

PIMA COUNTY DEPARTMENT OF ENVIRONMENTAL QUALITY

Air Program

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**GENERAL AIR QUALITY
OPERATING PERMIT**

FOR

**AREA SOURCE
PLATING, ANODIZING AND
POLISHING FACILITIES**

THIS GENERAL PERMIT ISSUED SUBJECT TO SPECIFIC AND ADMINISTRATIVE
CONDITIONS IDENTIFIED IN THIS PERMIT.

PDEQ GENERAL PERMIT NUMBER 6144

PERMIT CLASS II

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SIGNATURE

Rupesh Patel, Air Permit Manager, PDEQ

TITLE

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Explanation of Permit Structure

This General Permit covers sources that meet the requirements as laid out in the general permit application packet for Area Source Plating Anodizing and Polishing Operations. The affected activities are:

- 1) Electrolytic Processes: Electroplating, Electroforming and Electropolishing;
- 2) Thermal spraying;
- 3) Dry mechanical polishing of finished metals and formed products after plating;
- 4) Electroless (non-electrolytic) plating and other non-electrolytic metal coating processes (chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating).

A Permittee may be subject to one, multiple or all sections of the permit depending on the activities declared in the permit application. The first section of the permit contains Pima County Code (PCC) provisions that apply to all sources of air contaminants operating in Pima County and are Locally Enforceable Conditions unless noted otherwise.

Part I of this general permit covers sources that have at least one electroplating or anodizing tank, subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations in **40 CFR Part 63, Subpart N (Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks)**. The processes covered under Subpart N have been grouped into the following four categories:

Category 1: Open Surface Hard Chromium Electroplating Tanks,

Category 2: Enclosed Surface Hard Chromium Electroplating Tanks,

Category 3: Decorative Chromium Electroplating Tanks using a Chromic Acid Bath, Decorative Chromium Electroplating Tanks using a Trivalent Chromium Bath that does NOT Incorporate a Wetting Agent and Chromium Anodizing Tanks, and

Category 4: Decorative Chromium Electroplating Tanks using a Trivalent Chromium Bath that Incorporates a Wetting Agent.

Whereas all electroplating processes covered under Part I are substantially similar, the regulations governing the operation and monitoring of these categories varies significantly.

Depending on the type of chromium plating or chromium anodizing process, each process is subject to specific regulations. Some regulations, however, are the same for all processes and do not vary. To reflect this, Part I is divided into “General Conditions” that are the regulations contained in Subpart N that apply to all categories of chromium plating and chromium anodizing tanks and separate sections of “Specific Conditions” that are the regulations contained in Subpart N that apply to the affected sources grouped in each of the four categories of affected tanks listed above. All affected sources subject to Part I General and Specific Conditions are regulated by applying maximum achievable control technology (MACT).

Part II of this general permit covers those sources that have a least one tank or operation that is subject to the NESHAP regulation in **40 CFR Part 63, Subpart WWWW (6W) (Plating and Polishing Operations)**. The processes covered under Subpart 6W have been grouped into the following five categories:

Category 5: Non-Cyanide Electrolytic Process Tanks,

Category 6: Cyanide Electrolytic Process Tanks,

Category 7: Thermal Spraying Operations,

Category 8: Dry Mechanical Polishing Operations, and

Category 9: Electroless Plating and Other Non-Electrolytic Metal Coating Processes

Part II is divided into “General Conditions” that contain the regulations in Subpart 6W that apply to all plating and polishing processes and separate sections of “Specific Conditions” that contain the regulations in Subpart 6W that apply to the affected sources grouped into each of the five categories of affected processes listed above. All affected sources subject to Part II General and Specific Conditions are regulated by applying generally available control technology (GACT).

All the conditions listed in Part I and Part II of this permit are Federally Enforceable, unless otherwise noted.

Each plating and polishing process authorized to operate in Pima County at the permitted facility shall be issued an Authorization to Operate (ATO) certificate. This certificate will list each plating and polishing process at the permitted facility, along with the specific category that each process belongs to and the corresponding parts of the general permit that apply to each plating and polishing process.

Pima County Code

(The following provisions contained in this section apply to all sources of air contaminants operating in Pima County and are Locally Enforceable Conditions unless noted otherwise.)

A. Emission Limitations and Standards

[PCC 17.12.185.A.2]

1. General Control Standards

- a. The Permittee shall not cause or permit the planning, construction, installation, erection, modification, use or operation of an emission source which will cause or contribute to a violation of a performance standard in Title 17 of the Pima County Code.

[PCC 17.12.020 & PCC 17.16.020.A]

- b. Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution are discharged to adjoining property, the Control Officer may require the installation of abatement equipment or the alteration of such stack, vent or other outlet by the owner or operator thereof to a degree that will adequately reduce or eliminate the discharge of air pollution to adjoining property.

[PCC 17.16.020.B]

2. Materials Handling Standards

- a. The Permittee shall not transport or store VOC's without taking necessary and feasible measures to control evaporation, leakage, or other discharge into the atmosphere.

[PCC 17.16.400.A]

- b. Materials including solvents or other volatile compounds, paints, acids, alkalies, pesticides, fertilizers and manure shall be processed, stored, used and transported in such a manner and by such means that they will not evaporate, leak, escape or be otherwise discharged into the ambient air so as to cause or contribute to air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage or discharge, the installation and use of such control methods, devices, or equipment shall be mandatory.

[PCC 17.16.430.F]

3. Odor Limiting Standard

The Permittee shall not emit gaseous or odorous materials from equipment, operations or premises under his control in such quantities or concentrations as to cause air pollution.

[PCC 17.16.030]

4. Opacity Limit

Except as otherwise specified in the Specific Conditions of this permit, the opacity of all plumes and effluents from all point, non-point, or fugitive emission sources shall not exceed 20% as determined by EPA Reference Method 9, Appendix A, 40 CFR Part 60.

[PCC 17.16.050.B, PCC 17.16.040 & PCC 17.16.130.B.1]

[This condition is Federally Enforceable when opacity is above 40%]

5. Visibility Limiting Standard

[PCC 17.16.050]

- a. The Permittee shall not cause, suffer, allow or permit operations or activities likely to result in excessive amounts of airborne dust without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne.
- b. The Permittee shall not cause, suffer, allow, or permit diffusion of visible emissions, including fugitive dust, beyond the property boundary line within which the emissions become airborne, without taking reasonably necessary and feasible precautions to control generation of airborne particulate matter. Sources may be required to cease temporarily the activity or operation which is causing or contributing to the emissions until reasonably necessary and feasible precautions are taken.
 - i. A.5.b of this Section shall not apply when wind speeds exceed twenty-five (25) miles per hour (using the Beaufort Scale of Wind-Speed Equivalents, or as recorded by the National Weather Service). This exception does not apply if control measures have not been taken or were not commensurate with the size or scope of the emission source.
 - ii. A.5.b of this Section shall not apply to the generation of airborne particulate matter from undisturbed land.

B. Monitoring Requirements

[PCC 17.12.185.A.3]

1. Visible Emissions (VE)

If at any time or while conducting an opacity check required by the Specific Conditions of this permit the Permittee sees any plume or effluent from a facility source, that, on an instantaneous basis, appears to exceed 20% opacity, or diffuse beyond the property boundary line, the Permittee shall investigate the source of the emissions and, if required, take corrective action. If the plume persists or the activity or operation which is causing or contributing to the emissions cannot be corrected or halted, the Permittee shall, when practicable, make a visual determination of the opacity in accordance with EPA reference Method 9 using a certified visible emissions evaluator. If the VE determination exceeds the applicable opacity limit, or the emissions diffuse beyond the property boundary line, the Permittee shall report this as an excess emission in accordance with IV.A of this Section.

[PCC 17.16.040]

2. Additional Monitoring Requirement

Monitoring facility-wide operations for compliance with the standards in A.1 through 5 of this Section shall not be necessary as the use of good modern practices prevents emissions in excess of the standards. The Control Officer may ask the Permittee to monitor and control emissions if the Control Officer has reasonable cause to believe a violation of the standards has been committed.

C. Recordkeeping Requirements

[PCC 17.12.185.A.4]

1. Monitoring Records

The Permittee shall maintain records of required monitoring information. Records shall include at a minimum:

[PCC 17.12.184.A.4.a]

- a. The date, time, and the place defined in the permit requiring the measurement, sampling, inspection, or observation;
- b. The name of the person conducting the measurement, sampling, inspection or observation;

- c. The particular piece of equipment, process, or area being measured, sampled, inspected or observed including a description of the operating conditions and monitoring techniques or methods used as applicable; and,
- d. The results of the measurement, sampling, inspection or observation including any discrepancy or excess emissions. If there are any monitoring discrepancies or excess emissions, the record shall include the corrective action taken.

2. Record Retention

The Permittee shall retain records of all required monitoring and support information for at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes copies of all reports required by the permit. [PCC 17.12.185.4.b]

3. Recordkeeping for Compliance Determinations

The Permittee shall retain a copy of the permit onsite including all required monitoring records and support information. In addition, all equipment identified in the permit equipment list shall be marked with a unique, clearly visible, and accessible ID to identify the piece of equipment. The Permittee shall be considered in compliance by demonstrating that sufficient information on the equipment and facility operations is periodically collected, recorded, and maintained to assure that the compliance status of any specific condition of this permit can be readily ascertained at any time. [PCC 17.12.080, & PCC 17.24.020.A]

D. Reporting Requirements

[PCC 17.12.185.A.5]

1. Excess Emissions Reporting

The Permittee shall report to the Control Officer any emissions in excess of the limits established by this permit in accordance with G.1.b of the Additional Permit Conditions of this Section.

[PCC 17.12.040]

2. Emissions Inventory Reporting:

[17.12.320]

The Permittee shall complete and submit to the control officer, when requested, an annual emissions inventory questionnaire pursuant to PCC 17.12.320.

3. Certification of Truth Accuracy and Completeness

All reports required by this permit shall contain certification by a responsible official of truth, accuracy and completeness stating that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

[PCC 17.12.165.I]

E. Facility Changes

1. Permit Revision Application

Before installing additional units, modifying existing emission equipment, or switching fuels, the Permittee shall apply for the appropriate revision in accordance with PCC 17.12.235, PCC 17.12.255.B or PCC 17.12.260. [PCC 17.12.235, PCC 17.12.255, PCC 17.12.260]

2. Notification

For facility changes that do not require revision, the Permittee may make the changes if written notice is provided to the Control Officer in advance of the changes in accordance with PCC 17.12.240.C. [PCC 17.12.240.C]

3. Recordkeeping Log

The Permittee shall maintain a log of other facility changes that do not require revision or notice pursuant to PCC 17.12.240.B. [PCC 17.12.240.B]

F. Testing Requirements

[PCC 17.12.045, PCC 17.12.050 & PCC 17.20.010]

For purposes of demonstrating compliance, these test methods shall be used, provided that for the purpose of establishing whether or not the facility has violated or is in violation of any provision of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable federal requirements if the appropriate performance or compliance procedures or methods had been performed. Methods referenced below are from 40 CFR Part 60, Appendix A unless otherwise noted.

1. When required, EPA Test Method 9 shall be used to monitor compliance with the opacity standards identified in this Permit.
2. Should the Permittee desire to test or be required to test to demonstrate compliance with the standards contained in this permit, the Permittee shall contact the control officer for test methods and guidelines.

G. Additional Permit Requirements

1. Compliance with Permit Conditions

[PCC 17.12.185.A.7.a & b]

- a. The Permittee shall comply with all conditions of this permit including all applicable requirements of the Arizona air quality statutes and the air quality rules. Any permit noncompliance constitutes a violation of the Arizona Revised Statutes and is grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application. In addition, noncompliance with any federally enforceable requirement constitutes a violation of the Clean Air Act.
- b. The Permittee shall report to the Control Officer any emissions in excess of the limits established by this permit. The report shall be in 2 parts as specified below:
[PCC 17.12.185.A.5 & PCC 17.12.040]
 - i. Notification by telephone or facsimile within 24 hours of the time the Permittee first learned of the occurrence of excess emission that includes all available information pursuant to PCC 17.12.040.B. To report excess emissions call **520-724-7400** or fax to **520-838-7432**.
 - ii. Detailed written notification by submission of an excess emissions report within 72 hours of the notification in G.1.b.i above. **Send to PDEQ 33 N. Stone Ave, Suite 700, Tucson, Arizona 85701.**
- c. It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

- d. The permit does not convey any property rights of any sort, or any exclusive privilege to the permit holder.
 - e. The Permittee shall pay fees to the Control Officer pursuant to PCC 17.12.510.
[PCC 17.12.185.A.9 & PCC 17.12.510]
2. Permit Revision, Reopening, Revocation and Reissuance, or Termination for cause
[PCC 17.12.185.A.7.c]

The permit may be revised, reopened, revoked and reissued, or terminated for cause pursuant to PCC 17.12.270. The filing of a request by the Permittee for a permit revision, revocation and reissuance, or termination; or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

3. Duty to Provide Information [PCC 17.12.165.G & PCC 17.12.185.A.7.e]
- a. The Permittee shall furnish to the Control Officer, within a reasonable time, any information that the Control Officer may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the Control Officer copies of records required to be kept by the permit. For information claimed to be confidential, the Permittee shall furnish a copy of such records to the Control Officer along with a claim of confidentiality.
 - b. If the Permittee has failed to submit any relevant facts or if the Permittee has submitted incorrect information in the permit application, the Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.

4. Severability Clause [PCC 17.12.185.A.6]

The provisions of this permit are severable. If any provision of this permit is held invalid, the remainder of this permit shall not be affected thereby.

PART I

Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks Subject to 40 CFR 63 Subpart N

Definitions

The definitions used in Part I of this general permit are defined in 40 CFR, Part 63, Subpart N, unless otherwise noted, are provided below for reference:

Add-on air pollution control device means equipment installed in the ventilation system of chromium electroplating and anodizing tanks for the purposes of collecting and containing chromium emissions from the tank(s).

Affirmative defense means, in the context of an enforcement proceeding, a response or a defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

Air pollution control technique means any method, such as an add-on air pollution control device or a chemical fume suppressant that is used to reduce chromium emissions from chromium electroplating and chromium anodizing tanks.

Area source means any stationary source of hazardous air pollutants that is not a major source as defined in this Part. [40 CFR 63.2]

Base metal means the metal or metal alloy that comprises the workpiece.

Bath component means the trade or brand name of each component(s) in trivalent chromium plating baths. For trivalent chromium baths, the bath composition is proprietary in most cases. Therefore, the trade or brand name for each component(s) can be used; however, the chemical name of the wetting agent contained in that component must be identified.

Chemical fume suppressant means any chemical agent that reduces or suppresses fumes or mists at the surface of an electroplating or anodizing bath; another term for fume suppressant is mist suppressant.

Chromic acid means the common name for chromium anhydride (CrO₃).

Chromium anodizing means the electrolytic process by which an oxide layer is produced on the surface of a base metal for functional purposes (e.g., corrosion resistance or electrical insulation) using a chromic acid solution. In chromium anodizing, the part to be anodized acts as the anode in the electrical circuit, and the chromic acid solution, with a concentration typically ranging from 50 to 100 grams per liter (g/L), serves as the electrolyte.

Chromium anodizing tank means the receptacle or container along with the following accompanying internal and external components needed for chromium anodizing: rectifiers fitted with controls to allow for voltage adjustments, heat exchanger equipment, circulation pumps, and air agitation systems.

Chromium electroplating tank means the receptacle or container along with the following internal and external components needed for chromium electroplating: Rectifiers, anodes, heat exchanger equipment, circulation pumps, and air agitation systems.

Composite mesh-pad system means an add-on air pollution control device typically consisting of several mesh-pad stages. The purpose of the first stage is to remove large particles. Smaller particles are removed in the second stage, which consists of the composite mesh pad. A final stage may remove any reentrained particles not collected by the composite mesh pad.

Contains hexavalent chromium means, the substance consists of, or contains 0.1 percent or greater by weight, chromium trioxide, chromium (VI) oxide, chromic acid, or chromic anhydride.

Decorative chromium electroplating means the process by which a thin layer of chromium (typically 0.003 to 2.5 microns) is electrodeposited on a base metal, plastic, or undercoating to provide a bright surface with wear and tarnish resistance. In this process, the part(s) serves as the cathode in the electrolytic cell and the solution serves as the electrolyte. Typical current density applied during this process ranges from 540 to 2,400 Amperes per square meter (A/m²) for total plating times ranging between 0.5 to 5 minutes.

Electroplating or anodizing bath means the electrolytic solution used as the conducting medium in which the flow of current is accompanied by movement of metal ions for the purposes of electroplating metal out of the solution onto a workpiece or for oxidizing the base material.

Emission limitation means, for the purposes of this subpart, the concentration of total chromium allowed to be emitted expressed in milligrams per dry standard cubic meter (mg/dscm), or the allowable surface tension expressed in dynes per centimeter (dynes/cm).

Enclosed hard chromium electroplating tank means a chromium electroplating tank that is equipped with an enclosing hood and ventilated at half the rate or less that of an open surface tank of the same surface area.

Existing affected source means an affected hard chromium electroplating tank, decorative chromium electroplating tank, or chromium anodizing tank, the construction or reconstruction of which commenced on or before February 8, 2012.

Facility means the major or area source at which chromium electroplating or chromium anodizing is performed.

Fiber-bed mist eliminator means an add-on air pollution control device that removes contaminants from a gas stream through the mechanisms of inertial impaction and Brownian diffusion. These devices are typically installed downstream of another control device, which serves to prevent plugging, and consist of one or more fiber beds. Each bed consists of a hollow cylinder formed from two concentric screens; the fiber between the screens may be fabricated from glass, ceramic plastic, or metal.

Foam blanket means the type of chemical fume suppressant that generates a layer of foam across the surface of a solution when current is applied to that solution.

Fresh water means water, such as tap water, that has not been previously used in a process operation or, if the water has been recycled from a process operation, it has been treated and meets the effluent guidelines for chromium wastewater.

Hard chromium electroplating or industrial chromium electroplating means a process by which a thick layer of chromium (typically 1.3 to 760 microns) is electrodeposited on a base material to provide a surface with functional properties such as wear resistance, a low coefficient of friction, hardness, and corrosion resistance. In this process, the part serves as the cathode in the electrolytic cell and the solution serves as the electrolyte. Hard chromium electroplating process is performed at current densities typically ranging from 1,600 to 6,500 A/m² for total plating times ranging from 20 minutes to 36 hours depending upon the desired plate thickness.

Hexavalent chromium means the form of chromium in a valence state of +6.

Large, hard chromium electroplating facility means a facility that performs hard chromium electroplating and has a maximum cumulative potential rectifier capacity greater than or equal to 60 million ampere-hours per year (amp-hr/yr).

Major source means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence. [40 CFR 63.2]

Maximum cumulative potential rectifier capacity means the summation of the total installed rectifier capacity associated with the hard chromium electroplating tanks at a facility, expressed in amperes, multiplied by the maximum potential operating schedule of 8,400 hours per year and 0.7, which assumes that electrodes are energized 70 percent of the total operating time. The maximum potential operating schedule is based on operating 24 hours per day, 7 days per week, and 50 weeks per year.

New affected source means an affected hard chromium electroplating tank, decorative chromium electroplating tank, or chromium anodizing tank, the construction or reconstruction of which commenced after February 8, 2012.

Open surface hard chromium electroplating tank means a chromium electroplating tank that is ventilated at a rate consistent with good ventilation practices for open tanks.

Operating parameter value means a minimum or maximum value established for a control device or process parameter which, if achieved by itself or in combination with one or more other operating parameter values, determines that the Permittee is in continual compliance with the applicable emission limitation or standard.

Packed-bed scrubber means an add-on air pollution control device consisting of a single or double packed bed that contains packing media on which the chromic acid droplets impinge. The packed-bed section of the scrubber is followed by a mist eliminator to remove any water entrained from the packed-bed section.

Perfluorooctane sulfonic acid (PFOS)-based fume suppressant means a fume suppressant that contains 1 percent or greater PFOS by weight.

Performance test means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard

Reconstruction, unless otherwise defined in a relevant standard, means the replacement of components of an affected or a previously nonaffected source to such an extent that:

- (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and
- (2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

Research or laboratory operation means an operation whose primary purpose is for research and development of new processes and products, that is conducted under the close supervision of technically trained personnel, and that is not involved in the manufacture of products for commercial sale in commerce, except in a de minimis manner.

Small, hard chromium electroplating facility means a facility that performs hard chromium electroplating and has a maximum cumulative potential rectifier capacity less than 60 million amp-hr/yr.

Stalagmometer means an instrument used to measure the surface tension of a solution by determining the mass of a drop of liquid by weighing a known number of drops or by counting the number of drops obtained from a given volume of liquid.

Surface tension means the property, due to molecular forces, that exists in the surface film of all liquids and tends to prevent liquid from spreading.

Tank operation means the time in which current and/or voltage is being applied to a chromium electroplating tank or a chromium anodizing tank.

Tensiometer means an instrument used to measure the surface tension of a solution by determining the amount of force needed to pull a ring from the liquid surface. The amount of force is proportional to the surface tension.

Trivalent chromium means the form of chromium in a valence state of +3.

Trivalent chromium process means the process used for electrodeposition of a thin layer of chromium onto a base material using a trivalent chromium solution instead of a chromic acid solution.

Wetting agent means the type of commercially available chemical fume suppressant that materially reduces the surface tension of a liquid.

PART I

General Conditions

(Applicable to **all** hard and decorative chromium electroplating and chromium anodizing tanks)

All standards, conditions and provisions of this permit are federally enforceable unless otherwise stated.

