prior to the intended change in the reporting frequency, or the record keeping period since the facility's compliance date, whichever is shorter. Records subject to review may include performance test results, monitoring data, and evaluations of a permittee's conformance with emission limitations and work practice standards. If the request is disapproved, the permittee will be notified in writing within 45 days after receiving notice of the permittee's intention. The notification will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval shall be automatically granted.

As soon as the monitoring data show that the facility is not in compliance with the relevant emission limit, the frequency of reporting shall revert to quarterly, 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 to semiannual reports.

#### 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):  
Emission Limitation:

Chromium emissions shall not exceed 4.4 E-3 ton per year combined for P011 through P015.

Applicable Compliance Method:

This emission limitation was developed by multiplying the allowable chromium emission limitation (0.0000066 gr/dscf) by the maximum volumetric flow rate to the control device (18,000 cfm), by 60 min/hr and 8,760 hr/yr, and then dividing by 7,000 gr/lb and 2,000 lb/ton. Therefore, if compliance is shown with the allowable chromium emission limitation, compliance shall also be shown with the annual emission limitation.

Emission Limitation:

20 percent opacity, as a six-minute average.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emissions limitation through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(1). Alternative U.S. EPA approved test methods may be used with prior

written approval from the Ohio EPA.

Emission Limitation:

PE shall not exceed 0.551 pound per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emissions limitation through emissions testing performed in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

Emission Limitation:

Chrome emissions shall not exceed 6.6 E-6 gr/dscf.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emissions limitation through emissions testing performed in accordance with Method 306 or Method 306A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements, in order to demonstrate compliance with the chromium emission limitation contained in this permit:
  - a. The emission testing shall be conducted within 6 months of permit issuance and 6 months of permit expiration.
  - b. One of the following test methods shall be employed to demonstrate compliance:
    - i. Method 306 or Method 306A, "Determination of Chromium Emissions From Decorative and Hard Chromium Electroplating and Anodizing Operations" shall be used to determine the chromium concentration from the electroplating or anodizing tank.
  - (a) The sampling time and sample volume for each run of Methods 306 and 306A shall be at least 120 minutes and 1.7 dscm (60 dscf), respectively.
  - (b) Methods 306 and 306A allow the measurement of either total chromium or hexavalent chromium emissions. Emissions units using chromic acid baths can demonstrate compliance with the emission limits by measuring either the total chromium or hexavalent chromium concentration. The hexavalent chromium concentration measured by these methods is equal to the total chromium concentration for the affected operations.
3. The permittee shall measure the pressure drop across the add-on air pollution control device in accordance with the following guidelines:
  - a. Specifications for differential pressure measurement devices used to measure pressure drop across a control system shall be in accordance with the manufacturer's accuracy specifications.
  - b. 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; and
    - iii. on the front side of the first mesh pad and back side of the last mesh pad within the control system.
  - c. 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; and
    - ii. situated such that no air infiltration at the measurement site will occur that could bias the measurement;
  - d. pressure taps shall be constructed of either polyethylene, polybutylene, or other nonreactive materials;
  - e. nonreactive plastic tubing shall be used to connect the pressure taps to the device used to measure pressure drop;
  - f. any of the following pressure gauges may be used to monitor pressure drop: a magnehelic gauge, an inclined manometer, or a "U" tube manometer;
  - g. prior to connecting any pressure lines to the pressure gauge(s), each gauge shall be zeroed (calibration of the pressure gauges is not required, with every required reading); and
  - h. all monitoring equipment shall be installed such that representative measurements of emissions or process parameters from the affected emissions unit are obtained. Verification of the operational status of the monitoring equipment shall include execution of the manufacturer's written accuracy specifications or recommendations for installation, operation, and calibration of the system(s).
4. The composite mesh-pad system controls multiple affected emissions units, P011-P015, performing the same type of operation and subject to the same emission limitation, therefore the emission limitation of 6.6 E-6 gr/dscf must be met at the outlet of this control device regardless of the number of emissions units vented to the device.

**F. Miscellaneous Requirements**

1. The following permit restrictions are federally enforceable permit restrictions: all.

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

Facility ID: 0448010041 Emissions Unit ID: P015 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**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>
P015 - Hard chrome plating tank #14 controlled by a composite mesh pad system	OAC rule 3745-31-05(A)(3) (PTI 04-01094, issued 2/4/1998)	Chromium emissions shall not exceed 4.4 E-3 ton per year combined for P011 through P015.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) shall not exceed 20% opacity as a six-minute average, unless otherwise specified by the rule.
	OAC rule 3745-17-11(B)(1) 40 CFR Part 63, Subpart N	PE shall not exceed 0.551 pound per hour. See sections A.2.a through A.2.c.

**2. Additional Terms and Conditions**

- (a) The application and enforcement of the provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 63, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 63 are also federally enforceable.
 