A. Applicability and Designation of Sources

1. The affected source to which the provisions of this Part I (General Conditions) apply is each chromium electroplating or chromium anodizing tank at facilities performing hard chromium electroplating, decorative chromium electroplating, or chromium anodizing. [40 CFR 63.340(a)]
2. The Permittee must also comply with the requirements of 40 CFR 63, Subpart A, according to the applicability of 40 CFR 63, Subpart A to such sources, as identified in Table 1 of Part 63, Subpart N. (Refer to Page 43 of this permit). [40 CFR 63.340(b)]
3. Process tanks associated with a chromium electroplating or chromium anodizing process, but in which neither chromium electroplating nor chromium anodizing is taking place, are not subject to the provisions of this Part. Examples of such tanks include, but are not limited to, rinse tanks, etching tanks, and cleaning tanks. Likewise, tanks that contain a chromium solution, but in which no electrolytic process occurs, are not subject to this Part. An example of such a tank is a chrome conversion coating tank where no electrical current is applied. [40 CFR 63.340(c)]
4. Affected sources in which research and laboratory operations are performed are exempt from the provisions of this Part when such operations are taking place. [40 CFR 63.340(d)]
5. If you are the Permittee of an area source subject to 40 CFR 63 Subpart N, you are exempt from the obligation to obtain a permit under 40 CFR Part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 71.3(a) for a reason other than your status as an area source under Subpart N. Notwithstanding the previous sentence, you must continue to comply with the provisions of this Part applicable to area sources. [40 CFR 63.340(e)]

B. Standards

1. At all times, each Permittee must operate and maintain any affected source subject to the requirements of this Part, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Control Officer which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.342(a)(1)]
2. Each Permittee of an affected source subject to the provisions of Subpart N shall comply with the requirements in this Part I on and after the compliance dates specified in section C.1 of these general conditions. All affected sources are regulated by applying maximum achievable control technology. [40 CFR 63.342(a)(2) & 40 CFR 63.343(a)]

3. Applicability of emission limitations.

- a. The emission limitations in Category 1, 2 and 3 of this Part apply during tank operation and during periods of startup and shutdown as these are routine occurrences for affected sources subject to Subpart N. In response to an action to enforce the standards set forth in Subpart N, the Permittee may assert a defense to a claim for civil penalties for violations of such standards that are caused by a malfunction. Appropriate penalties may be assessed, however, if the Permittee fails to meet the burden of proving all the requirements in the affirmative defense; the affirmative defense shall not be available for claims for injunctive relief.

[40 CFR 63.342(b)(1) & 40 CFR 63.341]

- i. To establish the affirmative defense in any action to enforce such a standard, the Permittee must timely meet the reporting requirements of section B.3.a.ii of these general conditions, and must prove by a preponderance of evidence that:

[40 CFR 63.342(b)(1)(i) & 40 CFR 63.342(b)(1)(ii)]

- (A) The violation was caused by a sudden, infrequent, and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal and usual manner; and could not have been prevented through careful planning, proper design or better operation and maintenance practices; and did not stem from any activity or event that could have been foreseen and avoided, or planned for; and was not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

[40 CFR 63.342(b)(1)(i)(A)]

- (B) Repairs were made as expeditiously as possible when exceeded violation occurred. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and

[40 CFR 63.342(b)(1)(i)(B)]

- (C) The frequency, amount and duration of the violation (including any bypass) were minimized to the maximum extent practicable; and

[40 CFR 63.342(b)(1)(i)(C)]

- (D) If the violation resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

[40 CFR 63.342(b)(1)(i)(D)]

- (E) All possible steps were taken to minimize the impact of the violation on ambient air quality, the environment, and human health; and

[40 CFR 63.342(b)(1)(i)(E)]

- (F) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

[40 CFR 63.342(b)(1)(i)(F)]

- (G) All of the actions in response to the violation were documented by properly signed, contemporaneous operating logs; and

[40 CFR 63.342(b)(1)(i)(G)]

- (H) At all times, the affected sources were operated in a manner consistent with good practices for minimizing emissions; and

[40 CFR 63.342(b)(1)(i)(H)]

- (I) A written root cause analysis was prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the excess emissions resulting from the malfunction event at issue. The analysis shall also specify, using the best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.

[40 CFR 63.342(b)(1)(i)(I)]

- ii. Report. The Permittee seeking to assert an affirmative defense shall submit a written report to the Control Officer with all necessary supporting documentation, that it has met the requirements set forth in section B.3.a.i of these general conditions. This affirmative defense report shall be included in the first periodic compliance, deviation report or excess emission report otherwise required after the initial occurrence of the violation of the relevant standard (which may be the end of any applicable averaging period). If such compliance, deviation report or excess emission report is due less than 45 days after the initial occurrence of the violation, the affirmation defense report may be included in the second compliance, deviation report or excess emission report due after the initial occurrence of the violation of the relevant standard.

[40 CFR 63.342(b)(1)(ii) & 40 CFR 63.342(b)(i)]

- b. If the Permittee is controlling a group of tanks with a common add-on air pollution control device, the emission limitations in each Category of this Part I apply whenever any one affected source is operated. The emission limitation that applies to the group of affected sources is:

[40 CFR 63.342(b)(2) & 40 CFR 63.342(c), (d) & (e)]

- i. The emission limitation identified in Category 1 through 3 of this Part I if the affected sources are performing the same type of operation (e.g., hard chromium electroplating), are subject to the same emission limitation, and are not controlled by an add-on air pollution control device also controlling nonaffected sources;

[40 CFR 63.342(b)(2)(i) & 40 CFR 63.342(c), (d) & (e)]

- ii. The emission limitation calculated according to section I.5.c of these general conditions if affected sources are performing the same type of operation, are subject to the same emission limitation, and are controlled with an add-on air pollution control device that is also controlling nonaffected sources; and

[40 CFR 63.342(b)(2)(ii) & 40 CFR 63.344(e)(3)]

- iii. The emission limitation calculated according to section I.5.d of these general conditions if affected sources are performing different types of operations, or affected sources are performing the same operations but subject to different emission limitations, and are controlled with an add-on air pollution control device that may also be controlling emissions from non-affected sources.

[40 CFR 63.342(b)(2)(iii) & 40 CFR 63.344(e)(4)]

C. Compliance Provisions

1. Compliance Dates

- a. The Permittee of an existing affected source shall comply with the emission limitations in each applicable Category of this Part no later than September 19, 2014.

[40 CFR 60.343(a)(1)]

- b. The Permittee of a new or reconstructed affected source that has initial startup after September 19, 2012 shall comply with the emission limitations in each applicable Category of this Part of this permit immediately upon startup of the source.

[40 CFR 63.343(a)(2)]

- c. The Permittee of an existing area source that increases actual or potential emissions of hazardous air pollutants such that the area source becomes a major source must comply with the provisions for existing major sources, including the reporting provisions in section F.1 of these general conditions, immediately upon becoming a major source.

[40 CFR 63.343(a)(3) & 40 CFR 63.347(g)]

- d. After March 19, 2013, the Permittee of an affected source that is subject to the standards in Category 1, 2, or 3 shall implement the housekeeping procedures specified in Table 2 of these general conditions.

[40 CFR 63.343(a)(8), 40 CFR 63.342(c) and (d) & 40 CFR 63.342 Table 2]

- e. After September 21, 2015, the Permittee of an affected source shall not add perfluorooctane sulfonic acid (PFOS)-based fume suppressants to any affected tank. [40 CFR 63.342(c)(1)(v), (c)(2)(viii), (d)(4) & (e)(2)]
- f. Request for an extension of compliance. An owner or operator of an affected source or sources that requests an extension of compliance shall do so in accordance with this paragraph and the applicable paragraphs of §63.6(i). When the owner or operator is requesting the extension for more than one affected source located at the facility, then only one request may be submitted for all affected sources at the facility. [40 CFR 63.343(a)(6)]
 - i. The Permittee of an existing affected source who is unable to comply with a relevant standard under this Part may request that the Control Officer grant an extension allowing the owner or operator up to 1 additional year to comply with the standard for the affected source. The Permittee of an affected source who has requested an extension of compliance under this paragraph and is otherwise required to obtain a title V permit for the source shall apply for such permit or apply to have the title V permit revised to incorporate the conditions of the extension of compliance. The conditions of an extension of compliance granted under this paragraph will be incorporated into the owner or operator's title V permit for the affected source(s) according to the provisions of 40 CFR part 70 or 40 CFR part 71, whichever is applicable. [40 CFR 63.343(a)(6)(i)]
 - ii. Any request under this paragraph for an extension of compliance with a relevant standard shall be submitted in writing to the Control Officer not later than 6 months before the affected source's compliance date as specified in this section. [40 CFR 63.343(a)(6)(ii)]

2. Methods to Demonstrate Initial Compliance

- a. Except as provided in section C.2.b and c of these general conditions, the Permittee of an affected source subject to the requirements of 40 CFR Subpart N (section I of this Part) is required to conduct an initial performance test as required under 40 CFR 63.7 using the procedures and test methods listed in CFR 63.7 and section I of these General Conditions. [40 CFR 63.343(b)(1) & 40 CFR 63.344]
- b. If the Permittee of an affected source meets all of the following criteria, an initial performance test is not required to be conducted. [40 CFR 63.343(b)(2)]
 - i. The affected source is a hard chromium electroplating tank, a decorative chromium electroplating tank or a chromium anodizing tank; and [40 CFR 63.343(b)(2)(i)]
 - ii. A wetting agent is used in the plating or anodizing bath to inhibit chromium emissions from the affected source; and [40 CFR 63.343(b)(2)(ii)]
 - iii. The Permittee complies with the applicable surface tension limit in (Category 1, section II.C), (Category 2, section II.G) or (Category 3, section II.B) of this Permit as demonstrated through the continuous compliance monitoring required in section C.3.e.ii of these General Conditions. [40 CFR 63.343(b)(2)(iii) & 40 CFR 63.342(c)(1)(iii) & (c)(2)(iii) & (d)(2)]
- c. If the affected source is a decorative chromium electroplating tank using a trivalent chromium bath that incorporates a wetting agent as a bath ingredient (Category 4), an initial performance test is not required to be conducted under this subpart. [40 CFR 63.343(b)(3) & 40 CFR 63.342(e)]

3. Monitoring to Demonstrate Continuous Compliance.

The Permittee of an affected source subject to the emission limitations of this Part shall conduct monitoring according to the type of air pollution control technique that is used to comply with the emission limitations. The monitoring required, to demonstrate continuous compliance with the emission limitations, is identified below for the air pollution control techniques expected to be used by the Permittee of affected sources. As an alternative to the daily monitoring, the Permittee of an affected source may install a continuous pressure monitoring system: [40 CFR 63.343(c)]

a. Composite mesh-pad systems. [40 CFR 63.343(c)(1)]

- i. During the initial performance test, the Permittee of an affected source, or a group of affected sources under common control, complying with the emission limitation requirements in the Specific Conditions in Category 1, 2 or 3 of this permit through the use of a composite mesh-pad system shall determine the outlet chromium concentration using the test methods and procedures in section I.3 of these General Conditions, and shall establish as a site-specific operating parameter the pressure drop across the system, setting the value that corresponds to compliance with the applicable emission limitation, using the procedures in section I.4.e of these General Conditions. 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 ± 2 inches of water column from this value as the compliant range.

[40 CFR 63.343(c)(1)(i), 40 CFR 63.342, 40 CFR 63.344(c), 40 CFR 63.344(d)(5)]

- ii. On and after the date on which the initial performance test is required to be completed, the Permittee of an affected source, or group of affected sources under common control, shall monitor and record the pressure drop across the composite mesh-pad system once each day that any affected source is operating. To be in compliance with the standards, the composite mesh-pad system shall be operated within ± 2 inches of water column of the pressure drop value established during the initial performance test, or shall be operated within the range of compliant values for pressure drop established during multiple performance tests.

[40 CFR 63.343(c)(1)(ii) & 40 CFR 63.7]

- iii. The Permittee of an affected source complying with the emission limitation requirements in this Part, through the use of a composite mesh-pad system, may repeat the performance test and establish as a new site-specific operating parameter the pressure drop across the composite mesh-pad system according to the requirements in section C.3.a.i or ii of these General Conditions. To establish a new site-specific operating parameter for pressure drop, the Permittee shall satisfy the requirements specified in section C.3.a.iii.(A) through (D) of these General Conditions.

[40 CFR 63.343(c)(1)(iii)]

(A) Determine the outlet chromium concentration using the test methods and procedures in section I.3 of these General Conditions; [40 CFR 63.343(c)(1)(iii)(A) & 40 CFR 63.344(c)]

(B) Establish the site-specific operating parameter value using the procedures in section I.4.e of these General Conditions; [40 CFR 63.343(c)(1)(iii)(B) & 40 CFR 63.344(d)(5)]

(C) Satisfy the recordkeeping requirements in section G.2.f through h of these General Conditions; and [40 CFR 63.343(c)(1)(iii)(C) & 40 CFR 63.346(b)(6) through (8)]

(D) Satisfy the reporting requirements in section H.4 and 6 of these General Conditions. [40 CFR 63.343(c)(1)(iii)(D), 40 CFR 63.342 & 40 CFR 63.347(d) and (f)]

- iv. The requirement to operate a composite mesh-pad system within the range of pressure drop values established under section C.3.a.i through iii of these General Conditions does not apply during automatic wash-down cycles of the composite mesh-pad system.

[40 CFR 63.343(c)(1)(iv)]

b. Packed-bed scrubber systems

- i. During the initial performance test, the Permittee of an affected source, or group of affected sources under common control, complying with the emission limitations in this Part through the use of a packed-bed scrubber system shall determine the outlet chromium concentration using the procedures in section I.3 of these General Conditions, and shall establish as site-specific operating parameters the pressure drop across the system and the velocity pressure at the common inlet of the control device, setting the value that corresponds to compliance with the applicable emission limitation using the procedures in section I.4.d and e of these General Conditions. The Permittee may conduct multiple performance tests to establish a range of compliant operating parameter values. Alternatively, the Permittee may set as the compliant value the average pressure drop and inlet velocity pressure measured over the three test runs of one performance test, and accept ± 1 inch of water column from the pressure drop value and ± 10 percent from the velocity pressure value as the compliant range.

[40 CFR 63.343(c)(2)(i), 40 CFR 63.644(c) & 40 CFR 63.344(d)(4) and (5)]

- ii. On and after the date on which the initial performance test is required to be completed, the Permittee of an affected source, or group of affected sources under common control, shall monitor and record the velocity pressure at the inlet to the packed-bed system and the pressure drop across the scrubber system once each day that any affected source is operating. To be in compliance with the standards, the scrubber system shall be operated within ± 10 percent of the velocity pressure value established during the initial performance test, and within ± 1 inch of water column of the pressure drop value established during the initial performance test, or within the range of compliant operating parameter values established during multiple performance tests.

[40 CFR 63.343(c)(2)(ii) & 40 CFR 63.7]

c. Packed-bed scrubber/composite mesh-pad system

The Permittee of an affected source, or group of affected sources under common control, that uses a packed-bed scrubber in conjunction with a composite mesh-pad system to meet the emission limitations of this Part, shall comply with the monitoring requirements for composite mesh-pad systems as identified in section C.3.a of these General Conditions.

[40 CFR 63.343(c)(3) & 40 CFR 63.342]

d. Fiber-bed mist eliminator

[40 CFR 63.343(c)(4)]

- i. During the initial performance test, the Permittee of an affected source, or group of affected sources under common control, complying with the emission limitations in this Part through the use of a fiber-bed mist eliminator shall determine the outlet chromium concentration using the procedures in section I.3 of these General Conditions, and shall establish as a site-specific operating parameter the pressure drop across the fiber-bed mist eliminator and the pressure drop across the control device installed upstream of the fiber bed to prevent plugging, setting the value that corresponds to compliance with the applicable emission limitation using the procedures in section I.4.e of these General Conditions. A 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.

[40 CFR 63.343(c)(4)(i), 40 CFR 63.342, 40 CFR 63.344(c) & 40 CFR 63.344(d)(5)]

- ii. On and after the date on which the initial performance test is required to be completed, the Permittee of an affected source, or group of affected sources under common control, shall monitor and record the pressure drop across the fiber-bed mist eliminator, and the control device installed upstream of the fiber bed to prevent plugging, once each day that any affected source is operating. To be in compliance with the standards, the fiber-bed mist eliminator and the upstream control device shall be operated within ± 1 inch of water column of the pressure drop value established during the initial performance test, or shall be operated within the range of compliant values for pressure drop established during multiple performance tests. [40 CFR 63.343(c)(4)(ii) & 40 CFR 63.7]

- e. Wetting agent-type or combination wetting agent-type/foam blanket fume suppressants. [40 CFR 63.343(c)(5)]

- i. During the initial performance test, the Permittee of an affected source complying with the emission limitations in this Part through the use of a wetting agent in the electroplating or anodizing bath shall determine the outlet chromium concentration using the procedures in section I.3 of these General Conditions. The Permittee shall establish as the site-specific operating parameter the surface tension of the bath using Method 306B, Appendix A of 40 CFR 63, setting the maximum value that corresponds to compliance with the applicable emission limitation. In lieu of establishing the maximum surface tension during the performance test, the Permittee may accept 40 dynes/cm as measured by a Stalagmometer or 33 dynes/cm as measured by a Tensiometer as the maximum surface tension value that corresponds to compliance with the applicable emission limitation. However, the Permittee is exempt from conducting a performance test only if the applicable criteria of section C.2.a of these General Conditions are met. [40 CFR 63.343(c)(5)(i), 40 CFR 63.643(b)(1), 40 CFR 63.342 and 40 CFR 63.344(c)]

- ii. On and after the date on which the initial performance test is required to be completed under 40 CFR 63.7, the Permittee of an affected source shall monitor the surface tension of the electroplating or anodizing bath. Operation of the affected source at a surface tension greater than the value established during the performance test, or greater than 40 dynes/cm as measured by a Stalagmometer or 33 dynes/cm as measured by a Tensiometer if the Permittee is using this value in accordance with section C.3.e.i of these General Conditions, shall constitute noncompliance with the standards. The surface tension shall be monitored according to the following schedule:

[40 CFR 63.343(c)(5)(ii) & 40 CFR 63.343(c)(5)(i)]

- (A) The surface tension shall be measured once every 4 hours during operation of the tank with a Stalagmometer or a Tensiometer as specified in Method 306B, Appendix A of 40 CFR 63. [40 CFR 63.343(c)(5)(ii)(A)]

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- (B) The time between monitoring can be increased if there have been no exceedances. The surface tension shall be measured once every 4 hours of tank operation for the first 40 hours of tank operation after the compliance date. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 8 hours of tank operation. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 40 hours of tank operation on an ongoing basis, until an exceedance occurs. The minimum frequency of monitoring allowed by Subpart N is once every 40 hours of tank operation. [40 CFR 63.343(c)(5)(ii)(B)]

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(C) Once an exceedance occurs as indicated through surface tension monitoring, the original monitoring schedule of once every 4 hours must be resumed. A subsequent decrease in frequency shall follow the schedule laid out in section C.3.e.ii.(B) of these General Conditions. For example, if the Permittee had been monitoring an affected source once every 40 hours and an exceedance occurs, subsequent monitoring would take place once every 4 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation, monitoring can occur once every 8 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation on this schedule, monitoring can occur once every 40 hours of tank operation.

[40 CFR 63.343(c)(5)(ii)(C) & 40 CFR 63.343(c)(5)(ii)(B)]

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iii. Once a bath solution is drained from the affected tank and a new solution added, the original monitoring schedule of once every 4 hours must be resumed, with a decrease in monitoring frequency allowed following the procedures of section C.3.e.ii.(B) and (C) of these General Conditions.

[40 CFR 63.343(c)(5)(iii), 40 CFR 63.343(c)(5)(ii)(B) & 40 CFR 63.343(c)(5)(ii)(C)]

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f. Foam blanket-type fume suppressants [40 CFR 63.343(c)(6)]

i. During the initial performance test, the Permittee of an affected source complying with the emission limitations in this Part through the use of a foam blanket in the electroplating or anodizing bath shall determine the outlet chromium concentration using the procedures in section I.3 of these General Conditions, and shall establish as the site-specific operating parameter the thickness of the foam blanket, setting the minimum thickness that corresponds to compliance with the applicable emission limitation. In lieu of establishing the minimum foam blanket thickness during the performance test, the Permittee may accept 2.54 centimeters (1 inch) as the minimum foam blanket thickness that corresponds to compliance with the applicable emission limitation. All foam blanket measurements must be taken in close proximity to the workpiece or cathode area in the plating tank(s).

[40 CFR 63.343(c)(6)(i), 40 CFR 63.342 & 40 CFR 63.344(c)]

ii. On and after the date on which the initial performance test is required to be completed under 40 CFR 63.7, the Permittee of an affected source shall monitor the foam blanket thickness of the electroplating or anodizing bath. Operation of the affected source at a foam blanket thickness less than the value established during the performance test, or less than 2.54 cm (1 inch) if the Permittee is using this value in accordance with section C.3.f.i of these General Conditions, shall constitute noncompliance with the standards. The foam blanket thickness shall be measured according to the following schedule:

[40 CFR 63.343(c)(6)(ii) & 40 CFR 63.343(c)(6)(i)]

(A) The foam blanket thickness shall be measured once every 1 hour of tank operation.

[40 CFR 63.343(c)(6)(ii)(A)]

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(B) The time between monitoring can be increased if there have been no exceedances. The foam blanket thickness shall be measured once every hour of tank operation for the first 40 hours of tank operation after the compliance date. Once there are no exceedances for 40 hours of tank operation, foam blanket thickness measurement may be conducted once every 4 hours of tank operation. Once there are no exceedances during 40 hours of tank operation, foam blanket thickness measurement may be conducted once every 8 hours of tank operation on an ongoing basis, until an exceedance occurs. The minimum frequency of monitoring allowed by this subpart is once per 8 hours of tank operation.

[40 CFR 63.343(c)(6)(ii)(B)]

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- (C) Once an exceedance occurs as indicated through foam blanket thickness monitoring, the original monitoring schedule of once every hour must be resumed. A subsequent decrease in frequency shall follow the schedule laid out in section C.3.f.ii.(B) of this Part. For example, if the Permittee had been monitoring an affected source once every 8 hours and an exceedance occurs, subsequent monitoring would take place once every hour of tank operation. Once an exceedance does not occur for 40 hours of tank operation, monitoring can occur once every 4 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation on this schedule, monitoring can occur once every 8 hours of tank operation.

[40 CFR 63.343(c)(6)(ii)(C) & 40 CFR 63.343(c)(6)(ii)(B)]

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- iii. Once a bath solution is drained from the affected tank and a new solution added, the original monitoring schedule of once every hour must be resumed, with a decrease in monitoring frequency allowed following the procedures of section C.3.f.ii.(B) and (C) of these General Conditions. [40 CFR 63.343(c)(6)(iii), 40 CFR 63.343(c)(6)(ii)(B) & 40 CFR 63.343(c)(6)(ii)(C)]

g. Fume suppressant/add-on control device

- i. If the Permittee of an affected source uses both a fume suppressant and add-on control device and both are needed to comply with the applicable emission limit, monitoring requirements as identified in section C.3.a through f of these General Conditions, and the work practice standards of Table 1 of these General Conditions, apply for each of the control techniques used.

[40 CFR 63.343(c)(7)(i), 40 CFR 63.343(c)(1 through 6) & Table 1 of 40 CFR 63.342]

- ii. If the Permittee of an affected source uses both a fume suppressant and add-on control device, but only one of these techniques is needed to comply with the applicable emission limit, monitoring requirements as identified in section C.3.a through f of this Part, and work practice standards of Table 1 of this Part, apply only for the control technique used to achieve compliance.

[40 CFR 63.343(c)(7)(ii), 40 CFR 63.343(c)(1 through 6) & Table 1 of 40 CFR 63.342]

h. Use of an alternative monitoring method

[40 CFR 63.343(c)(8)]

- i. Requests and approvals of alternative monitoring methods shall be considered in accordance with 40 CFR 63.8(f)(1), (f)(3), (f)(4), and (f)(5).

[40 CFR 63.343(c)(8)(i)]

- ii. After receipt and consideration of an application for an alternative monitoring method, the Control Officer may approve alternatives to any monitoring methods or procedures of this Part including, but not limited to, the following:

[40 CFR 63.343(c)(8)(ii)]

- (A) Alternative monitoring requirements when installation or use of monitoring devices specified in this subpart would not provide accurate measurements due to interferences caused by substances within the effluent gases; or

[40 CFR 63.343(c)(8)(ii)(A)]

- (B) Alternative locations for installing monitoring devices when the Permittee can demonstrate that installation at alternate locations will enable accurate and representative measurements.

[40 CFR 63.343(c)(8)(ii)(B)]

4. A Permittee who uses an air pollution control device not listed in these General Conditions shall submit a description of the device, test results collected in accordance with section I.3 of these General Conditions, verifying the performance of the device for reducing chromium emissions to the atmosphere to the level required by this Part, a copy of the operation and maintenance plan referenced in section E of these General Conditions, including operation and maintenance practices, and appropriate operating parameters that will be monitored to establish continuous compliance with the standards. The monitoring plan submitted identifying the continuous compliance monitoring is subject to the Control Officer's approval.

[40 CFR 63.343(d), 40 CFR 63.344(c) & 40 CFR 63.342(f)]

D. Emission Limits

The specific emission limit provisions for each category of plating/anodizing process are identified in whole within each Category of this permit.

E. Operation and Maintenance Practices

1. All Permittees subject to the specific emission limitations in Category 1, 2 or 3 of this permit are subject to these operation and maintenance practices:

[40 CFR 63.342(f), 40 CFR 63.342(c) & 40 CFR 63.342(d)]

- a. At all times, including periods of startup, shutdown, and malfunction, Permittees shall operate and maintain any affected source, including associated air pollution control devices and monitoring equipment, in a manner consistent with good air pollution control practices.

[40 CFR 63.342(f)(1)(i)]

- b. Malfunctions shall be corrected as soon as practicable after their occurrence.

[40 CFR 63.342(f)(1)(ii)]

- c. Operation and maintenance requirements established pursuant to Section 112 of the Clean Air Act (that addresses emissions of hazardous air pollutants) are enforceable independent of emissions limitations or other requirements in relevant standards.

[40 CFR 63.342(f)(1)(iii)]

- d. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Control Officer, which may include, but is not limited to, monitoring results; review of the operation and maintenance plan, procedures, and records; and inspection of the source.

[40 CFR 63.342(f)(2)(i)]

- e. Based on the results of a determination made under section E.1.d of these General Conditions, the Control Officer may require that a Permittee of an affected source make changes to the operation and maintenance plan required by section E.2 of these General Conditions for that source. Revisions may be required if the Control Officer finds that the plan:

[40 CFR 63.342(f)(2)(ii), 40 CFR 63.342(f)(2)(i) & 40 CFR 63.342(f)(3)]

- i. Does not address a malfunction that has occurred;

[40 CFR 63.342(f)(2)(ii)(A)]

- ii. Fails to provide for the proper operation of the affected source, the air pollution control techniques, or the control system and process monitoring equipment during a malfunction in a manner consistent with good air pollution control practices; or

[40 CFR 63.342(f)(2)(ii)(A)]

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

[40 CFR 63.342(f)(2)(ii)(C)]

2. Operation and Maintenance Plan

[40 CFR 63.342(f)(3)]

- a. The Permittee of an affected source subject to Category 1, 2 or 3 of this Permit shall prepare an operation and maintenance plan no later than the compliance date. The plan shall be incorporated by reference into the source's Title V permit, if and when a Title V permit is required. The plan shall include the following elements: [40 CFR 63.342(f)(3)(i)]
- i. The plan shall specify the operation and maintenance criteria for the affected source, the add-on air pollution control device (if such a device is used to comply with the emission limits), and the process and control system monitoring equipment, and shall include a standardized checklist to document the operation and maintenance of this equipment; [40 CFR 63.342(f)(3)(i)(A)]
 - ii. For sources using an add-on control device or monitoring equipment to comply with this subpart, the plan shall incorporate the operation and maintenance practices for that device or monitoring equipment, as identified in Table 1 of these General Conditions, if the specific equipment used is identified in Table 1 of these General Conditions; [40 CFR 63.342(f)(3)(i)(B) & Table 1 of 40 CFR 63.342]
 - iii. If the specific equipment used is not identified in Table 1 of this Part, the plan shall incorporate proposed operation and maintenance practices. These proposed operation and maintenance practices shall be submitted for approval as part of the submittal required under section C.4 of this Part. [40 CFR 63.342(f)(3)(i)(C), 40 CFR 63.343(d) & Table 1 of 40 CFR 63.342]
 - iv. 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; and [40 CFR 63.342(f)(3)(i)(D)]
 - v. The plan shall include a systematic procedure for identifying malfunctions of process equipment, add-on air pollution control devices, and process and control system monitoring equipment and for implementing corrective actions to address such malfunctions. [40 CFR 63.342(f)(3)(i)(E)]
 - vi. The plan shall include housekeeping procedures, as specified in Table 2 of these General Conditions. [40 CFR 63.342(f)(3)(i)(F) & Table 2 of 40 CFR 63.342]
- b. 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. [40 CFR 63.342(f)(3)(ii)]
- c. Recordkeeping associated with the operation and maintenance plan is identified in section G.2 of these General Conditions. Reporting associated with the operation and maintenance plan is identified in section F and E.2.d of these General Conditions. [40 CFR 63.342(f)(3)(iii), 40 CFR 63.347(g) & (h), 40 CFR 63.347(f)(3)(iv) & 40 CFR 63.346(b)]
- d. If actions taken by the Permittee during periods of malfunction are inconsistent with the procedures specified in the operation and maintenance plan required by section E.2.a of these General Conditions, the Permittee shall record the actions taken for that event and shall report by phone such actions within 2 working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within 7 working days after the end of the event, unless the Permittee makes alternative reporting arrangements, in advance, with the Control Officer. [40 CFR 63.342(f)(3)(iv) & 40 CFR 63.342(f)(3)(i)]

- e. The Permittee shall keep the written operation and maintenance plan on record after it is developed to be made available for inspection, upon request, by the Control Officer for the life of the affected source or until the source is no longer subject to the provisions of these General Conditions. In addition, if the operation and maintenance plan is revised, the Permittee shall keep previous (i.e., superseded) versions of the operation and maintenance plan on record to be made available for inspection, upon request, by the Control Officer for a period of 5 years after each revision to the plan. [40 CFR 63.342(f)(3)(v)]
- f. To satisfy the requirements of section E.2 of these General Conditions, the Permittee may use applicable standard operating procedure (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans, provided the alternative plans meet the requirements of this section. [40 CFR 63.342(f)(3)(vi)]
3. The standards in this section 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. [40 CFR 63.342(g)]

TABLE 1
Summary of Operation and Maintenance Practices

[Table 1 to 40 CFR 63.342]

Control Technique	Operation and Maintenance Practices	Frequency
Composite mesh-pad (CMP) system	1. Visually inspect device 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	1. 1/quarter.
	2. Visually inspect back portion of the mesh pad closest to the fan to ensure there is no breakthrough of chromic acid mist	2. 1/quarter.
	3. Visually inspect ductwork from tank to the control device to ensure there are no leaks	3. 1/quarter.
	4. Perform wash-down of the composite mesh-pads in accordance with manufacturers recommendations	4. Per manufacturer.
Packed-bed scrubber (PSB)	1. Visually inspect device to ensure there is proper drainage, no chromic acid buildup on the packed beds, and no evidence of chemical attack on the structural integrity of the device	1. 1/quarter.
	2. Visually inspect back portion of the chevron blade mist eliminator to ensure that it is dry and there is no breakthrough of chromic acid mist	2. 1/quarter.
	3. Same as number 3 above	3. 1/quarter.
	4. Add fresh makeup water to the top of the packed bed ^{a,b}	4. Whenever makeup is added.
PBS/CMP system	1. Same as for CMP system	1. 1/quarter.
	2. Same as for CMP system	2. 1/quarter.
	3. Same as for CMP system	3. 1/quarter.
	4. Same as for CMP system	4. Per manufacturer.

TABLE 1
Summary of Operation and Maintenance Practices (Continued)

[Table 1 to 40 CFR 63.342]

Control Technique	Operation and Maintenance Practices	Frequency
Fiber-bed mist eliminator ^c	1. Visually inspect fiber-bed unit and prefiltering device to ensure there is proper drainage, no chromic acid buildup in the units, and no evidence of chemical attack on the structural integrity of the devices	1. 1/quarter.
	2. Visually inspect ductwork from tank or tanks to the control device to ensure there are no leaks	2. 1/quarter.
	3. Perform wash-down of fiber elements in accordance with manufacturers recommendations	3. Per manufacturer.
Air pollution control device (APCD) not listed in rule	To be proposed by the source for approval by the Control Officer	To be proposed by the source for approval by the Control Officer.
Monitoring Equipment		
Pitot tube	Backflush with water, or remove from the duct and rinse with fresh water. Replace in the duct and rotate 180 degrees to ensure that the same zero reading is obtained. Check pitot tube ends for damage. Replace pitot tube if cracked or fatigued	1/quarter.
Stalagmometer ^d	Follow manufacturers recommendations	Per manufacturer
Tensiometer ^d		

Footnotes to Table 1:

- a. If greater than 50 percent of the scrubber water is drained (e.g., for maintenance purposes), makeup water may be added to the scrubber basin.
- b. For horizontal-flow scrubbers, top is defined as the section of the unit directly above the packing media such that the makeup water would flow perpendicular to the air flow through the packing. For vertical-flow units, the top is defined as the area downstream of the packing material such that the makeup water would flow countercurrent to the air flow through the unit.
- c. Work practice standards for the control device installed upstream of the fiber-bed mist eliminator to prevent plugging do not apply as long as the work practice standards for the fiber-bed unit are followed.
- d. Device used to measure the surface tension of the bath solution.

TABLE 2
Housekeeping Practices

[Table 2 to 40 CFR 63.342]

For	You must:	At this minimum frequency
1. Any substance used in a chromium affected electroplating or chromium anodizing tank that contains hexavalent chromium	(a) Store the substance in a closed container in an enclosed storage area or building; AND (b) Use a closed container when transporting the substance from the enclosed storage area	At all times, except when transferring the substance to and from the container. Whenever transporting substance, except when transferring the substance to and from the container.
2. Each affected tank, to minimize spills of bath solution that result from dragout. Note: this measure does not require the return of contaminated bath solution to the tank. This requirement applies only as the parts are removed from the tank. Once away from the tank area, any spilled solution must be handled in accordance with Item 4 of these housekeeping measures	(a) Install drip trays that collect and return to the tank any bath solution that drips or drains from parts as the parts are removed from the tank; OR (b) Contain and return to the tank any bath solution that drains or drips from parts as the parts are removed from the tank; OR (c) Collect and treat in an onsite wastewater treatment plant any bath solution that drains or drips from parts as the parts are removed from the tank	Prior to operating the tank. Whenever removing parts from an affected tank. Whenever removing parts from an affected tank.
3. Each spraying operation for removing excess chromic acid from parts removed from, and occurring over, an affected tank	Install a splash guard to minimize overspray during spraying operations and to ensure that any hexavalent chromium laden liquid captured by the splash guard is returned to the affected chromium electroplating or anodizing tank	Prior to any such spraying operation.
4. Each operation that involves the handling or use of any substance used in an affected chromium electroplating or chromium anodizing tank that contains hexavalent chromium	Begin clean up, or otherwise contain, all spills of the substance. Note: substances that fall or flow into drip trays, pans, sumps, or other containment areas are not considered spills	Within 1 hour of the spill.
5. Surfaces within the enclosed storage area, open floor area, walkways around affected tanks contaminated with hexavalent chromium from an affected chromium electroplating or chromium anodizing tank	(a) Clean the surfaces using one or more of the following methods: HEPA vacuuming; Hand-wiping with a damp cloth; Wet mopping; Hose down or rinse with potable water that is collected in a wastewater collection system; Other cleaning method approved by the permitting authority; OR (b) Apply a non-toxic chemical dust suppressant to the surfaces	At least once every 7 days if one or more chromium electroplating or chromium anodizing tanks were used, or at least after every 40 hours of operating time of one or more affected chromium electroplating or chromium anodizing tank, whichever is later. According to manufacturer's recommendations.

Table 2
Housekeeping Practices (continued)

[Table 2 to 40 CFR 63.342]

For	You must:	At this minimum frequency
6. All buffing, grinding, or polishing operations that are located in the same room as chromium electroplating or chromium anodizing operations	Separate the operation from any affected electroplating or anodizing operation by installing a physical barrier; the barrier may take the form of plastic strip curtains	Prior to beginning the buffing, grinding, or polishing operation.
7. All chromium or chromium-containing wastes generated from housekeeping activities	Store, dispose, recover, or recycle the wastes using practices that do not lead to fugitive dust and in accordance with hazardous waste requirements	At all times.

F. On-going Compliance Monitoring

1. Summary Reports

The Permittee of an affected source, for which compliance monitoring is required in accordance with section C.3 of this Part and that is located at an area source site, shall prepare a summary report to document the ongoing compliance status of the affected source. The report shall contain the information identified below and shall be completed annually and retained on site, and made available to the Control Officer upon request. The report shall be completed annually except as provided in section F.2 of these General Conditions.

[40 CFR 63.347(h)(1), CFR 63.3473(c) & 40 CFR 63.347(g)(3)]

- a. The company name and address of the affected source; [40 CFR 63.347(g)(3)(i)]
- b. An identification of the operating parameter that is monitored for compliance determination, as required by section C.3 of these General Conditions; [40 CFR 63.347(g)(3)(ii) & 40 CFR 63.343(c)]
- c. The relevant emission limitation for the affected source, and the operating parameter value, or range of values, that correspond to compliance with this emission limitation as specified in the notification of compliance status required by section H.5 of these General Conditions; [40 CFR 63.347(g)(3)(iii) and 40 CFR 63.347(e)]
- d. The beginning and ending dates of the reporting period; [40 CFR 63.347(g)(3)(iv)]
- e. A description of the type of process performed in the affected source; [40 CFR 63.347(g)(3)(v)]
- f. The total operating time of the affected source during the reporting period; [40 CFR 63.347(g)(3)(vi)]
- g. If the affected source is a hard chromium electroplating tank and the Permittee is limiting the maximum cumulative rectifier capacity in accordance with sections I.B of Category 1 and I.B of Category 2 of this Permit, the actual cumulative rectifier capacity expended during the reporting period, on a month-by-month basis; [40 CFR 63.347(g)(3)(vii) & 40 CFR 63.342(c)(3)]
- h. 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 source 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; [40 CFR 63.347(g)(3)(viii)]

- i. A certification by a Responsible Official, as defined in PCC 17.04.340.A.200, that the work practice standards in section E of these General Conditions were followed in accordance with the operation and maintenance plan for the source;
[40 CFR 63.347(g)(3)(ix), PCC 17.04340.A.200 & 40 CFR 63.342(f)]
- j. If the operation and maintenance plan required by section E.2 of these General Conditions 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 report(s) required by section E.2.b of these General Conditions documenting that the operation and maintenance plan was not followed;
[40 CFR 63.347(g)(3)(x), 40 CFR 63.342(f)(3) & 40 CFR 63.342(f)(3)(iv)]
- k. A description of any changes in monitoring, processes, or controls since the last reporting period;
[40 CFR 63.347(g)(3)(xi)]
- l. The number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the Permittee during a malfunction of an affected source to minimize emissions in accordance with section B.1 of these General Conditions, including actions taken to correct a malfunction.
[40 CFR 63.347(g)(3)(xii) and 40 CFR 342(a)(1)]
- m. The name, title, and signature of the responsible official who is certifying the accuracy of the report; and
[40 CFR 63.347(g)(3)(xiii)]
- n. The date of the report.
[40 CFR 63.347(g)(3)(xiv)]

2. Reports of Exceedances

- a. If either of the following conditions is met, semiannual reports shall be prepared and submitted to the Control Officer:
[40 CFR 63.347(h)(2)(i)]
 - i. The total duration of excess emissions (as indicated by the monitoring data collected by the Permittee of the affected source in accordance with section C.3 of these General Conditions is 1 percent or greater of the total operating time for the reporting period; or
[40 CFR 63.347(h)(2)(i)(A) & 40 CFR 63.343(c)]
 - ii. The total duration of malfunctions of the add-on air pollution control device and monitoring equipment is 5 percent or greater of the total operating time.
[40 CFR 63.347(h)(2)(i)(B)]
- b. Once the Permittee of an affected source reports an exceedance as defined in section F.2 of these General Conditions, ongoing compliance status reports shall be submitted semiannually until a request to reduce reporting frequency under section F.3 of these General Conditions is approved.
[40 CFR 63.347(h)(2)(ii), 40 CFR 63.347(h)(2)(i) & 40 CFR 63.347(h)(3)]
- c. The Control Officer may determine on a case-by-case basis that the summary report shall be completed more frequently and submitted, or that the annual report shall be submitted instead of being retained on site, if these measures are necessary to accurately assess the compliance status of the source.
[40 CFR 63.347(h)(2)(iii)]

3. Request to reduce frequency of ongoing compliance status reports.
- a. A Permittee who is required to submit ongoing compliance status reports on a semiannual (or more frequent) basis, or is required to submit its annual report instead of retaining it on site, may reduce the frequency of reporting to annual and/or be allowed to maintain the annual report onsite if all of the following conditions are met: [40 CFR 63.347(h)(3)(i)]
- i. For 1 full year (e.g., 2 semiannual or 4 quarterly reporting periods), the ongoing compliance status reports demonstrate that the affected source is in compliance with the relevant emission limit; [40 CFR 63.347(h)(3)(i)(A)]
- ii. The Permittee continues to comply with all applicable recordkeeping and monitoring requirements of 40 CFR 63 Subpart A and these General Conditions; and [40 CFR 63.347(h)(3)(i)(B)]
- iii. The Control Officer does not object to a reduced reporting frequency for the affected source, as provided in section F.3.b and F.3.c of these General Conditions. [40 CFR 63.347(h)(3)(i)(C), 40 CFR 63.347(h)(3)(ii) & 40 CFR 63.347(h)(3)(iii)]
- b. The frequency of submitting ongoing compliance status reports may be reduced only after the Permittee notifies the Control Officer in writing of his or her intention to make such a change, and the Control Officer does not object to the intended change. In deciding whether to approve a reduced reporting frequency, the Control Officer may review information concerning the source's previous performance history during the 5-year recordkeeping period prior to the intended change, or the recordkeeping period since the source'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. Such information may be used by the Control Officer to make a judgment about the source's potential for noncompliance in the future. If the Control Officer disapproves the Permittee's request to reduce reporting frequency, the Control Officer will notify the Permittee in writing within 45 days after receiving notice of the Permittee's intention. The notification from the Control Officer to the Permittee will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted. [40 CFR 63.347(h)(3)(ii)]
- c. As soon as the monitoring data required by section C.3 of these General Conditions shows that the source is not in compliance with the relevant emission limit, the frequency of reporting shall revert to semiannual, and the Permittee shall state this exceedance in the ongoing compliance status report for the next reporting period. After demonstrating ongoing compliance with the relevant emission limit for another full year, the Permittee may again request approval from the Control Officer to reduce the reporting frequency as allowed by section F.3 of these General Conditions. [40 CFR 63.347(h)(3)(iii), 40 CFR 63.343(c) & 40 CFR 63.347(h)(3)]