The permittee shall not allow the concentration of total chromium in the exhaust gas stream discharged from the open surface, hard chromium electroplating operation(s), P011-P015, to exceed 0.015 mg/dscm (6.6x10<sup>-6</sup> gr/dscf). This limitation also applies during startup and shutdown operations, but not during periods of malfunction where work practice standards address and correct any malfunction event.

The permittee, having a maximum potential cumulative rectifier capacity of 60 million ampere-hours per year or more, shall be considered a small hard chromium electroplating facility as long as the actual cumulative rectifier capacity is less than 60 million ampere-hours per year and the permittee has maintained and continues to maintain monthly records showing the actual ampere-hour usage for each 12-month rolling period (following the compliance date) to be less than 60 million ampere-hours and these records have been documented by using non-resettable ampere-hour meter(s).

If monthly records demonstrate that 60 million ampere-hours has been met or exceeded over any 12-month rolling period, the hard chromium electroplating tanks shall be subject to the emission limitation (s) applicable to those located at a large hard chromium electroplating facility.

**B. Operational Restrictions**

1. The permittee shall implement the following operational, maintenance, and work practices standards for the chromium electroplating and anodizing tanks:
  - a. At all times, including periods of startup, shutdown, and malfunction, the permittee shall operate and maintain the chromium electroplating or anodizing tank(s), including the associated air pollution control device(s) and monitoring equipment, in a manner consistent with the operation and maintenance plan required by these terms and conditions.
  - b. Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the operation and maintenance plan.
  - c. Determination of whether acceptable operation and maintenance procedures are being used shall be based on the facility records, which shall be made available to the Toledo Division of Environmental Services upon request, and which may include, but not be 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 Toledo Division of Environmental Services may require that the permittee make changes to the operation and maintenance plan if that plan:
    - i. does not address a malfunction that has occurred;
    - ii. fails to provide for the proper operation of the emissions unit, 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

- iii. does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control equipment, and/or monitoring equipment as quickly as practicable.
    - d. The standards and limitations that apply to chromic acid baths shall not be met by using a reducing agent to change the form of chromium from hexavalent to trivalent.
  - 2. The permittee shall prepare an operation and maintenance plan to be implemented no later than the startup of the unit or the compliance date. The plan 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, 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 incorporate the work practice standards for the add-on air pollution control device and monitoring equipment required to demonstrate compliance with the standard.
    - 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 device(s), and process and control system monitoring equipment, and for implementing corrective actions to address any 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. The revised plan shall include procedures for operating and maintaining the process equipment, add-on air pollution control device, or monitoring equipment during similar malfunction events, and a program for corrective action for such events.
    - 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 to the Toledo Division of Environmental Services within 2 working days following the actions performed inconsistent with the plan. This verbal report shall be followed by a letter within 7 working days following the event, unless the permittee makes alternative reporting arrangements, in advance, with the Toledo Division of Environmental Services.
    - g. The permittee shall maintain the written operation and maintenance plan on record at the facility; and it shall be made readily available for inspection, at the request of the Toledo Division of Environmental Services and for the life of the emissions unit. If the operation and maintenance plan is revised, the permittee shall maintain previous versions of the plan at the facility for a period of five years following each revision; the superceded version(s) of the plan shall also be made available for inspection, if so requested by the Toledo Division of Environmental Services.
    - 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 of 40 CFR 63.342(f)(3).
  - 3. The operation and maintenance plan shall incorporate the following work practice standards for the composite mesh-pad control system; the plan shall provide procedures for:
    - a. quarterly visual inspections of the composite mesh-pad system, 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;
    - b. quarterly visual inspections of the back portion of the mesh pad closest to the fan, to ensure there is no breakthrough of chromic acid mist;
    - c. quarterly visual inspections of the ductwork from tank to the composite mesh-pad system, to ensure there are no leaks; and
    - d. washdown of the composite mesh-pads in accordance with the manufacturer's recommendations.
  - 4. If a pitot tube is used for monitoring emissions, the operation and maintenance plan shall incorporate the necessary work practice standards to ensure the accuracy of the instrument. These work practice standards shall be performed at least once per quarter and shall include:
    - a. inspection of the pitot tube for damage or cracks, with replacement if any are found;
    - b. cleaning of the pitot tube;
    - c. verification of a zero reading with a 180 degree rotation within the duct; and
    - d. a record of the findings of each inspection.
- C. Monitoring and/or Record Keeping Requirements**

- 1. In addition to fulfilling all record keeping requirements contained in the General Provisions to 40 CFR Part 63, Subpart A, as they apply to the emissions unit, the permittee shall also maintain the following records:
  - a. inspection records for the add-on air pollution control device and monitoring equipment, to document that the inspection and maintenance required by the work practice standards contained in this permit have been performed. 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 emissions unit during the reporting period;
- l. all documentation supporting the notifications and reports as outlined in the "Reporting Requirements" section of this permit and the general reporting requirements in 40 CFR 63.9 and 40 CFR 63.10, from subpart A; and
- m. records of the actual cumulative rectifier capacity of hard chromium electroplating tanks expended during each month of the reporting period, and the total capacity expended to date for a reporting period.