G. Recordkeeping

1. The Permittee of each affected source subject to the standards in this Part shall fulfill all recordkeeping requirements outlined in this section and in the General Provisions to 40 CFR Part 63, according to the applicability of Subpart A of 40 CFR Part 63 as identified in Table 1 to Subpart N of Part 63. [40 CFR 63.346(a)]
2. The Permittee of an affected source subject to the provisions of this Part shall maintain the following records for such source: [40 CFR 63.346(b)]
 - a. Inspection records for the add-on air pollution control device, if such a device is used, and monitoring equipment, to document that the inspection and maintenance required by the work practice standards of section E and Table 1 of these General Conditions have taken place. The record can take the form of a checklist and should identify the device inspected, the date of inspection, a brief description of the working condition of the device during the inspection, and any actions taken to correct deficiencies found during the inspection. [40 CFR 63.346(b)(1), 40 CFR 63.342(f) & Table 1 to 40 CFR 63.342]
 - b. Records of all maintenance performed on the affected source, the add-on air pollution control device, and monitoring equipment, except routine housekeeping practices; [40 CFR 63.346(b)(2)]
 - c. Records of the occurrence, duration, and cause (if known) of each malfunction of process, add-on air pollution control, and monitoring equipment; [40 CFR 63.346(b)(3)]
 - d. Records of actions taken during periods of malfunction to minimize emissions in accordance with section B.1 of these General Conditions, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation; [40 CFR 63.346(b)(4) and 40 CFR 63.342(a)(1)]
 - e. Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the operation and maintenance plan required by section E.2 of these General Conditions. [40 CFR 63.346(b)(5) & 40 CFR 63.342(f)(3)]
 - f. Test reports documenting results of all performance tests; [40 CFR 63.346(b)(6)]
 - g. All measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance with the special compliance procedures of section I.5 of these General Conditions; [40 CFR 63.346(b)(7) & 40 CFR 63.344(e)]
 - h. Records of monitoring data required by section C.3 of these General Conditions that are used to demonstrate compliance with the standard including the date and time the data are collected; [40 CFR 63.346(b)(8) & 40 CFR 63.343(c)]
 - 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, or monitoring equipment; [40 CFR 63.346(b)(9)]
 - 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, or monitoring equipment; [40 CFR 63.346(b)(10)]
 - k. The total process operating time of the affected source during the reporting period; [40 CFR 63.346(b)(11)]

- l. Records of the actual cumulative rectifier capacity of hard chromium electroplating tanks at a facility expended during each month of the reporting period, and the total capacity expended to date for a reporting period, if the Permittee is using the actual cumulative rectifier capacity to determine facility size in accordance with section I.B of Category 1 or section I.B of Category 2 of this Part; [40 CFR 63.346(b)(12) and 40 CFR 63.342(c)(3)]
 - m. For sources using fume suppressants to comply with the standards, records of the date and time that fume suppressants are added to the electroplating or anodizing bath and records of the fume suppressant manufacturer and product name; [40 CFR 63.346(b)(13)]
 - n. Any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements, if the source has been granted a waiver under 40 CFR 63.10(f); and [40 CFR 63.346(b)(15)]
 - o. All documentation supporting the notifications and reports required by 40 CFR 63.9, 40 CFR 63.10, and section H of these General Conditions. [40 CFR 63.346(b)(16) & 40 CFR 63.347]
3. All records shall be maintained for a period of 5 years in accordance with 40 CFR 63.10(b)(1). [40 CFR 63.346(c)]

H. Reporting

1. The Permittee of each affected source subject to these standards shall fulfill all reporting requirements outlined in this section and in the General Provisions to 40 CFR Part 63, according to the applicability of Subpart A, as identified in Table 1 to Subpart N of Part 63 (Table 1 of these General Conditions). These reports shall be made to the Control Officer at the appropriate address identified on the front page of this permit. [40 CFR 63.347(a)]
 - a. Reports required by Subpart A of 40 CFR Part 63 and this Part may be sent by U.S. mail, fax, or by another courier. [40 CFR 63.347(a)(1)]
 - i. Submittals sent by U.S. mail shall be postmarked on or before the specified date. [40 CFR 63.347(a)(1)(i)]
 - ii. Submittals sent by other methods shall be received by the Control Officer on or before the specified date. [40 CFR 63.347(a)(1)(ii)]
 - b. If acceptable to both the Control Officer and the Permittee of an affected source, reports may be submitted on electronic media. [40 CFR 63.347(a)(2)]
2. The reporting requirements of this Part apply to the Permittee of an affected source when such source becomes subject to the provisions of this permit. [40 CFR 63.347(b)]
3. Initial notifications.
 - a. The Permittee of an affected source that has an initial startup before January 25, 1995, shall notify the Control Officer in writing that the source is subject to this subpart. The notification shall be submitted no later than 180 calendar days after January 25, 1995, and shall contain the following information: [40 CFR 63.347(c)(1)]
 - i. The name, title, and address of the Permittee; [40 CFR 63.347(c)(1)(i)]
 - ii. The address (i.e., physical location) of each affected source; [40 CFR 63.347(c)(1)(ii)]
 - iii. A statement that Subpart N of this part is the basis for this notification; [40 CFR 63.347(c)(1)(iii)]

- iv. Identification of the applicable emission limitation and compliance date for each affected source; [40 CFR 63.347(c)(1)(iv)]
 - v. A brief description of each affected source, including the type of process operation performed; [40 CFR 63.347(c)(1)(v)]
 - vi. A statement of whether the affected source is located at a major source or an area source as defined in the definitions in the General Conditions of this Part. [40 CFR 63.347(c)(ix) & 40 CFR 63.2]
- b. The Permittee of a new or reconstructed affected source that has an initial startup after January 25, 1995 shall submit an initial notification as follows: [40 CFR 63.347(c)(2)]
- i. A notification of the date when construction or reconstruction was commenced shall be submitted simultaneously with the notification of construction or reconstruction, if construction or reconstruction was commenced before January 25, 1995; [40 CFR 63.347(c)(2)(i)]
 - ii. A notification of the date when construction or reconstruction was commenced, shall be submitted no later than 30 calendar days after such date, if construction or reconstruction was commenced after January 25, 1995; and [40 CFR 63.347(c)(2)(ii)]
 - iii. A notification of the actual date of startup of the source shall be submitted within 30 calendar days after such date. [40 CFR 63.347(c)(2)(iii)]
 - iv. After January 25, 1995, the Permittee may not construct a new affected source or reconstruct an affected source subject to Part I of this permit, or reconstruct a source such that it becomes an affected source subject to this subpart, without submitting a notification of construction or reconstruction to the Control Officer. The notification shall contain the information identified in section H.3.b.v and vi of these General Conditions, as appropriate. [40 CFR 63.345(b)(1) & 40 CFR 63.345(b)(2) and (3)]
 - v. The notification of construction or reconstruction required under section H.3.iv of these General Conditions shall include: [40 CFR 63.345(b)(2) & 40 CFR 63.345(b)(1)]
 - (A) The Permittees name, title, and address; [40 CFR 63.345(b)(2)(i)]
 - (B) The address (i.e., physical location) or proposed address of the affected source if different from the Permittees; [40 CFR 63.345(b)(2)(ii)]
 - (C) A notification of intention to construct a new affected source or make any physical or operational changes to an affected source that may meet or has been determined to meet the criteria for a reconstruction as defined in 40 CFR 63.2 (see Definitions of Part I of this permit); [40 CFR 63.345(b)(2)(iii)]
 - (D) An identification of Subpart N of 40 CFR Part 63 as the basis for the notification; [40 CFR 63.345(b)(2)(iv)]
 - (E) The expected commencement and completion dates of the construction or reconstruction; [40 CFR 63.345(b)(2)(v)]
 - (F) The anticipated date of (initial) startup of the affected source; [40 CFR 63.345(b)(2)(vi)]

- (G) The type of process operation to be performed (hard or decorative chromium electroplating, or chromium anodizing); [40 CFR 63.345(b)(2)(vii)]
 - (H) A description of the air pollution control technique to be used to control emissions from the affected source, such as preliminary design drawings and design capacity if an add-on air pollution control device is used; and [40 CFR 63.345(b)(2)(viii)]
 - (I) An estimate of emissions from the source based on engineering calculations and vendor information on control device efficiency, expressed in units consistent with the emission limits of this subpart. Calculations of emission estimates should be in sufficient detail to permit assessment of the validity of the calculations. [40 CFR 63.345(b)(2)(ix)]
- vi. If a reconstruction is to occur, the notification required under section H.3.b.iv of these General Conditions shall include the following in addition to the information required in section H.3.b.v of these General Conditions: [40 CFR 63.345(b)(3) & 40 CFR 63.345(b)(1) and (2)]
- (A) A brief description of the affected source and the components to be replaced; [40 CFR 63.345(b)(3)(i)]
 - (B) A brief description of the present and proposed emission control technique, including the information required by section H.3.b.v.(H) and (I) of these General Conditions; [40 CFR 63.345(b)(3)(ii)]
 - (C) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new source; [40 CFR 63.345(b)(3)(iii)]
 - (D) The estimated life of the affected source after the replacements; and [40 CFR 63.345(b)(3)(iv)]
 - (E) A discussion of any economic or technical limitations the source may have in complying with relevant standards or other requirements after the proposed replacements. The discussion shall be sufficiently detailed to demonstrate to the Control Officers satisfaction that the technical or economic limitations affect the source's ability to comply with the relevant standard and how they do so. [40 CFR 63.345(b)(3)(v)]
 - (F) If in the notification of reconstruction, the Permittee designates the affected source as a reconstructed source and declares that there are no economic or technical limitations to prevent the source from complying with all relevant standards or requirements, the Permittee need not submit the information required in section H.3.b.vi.(C) through (E) of these General Conditions. [40 CFR 63.345(b)(3)(vi) & 40 CFR 63.345(b)(3)(iii) – (v)]
- vii. The Permittee of a new or reconstructed affected source that submits a notification in accordance with section H.3.b.iv through vi of these General Conditions is not subject to approval by the Control Officer. Construction or reconstruction is subject only to notification and can begin upon submission of a complete notification. [40 CFR 63.345(b)(4)]
- viii. Submittal timeframes. After January 25, 1995, the Permittee of a new or reconstructed affected source shall submit the notification of construction or reconstruction required by section H.3.b.iv of these General Conditions according to the following schedule: [40 CFR 63.345(b)(5)]

(A) If construction or reconstruction commences after January 25, 1995, the notification shall be submitted as soon as practicable before the construction or reconstruction is planned to commence. [40 CFR 63.345(b)(5)(i)]

(B) If the construction or reconstruction had commenced and initial startup had not occurred before January 25, 1995, the notification shall be submitted as soon as practicable before startup but no later than 60 days after January 25, 1995. [40 CFR 63.345(b)(5)(ii)]

4. Notification of performance test.

a. The Permittee of an affected source shall notify the Control Officer in writing of his or her intention to conduct a performance test at least 60 calendar days before the test is scheduled to begin to allow the Control Officer to have an observer present during the test. Observation of the performance test by the Control Officer is optional. [40 CFR 63.347(d)(1)]

b. In the event the Permittee is unable to conduct the performance test as scheduled, the provisions of 40 CFR 63.7(b)(2) apply. [40 CFR 63.347(d)(2)]

5. Notification of compliance status.

a. A notification of compliance status is required each time that an affected source becomes subject to the requirements of Part I of this permit. [40 CFR 63.347(e)(1)]

b. The notification of compliance status shall be submitted to the Control Officer. The notification shall list for each affected source: [40 CFR 63.347(e)(2)]

i. The applicable emission limitation and the methods that were used to determine compliance with this limitation; [40 CFR 63.347(e)(2)(i)]

ii. If a performance test is required by this Permit, the test report documenting the results of the performance test, which contains the elements required by section .I of these General Conditions, including measurements and calculations to support the special compliance provisions of section I.5 of these General Conditions if these are being followed; [40 CFR 63.347(e)(2)(ii), 40 CFR 63.344(a) & 40 CFR 63.344(e)]

iii. The type and quantity of hazardous air pollutants emitted by the source reported in mg/dscm or mg/hr if the source is using the special provisions of section I.5 of these General Conditions to comply with the standards. (If the Permittee is subject to the construction and reconstruction provisions of section H.3.b.iv through viii these General Conditions and had previously submitted emission estimates, the Permittee shall state that this report corrects or verifies the previous estimate.) For sources not required to conduct a performance test in accordance with section C.2.b of these General Conditions, the surface tension measurement may fulfill this requirement; [40 CFR 63.347(e)(2)(iii), 40 CFR 63.344(e), 40 CFR 63.345 & 40 CFR 63.343(b)]

iv. For each monitored parameter for which a compliant value is to be established under section C.3 of these General Conditions, the specific operating parameter value, or range of values, that corresponds to compliance with the applicable emission limit; [40 CFR 63.347(e)(2)(iv) & 40 CFR 63.343(c)]

v. The methods that will be used to determine continuous compliance, including a description of monitoring and reporting requirements, if methods differ from those identified in this subpart; [40 CFR 63.347(e)(2)(v)]

vi. A description of the air pollution control technique for each emission point; [40 CFR 63.347(e)(2)(vi)]

- vii. A statement that the Permittee has completed and has on file the operation and maintenance plan as required by the work practice standards in section E of these General Conditions; [40 CFR 63.347(e)(2)(vii) & 40 CFR 63.342(f)]
 - viii. If the Permittee is determining facility size based on records of actual cumulative rectifier capacity in accordance with Category 1 section I.B or Category 2 section I.B of this Part to support that the facility is small then, for existing sources, records from any 12-month period preceding the compliance date shall be used or a description of how operations will change to meet a small designation shall be provided. For new sources, records of projected rectifier capacity for the first 12-month period of tank operation shall be used; [40 CFR 63.347(e)(2)(viii), 40 CFR 63.342(c)(3)(i)]
 - ix. A statement by the Permittee of the affected source as to whether the source has complied with the provisions of this subpart. [40 CFR 63.347(e)(2)(ix)]
- c. For sources required to conduct a performance test by section C.2 of these General Conditions, the notification of compliance status shall be submitted to the Control Officer no later than 90 calendar days following completion of the compliance demonstration required by 40 CFR 63.7 and by section C.2.a of these General Conditions. [40 CFR 63.347(e)(3) & 40 CFR 63.343(b)]
 - d. For sources that are not required to complete a performance test in accordance with section C.2 of these General Conditions, the notification of compliance status shall be submitted to the Control Officer no later than 30 days after the compliance date specified in section C.1 of these General Conditions. [40 CFR 63.347(e)(4), 40 CFR 63.343(b) & 40 CFR 63.343(a)]
6. Reports of performance test results.
- a. The Permittee of an affected source should report performance test results to the Control Officer. [40 CFR 63.347(f)(1)]
 - b. Reports of performance test results shall be submitted no later than 90 days following the completion of the performance test, and shall be submitted as part of the notification of compliance status required by section H.5 of these General Conditions. [40 CFR 63.347(f)(2) & 40 CFR 63.347(e)]
 - c. Within 60 days after the date of completing each performance test (defined in 40 CFR 63.2) as required by this Part, you must submit the results of the performance tests, including any associated fuel analyses, required by this subpart to the EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). Performance test data must be submitted in the file format generated through use of the EPA's Electronic Reporting Tool (ERT) (see <http://www.epa.gov/ttn/chief/ert/index.html>). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk, flash drive or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to the EPA via CDX as described earlier in this paragraph. At the discretion of the Control Officer, you must also submit these reports, including the confidential business information, to the Control Officer in the format specified by the Control Officer. For any performance test conducted using test methods that are not listed on the ERT Web site, the Permittee shall submit the results of the performance test to the Control Officer at **PDEQ 33 N. Stone Ave, Suite 700, Tucson, Arizona 85701**. [40 CFR 63.347(f)(3)(i), 40 CFR 63.13 & 40 CFR 63.2]

I. Performance Test Requirements and Test Methods

1. Test Plan

Performance tests shall be conducted using the test methods and procedures in this section. Performance tests shall be conducted under such conditions as the Control Officer specifies to the Permittee based on representative performance of the affected source for the period being tested. Upon request, the Permittee shall make available to the Control Officer such records as may be necessary to determine the conditions of performance tests. Performance test results shall be documented in complete test reports that contain the information required by section I.1.a through i of these General Conditions. The test plan to be followed shall be made available to the Control Officer prior to the testing, if requested. [40 CFR 63.344(a)(1 through 9)]

- a. A brief process description;
- b. Sampling location description(s);
- c. A description of sampling and analytical procedures and any modifications to standard procedures;
- d. Test results;
- e. Quality assurance procedures and results;
- f. Records of operating conditions during the test, 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.

2. Compliance Demonstration

- a. If the Permittee of an affected source conducts performance testing at startup to obtain an operating permit in the State in which the affected source is located, the results of such testing may be used to demonstrate compliance with this subpart if: [40 CFR 63.344(b)(1)]
 - i. The test methods and procedures identified in section I.3 of these General Conditions were used during the performance test; [40 CFR 63.344(b)(1)(i)]
 - ii. The performance test was conducted under representative operating conditions for the source; [40 CFR 63.344(b)(1)(ii)]
 - iii. The performance test report contains the elements required by section I.1 of these General Conditions; and [40 CFR 63.344(b)(1)(iii)]
 - iv. The Permittee of the affected source for which the performance test was conducted has sufficient data to establish the operating parameter value(s) that correspond to compliance with the standards, as required for continuous compliance monitoring under section C.3 of these General Conditions; [40 CFR 63.344(b)(1)(iv) & 40 CFR 63.343(c)]
 - v. The performance test was conducted after January 25, 1995; [40 CFR 63.344(b)(1)(v)]
 - vi. As of September 19, 2012 the source was using the same emissions controls that were used during the compliance test; [40 CFR 63.344(b)(1)(vi)]
 - vii. As of September 19, 2012, the source was operating under conditions that are representative of the conditions under which the source was operating during the compliance test; and [40 CFR 63.344(b)(1)(vii)]

3. Test methods.

A Permittee subject to the provisions of this Part and required by section C.2 of these General Conditions to conduct an initial performance test shall use the test methods identified in this section to demonstrate compliance with the emission limits in section II, Category 1, 2, or 3 of this permit.

[40 CFR 63.344(c), 40 CFR 63.343(b) & 40 CFR 63.342]

a. Method 306 or Method 306A, “Determination of Chromium Emissions From Decorative and Hard Chromium Electroplating and Anodizing Operations,” Appendix A of 40 CFR 63 shall be used to determine the chromium concentration from hard or decorative chromium electroplating tanks or chromium anodizing tanks. The sampling time and sample volume for each run of Methods 306 and 306A, Appendix A of 40 CFR 63 shall be at least 120 minutes and 1.70 dscm (60 dscf), respectively. Methods 306 and 306A, Appendix A of 40 CFR 63, allow the measurement of either total chromium or hexavalent chromium emissions. For the purposes of this standard, sources using chromic acid baths must demonstrate compliance with the emission limits in of section II, Part 1, 2 or 3 of this permit by measuring the total chromium.

[40 CFR 63.344(c)(1) & 40 CFR 63.342]

b. The California Air Resources Board (CARB) Method 425 (which is available by contacting the California Air Resources Board, 1102 Q Street, Sacramento, California 95814) may be used to determine the chromium concentration from hard and decorative chromium electroplating tanks and chromium anodizing tanks if the following conditions are met:

[40 CFR 63.344(c)(2)]

i. If a colorimetric analysis method is used, the sampling time and volume shall be sufficient to result in 33 to 66 micrograms of catch in the sampling train.

[40 CFR 63.344(c)(2)(i)]

ii. If Atomic Absorption Graphite Furnace (AAGF) or Ion Chromatography with a Post-column Reactor (ICPCR) analyses were used, the sampling time and volume should be sufficient to result in a sample catch that is 5 to 10 times the minimum detection limit of the analytical method (i.e., 1.0 microgram per liter of sample for AAGF and 0.5 microgram per liter of sample for ICPCR).

[40 CFR 63.344(c)(2)(ii)]

iii. In the case of either section I.3.b.i or ii of these General Conditions, a minimum of 3 separate runs must be conducted. The other requirements of 40 CFR 63.7 that apply to affected sources, as indicated in Table 1 to Subpart N of Part 63 (Table 1 of this Part), must also be met (Refer to section VI, of these General Conditions).

[40 CFR 63.344(c)(2)(iii), 40 CFR 63.344(c)(2)(i) & 40 CFR 63.344(c)(2)(ii)]

c. Method 306B, “Surface Tension Measurement and Recordkeeping for Tanks Used at Decorative Chromium Electroplating and Anodizing Facilities,” Appendix A of 40 CFR 63 shall be used to measure the surface tension of electroplating and anodizing baths.

[40 CFR 63.344(c)(3)]

d. Alternate test methods may also be used if the method has been validated using Method 301, Appendix A of 40 CFR 63 and if approved by the Control Officer. Procedures for requesting and obtaining approval are contained in 40 CFR 63.7(f).

[40 CFR 63.344(c)(4)]

e. The South Coast Air Quality Management District (SCAQMD) Method 205.1 (which is available by contacting the South Coast AQMD, 21865 Copley Dr., Diamond Bar, CA 91765) may be used to determine the total chromium concentration from hard and decorative chromium electroplating tanks and chromium anodizing tanks.

[40 CFR 63.344(c)(5)]

4. Establishing site-specific operating parameter values. [40 CFR 63.344(d)]
- a. A Permittee required to establish site-specific operating parameters shall follow the procedures in this section. [40 CFR 63.344(d)(1)]
 - b. All monitoring equipment shall be installed such that representative measurements of emissions or process parameters from the affected source are obtained. For monitoring equipment purchased from a vendor, verification of the operational status of the monitoring equipment shall include execution of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system. [40 CFR 63.344(d)(2)]
 - i. Specifications for differential pressure measurement devices used to measure velocity pressure shall be in accordance with section 2.2 of Method 2 (40 CFR Part 60, Appendix A). [40 CFR 63.344(d)(2)(i)]
 - ii. Specification for differential pressure measurement devices used to measure pressure drop across a control system shall be in accordance with manufacturer's accuracy specifications. [40 CFR 63.344(d)(2)(ii)]
 - c. The surface tension of electroplating and anodizing baths shall be measured using Method 306B, "Surface Tension Measurement and Recordkeeping for Tanks used at Decorative Chromium Electroplating and Anodizing Facilities," Appendix A of 40 CFR Part 63. This method should also be followed when wetting agent type or combination wetting agent/foam blanket type fume suppressants are used to control chromium emissions from a hard chromium electroplating tank and surface tension measurement is conducted to demonstrate continuous compliance. [40 CFR 63.344(d)(3)]
 - d. The Permittee of a source required to measure the velocity pressure at the inlet to an add-on air pollution control device in accordance with section C.3.b of these General Conditions, shall establish the site-specific velocity pressure as follows: [40 CFR 63.344(d)(4) & 40 CFR 63.343(c)(2)]
 - i. Locate a velocity traverse port in a section of straight duct that connects the hooding on the plating tank or tanks with the control device. The port shall be located as close to the control system as possible, and shall be placed a minimum of 2 duct diameters downstream and 0.5 diameter upstream of any flow disturbance such as a bend, expansion, or contraction (see Method 1, 40 CFR part 60, appendix A). If 2.5 diameters of straight duct work does not exist, locate the port 0.8 of the duct diameter downstream and 0.2 of the duct diameter upstream from any flow disturbance. [40 CFR 63.344(d)(4)(i)]
 - ii. A 12-point velocity traverse of the duct to the control device shall be conducted along a single axis according to Method 2 (40 CFR part 60, appendix A) using an S-type pitot tube; measurement of the barometric pressure and duct temperature at each traverse point is not required, but is suggested. Mark the S-type pitot tube as specified in Method 1 (40 CFR part 60, appendix A) with 12 points. Measure the velocity pressure (Δp) values for the velocity points and record. Determine the square root of the individual velocity point Δp values and average. The point with the square root value that comes closest to the average square root value is the point of average velocity. The Δp value measured for this point during the performance test will be used as the reference for future monitoring. [40 CFR 63.344(d)(4)(ii)]

- e. The Permittee of a source required to measure the pressure drop across the add-on air pollution control device in accordance with section C.3.a through d of these General Conditions may establish the pressure drop in accordance with the following guidelines:
[40 CFR 63.344(d)(5) & 40 CFR 63.343(c)(1) through (4)]
- i. Pressure taps shall be installed at any of the following locations: [40 CFR 63.344(d)(5)(i)]
 - (A) 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; [40 CFR 63.344(d)(5)(i)(A)]
 - (B) On each side of the packed bed within the control system or on each side of each mesh pad within the control system; or [40 CFR 63.344(d)(5)(i)(B)]
 - (C) On the front side of the first mesh pad and back side of the last mesh pad within the control system. [40 CFR 63.344(d)(5)(i)(C)]
 - ii. Pressure taps shall be sited at locations that are: [40 CFR 63.344(d)(5)(ii)]
 - (A) Free from pluggage as possible and away from any flow disturbances such as cyclonic demisters. [40 CFR 63.344(d)(5)(ii)(A)]
 - (B) Situated such that no air infiltration at measurement site will occur that could bias the measurement. [40 CFR 63.344(d)(5)(ii)(B)]
 - iii. Pressure taps shall be constructed of either polyethylene, polybutylene, or other nonreactive materials. [40 CFR 63.344(d)(5)(iii)]
 - iv. Nonreactive plastic tubing shall be used to connect the pressure taps to the device used to measure pressure drop. [40 CFR 63.344(d)(5)(iv)]
 - v. Any of the following pressure gauges can be used to monitor pressure drop: a magnehelic gauge, an inclined manometer, or a “U” tube manometer. [40 CFR 63.344(d)(5)(v)]
 - vi. Prior to connecting any pressure lines to the pressure gauge(s), each gauge should be zeroed. No calibration of the pressure gauges is required. [40 CFR 63.344(d)(5)(vi)]
5. Special compliance provisions for multiple sources controlled by a common add-on air pollution control device. [40 CRF 63.344(e)]
- a. This section identifies procedures for measuring the outlet chromium concentration from an add-on air pollution control device that is used to control multiple sources that may or may not include sources not affected by this subpart. [40 CRF 63.344(e)(1)]
 - b. When multiple affected sources performing the same type of operation (e.g., all are performing hard chromium electroplating), and subject to the same emission limitation, are controlled with an add-on air pollution control device that is not controlling emissions from any other type of affected operation or from any nonaffected sources, the applicable emission limitation identified in section II, Category 1, 2 or 3 of this Part must be met at the outlet of the add-on air pollution control device. [40 CRF 63.344(e)(2)]

- c. When multiple affected sources performing the same type of operation and subject to the same emission limitation are controlled with a common add-on air pollution control device that is also controlling emissions from sources not affected by these standards, the following procedures should be followed to determine compliance with the applicable emission limitation in section II, Category 1, 2 or 3 of this Part:

[40 CRF 63.344(e)(3) & 40 CFR 63.342]

- i. Calculate the cross-sectional area of each inlet duct (i.e., uptakes from each hood) including those not affected by the standard. [40 CRF 63.344(e)(3)(i)]
- ii. Determine the total sample time per test run by dividing the total inlet area from all tanks connected to the control system by the total inlet area for all ducts associated with affected sources, and then multiply this number by 2 hours. The calculated time is the minimum sample time required per test run. [40 CRF 63.344(e)(3)(ii)]
- iii. Perform Method 306 or 306A testing and calculate an outlet mass emission rate. [40 CRF 63.344(e)(3)(iii)]
- iv. Determine the total ventilation rate from the affected sources (VR_{inlet}) by using equation 1: [40 CRF 63.344(e)(3)(iv)]

$$VR_{tot} \times \frac{IDA_i}{\sum LA_{total}} = VR_{inlet} \dots\dots\dots(1)$$

where VR_{tot} is the average total ventilation rate in dscm/min for the three test runs as determined at the outlet by means of the Method 306 or 306A testing; IDA_i is the total inlet area for all ducts associated with affected sources; $\sum IA_{total}$ is the sum of all inlet duct areas from both affected and nonaffected sources; and VR_{inlet} is the total ventilation rate from all inlet ducts associated with affected sources.

- v. Establish the allowable mass emission rate of the system (AMR_{sys}) in milligrams of total chromium per hour (mg/hr) using equation 2: [40 CRF 63.344(e)(3)(v) & 40 CFR 63.342]

$$\sum VR_{inlet} \times EL \times 60 \text{ minutes / hours} = AMR_{sys} \dots\dots\dots(2)$$

where $\sum VR_{inlet}$ is the total ventilation rate in dscm/min from the affected sources, and EL is the applicable emission limitation from section II, Category 1, 2 or 3 of this Part in mg/dscm. The allowable mass emission rate (AMR_{sys}) calculated from Equation (2) should be equal to or more than the outlet three-run average mass emission rate determined from Method 306 or 306A testing in order for the source to be in compliance with the standard.

- d. When multiple affected sources performing different types of operations (e.g., hard chromium electroplating, decorative chromium electroplating, or chromium anodizing) are controlled by a common add-on air pollution control device that may or may not also be controlling emissions from sources not affected by these standards, or if the affected sources controlled by the common add-on air pollution control device perform the same operation but are subject to different emission limitations (e.g., because one is a new hard chromium plating tank and one is an existing small, hard chromium plating tank), the following procedures should be followed to determine compliance with the applicable emission limitation in section II, Category 1, 2 or 3 of this Part: [40 CRF 63.344(e)(4) & 40 CFR 63.342]

- i. Follow the steps outlined in section I.5.c.i, ii and iii of this Part. [40 CRF 63.344(e)(4)(i), 40 CRF 63.344(e)(3)(i) & 40 CRF 63.344(e)(3)(iii)]

- ii. Determine the total ventilation rate for each type of affected source ($VR_{inlet,a}$) using equation 3 [40 CRF 63.344(e)(4)(ii)]

$$VR_{tot} \times \frac{IDA_{i,a}}{\sum IA_{total}} = VR_{inlet,a} \dots\dots\dots(3)$$

where VR_{tot} is the average total ventilation rate in dscm/min for the three test runs as determined at the outlet by means of the Method 306 or 306A testing; $IDA_{i,a}$ is the total inlet duct area for all ducts conveying chromic acid from each type of affected source performing the same operation, or each type of affected source subject to the same emission limitation; $\sum IA_{total}$ is the sum of all duct areas from both affected and nonaffected sources; and $VR_{inlet,a}$ is the total ventilation rate from all inlet ducts conveying chromic acid from each type of affected source performing the same operation, or each type of affected source subject to the same emission limitation.

- iii. Establish the allowable mass emission rate in mg/hr for each type of affected source that is controlled by the add-on air pollution control device using equation (4), (5), (6), or (7) as appropriate: [40 CRF 63.344(e)(4)(iii) & 40 CFR 63.342]

$$VR_{hc1} \times EL_{hc1} \times 60 \text{ minutes/hour} = AMR_{hc1} \dots\dots\dots(4)$$

$$VR_{hc2} \times EL_{hc2} \times 60 \text{ minutes/hour} = AMR_{hc2} \dots\dots\dots(5)$$

$$VR_{dc} \times EL_{dc} \times 60 \text{ minutes/hour} = AMR_{dc} \dots\dots\dots(6)$$

$$VR_{ca} \times EL_{ca} \times 60 \text{ minutes/hour} = AMR_{ca} \dots\dots\dots(7)$$

where “hc” applies to the total of ventilation rates for all hard chromium electroplating tanks subject to the same emission limitation, “dc” applies to the total of ventilation rates for the decorative chromium electroplating tanks, “ca” applies to the total of ventilation rates for the chromium anodizing tanks, and EL is the applicable emission limitation from section II, Category 1, 2 or 3 of this Part in mg/dscm. There are two equations for hard chromium electroplating tanks because different emission limitations may apply (e.g., a new tank versus an existing, small tank).

- iv. Establish the allowable mass emission rate of the system (AMR_{sys}) in milligrams of total chromium per hour (mg/hr) using equation 8, including each type of affected source as appropriate: [40 CRF 63.344(e)(4)(iv)]

$$AMR_{hc1} + AMR_{hc2} + AMR_{dc} + AMR_{ca} = AMR_{sys} \dots\dots\dots(8)$$

The allowable mass emission rate calculated from equation (8) should be equal to or more than the outlet three-run average mass emission rate determined from Method 306 or 306A testing in order for the source to be in compliance with the standards.

- e. Each Permittee that uses the special compliance provisions of this section to demonstrate compliance with the emission limitations of section II, Category 1, 2 or 3 of this Part shall submit the measurements and calculations to support these compliance methods with the notification of compliance status required by section H.5 of this Part.

[40 CRF 63.344(e)(5), 40 CFR 63.342 & 63.347(e)]

- f. Each Permittee that uses the special compliance provisions of this section to demonstrate compliance with the emission limitations of section II, Category 1, 2 or 3 of this Part shall repeat these procedures if a tank is added or removed from the control system regardless of whether that tank is a nonaffected source. If the new nonaffected tank replaces an existing nonaffected tank of the same size and is connected to the control system through the same size inlet duct then this procedure does not have to be repeated. [40 CRF 63.344(e)(6) & 40 CFR 63.342]

Table 1 to Subpart N of Part 63
(General Provisions Applicability to Subpart N)

General provisions reference	Applies to subpart N	Comment
63.1(a)(1)	Yes	Additional terms defined in §63.341; when overlap between subparts A and N occurs, subpart N takes precedence.
63.1(a)(2)	Yes	
63.1(a)(3)	Yes	
63.1(a)(4)	Yes	Subpart N clarifies the applicability of each paragraph in subpart A to sources subject to subpart N.
63.1(a)(5)	No	[Reserved]
63.1(a)(6)	Yes	
63.1(a)(7)-(9)	No	[Reserved]
63.1(a)(10)	Yes	
63.1(a)(11)	Yes	§63.347(a) of subpart N also allows report submissions via fax and on electronic media.
63.1(a)(12)	Yes	
63.1(b)(1)	No	§63.340 of subpart N specifies applicability.
63.1(b)(2)	No	[Reserved]
63.1(b)(3)	No	This provision in subpart A is being deleted. Also, all affected area and major sources are subject to subpart N; there are no exemptions.
63.1(c)(1)	Yes	Subpart N clarifies the applicability of each paragraph in subpart A to sources subject to subpart N.
63.1(c)(2)	Yes	§63.340(e) of Subpart N exempts area sources from the obligation to obtain Title V operating permits.
63.1(c)(3)-(4)	No	[Reserved]
63.1(c)(5)	No	Subpart N clarifies that an area source that becomes a major source is subject to the requirements for major sources.
63.1(e)	Yes	
63.2	Yes	Additional terms defined in §63.341; when overlap between subparts A and N occurs, subpart N takes precedence.
63.3	Yes	Other units used in subpart N are defined in that subpart.
63.4(a)(1)-(2)	Yes	

General provisions reference	Applies to subpart N	Comment
63.4(2)(a)(3)-(5)	No	[Reserved]
63.4(b)-(c)	Yes	
63.5(a)	Yes	Except replace the term “source” and “stationary source” in §63.5(a) (1) and (2) of subpart A with “affected sources.”
63.5(b)(1)	Yes	
63.5(b)(2)	No	[Reserved]
63.5(b)(3)	Yes	Applies only to major affected sources.
63.5(b)(4)	No	Subpart N (§63.345) specifies requirements for the notification of construction or reconstruction for affected sources that are not major.
63.5(b)(5)	No	[Reserved]
63.5(b)(6)	Yes	
63.5(c)	No	[Reserved]
63.5(d)(1)(i)	No	§63.345(c)(5) of subpart N specifies when the application or notification shall be submitted.
63.5(d)(1)(ii)	Yes	Applies to major affected sources that are new or reconstructed.
63.5(d)(1)(iii)	Yes	Except information should be submitted with the Notification of Compliance Status required by §63.347(e) of subpart N.
63.5(d)(2)	Yes	Applies to major affected sources that are new or reconstructed except: (1) replace “source” in §63.5(d)(2) of subpart A with “affected source”; and (2) actual control efficiencies are submitted with the Notification of Compliance Status required by §63.347(e).
63.5(d)(3)–(4)	Yes	Applies to major affected sources that are new or reconstructed.
63.5(e)	Yes	Applies to major affected sources that are new or reconstructed.
63.5(f)(1)	Yes	Except replace “source” in §63.5(f)(1) of subpart A with “affected source.”
63.5(f)(2)	No	New or reconstructed affected sources shall submit the request for approval of construction or reconstruction under §63.5(f) of subpart A by the deadline specified in §63.345(c)(5) of subpart N.
63.6(a)	Yes	
63.6(b)(1)–(2)	Yes	Except replace “source” in §63.6(b)(1)–(2) of part A with “affected source.”
63.6(b)(3)–(4)	Yes	
63.6(b)(5)	Yes	Except replace “source” in §63.6(b)(5) of subpart A with “affected source.”
63.6(b)(6)	No	[Reserved]
63.6(b)(7)	No	Provisions for new area sources that become major sources are contained in §63.343(a)(4) of subpart N.

General provisions reference	Applies to subpart N	Comment
63.6(c)(1)–(2)	Yes	Except replace “source” in §63.6(c)(1)–(2) of subpart A with “affected source.”
63.6(c)(3)-(4)	No	[Reserved]
63.6(c)(5)	No	Compliance provisions for existing area sources that become major sources are contained in §63.343(a)(3) of subpart N.
63.6(d)	No	[Reserved]
63.6(e)(1)-(3)	No	§63.342(f) of subpart N contains work practice standards (operation and maintenance requirements) that override these provisions.
63.6(f)(1)	No	§63.342(b) of subpart N specifies when the standards apply.
63.6(f)(2)(i)–(ii)	Yes	
63.6(f)(2)(iii)	No	§63.344(b) of subpart N specifies instances in which previous performance test results for existing sources are acceptable.
63.6(f)(2)(iv)	Yes	
63.6(f)(2)(v)	Yes	
63.6(f)(3)	Yes	
63.6(g)	Yes	
63.6(h)(1)	No	SSM Exception
63.6(h)(2)	No	Subpart N does not contain any opacity or visible emission standards.
63.6(i)(1)	Yes	
63.6(i)(2)	Yes	Except replace “source” in §63.6(i)(2)(i) and (ii) of subpart A with “affected source.”
63.6(i)(3)	Yes	
63.6(i)(4)(i)	No	§63.343(a)(6) of subpart N specifies the procedures for obtaining an extension of compliance and the date by which such requests must be submitted.
63.6(i)(4)(ii)	Yes	
63.6(i)(5)	Yes	
63.6(i)(6)(i)	Yes	This paragraph only references “paragraph (i)(4) of this section” for compliance extension provisions. But, §63.343(a)(6) of subpart N also contains provisions for requesting a compliance extension.
63.6(i)(6)(ii)	Yes	
63.6(i)(7)	Yes	
63.6(i)(8)	Yes	This paragraph only references “paragraphs (i)(4) through (i)(6) of this section” for compliance extension provisions. But, §63.343(a)(6) of subpart N also contains provisions for requesting a compliance extension.

General provisions reference	Applies to subpart N	Comment
63.6(i)(9)	Yes	This paragraph only references “paragraphs (i)(4) through (i)(6) of this section” and “paragraphs (i)(4) and (i)(5) of this section” for compliance extension provisions. But, §63.343(a)(6) of subpart N also contains provisions for requesting a compliance extension.
63.6(i)(10)(i)–(iv)	Yes	
63.6(i)(10)(v)(A)	Yes	This paragraph only references “paragraph (i)(4)” for compliance extension provisions. But, §63.343(a)(6) of subpart N also contains provisions for requesting a compliance extension.
63.6(i)(10)(v)(B)	Yes	
63.6(i)(11)	Yes	
63.6(i)(12)(i)	Yes	This paragraph only references “paragraph (i)(4)(i) or (i)(5) of this section” for compliance extension provisions. But, §63.343(a)(6) of subpart N also contains provisions for requesting a compliance extension.
63.6(i)(12)(ii)–(iii)	Yes	
63.6(i)(13)	Yes	
63.6(i)(14)	Yes	
63.6(i)(15)	No	[Reserved]
63.6(i)(16)	Yes	
63.6(j)	Yes	
63.7(a)(1)	Yes	
63.7(a)(2)(i)–(viii)	No	[Reserved]
63.7(a)(2)(ix)	Yes	
63.7(a)(3)	Yes	
63.7(a)(4)	Yes	
63.7(b)(1)	No	§63.347(d) of subpart N requires notification prior to the performance test. §63.344(a) of subpart N requires submission of a site-specific test plan upon request.
63.7(b)(2)	Yes	
63.7(c)	No	§63.344(a) of subpart N specifies what the test plan should contain, but does not require test plan approval or performance audit samples.
63.7(d)	Yes	Except replace “source” in the first sentence of §63.7(d) of subpart A with “affected source.”
63.7(e)(1)	No	See §63.344(a). Any reference to §63.7(e)(1) in any other general provision incorporated by reference shall be treated as a cross-reference to §63.344(a).
63.7(e)(2)-(4)	Yes	Subpart N also contains test methods specific to affected sources covered by that subpart.

General provisions reference	Applies to subpart N	Comment
63.7(f)	Yes	§63.344(c)(2) of subpart N identifies CARB Method 425 as acceptable under certain conditions.
63.7(g)(1)	No	Subpart N identifies the items to be reported in the compliance test [§63.344(a)] and the timeframe for submitting the results [§63.347(f)].
63.7(g)(2)	No	[Reserved]
63.7(g)(3)	Yes	
63.7(h)(1)–(2)	Yes	
63.7(h)(3)(i)	Yes	This paragraph only references “§63.6(i)” for compliance extension provisions. But, §63.343(a)(6) of subpart N also contains provisions for requesting a compliance extension.
63.7(h)(3)(ii)–(iii)	Yes	
63.7(h)(4)–(5)	Yes	
63.8(a)(1)	Yes	
63.8(a)(2)	No	Work practice standards are contained in §63.342(f) of subpart N.
63.8(a)(3)	No	[Reserved]
63.8(a)(4)	No	
63.8(b)(1)	Yes	
63.8(b)(2)	No	§63.344(d) of subpart N specifies the monitoring location when there are multiple sources.
63.8(b)(3)	No	§63.347(g)(4) of subpart N identifies reporting requirements when multiple monitors are used.
63.8(c)(1)(i)	No	Subpart N requires proper maintenance of monitoring devices expected to be used by sources subject to subpart N.
63.8(c)(1)(ii)	No	§63.342(f)(3)(iv) of subpart N specifies reporting when the O&M plan is not followed.
63.8(c)(1)(iii)	No	§63.343(f)(2) identifies the criteria for whether O&M procedures are acceptable.
63.8(c)(2)–(3)	No	§63.344(d)(2) requires appropriate use of monitoring devices.
63.8(c)(4)–(7)	No	
63.8(d)	No	Maintenance of monitoring devices is required by §§63.342(f) and 63.344(d)(2) of subpart N.
63.8(e)	No	There are no performance evaluation procedures for the monitoring devices expected to be used to comply with subpart N.

General provisions reference	Applies to subpart N	Comment
63.8(f)(1)	Yes	
63.8(f)(2)	No	Instances in which the Administrator may approve alternatives to the monitoring methods and procedures of subpart N are contained in §63.343(c)(8) of subpart N.
63.8(f)(3)	Yes	
63.8(f)(4)	Yes	
63.8(f)(5)	Yes	
63.8(f)(6)	No	Subpart N does not require the use of CEM's.
63.8(g)	No	Monitoring data does not need to be reduced for reporting purposes because subpart N requires measurement once/day.
63.9(a)	Yes	
63.9(b)(1)(i)–(ii)	No	§63.343(a)(3) of subpart N requires area sources to comply with major source provisions if an increase in HAP emissions causes them to become major sources.
63.9(b)(1)(iii)	No	§63.347(c)(2) of subpart N specifies initial notification requirements for new or reconstructed affected sources.
63.9(b)(2)	No	§63.347(c)(1) of subpart N specifies the information to be contained in the initial notification.
63.9(b)(3)	No	[Reserved]
63.9(b)(4)	No	
63.9(b)(5)	No	
63.9(c)	Yes	This paragraph only references “§63.6(i)(4) through §63.6(i)(6)” for compliance extension provisions. But, §63.343(a)(6) of subpart N also contains provisions for requesting a compliance extension. Subpart N provides a different timeframe for submitting the request than §63.6(i)(4).
63.9(d)	Yes	This paragraph only references “the notification dates established in paragraph (g) of this section.” But, §63.347 of subpart N also contains notification dates.
63.9(e)	No	Notification of performance test is required by §63.347(d) of subpart N.
63.9(f)	No	
63.9(g)	No	Subpart N does not require a performance evaluation or relative accuracy test for monitoring devices.
63.9(h)(1)–(3)	No	§63.347(e) of subpart N specifies information to be contained in the notification of compliance status and the timeframe for submitting this information.
63.9(h)(4)	No	[Reserved]

General provisions reference	Applies to subpart N	Comment
63.9(h)(5)	No	Similar language has been incorporated into §63.347(e)(2)(iii) of subpart N.
63.9(h)(6)	Yes	
63.9(i)	Yes	
63.9(j)	Yes	
63.10(a)	Yes	
63.10(b)(1)	Yes	
63.10(b)(2)	No	§63.346(b) of subpart N specifies the records that must be maintained.
63.10(b)(3)	No	Subpart N applies to major and area sources.
63.10(c)	No	Applicable requirements of §63.10(c) have been incorporated into §63.346(b) of subpart N.
63.10(d)(1)	Yes	
63.10(d)(2)	No	§63.347(f) of subpart N specifies the timeframe for reporting performance test results.
63.10(d)(3)	No	Subpart N does not contain opacity or visible emissions standards.
63.10(d)(4)	Yes	
63.10(d)(5)	No	§63.342(f)(3)(iv) and §63.347(g)(3) of subpart N specify reporting associated with malfunctions.
63.10(e)	No	§63.347(g) and (h) of subpart N specify the frequency of periodic reports of monitoring data used to establish compliance. Applicable requirements of §63.10(e) have been incorporated into §63.347(g) and (h).
63.10(f)	Yes	
63.11	No	Flares will not be used to comply with the emission limits.
63.12–63.15	Yes	

List of Applicable Regulations

Requirements Specifically Identified as Applicable

Title 40 of the Code of Federal Regulations, Part 63 (40 CFR 63)

Subpart N National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks

Pima County Code (PCC) Title 17, Chapters:

- 17.16.040 Standards and Applicability (Including NESHAPS).
- 17.16.130 Applicability.
- 17.16.530 National Emission Standards for Hazardous Air Pollutants (NESHAP).