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

2. The permittee shall perform the following monitoring and record keeping requirements in order to demonstrate compliance through the use of the composite mesh-pad system:
  - a. During the initial performance test, the permittee shall determine the outlet chromium concentration using the methods described in the "Testing Requirements" section of this permit. The pressure drop across the composite mesh-pad system shall be established as a site-specific operating parameter, setting the value that corresponds to compliance with the applicable emission limitation, as established during performance testing.
  - b. The permittee may conduct multiple performance tests to establish a range of compliant pressure drop values; or may set as the compliant value, the average pressure drop measured over the three test runs of one performance test and accept 1 inch of water column from this value as the compliant range.
  - c. On and after the date on which the initial performance test is required to be completed under 40 CFR 63.7, the permittee shall monitor and record the pressure drop across the composite mesh-pad system once each day that the emissions unit is in operation. To be in compliance, the composite mesh-pad system shall be operated within 1 inch of water column of the pressure drop value established during compliance performance testing, or shall be operated within the range of compliant values for pressure drop established during multiple performance tests.
  - d. The permittee may repeat the performance test, as above, and establish a new site-specific operating parameter for the pressure drop across the composite mesh-pad system if the following conditions are met:
    - i. the outlet chromium concentration is determined using the test methods and procedures in the "Testing Requirements" section of this permit;
    - ii. the site-specific operating parameter value is established using the procedures established in the "Testing Requirements" section of this permit;
    - iii. the record keeping requirements contained in this permit are met;
    - iv. the proper notification of the test date (at least 60 days before the test is scheduled) is provided to the Toledo Division of Environmental Services; and
    - v. the results of the performance test are submitted to the Toledo Division of Environmental Services, as required in the "Reporting Requirements" section of this permit.
  - e. The requirement to operate the composite mesh-pad system within 1 inch of water column of the pressure drop value established during compliance performance testing does not apply during automatic washdown cycles of the composite mesh-pad system.

**D. Reporting Requirements**

1. The permittee shall submit a "Notification of Performance Test" or "Intent to Test" to the regulating agency (appropriate Ohio EPA Division of Air Pollution Control, District Office or local air agency) at least 60 calendar days before the performance test is scheduled. The permittee shall notify the regulating agency as soon as practicable if the performance test cannot be conducted as scheduled, and shall specify the date it will be rescheduled (provisions of 40 CFR 63.7(b)(2)).
2. The permittee shall report, to the Toledo Division of Environmental Services, the results of any performance test conducted within 30 days of completion of such test. Reports of performance test results shall also be submitted in the "Notification of Compliance Status Report", no later than 90 days following the completion of the performance test. Performance test results shall be documented in complete test reports that contain the following information:
  - a. a brief description of the process;
  - b. a description of the sampling location(s);
  - c. a description of sampling and analytical procedures and any modifications to standard procedures;
  - d. the test results;
  - e. quality assurance procedures and results;
  - f. records of operating conditions during testing, preparation of standards, and calibration procedures;
  - g. raw data sheets for field sampling and field and laboratory analyses;
  - h. documentation of calculations; and

- i. any other information required by the test method.

The permittee shall have sufficient data to establish the operating parameter value(s) that corresponds to compliance as required for continuous compliance monitoring.

3. Unless a more frequent reporting frequency has been determined, the permittee shall prepare and submit semiannual "Ongoing Compliance Status Reports" to the Toledo Division of Environmental Services in order 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. a description of the source, type of process performed, and the air pollution control method and monitoring device(s) that is/are/shall be used to demonstrate continuous compliance;
- c. an identification of the operating parameter(s) that is/are/shall be monitored for compliance determination;
- d. the relevant emission limitation for the emissions unit, and the operating parameter value(s), or range of values, established during compliance testing and reported in the notification of compliance status report(s);
- e. the beginning and ending dates of the reporting period;
- f. the total operating time of the emissions unit during the reporting period;
- g. 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;
- h. the actual cumulative rectifier capacity expended during the reporting period, on a month-by-month basis;
- i. 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;
- j. 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;
- k. a description of any changes in monitoring, processes, or controls since the last reporting period;
- l. the date of the report; and
- m. the name, title, and signature of the responsible official who is certifying the accuracy of the report.

The "Ongoing Compliance Status Reports" shall be submitted semiannually except when:

- a. the regulating agency has determined that more frequent reporting is necessary to accurately assess the compliance status of the emissions unit; or
- b. the monitoring data collected by the permittee show that the emission limit has been exceeded, in which case quarterly reports shall be submitted.