Part I

Category 1

Specific Conditions

Open Surface Hard Chromium Electroplating Tanks

I. Designation of Sources

- A. The affected source to which the provisions of this Category 1 apply is each Open Surface Hard Chromium Electroplating Tank located at a large or small hard chromium electroplating facility. [40 CFR 63.340(a)]
- B. A Permittee may demonstrate the size of a hard chromium electroplating facility through the definitions presented in Part I of this permit. Alternatively, the Permittee of a facility with a maximum cumulative potential rectifier capacity of 60 million amp-hr/yr or more may be considered small if the actual cumulative rectifier capacity is less than 60 million amp-hr/yr as demonstrated using the following procedures: [40 CFR 63.342(c)(3)(i)]
1. If records show that the facility's previous annual actual rectifier capacity was less than 60 million amp-hr/yr, by using nonresettable ampere-hr meters and keeping monthly records of actual ampere-hr usage for each 12-month rolling period following the compliance date in accordance with section G.2.1 of this Part. The actual cumulative rectifier capacity for the previous 12-month rolling period shall be tabulated monthly by adding the capacity for the current month to the capacities for the previous 11 months; or [40 CFR 63.342(c)(3)(i)(A) & 40 CFR 63.346(b)(12)]
 2. By accepting a federally-enforceable limit on the maximum cumulative potential rectifier capacity of a hard chromium electroplating facility and by maintaining monthly records in accordance with section G.2.1 of this Part to demonstrate that the limit has not been exceeded. The actual cumulative rectifier capacity for the previous 12-month rolling period shall be tabulated monthly by adding the capacity for the current month to the capacities for the previous 11 months. [40 CFR 63.342(c)(3)(i)(B) & 40 CFR 63.346(b)(12)]
- C. Once the monthly records required to be kept by section G.2.1 of this Part and by this paragraph I.C, show that the actual cumulative rectifier capacity over the previous 12-month rolling period corresponds to the large designation, the Permittee of an open surface hard chromium electroplating tank is subject to the emission limitation identified in Category 1 section II.A or Category 1 section II. C of this Part, in accordance with the compliance schedule of section I. D of this Category. [40 CFR 63.342(c)(3)(ii), 40 CFR 63.346(b)(12), 40 CFR 63.342(c)(1)(i) & (iii), 40 CFR 63.342(c)(2)(i), (iii) & (iv) and 40 CFR 63.343(a)(5)]
- D. The Permittee of an existing open surface hard chromium electroplating tank or tanks located at a small, hard chromium electroplating facility that increases its maximum cumulative potential rectifier capacity, or its actual cumulative rectifier capacity, such that the facility becomes a large, hard chromium electroplating facility must comply with the emission limitation of section II.A or II.C of this Category, for all open surface hard chromium electroplating tanks at the facility no later than 1 year after the month in which monthly records required by section I.B of this Category and section G.2.1 of this Part, show that the large designation is met, or by the compliance date specified in section C.1.a of this Part, whichever is later. [40 CFR 63.343(a)(5), 40 CFR 63.342(c)(1)(i), 40 CFR 63.342(c)(3)(i) , 40 CFR 63.346(b)(12) & 40 CFR 63.343(a)(1)]

II. Emission Limits

[PCC 17.12.185.A.2]

During tank operation, the Permittee of an existing, new, or reconstructed affected source shall control chromium emissions discharged to the atmosphere from that affected source by either: [40 CFR 63.342(c)(1)]

- A. Not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed 0.011 milligrams of total chromium per dry standard cubic meter (mg/dscm) of ventilation air (4.8×10^{-6} grains per dry standard cubic foot (gr/dscf)) for all open surface hard chromium electroplating tanks that are existing affected sources and are located at large hard chromium electroplating facilities; or [40 CFR 63.342(c)(1)(i)]
- B. Not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed 0.015 mg/dscm (6.6×10^{-5} gr/dscf) for all open surface hard chromium electroplating tank that are existing affected sources and are located at small, hard chromium electroplating facilities; or [40 CFR 63.342(c)(1)(ii)]
- C. If a chemical fume suppressant containing a wetting agent is used, not allowing the surface tension of the electroplating or anodizing bath contained within the affected tank to exceed 40 dynes per centimeter (dynes/cm) (2.8×10^{-3} pound-force per foot (lbf/ft)) as measured by a Stalagmometer or 33 dynes/cm (2.3×10^{-3} lbf/ft) as measured by a Tensiometer at any time during tank operation; or [40 CFR 63.342(c)(1)(iii)]
- D. Not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed 0.006 mg/dscm of ventilation air (2.6×10^{-6} grains per dry standard cubic foot (gr/dscf)) for all open surface hard chromium electroplating tanks that are new affected sources; or [40 CFR 63.342(c)(1)(iv)]
- E. After September 21, 2015, the Permittee of an affected open surface hard chromium electroplating tank shall not add PFOS-based fume suppressants to any affected open surface hard chromium electroplating tank. [40 CFR 63.342(c)(1)(v)]

III. Reporting

[PCC 17.12.185.A.5]

In addition to the general conditions applicable to all affected sources identified in section H of this Part, the following reporting requirements are applicable to process tanks subject to this Category :

Initial Notification: The initial notification reporting requirement shall include the following information:

- A. The maximum potential cumulative potential rectifier capacity [40 CFR 63.347(c)(vi)]
- B. A statement of whether the affected source(s) is located at a small or large, hard chromium electroplating facility and whether this will be demonstrated through actual or maximum potential cumulative rectifier capacity. [40 CFR 63.347(c)(vii)]
- C. A statement of whether the Permittee of an affected source(s) will limit the maximum potential cumulative rectifier capacity in accordance with section I.B of this Category such that the hard chromium electroplating facility is considered small. [40 CFR 63.647(c)(viii) & 40 CFR 63.342(c)(3)]

Part I

Category 2

Specific Conditions

Enclosed Surface Hard Chromium Electroplating Tanks

I. Applicability and Designation of Sources

- A. The affected source to which the provisions of this Category apply is each Enclosed Surface Hard Chromium Electroplating Tank located at a large or small hard chromium electroplating facility.
[40 CFR 63.340(a)]
- B. A Permittee may demonstrate the size of a hard chromium electroplating facility through the definitions presented in this Part. Alternatively, the Permittee of a facility with a maximum cumulative potential rectifier capacity of 60 million amp-hr/yr or more may be considered small if the actual cumulative rectifier capacity is less than 60 million amp-hr/yr as demonstrated using the following procedures:
[40 CFR 63.342(c)(3)(i)]
1. If records show that the facility's previous annual actual rectifier capacity was less than 60 million amp-hr/yr, by using nonresettable ampere-hr meters and keeping monthly records of actual ampere-hr usage for each 12-month rolling period following the compliance date in accordance with section G.2.1 of this Part. The actual cumulative rectifier capacity for the previous 12-month rolling period shall be tabulated monthly by adding the capacity for the current month to the capacities for the previous 11 months; or
[40 CFR 63.342(c)(3)(i)(A) & 40 CFR 63.346(b)(12)]
 2. By accepting a federally-enforceable limit on the maximum cumulative potential rectifier capacity of a hard chromium electroplating facility and by maintaining monthly records in accordance with section G.2.1 of this Part to demonstrate that the limit has not been exceeded. The actual cumulative rectifier capacity for the previous 12-month rolling period shall be tabulated monthly by adding the capacity for the current month to the capacities for the previous 11 months.
[40 CFR 63.342(c)(3)(i)(B) & 40 CFR 63.346(b)(12)]
- C. Once the monthly records required to be kept by section G.2.1 of this Part and by this paragraph I.C, show that the actual cumulative rectifier capacity over the previous 12-month rolling period corresponds to the large designation, the Permittee of an enclosed surface hard chromium electroplating tank is subject to the emission limitation identified in Category 2 section II.A, Category 2 section II.B or Category 2 section II.G of this Part, in accordance with the compliance schedule of section I. D of this Category.
[40 CFR 63.342(c)(3)(ii), 40 CFR 63.346(b)(12), 40 CFR 63.342(c)(1)(i) & (iii), 40 CFR 63.342(c)(2)(i), (iii) & (iv) and 40 CFR 63.343(a)(5)]
- D. The Permittee of an existing hard chromium electroplating tank or tanks located at a small, hard chromium electroplating facility that increases its maximum cumulative potential rectifier capacity, or its actual cumulative rectifier capacity, such that the facility becomes a large, hard chromium electroplating facility must comply with the emission limitation of section II.A of this Category, for all hard chromium electroplating tanks at the facility no later than 1 year after the month in which monthly records required by section I.B of this Category and section G.2.1 of this Part, show that the large designation is met, or by the compliance date specified in section C.1.a of this Part, whichever is later.
[40 CFR 63.343(a)(5), 40 CFR 63.342(c)(1)(i), 40 CFR 63.342(c)(3)(i) , 40 CFR 63.346(b)(12) & 40 CFR 63.343(a)(1)]

II. Emission Limits

[PCC 17.12.180.A.2]

During tank operation, the Permittee of an existing, new, or reconstructed affected source shall control chromium emissions discharged to the atmosphere from that affected source by either: [40 CFR 63.342(c)(2)]

- A. Not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed 0.011 milligrams of total chromium per dry standard cubic meter (mg/dscm) (4.8×10^{-6} grains per dry standard cubic foot (gr/dscf)) for all enclosed hard chromium electroplating tanks that are existing affected sources located at large, hard chromium electroplating facilities; or [40 CFR 63.342(c)(2)(i)]
- B. Not allowing the mass rate of total chromium in the exhaust gas stream discharged to the atmosphere to exceed the maximum allowable mass emission rate determined by using the calculation procedure in section II.I.1 and section II.I.2 of this Category for all enclosed hard chromium electroplating tanks that are existing affected sources located at large, hard chromium electroplating facilities; or [40 CFR 63.342(c)(2)(iv) & 40 CFR 63.344(f)(1)(i)]
- C. Not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed 0.015 mg/dscm (6.6×10^{-6} gr/dscf) for all enclosed hard chromium electroplating tanks that are existing affected sources and are located at small, hard chromium electroplating facilities; or [40 CFR 63.342(c)(2)(ii)]
- D. Not allowing the mass rate of total chromium in the exhaust gas stream discharged to the atmosphere to exceed the maximum allowable mass emission rate determined by using the calculation procedure in section II.I.3 and section II.I.4 of this Category if the enclosed hard chromium electroplating tank is an existing affected source and is located at a small, hard chromium electroplating facility; or [40 CFR 63.342(c)(2)(v) & 40 CFR 63.344(f)(1)(ii)]
- E. Not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed 0.006 mg/dscm of ventilation air (2.6×10^{-6} gr/dscf) for enclosed hard chromium electroplating tanks that are new affected sources; or [40 CFR 63.342(c)(2)(vi)]
- F. Not allowing the mass rate of total chromium in the exhaust gas stream discharged to the atmosphere to exceed the maximum allowable mass emission rate determined by using the calculation procedures in section II.I.5 and section II.I.6 of this Category if the enclosed tank is a new affected source; or [40 CFR 63.342(c)(2)(vii) & 40 CFR 63.344(f)(1)(iii)]
- G. If a chemical fume suppressant containing a wetting agent is used, by not allowing the surface tension of the electroplating or anodizing bath contained within the affected tank to exceed 40 dynes/cm (2.8×10^{-3} lbf/ft) as measured by a Stalagmometer or 33 dynes/cm (2.3×10^{-3} lbf/ft) as measured by a Tensiometer at any time during tank operation. [40 CFR 63.342(c)(2)(iii)]
- H. After September 21, 2015, the Permittee of an affected enclosed hard chromium electroplating tank shall not add PFOS-based fume suppressants to any affected open surface hard chromium electroplating tank. [40 CFR 63.342(c)(2)(viii)]
- I. Compliance provisions for the mass rate emission standard for enclosed hard chromium electroplating tanks. [40 CFR 63.344(f)]

This section identifies procedures for calculating the maximum allowable mass emission rate for Permittees of affected sources who choose to meet the mass emission rate standard in section II.B, section II.D or section II.F of this Category. [40 CFR 63.344(f)(1) & 40 CFR 63.342(c)(2)(iv) - (v)]

1. The Permittee of an enclosed hard chromium electroplating tank that is an existing affected source and is located at a large hard chromium electroplating facility who chooses to meet the mass emission rate standard in section II.B of this Category shall determine compliance by not allowing the mass rate of total chromium in the exhaust gas stream discharged to the atmosphere to exceed the maximum allowable mass emission rate calculated using equation (A):

[40 CFR 63.344(f)(1)(i)(A) & 40 CFR 63.342(c)(2)(iv), 40 CFR 63 Subpart N - equation 9]

$$\text{MAMER} = \text{ETSA} \times \text{K} \times 0.011 \text{ mg/dscm} \dots\dots\dots (\text{A})$$

Where:

MAMER = the alternative emission rate for enclosed hard chromium electroplating tanks in milligram per hour (mg/hr).

ETSA = the hard chromium electroplating tank surface area in square feet (ft²).

K = a conversion factor, 425 dscm/(ft² × hr).

2. Compliance with the alternative mass emission limit is demonstrated if the three-run average mass emission rate determined from Method 306 testing is less than or equal to the maximum allowable mass emission rate calculated from equation (A).

[40 CFR 63.344(f)(1)(i)(B) & 40 CFR 63 Subpart N - equation 9]

3. The Permittee of an enclosed hard chromium electroplating tank that is an existing affected source located at a small hard chromium electroplating facility who chooses to meet the mass emission rate standard in section II.D of this Category shall determine compliance by not allowing the mass rate of total chromium in the exhaust gas stream discharged to the atmosphere to exceed the maximum allowable mass emission rate calculated using equation (B):

[40 CFR 63.344(f)(1)(ii)(A), 40 CFR 63.342(c)(2)(v) & 40 CFR 63 Subpart N - equation 10]

$$\text{MAMER} = \text{ETSA} \times \text{K} \times 0.015 \text{ mg/dscm} \dots\dots\dots (\text{B})$$

4. Compliance with the alternative mass emission limit is demonstrated if the three-run average mass emission rate determined from testing using Method 306 of appendix A to Part 63 is less than or equal to the maximum allowable mass emission rate calculated from equation (B).

[40 CFR 63.344(f)(1)(ii)(B) & 40 CFR 63 Subpart N - equation 10]

5. The Permittee of an enclosed hard chromium electroplating tank that is a new source who chooses to meet the mass emission rate standard in section II.F of this Category shall determine compliance by not allowing the mass rate of total chromium in the exhaust gas stream discharged to the atmosphere to exceed the maximum allowable mass emission rate calculated using equation (C):

[40 CFR 63.344(f)(1)(iii)(A) & 40 CFR 63.342(c)(2)(vii), 40 CFR 63 Subpart N - equation 11]

$$\text{MAMER} = \text{ETSA} \times \text{K} \times 0.006 \text{ mg/dscm} \dots\dots\dots (\text{C})$$

6. Compliance with the alternative mass emission limit is demonstrated if the three-run average mass emission rate determined from testing using Method 306 or 306A of appendix A to part 63 is less than or equal to the maximum allowable mass emission rate calculated for equation (C).

[40 CFR 63.344(f)(1)(iii)(B) & 40 CFR 63 Subpart N - equation 11]

III. Reporting

[PCC 17.12.185.A.5]

In addition to the general conditions applicable to all affected sources identified in section H of this Part, the following reporting requirements are applicable to process tanks subject to this Category:

Initial Notification

The initial notification reporting requirement shall include the following information:

- A. The maximum potential cumulative potential rectifier capacity; [40 CFR 63.347(c)(vi)]
- B. A statement of whether the affected source(s) is located at a small or large, hard chromium electroplating facility and whether this will be demonstrated through actual or maximum potential cumulative rectifier capacity; and [40 CFR 63.347(c)(vii)]
- C. A statement of whether the Permittee of an affected source(s) will limit the maximum potential cumulative rectifier capacity in accordance with section I.B of this Category such that the hard chromium electroplating facility is considered small. [40 CFR 63.647(c)(viii) & 40 CFR 63.342(c)(3)]

Part I

Category 3

Specific Conditions

Decorative Chromium Electroplating Tanks using a Chromic Acid Bath **Decorative Chromium Electroplating Tanks using a Trivalent Chromium Bath that** **do NOT Incorporate a Wetting Agent and** **Chromium Anodizing Tanks**

I. Designation of Sources – Existing, new or reconstructed affected sources to which the provisions of this Category apply are:

- A. Decorative Chromium Electroplating Tanks Using a Chromic Acid Bath, [40 CFR 63.342(d)]
- B. Decorative Chromium Electroplating Tanks that use a trivalent chromium bath that does not incorporate a wetting agent as a bath ingredient and [40 CFR 63.342(e)(3) & 40 CFR 63.342(d)]
- C. Chromium Anodizing Tanks. [40 CFR 63.342(d)]

II. Emission Limits

During tank operation, the Permittee of an existing, new, or reconstructed affected source listed in section I of this Category, shall control chromium emissions discharged to the atmosphere from that affected source by either: [40 CFR 63.342(d)]

- A. Not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed 0.007 milligrams of total chromium per dry standard cubic meter (mg/dscm) (3.1×10^{-6} grains per dry standard cubic foot (gr/dscf)) for the existing affected sources listed in section I of this Category; or [40 CFR 63.342(d)(1)]
- B. Not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed 0.006 mg/dscm (2.6×10^{-6} grains per dry standard cubic foot (gr/dscf)) for all new or reconstructed affected sources listed in section I of this Category; or [40 CFR 63.342(d)(2)]
- C. If a chemical fume suppressant containing a wetting agent is used, by not allowing the surface tension of the electroplating or anodizing bath contained within the affected source to exceed 40 dynes/cm (2.8×10^{-3} pound-force per foot (lbf/ft)) as measured by a Stalagmometer or 33 dynes/cm (2.3×10^{-3} lbf/ft) as measured by a Tensiometer at any time during operation of the tank; or [40 CFR 63.342(d)(3)]
- D. After September 21, 2015, the Permittee of an affected source listed in section I of this Category shall not add PFOS-based fume suppressants to any affected tank. [40 CFR 63.342(d)(4)]

Part I

Category 4

Specific Conditions

Decorative Chromium Electroplating Tanks using a Trivalent Chromium Bath that Incorporates a Wetting Agent

I. Applicability and Designation of Sources

- A. The affected sources to which the provisions of this Category apply are Decorative Chromium Tanks using a Trivalent Chromium Bath that incorporates a wetting agent as a bath ingredient. [40 CFR 63.340(a)]
- B. The Permittee of an existing, new, or reconstructed decorative chromium electroplating tank that uses a trivalent chromium bath that incorporates a wetting agent as a bath ingredient is subject to the recordkeeping and reporting requirements of section II and section III of this Category respectively, but is not subject to the work practice requirements of section E of this Part, or the continuous compliance monitoring requirements in section .C.3 of this Part. The wetting agent must be an ingredient in the trivalent chromium bath components purchased as a package. [40 CFR 63.342(e)(1), 40 CFR 63.346(b)(14), 40 CFR 63.347(i) & 40 CFR 63.343(c)]
- C. After September 21, 2015, the Permittee of an affected decorative chromium electroplating tank using trivalent chromium bath shall not add PFOS-based fume suppressants to any affected decorative chromium electroplating tank. [40 CFR 63.342(e)(2)]
- D. The Permittee of existing, new, or reconstructed decorative chromium electroplating tank that had been using a trivalent chromium bath that incorporated a wetting agent and ceases using this type of bath must fulfill the reporting requirements of section III.C of this Category and comply with the applicable emission limitation within the timeframe specified in section I.E of this Category. [40 CFR 63.342(e)(4), 40 CFR 63.347(i)(3) & 40 CFR 63.343(a)(7)]
- E. The Permittee of a decorative chromium electroplating tank that uses a trivalent chromium bath that incorporates a wetting agent, and that ceases using the trivalent chromium process, must comply with the emission limitation now applicable to the tank within 1 year of switching bath operation. [40 CFR 63.343(a)(7)]

II. Recordkeeping

The Permittee of a Category 4 affected source is not subject to the recordkeeping requirements of section G of this Part. The following recordkeeping requirement is applicable to decorative chromium electroplating tanks using a trivalent chromium bath that incorporates a wetting agent as a bath ingredient:

- A. The Permittee of each affected source complying with this Category, shall maintain records of the bath components purchased, with the wetting agent clearly identified as a bath constituent contained in one of the components. [40 CFR 63.346(b)(14) & 40 CFR 63.342(e)]
- B. All records shall be maintained for a period of 5 years in accordance with 40 CFR 63.10(b)(1). [40 CFR 63.346(c)]

III. Reporting

The Permittee of an affected source identified in section I.A of this Category is not subject to the reporting requirements identified in section H.1 through 3.b.iii and section F of this Part if the Permittee is complying with the provisions of sections I.B through I.E of this Category, but must instead submit the following reports: [40 CFR 63.347(i)]

- A. Within 180 days after January 25, 1995, submit an initial notification that includes: [40 CFR 63.347(i)(1)]
 1. The same information as is required by section H.3.a.i through v of this Part; and [40 CFR 63.347(i)(1)(i)]
 2. A statement that a trivalent chromium process that incorporates a wetting agent will be used to comply with section I.B through E of this Category; and [40 CFR 63.347(i)(1)(ii) & 40 CFR 63.342(e)]
 3. The list of bath components that comprise the trivalent chromium bath, with the wetting agent clearly identified; and [40 CFR 63.347(i)(1)(iii)]
- B. Within 30 days of the compliance date specified in section C.1 of this Part, a notification of compliance status that contains an update of the information submitted or a statement that the information is still accurate; and [40 CFR 63.347(i)(2) & 40 CFR 63.343(a)]
- C. Within 30 days of a change to the trivalent chromium electroplating process, a report that includes: [40 CFR 63.347(i)(3)]
 1. A description of the manner in which the process has been changed and the emission limitation, if any, now applicable to the affected source; [40 CFR 63.347(i)(3)(i)]
 2. If a different emission limitation applies, the applicable information required by section H.3.a of this Part and [40 CFR 63.347(i)(3)(ii)]
 3. The notification and reporting requirements of section H.4 through 6 and section F of this Part, which shall be submitted in accordance with the schedules identified in those sections. [40 CFR 63.347(i)(3)(iii), 40 CFR 63.346(d), (e), (f) and (h)]

Part II

Plating and Polishing Facilities Subject to 40 CFR 63 Subpart WWWW

Definitions

The definitions used in Part II of this general permit are defined in 40 CFR, Part 63, Subpart 6W, unless otherwise noted, are provided below for reference:

Batch Electrolytic Process Tank means a tank used for an electrolytic process in which a part or group of parts, typically mounted on racks or placed in barrels, is placed in the tank and immersed in an electrolytic process solution as a single unit (i.e., as a batch) for a predetermined period of time, during which none of the parts are removed from the tank and no other parts are added to the tank, and after which the part or parts are removed from the tank as a unit.