Once an exceedance is reported, the "Ongoing Compliance Status Reports" shall be submitted quarterly until a request to reduce reporting frequency is submitted and approved, as required in this permit, by the Toledo Division of Environmental Services.

4. The permittee, if required to submit "Ongoing Compliance Status Reports" on a quarterly (or more frequent) basis, may request that the reporting frequency be reduced to semiannual if all of the following conditions are met:

- a. for 1 full year (e.g., 4 quarterly or 12 monthly 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; and
- c. the permittee submits a request (in writing) for approval from the Toledo Division of Environmental Services to reduce the frequency of reporting.

In deciding whether to approve a reduced reporting frequency, the Toledo Division of Environmental Services may request to review information concerning the facility's entire previous performance history during the 5-year record keeping period prior to the intended change in the reporting frequency, or the record keeping period since the facility's compliance date, whichever is shorter. Records subject to review may include performance test results, monitoring data, and evaluations of a permittee's conformance with emission limitations and work practice standards. If the request is disapproved, the permittee will be notified in writing within 45 days after receiving notice of the permittee's intention. The notification will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval shall be automatically granted. As soon as the monitoring data show that the facility is not in compliance with the relevant emission limit, the frequency of reporting shall revert to quarterly, 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 to semiannual reports.

#### 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):  
Emission Limitation:

Chrome emissions shall not exceed 4.4 E-3 ton per year combined for P011 through P015.

Applicable Compliance Method:

This emission limitation was developed by multiplying the allowable chromium emission limitation (0.0000066 gr/dscf) by the maximum volumetric flow rate to the control device (18,000 cfm), by 60 min/hr and 8,760 hr/yr, and then dividing by 7,000 gr/lb and 2,000 lb/ton. Therefore, if compliance is shown with the allowable chromium emission limitation, compliance shall also be shown with the annual emission limitation.

Emission Limitation:

20 percent opacity, as a six-minute average.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emissions limitation through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(1). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

Emission Limitation:

PE shall not exceed 0.551 pound per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emissions limitation through emissions testing performed in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

Emission Limitation:

Chrome emissions shall not exceed 6.6 E-6 gr/dscf.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emissions limitation through emissions testing performed in accordance with Method 306 or Method 306A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements, in order to demonstrate compliance with the chromium emission limitation contained in this permit:
  - a. The emission testing shall be conducted within 6 months of permit issuance and 6 months of permit expiration.
  - b. One of the following test methods shall be employed to demonstrate compliance:
    - i. Method 306 or Method 306A, "Determination of Chromium Emissions From Decorative and Hard Chromium Electroplating and Anodizing Operations" shall be used to determine the chromium concentration from the electroplating or anodizing tank.
  - (a) The sampling time and sample volume for each run of Methods 306 and 306A shall be at least 120 minutes and 1.7 dscm (60 dscf), respectively.
  - (b) Methods 306 and 306A allow the measurement of either total chromium or hexavalent chromium emissions. Emissions units using chromic acid baths can demonstrate compliance with the emission limits by measuring either the total chromium or hexavalent chromium concentration. The hexavalent chromium concentration measured by these methods is equal to the total chromium concentration for the affected operations.
3. The permittee shall measure the pressure drop across the add-on air pollution control device in accordance with the following guidelines:
  - a. Specifications for differential pressure measurement devices used to measure pressure drop across a control system shall be in accordance with the manufacturer's accuracy specifications.
  - b. 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; and
    - iii. on the front side of the first mesh pad and back side of the last mesh pad within the control system.
  - c. 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; and
    - ii. situated such that no air infiltration at the measurement site will occur that could bias the measurement;
  - d. pressure taps shall be constructed of either polyethylene, polybutylene, or other nonreactive materials;
  - e. nonreactive plastic tubing shall be used to connect the pressure taps to the device used to measure pressure drop;
  - f. any of the following pressure gauges may be used to monitor pressure drop: a magnehelic gauge, an inclined

manometer, or a "U" tube manometer;

g. prior to connecting any pressure lines to the pressure gauge(s), each gauge shall be zeroed (calibration of the pressure gauges is not required, with every required reading); and

h. all monitoring equipment shall be installed such that representative measurements of emissions or process parameters from the affected emissions unit are obtained. Verification of the operational status of the monitoring equipment shall include execution of the manufacturer's written accuracy specifications or recommendations for installation, operation, and calibration of the system(s).

4. The composite mesh-pad system controls multiple affected emissions units, P011-P015, performing the same type of operation and subject to the same emission limitation, therefore the emission limitation of  $6.6 \text{ E-6 gr/dscf}$  must be met at the outlet of this control device regardless of the number of emissions units vented to the device.

**F. Miscellaneous Requirements**

1. The following permit restrictions are federally enforceable permit restrictions: all.