Bath means the liquid contents of a tank, as defined in this section, which is used for electroplating, electroforming, electropolishing, or other metal coating processes at a plating and polishing facility.

Bench-scale means any operation that is small enough to be performed on a bench, table, or similar structure so that the equipment is not directly contacting the floor.

Capture system means the collection of components used to capture gases and fumes released from one or more emissions points and then convey the captured gas stream to a control device, as part of a complete control system. A capture system may include, but is not limited to, the following components as applicable to a given capture system design: duct intake devices, hoods, enclosures, ductwork, dampers, manifolds, plenums, and fans.

Cartridge filter means a type of control device that uses perforated metal cartridges containing a pleated paper or non-woven fibrous filter media to remove PM from a gas stream by sieving and other mechanisms. Cartridge filters can be designed with single use cartridges, which are removed and disposed after reaching capacity, or continuous use cartridges, which typically are cleaned by means of a pulse-jet mechanism.

Composite mesh pad means a type of control device similar to a mesh pad mist eliminator except that the device is designed with multiple pads in series that are woven with layers of material with varying fiber diameters, which produce a coalescing effect on the droplets or PM that impinge upon the pads.

Continuous electrolytic process tank means a tank that uses an electrolytic process and in which a continuous metal strip or other type of continuous substrate is fed into and removed from the tank continuously. This process is also called reel-to-reel electrolytic plating.

Control device means equipment that is part of a control system that collects and/or reduces the quantity of a pollutant that is emitted to the air. The control device receives emissions that are transported from the process by the capture system.

Control system means the combination of a capture system and a control device. The capture system is designed to collect and transport air emissions from the affected source to the control device. The overall control efficiency of any control system is a combination of the ability of the system to capture the air emissions (i.e., the capture efficiency) and the control device efficiency. Consequently, it is important to achieve good capture to ensure good overall control efficiency. Capture devices that are known to provide high capture efficiencies include hoods, enclosures, or any other duct intake devices with ductwork, dampers, manifolds, plenums, or fans.

Conversion coatings are coatings that form a hard metal finish on an object when the object is submerged in a tank bath or solution that contains the conversion coatings. Conversion coatings for the purposes of this rule include coatings composed of chromium, as well as the other plating and polishing metal HAP, where no electrical current is used.

Cyanide plating means plating processes performed in tanks that use cyanide as a major bath ingredient and that operate at pH of 12 or more, and use or emit any of the plating and polishing metal HAP, as defined in this section. Electroplating and electroforming are performed with or without cyanide. The cyanide in the bath works to dissolve the HAP metal added as a cyanide compound (e.g., cadmium cyanide) and creates free cyanide in solution, which helps to corrode the anode. These tanks are self-regulating to a pH of 12 due to the caustic nature of the cyanide bath chemistry. The cyanide in the bath is a major bath constituent and not an additive; however, the self-regulating chemistry of the bath causes the bath to act as if wetting agents/fume suppressants are being used and to ensure an optimum plating process. All cyanide plating baths at pH greater than or equal to 12 have cyanide-metal complexes in solution. The metal HAP to be plated is not emitted because it is either bound in the metal-cyanide complex or reduced at the cathode to elemental metal, and plated onto the immersed parts. Cyanide baths are not intentionally operated at pH less 12 since unfavorable plating conditions would occur in the tank, among other negative effects.

Deviation means any instance in which an affected source or an owner or operator of such an affected source:

- (1) Fails to meet any requirement or obligation established by this rule including, but not limited to, any equipment standard (including emissions and operating limits), management practice, or operation and maintenance requirement;
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this rule and that is included in the operating permit for any affected facility required to obtain such a permit; or
- (3) Fails to meet any equipment standard (including emission and operating limits), management standard, or operation and maintenance requirement in this rule during startup, shutdown, or malfunction.

Dry mechanical polishing means a process used for removing defects from and smoothing the surface of finished metals and formed products after plating or thermal spraying with any of the plating and polishing metal HAP, as defined in this section, using automatic or manually-operated machines that have hard-faced abrasive wheels or belts and where no liquids or fluids are used to trap the removed metal particles. The affected process does not include polishing with use of pastes, liquids, lubricants, or any other added materials.

Electroforming means an electrolytic process using or emitting any of the plating and polishing metal HAP, as defined in this section, that is used for fabricating metal parts. This process is essentially the same as electroplating except that the plated substrate (mandrel) is removed, leaving only the metal plate. In electroforming, the metal plate is self-supporting and generally thicker than in electroplating.

Electroless plating means a non-electrolytic process that uses or emits any of the plating and polishing metal HAP, as defined in this section, in which metallic ions in a plating bath or solution are reduced to form a metal coating at the surface of a catalytic substrate without the use of external electrical energy. Electroless plating is also called non-electrolytic plating. Examples include, but are not limited to, chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating.

Electrolytic plating processes means electroplating and electroforming that use or emit any of the plating and polishing metal HAP, as defined in this section, where metallic ions in a plating bath or solution are reduced to form a metal coating on the surface of parts and products using electrical energy.

Electroplating means an electrolytic process that uses or emits any of the plating and polishing metal HAP, as defined in this section, in which metal ions in solution are reduced onto the surface of the work piece (the cathode) via an electrical current. The metal ions in the solution are usually replenished by the dissolution of metal from solid metal anodes fabricated of the same metal being plated, or by direct replenishment of the solution with metal salts or oxides; electroplating is also called electrolytic plating.

Electropolishing means an electrolytic process performed in a tank after plating that uses or emits any of the plating and polishing metal HAP, as defined in this section, in which a work piece is attached to an anode immersed in a bath, and the metal substrate is dissolved electrolytically, thereby removing the surface contaminant; electropolishing is also called electrolytic polishing. For the purposes of this subpart, electropolishing does not include bench-scale operations.

Fabric filter means a type of control device used for collecting PM by filtering a process exhaust stream through a filter or filter media. A fabric filter is also known as a baghouse.

Filters, for the purposes of this part, include cartridge, fabric, or HEPA filters, as defined in this section.

Flash electroplating means an electrolytic process performed in a tank that uses or emits any of the plating and polishing metal HAP, as defined in this section, and that is used no more than 3 cumulative minutes per hour or no more than 1 cumulative hour per day.

General Provisions of this part (40 CFR part 63, subpart A) means the section of the Code of Federal Regulations (CFR) that addresses air pollution rules that apply to all HAP sources addressed in part 63, which includes the National Emission Standards for Hazardous Air Pollutants (NESHAP).

HAP means hazardous air pollutant as defined from the list of 188 chemicals and compounds specified in the CAA Amendments of 1990; HAP are also called “air toxics.” The five plating and polishing metal HAP, as defined in this section, are on this list of 188 chemicals.

High efficiency particulate air (HEPA) filter means a type of control device that uses a filter composed of a mat of randomly arranged fibers and is designed to remove at least 99.97 percent of airborne particles that are 0.3 micrometers or larger in diameter.

Maintenance is any process at a plating and polishing facility that is performed to keep the process equipment or the facility operating properly and is not performed on items to be sold as products.

Major facility for HAP is any facility that emits greater than 10 tpy of any HAP, or that emits a combined total of all HAP of over 25 tpy, where the HAP used to determine the total facility emissions are not restricted to only plating and polishing metal HAP or from only plating and polishing operations.

Mesh pad mist eliminator means a type of control device, consisting of layers of interlocked filaments densely packed between two supporting grids that remove liquid droplets and PM from the gas stream through inertial impaction and direct interception.

Metal coating operation means any process performed either in a tank that contains liquids or as part of a thermal spraying operation, that applies one or more plating and polishing metal HAP, as defined in this section, to the surface of parts and products used in manufacturing. These processes include but are not limited to: non-chromium electroplating; electroforming; electropolishing; non-electrolytic metal coating processes, such as chromate conversion coating, electroless nickel plating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating; and thermal or flame spraying.

Metal HAP content of material used in plating and polishing is the HAP content as determined from an analysis or engineering estimate of the HAP contents of the tank bath or solution, in the case of plating, metal coating, or electropolishing; or the HAP content of the metal coating being applied in the case of thermal spraying. Safety data sheet (SDS) information may be used in lieu of testing or engineering estimates but is not required to be used.

New source means any affected source for which you commenced construction or reconstruction after March 14, 2008.

Non-cyanide electrolytic plating and electropolishing processes means electroplating, electroforming, and electropolishing that uses or emits any of the plating and polishing metal HAP, as defined in this section, performed without cyanide in the tank. These processes do not use cyanide in the tank and operate at pH values less than 12. These processes use electricity and add or remove metals such as metal HAP from parts and products used in manufacturing. Both electroplating and electroforming can be performed with cyanide as well.

Non-electrolytic plating means a process that uses or emits any of the plating and polishing metal HAP, as defined in this section, in which metallic ions in a plating bath or solution are reduced to form a metal coating at the surface of a catalytic substrate without the use of external electrical energy. Non-electrolytic plating is also called electroless plating. Examples include chromate conversion coating, nickel acetate sealing, electroless nickel plating, sodium dichromate sealing, and manganese phosphate coating.

Packed-bed scrubber means a type of control device that includes a single or double packed bed that contains packing media on which PM and droplets impinge and are removed from the gas stream. The packed-bed section of the scrubber is followed by a mist eliminator to remove any water entrained from the packed-bed section.

Plating and polishing facility means a facility engaged in one or more of the following processes that uses or emits any of the plating and polishing metal HAP, as defined in this section: electroplating processes other than chromium electroplating (i.e., non-chromium electroplating); electroless plating; other non-electrolytic metal coating processes performed in a tank, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating; thermal spraying; and the dry mechanical polishing of finished metals and formed products after plating or thermal spraying. Plating is performed in a tank or thermally sprayed so that a metal coating is irreversibly applied to an object. Plating and polishing does not include any bench-scale processes.

Plating and polishing metal HAP means any compound of any of the following metals: cadmium, chromium, lead, manganese, and nickel, or any of these metals in the elemental form, with the exception of lead. Any material that does not contain cadmium, chromium, lead, or nickel in amounts greater than or equal to 0.1 percent by weight (as the metal), and does not contain manganese in amounts greater than or equal to 1.0 percent by weight (as the metal), as reported on the Material Safety Data Sheet for the material, is not considered to be a plating and polishing metal HAP.

Plating and polishing process tanks means any tank in which a process is performed at an affected plating and polishing facility that uses or has the potential to emit any of the plating and polishing metal HAP, as defined in this section. The processes performed in plating and polishing tanks include the following: electroplating processes other than chromium electroplating (i.e., non-chromium electroplating) performed in a tank; electroless plating; and non-electrolytic metal coating processes, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating; and electropolishing. This term does not include tanks containing solutions that are used to clean, rinse or wash parts prior to placing the parts in a plating and polishing process tank, or subsequent to removing the parts from a plating and polishing process tank. This term also does not include any bench-scale operations.

PM means solid or particulate matter that is emitted into the air.

Repair means any process used to return a finished object or tool back to its original function or shape.

Research and development process unit means any process unit that is used for conducting research and development for new processes and products and is not used to manufacture products for commercial sale, except in a de minimis manner.

Short-term plating means an electroplating process that uses or emits any of the plating and polishing metal HAP, as defined in this section, and that is used no more than 3 cumulative minutes per hour or 1 hour cumulative per day.

Startup of the tank bath is when the components or relative proportions of the various components in the bath have been altered from the most recent operating period. Startup of the bath does not include events where only the tank's heating or agitation and other mechanical operations are turned back on after being turned off for a period of time.

Tank cover for batch process units means a solid structure made of an impervious material that is designed to cover the entire open surface of a tank or process unit that is used for plating or other metal coating processes.

Tank cover for continuous process units means a solid structure or combination of structures, made of an impervious material that is designed to cover at least 75 percent of the open surface of the tank or process unit that is used for continuous plating or other continuous metal coating processes.

Temporary thermal spraying means a thermal spraying operation that uses or emits any of the plating and polishing metal HAP, as defined in this section, and that lasts no more than 1 hour in duration during any one day and is conducted in situ. Thermal spraying that is conducted in a dedicated thermal spray booth or structure is not considered to be temporary thermal spraying.

Thermal spraying (also referred to as metal spraying or flame spraying) is a process that uses or emits any of the plating and polishing metal HAP, as defined in this section, in which a metallic coating is applied by projecting heated, molten, or semi-molten metal particles onto a substrate. Commonly-used thermal spraying methods include high velocity oxy-fuel (HVOF) spraying, flame spraying, electric arc spraying, plasma arc spraying, and detonation gun spraying. This operation does not include spray painting at ambient temperatures.

Water curtain means a type of control device that draws the exhaust stream through a continuous curtain of moving water to scrub out suspended PM.

Wetting agent/fume suppressant means any chemical agent that reduces or suppresses fumes or mists from a plating and polishing tank by reducing the surface tension of the tank bath.

Part II

General Conditions

(Applicable to all plating and polishing operations subject to 40 CFR 63 Subpart 6W)

All standards, conditions and provisions of this permit are federally enforceable unless otherwise stated.

A. Applicability

1. Part II applies to the following new or existing affected area sources (a through c): [40 CFR 63.11505(a)]
 - a. Each tank that contains one or more of the plating and polishing metal HAP and is used for non-chromium electroplating; electroforming; electropolishing; electroless plating or other non-electrolytic metal coating operations, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating. [40 CFR 63.11505(a)(1)]
 - b. Each thermal spraying operation that applies one or more of the plating and polishing metal HAP. [40 CFR 63.11505(a)(2)]
 - c. Each dry mechanical polishing operation that emits one or more of the plating and polishing metal HAP. [40 CFR 63.11505(a)(3)]
2. A plating or polishing facility is an area source of HAP emissions, where an area source is any stationary source or group of stationary sources within a contiguous area under common control that does not have the potential to emit any single HAP at a rate of 9.07 megagrams per year (Mg/yr) (10 tons per year (tpy)) or more and any combination of HAP at a rate of 22.68 Mg/yr (25 tpy) or more. [40 CFR 63.11504(a)(2)]
3. Plating and polishing metal HAP means any compound of any of the following metals: **cadmium, chromium, lead, manganese, and nickel**. With the exception of lead, plating and polishing metal HAP also include any of these metals in the elemental form. [40 CFR 63.11504(a)(3)]
4. An affected source is existing if construction or reconstruction of the affected source commenced on or before March 14, 2008. [40 CFR 63.11505(b)]
5. An affected source is new if construction or reconstruction of the affected source commenced after March 14, 2008. [40 CFR 63.11505(c)]
6. Part II of this permit does not apply to any of the following process units or operations (a through f): [40 CFR 63.11505(d)]
 - a. Process units that are subject to the requirements of 40 CFR Part 63, subpart N (National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks). [40 CFR 63.11505(d)(1)]
 - b. Research and development process units. [40 CFR 63.11505(d)(2)]
 - c. Process units that are used strictly for educational purposes. [40 CFR 63.11505(d)(3)]
 - d. Plating, polishing, coating, or thermal spraying conducted to repair surfaces or equipment. [40 CFR 63.11505(d)(4)]

- e. Dry mechanical polishing conducted to restore the original finish to a surface. [40 CFR 63.11505(d)(5)]
 - f. Any plating or polishing process that uses process materials that contain cadmium, chromium, lead, or nickel (as the metal) in amounts less than 0.1 percent by weight, or that contain manganese in amounts less than 1.0 percent by weight (as the metal), as used. Information used to determine the amount of plating and polishing metal HAP in materials used in the plating or polishing process may include information reported on the Material Safety Data Sheet for the material, but is not required. For plating or polishing tanks, the HAP content may be determined from the final bath contents “as used” to plate or to polish. [40 CFR 63.11505(d)(6)]
7. The Permittee is exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, “Title V,” provided the Permittee is not otherwise required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources. [40 CFR 63.11505(e)]

B. Compliance Dates

- 1. The Permittee of an existing affected source shall achieve compliance with the applicable provisions of Part II of this permit no later than July 1, 2010. [40 CFR 63.11506(a)]
- 2. The Permittee of a new affected source for which the initial startup date is on or before July 1, 2008, shall achieve compliance with the provisions of Part II of this permit no later than July 1, 2008. [40 CFR 63.11506(b)]
- 3. The Permittee of a new affected source for which the initial startup date is after July 1, 2008, shall achieve compliance with the provisions of Part II of this permit upon initial startup of the affected source. [40 CFR 63.11506(c)]

C. General Requirements

- 1. The Permittee shall operate and maintain the affected source, including air pollution control equipment at all times according to the manufacturer’s specifications and operating instructions. [40 CFR 63.11508(d)(1)]
- 2. Management Practices: The Permittee shall implement the following applicable management practices, as practicable (a through l): [40 CFR 63.11507(a), (b), (c), (d)(2), (f)(3)(ii),(g) & 63.11508(c)(1)(iii), (2)(iii), (3)(iii), (4)(iii), (5)(ii), (6)(iii), (7)(ii), (11)(i)]
 - a. Minimize bath agitation when removing any parts processed in the tank, as practicable, except when necessary to meet part quality requirements. [40 CFR 63.11507(g)(1)]
 - b. Maximize the draining of bath solution back into the tanks, as practicable, by extending drip time when removing parts from the tank; using drain boards (also known as drip shields); or withdrawing parts slowly from the tank, as practicable. [40 CFR 63.11507(g)(2)]
 - c. Optimized the design of barrels, racks and parts to minimize dragout of bath solution (such as by using slotted barrels and tilted racks, or by designing parts with flow-through holes to allow the tanks solution to drip back into the tank), as practicable. [40 CFR 63.11507(g)(3)]
 - d. Use tank covers, if already owned and available at the facility, whenever practicable. [40 CFR 63.11507(g)(4)]
 - e. Minimize or reduce heating of process tanks, as practicable (e. g. when doing so would not interrupt production or adversely affect part quality). [40 CFR 63.11507(g)(5)]

- f. Perform regular repair, maintenance, and preventive maintenance of racks, barrels, and other equipment associated with affected sources, as practicable. [40 CFR 63.11507(g)(6)]
 - g. Minimize bath contamination, such as through the prevention or quick recovery of dropped parts, use of distilled/de-ionized water, water filtration, pre-cleaning of parts to be plated, and thorough rinsing of pre-treated parts to be plated, as practicable. [40 CFR 63.11507(g)(7)]
 - h. Maintain quality control of chemicals, and chemical and other bath ingredient concentrations in the tanks, as practicable. [40 CFR 63.11507(g)(8)]
 - i. Perform general good housekeeping, such as regular sweeping or vacuuming, if needed, and periodic wash downs, as practicable. [40 CFR 63.11507(g)(9)]
 - j. Minimize spills and overflow of tanks, as practicable. [40 CFR 63.11507(g)(10)]
 - k. Use squeegee rolls in continuous or reel-to-reel plating tanks, as practicable. [40 CFR 63.11507(g)(11)]
 - l. Perform regular inspections to identify leaks and other opportunities for pollution prevention. [40 CFR 63.11507(g)(12)]
3. The Permittee shall implement the applicable management practices in section C.2 of this Part during all times that the affected tank or process is in operation. [40 CFR 63.11508(d)(8)(i)]
4. The Permittee shall be in compliance with the applicable management practices and equipment standards in this Part at all times. [40 CFR 63.11508(b)]
5. Notifications and Reporting
- a. The Permittee shall submit an **Initial Notification** to the Control Officer according to the following (i through iii): [40 CFR 63.11509(a)]
 - i. The Initial Notification shall include the following information: [40 CFR 63.11509(a)(1)]
 - (A) The name and address of the Permittee; [40 CFR 63.9(b)(2)(i)]
 - (B) The address (i.e., physical location) of the affected source; [40 CFR 63.9(b)(2)(ii)]
 - (C) An identification of the relevant standard (i.e., this subpart, 40 CFR 63, Subpart WWWW), that is the basis of the notification and the source's compliance date; [40 CFR 63.9(b)(2)(iii)]
 - (D) A brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted; and [40 CFR 63.9(b)(2)(iv)]
 - (E) A description of the compliance method for each affected source. [40 CFR 63.11509(a)(2)]
 - ii. If startup of the affected source is on or before July 1, 2008, submit an Initial Notification not later than 120 calendar days after July 1, 2008. [40 CFR 63.11509(a)(3)]
 - iii. If startup of the new affected source is after July 1, 2008, submit an Initial Notification upon initial startup. [40 CFR 63.11509(a)(4)]

- b. The Permittee shall submit a **Notification of Compliance Status** to the Control Officer according to the following (i through iii): [40 CFR 63.11509(b) & 40 CFR 63.11508(a)]
- i. The Notification of Compliance Status shall be submitted before the close of business on the compliance date specified in B of the General Conditions. [40 CFR 63.11509(b)(1) & 40 CFR 63.11506]
- ii. The Notification of Compliance Status shall include the following items ((A) – (E)): [40 CFR 63.11509(b)(2)]
- (A) List of affected sources and the plating and polishing metal HAP used in, or emitted by, those sources. [40 CFR 63.11509(b)(2)(i)]
- (B) Methods used to comply with the applicable management practices and equipment standards. [40 CFR 63.11509(b)(2)(ii)]
- (C) Description of the capture and emission control systems used to comply with the applicable equipment standards. [40 CFR 63.11509(b)(2)(iii)]
- (D) Statement by the Permittee of the affected source as to whether the source is in compliance with the applicable standards or other requirements. [40 CFR 63.11509(b)(2)(iv)]
- (E) Statement by the Permittee of the affected source that the applicable management practices specified in C.2 of the General Conditions have been implemented. [40 CFR 63.11508(c)(1)(iv), (2)(iv), (3)(iv), (4)(iv), (5)(iii), (6)(iv), (7)(iii) & (11)(ii)]
- iii. If a facility makes a change to any items in sections C.5.b.ii.(A), (C) and (D) of this Part that does not result in a deviation, an amended Notification of Compliance Status should be submitted within 30 days of the change. [40 CFR 63.11509(b)(3)]
- c. The Permittee shall prepare an **Annual Certification of Compliance** report according to the following (i through iv) and the applicable requirements specified in each source Category: These reports do not need to be submitted unless a deviation from the requirements of this Part has occurred during the reporting year, in which case, the annual compliance report must be submitted along with the deviation report to the Control Officer. The report shall be kept in a readily accessible location for inspector review. [40 CFR 63.11509(c) & 63.11508(d)(2)]
- i. The Permittee shall state, in the Annual Certification, that the applicable management practices specified in section C.2 of this Part have been implemented as practicable. [40 CFR 63.11508(d)(8)(ii) & 63.11509(c)(6)]
- ii. Each annual compliance report shall be prepared no later than January 31 of the year immediately following the reporting period and kept in a readily-accessible location for inspector review. [40 CFR 63.11509(c)(7)]
- iii. If a deviation has occurred during the year, each annual compliance report shall be submitted to the Control Officer along with the Deviation Report, and postmarked or delivered no later than January 31 of the year immediately following the reporting period. [40 CFR 63.11509(c)(7)]
- iv. The Deviation Report shall include any deviations from the compliance requirements specified in this Part, along with the corrective actions taken. [40 CFR 63.11509(d)]
- d. The Permittee shall postmark required submittals on or before the number of days specified in an applicable requirement. [40 CFR 63.1(a)(11)]

6. Recordkeeping

- a. The Permittee shall keep the following records (i through v): [40 CFR 63.11509(e)]
- i. Copies of the Initial Notification and Notification of Compliance Status submitted and all documentation supporting those notifications. [40 CFR 63.11509(e)(1) & 40 CFR 63.10(b)(2)(xiv)]
 - ii. The occurrence and duration of each startup or shutdown when the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards; [40 CFR 63.10(b)(2)(i)]
 - iii. The occurrence and duration of each malfunction of operation (i.e., process equipment) or the required air pollution control and monitoring equipment; [40 CFR 63.10(b)(2)(ii)]
 - iv. All required maintenance performed on the air pollution control and monitoring equipment; [40 CFR 63.10(b)(2)(iii)]
 - v. The Annual Compliance Certifications and all records required to show continuous compliance with each management practice and equipment standard that applies to the affected source. [40 CFR 63.11509(e)(3) & 40 CFR 11508(d)(2)]
- b. The Permittee shall keep each record for a minimum of 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Each record shall be kept onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1) of the General Provisions to part 63. You may keep the records offsite for the remaining 3 years. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche. [40 CFR 63.11509(f) & 40 CFR 63.10(b)(1)]

D. General Provisions

If you own or operate a new or existing affected source, you must comply with the requirements of the General Provisions (40 CFR part 63, subpart A) according to Table 1 below. [40 CFR 63.11510]

Table 1 to Subpart WWWWWW of Part 63

Applicability of General Provisions to Plating and Polishing Area Sources

Citation	Subject
63.1 ¹	Applicability.
63.2	Definitions.
63.3	Units and abbreviations.
63.4	Prohibited activities.
63.6(a), (b)(1)-(b)(5), (c)(1), (c)(2), (c)(5), and (j)	Compliance with standards and maintenance requirements.
63.10(a), (b)(1), (b)(2)(i)-(iii), (xiv), (b)(3), (d)(1),(f)	Recordkeeping and reporting.
63.12	State authority and delegations.
63.13	Addresses of State air pollution control agencies and EPA regional offices.
63.14	Incorporation by reference.
63.15	Availability of information and confidentiality.

¹Section A.7 of the General Conditions exempts affected sources from the obligation to obtain title V operating permits.

List of Applicable Regulations

Requirements Specifically Identified As Applicable

Title 40 of the Code of Federal Regulations, Part 63 (40 CFR 63)

Subpart WWWWWW National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations.

Pima County Code (PCC) Title 17, Chapters:

- 17.16.040 Standards and Applicability (Including NESHAPS)
- 17.16.130 Applicability.
- 17.16.530 National Emission Standards for Hazardous Air Pollutants (NESHAP).

Part II

Category 5

Specific Conditions

Non-Cyanide Electrolytic Process Tanks

This category applies to affected plating and polishing operations, located at an area source for Hazardous Air Pollutants that involve the use of non-cyanide electroplating, electroforming or electropolishing and operate at a pH of less than 12.

I. Management Requirements

- A. The Permittee of a non-cyanide electrolytic process, that is **NOT** considered short-term or “flash” electroplating, shall comply with one of the following (1, 2 or 3): [40 CFR 63.11507(a)]
1. Use a wetting agent/fume suppressant in the bath of the affected tank as follows (a through c): [40 CFR 63.11507(a)(1)]
 - a. Add the wetting agent/fume suppressant initially to the bath of each affected tank in the amounts recommended by the manufacturer’s specifications and instructions for the specific type of electrolytic process. [40 CFR 63.11507(a)(1)(i) & 11508(c)(1)(i)]
 - b. Add wetting agent/fume suppressant in proportion to the other bath chemistry ingredients that are added to replenish the tank bath, as in the original make-up of the tank, or in proportions such that the bath contents are returned to that of the original make-up of the bath. [40 CFR 63.11507(a)(1)(ii) & 63.11508(d)(3)(ii)(A)]
 - c. If a wetting agent/fume suppressant is included in the electrolytic process bath chemicals used in the affected tank according to the manufacturer’s instructions, it is not necessary to add additional wetting agent/fume suppressants to the tank to comply with this rule. [40 CFR 63.11507(a)(1)(iii)]
 2. Capture and exhaust emissions from the affected tank to any one of the following emission control devices: composite mesh pad, packed bed scrubber, or mesh pad mist eliminator, according to the following procedures (a through c): [40 CFR 63.11507(a)(2) & CFR 40 63.11508(c)(2)(i)]
 - a. Operate all capture and control devices according to the manufacturer’s specifications and operating instructions at all times. [40 CFR 63.11507(a)(2)(i) & 40 CFR 11508(c)(2)(v)]
 - b. Keep the manufacturer’s specifications and operating instructions at the facility at all times in a location where they can be easily accessed by operators. [40 CFR 63.11507(a)(2)(ii) & 40 CFR 63.11508(d)(4)(v)]
 - c. Following any malfunction or failure of the capture or control devices to operate properly, immediate corrective action must be taken to return the equipment to normal operation according to the manufacturer’s specifications and operating instructions. [40 CFR 63.11508(d)(4)(ii)]

3. Cover the tank surface according to the following procedures (a through b): [40 CFR 63.11507(a)(3)]
 - a. For Batch Electrolytic Process tanks, a tank cover must be used over the effective (entire) surface area of the tank for at least 95 percent of the electrolytic process operation time. [40 CFR 63.11507(a)(3)(i) & 11508(d)(6)(i)]
 - b. For Continuous Electrolytic Process tanks, a cover must be used over at least 75 percent of the surface area of the tank, whenever the electrolytic process tank is in operation. [40 CFR 63.11507(a)(3)(ii), 63.11508(c)(4)(i) & 63.11508(d)(7)(i)]
- B. The Permittee of a Short-Term or Flash Electroplating Process shall comply with one of the following (1 or 2): [40 CFR 63.11507(b)]
 1. Limit short-term or flash electroplating to no more than 1 cumulative hour per day or 3 cumulative minutes per hour of plating time. [40 CFR 63.11507(b)(1) & 63.11508(d)(5)(i)]
 2. Use a tank cover for at least 95 percent of the plating time. [40 CFR 63.11507(b)(2) & 63.11508(d)(6)(i)]
- C. The Permittee of an affected new or existing process tank that is used both for short-term electroplating and for electrolytic processing of longer duration (i.e., processing that does not meet the definition of short-term or flash electroplating) shall meet the requirements specified in I.A or I.B of this Category, whichever apply to the process operation, and implement the applicable management practices in section C.2 of the General Conditions of Part II, as practicable. [40 CFR 63.11507(c) & 40 CFR 63.11507(g)]

II. Reporting Requirements

- A. If, per section I.A.1 of this Category, a wetting agent/fume suppressant is used in the bath of the affected tank, the Permittee shall: [40 CFR 63.11508(c)(1)]
 1. Demonstrate Initial Compliance by recording in the Notification of Compliance Status required in section C.5.b of the General Conditions of Part II that the wetting agent/fume suppressant was added to the tank according to the manufacturer's specifications and instructions. [40 CFR 63.11508(c)(1)(ii)]
 2. Demonstrate Continuous Compliance according to the following (a through c):
 - a. Recording that the wetting agent/fume suppressant was added as a component of the original chemical make-up of the tank if the wetting agent/fume suppressant was a component of the ingredients added to the tank bath in the original chemical make-up of the tank, [40 CFR 63.11508(d)(3)(i)]
 - b. Where the wetting agent/fume suppressant component is a separate ingredient from the other tank additives, record each addition of wetting agent/fume suppressant to the tank bath. [40 CFR 63.11508(d)(3)(ii) & (ii)(B)]
 - c. Recording in the Annual Compliance Certification required in section C.5.c of the General Conditions of Part II that the wetting agent/fume suppressant was added to the bath according to the manufacturer's specifications and instructions. [40 CFR 63.11508(d)(3)(iii) & 40 CFR 63.11509(c)(1)]

- B. If, per section I.A.2 of this Category, a control system is used to capture emissions from the bath of the affected tank, the Permittee shall:
1. Demonstrate Initial Compliance by recording in the Notification of Compliance Status required in section C.5.b. of the General Conditions of Part II that the control system has been installed in accordance with the manufacturer's specifications and instructions. [40 CFR 63.11508(c)(2) & (2)(ii)]
 2. Demonstrate Continuous Compliance by:
 - a. Operating and maintaining the control system according to the manufacturer's specifications and instructions. [40 CFR 63.11508(d)(4)(i)]
 - b. Recording in the Annual Compliance Certification required in section C.5.c of the General Conditions of Part II that the control system has been operated and maintained according to the manufacturer's specifications and instructions. [40 CFR 63.11508(d)(4)(iii) & 40 CFR 63.11509(c)(2) & (2)(i)]
 - c. Recording the results of all control system inspections, deviations from proper operation, and any corrective action taken. [40 CFR 63.11508(d)(4)(iv)]
- C. If, per section I.A.3 of this Category, a tank cover is used for the bath of the affected tank, the Permittee shall:
1. Demonstrate Initial Compliance by:
 - a. Recording in the Notification of Compliance Status required in section C.5.b. of the General Conditions of Part II that the tank is operated with the cover in place, over the entire (effective) surface area, for at least 95 percent of any Batch electrolytic process operating time. [40 CFR 63.11508(c)(3)(ii)]
 - b. Recording in the Notification of Compliance Status required in section C.5.b. of the General Conditions of Part II that the tank is operated with the cover in place, over at least 75 percent of the surface area, whenever any Continuous electrolytic process is in operation. [40 CFR 63.11508(c)(4)(ii)]
 2. Demonstrate Continuous Compliance by:
 - a. Recording the times that the tank is operated and the times that the tank is covered on a daily basis for any Batch electrolytic process tank. [40 CFR 63.11508(d)(6)(ii)]
 - b. Recording in the Annual Certification of Compliance required in section C.5.c of the General Conditions of Part II that the tank is operated with the cover in place, over the entire surface area, for at least 95 percent of any Batch electrolytic process operating time. [40 CFR 63.11508(d)(6)(iii) & 40 CFR 63.11509(c)(4)]
 - c. Recording in the Annual Certification of Compliance required in section C.5.c of the General Conditions of Part II that the tank is operated with the cover in place, over at least 75 percent of the surface area, whenever any Continuous electrolytic process is in operation. [40 CFR 63.11508(d)(7)(ii) & 40 CFR 63.11509(c)(5)]
- D. If, per section I.B.2 of this Category, a tank cover is used for the bath of the affected tank, the Permittee shall:
1. Demonstrate Initial Compliance by recording in the Notification of Compliance Status required in section C.5.b. of the General Conditions of Part II that the tank is operated with the cover in place at least 95 percent of the plating time for any Flash or Short Term Electroplating Tank. [40 CFR 63.11508(c)(6)(ii)]

2. Demonstrate Continuous Compliance by:
 - a. Recording the times that the tank is operated and the times that the tank is covered on a daily basis for any Short-Term or Flash electroplating tank. [40 CFR 63.11508(d)(6)(ii)]
 - b. Recording in the Annual Certification of Compliance required in section C.5.c of the General Conditions of Part II that the tank is operated with the cover in place, over the entire surface area, for at least 95 percent of any Short-Term or Flash electroplating tank operating time. [40 CFR 63.11508(d)(6)(iii) & 40 CFR 63.11509(c)(4)]

- E. If, per section I.B.1 of this Category, the plating time of the affected tank is being limited, the Permittee shall: [40 CFR 63.11508(c)(5)]
 1. Demonstrate Initial Compliance by recording in the Notification of Compliance Status required in section C.5.b. of the General Conditions of Part II that the operation of the Short-Term or Flash electroplating process is limited to no more than 1 cumulative hour per day, or 3 cumulative minutes per hour of plating time. [40 CFR 63.11508(c)(5)(i)]
 2. Demonstrate Continuous Compliance by:
 - a. Recording the times that the affected tank is operated each day. [40 CFR 63.11508(d)(5)(ii)]
 - b. Recording in the Annual Certification of Compliance required in section C.5.c of the General Conditions of Part II that the operation of the Short-Term or Flash electroplating process is limited to no more than 1 cumulative hour per day, or 3 cumulative minutes per hour of plating time. [40 CFR 63.11508(d)(5)(iii) & & 40 CFR 63.11509(c)(3)]

Part II

Category 6

Specific Conditions

Cyanide Electrolytic Process Tanks

This Category applies to all affected electroplating operations, located at an area source for Hazardous Air Pollutants that involve the use of cyanide electroplating and operate at a pH greater than or equal to 12 and use or emit one of the plating and polishing metal HAPs, per A.3 of the General Conditions of Part II

I. Recording & Reporting Requirements

- A. The Permittee shall measure and record the pH of the bath upon startup of the bath. No additional pH measurements are required. [40 CFR 63.11507(d)(1)]
- B. To demonstrate Initial Compliance the Permittee shall report in the Notification of Compliance Status required in section C.5.b of the General Conditions of Part II, the pH of the bath solution that was measured at startup. [40 CFR 63.11508(c)(7)(i)]

Part II

Category 7

Specific Conditions

Thermal Spraying Operations

This Category applies to all affected Thermal Spraying Operations located at an area source for Hazardous Air Pollutants.

I. Management Requirements

- A. The Permittee of an **existing permanent** thermal spraying operation shall install and operate a capture system that collects PM emissions from the thermal spraying process and transports the emissions to a water curtain, fabric filter, cartridge, or HEPA filter. [40 CFR 63.11507(f)(1) & 40 CFR 63.11508(c)(9)(i)]
- B. The Permittee of a **new permanent** thermal spraying operation shall install and operate a capture system that collects PM emissions from the thermal spraying process and transports the emissions to a fabric, cartridge, or HEPA filter, and [40 CFR 63.11507(f)(2) & 40 CFR 63.11508(c)(10)(i)]
- C. The Permittee of a **new and existing permanent** thermal spraying operation shall:
1. Operate and maintain all capture and control devices according to the manufacturer's specifications and instructions, and [40 CFR 63.11507(f)(1)(i), 40 CFR 63.11507(f)(2)(i) & 40 CFR 63.11508(d)(4)(i)]
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 2. Keep a copy of the manufacturer's operating instructions at the facility at all times in a location where they can be easily accessed by the operators. [40 CFR 63.11507(f)(1)(ii), 40 CFR 63.11507(f)(2)(ii), 40 CFR 63.11508(c)(9)(iii) & 40 CFR 63.11508(c)(10)(iii)]
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 3. Following any malfunction or failure of the capture or control devices to operate properly, the Permittee shall take immediate corrective action to return the equipment to normal operation according to the manufacturer's specifications and operating instructions. [40 CFR 63.11508(d)(4)(ii)]
- D. The Permittee of a **temporary** thermal spraying operations shall document the amount of time the thermal spraying occurs each day, and where it is conducted. [40 CFR 63.11507(f)(3)(i)]

II. Reporting Requirements

- A. To demonstrate Initial Compliance, the Permittee of a **new or existing permanent** thermal spraying operation shall report in the Notification of Compliance Status required in section C.5.b. of the General Conditions of Part II that the control system has been installed and is operated according to the manufacturer's specifications and instructions. [40 CFR 63.11508(c)(9), 40 CFR 63.11508(c)(9)(ii), 40 CFR 63.11508(c)(10) & 40 CFR 63.11508(c)(10)(ii)]
- C. To demonstrate Continual Compliance, the Permittee of a **new or existing permanent** thermal spraying operation shall: [40 CFR 63.11508(d)(4)]
1. Report in the Annual Certification of Compliance required in section C.5.c of the General Conditions of Part II that the control system is operated and maintained according to the manufacturer's specifications and instructions. [40 CFR 63.11508(d)(4)(iii) & 40 CFR 63.11509(c)(2)(iii)]
 2. Record the results of all control system inspections, deviations from proper operation, and any corrective action taken. [40 CFR 63.11508(d)(4)(iv)]

Part II

Category 8

Specific Conditions

Dry Mechanical Polishing Operations

This Category applies to all affected Dry Mechanical Polishing Processes located at an area source for Hazardous Air Pollutants that performs dry mechanical polishing of finished metals and formed products after plating or thermal spraying.

I. Management Requirements

- A. The Permittee of an affected new or existing dry mechanical polishing machine shall:
1. Install and Operate a control system that captures particulate matter (PM) emissions from the dry mechanical polishing process and transports the emissions to a cartridge, fabric, or high efficiency particulate air (HEPA) filter. [40 CFR 63.11507(e) & 40 CFR 63.11508(c)(8)(i)]
 2. Operate and maintain all capture and control devices according to the manufacturer's specifications and operating instructions. [40 CFR 63.11507(e)(1) & 40 CFR 63.11508(d)(4)(i)]
 3. Keep the manufacturer's specifications and operating instructions at the facility at all times in a location where they can be easily accessed by the operators. [40 CFR 63.11507(e)(2), 40 CFR 63.11508(c)(8)(iii) & 40 CFR 63.11508(d)(4)(v)]
- B. Following any malfunction or failure of the capture or control devices to operate properly, the Permittee shall take immediate corrective action to return the equipment to normal operation according to the manufacturer's specifications and operating instructions. [40 CFR 63.11508(d)(4)(ii)]

II. Reporting Requirements & Equipment Standards

- A. To demonstrate Initial Compliance, the Permittee of a mechanical polishing operation shall report in the Notification of Compliance Status required in section C.5.b of the General Conditions of Part II that the control system is installed according to the manufacturer's specifications and instructions. [40 CFR 63.11508(c)(8) & (8)(ii)]
- B. To demonstrate Continual Compliance, the Permittee of a mechanical polishing operation shall: [40 CFR 63.11508(d)(4)]
1. Report in the Annual Certification of Compliance required in section C.5.c of the General Conditions of Part II that the control system is operated and maintained according to the manufacturer's specifications and instructions. [40 CFR 63.11508(d)(4)(iii) & 40 CFR 63.11509(c)(2)(ii)]
 2. Record the results of all control system inspections, deviations from proper operation, and any corrective action taken. [40 CFR 63.11508(d)(4)(iv)]

Part II

Category 9

Specific Conditions

Electroless Plating and Other Non-Electrolytic Metal Coating Processes

This Category applies to all affected electroless plating and other non-electrolytic metal coating processes such as chromate conversion, nickel acetate sealing, sodium dichromate sealing and manganese phosphate coating located at an area source for Hazardous Air Pollutants.

There are no additional conditions specific to this category. The Permittee of a Category 9 process is required to comply with the conditions applicable to all Plating and Polishing Operations listed in the General Conditions in Part II of this Permit.