(Version November 24, 2020)

PROPOSED AMENDED RULE 1426 **EMISSIONS FROM METAL FINISHING OPERATIONS**

(a) Purpose

The purpose of this rule is to reduce toxic air contaminant metal emissions from metal finishing using tanks containing hexavalent chromium, nickel, cadmium, lead, or copper.

(~~a~~b) Applicability

This rule ~~shall~~ applies~~y~~ to an owner or operator of any facility performing metal finishing using a tank solution containing hexavalent chromium, nickel, cadmium, lead, or copper. ~~chromium, nickel, cadmium, lead, or copper electroplating operations, or chromic acid anodizing. This rule shall also apply to the owner or operator of any facility with process tanks containing sulfuric acid, nitric acid, hydrochloric acid, chromic acid (excluding chromic acid used in electroplating and anodizing tanks), and sodium hydroxide used in spraying operations, associated with any of the above electroplating or anodizing operations.~~

(~~b~~c) Definitions

For the purposes of this rule, the following definitions shall apply:

(1) ADD-ON AIR POLLUTION CONTROL EQUIPMENT means equipment installed for the purpose of collecting and containing emissions from nickel, cadmium, lead, or copper electroplating tanks and associated ~~process~~ tanks.

(2) AMPERE-HOURS means the integral of electrical current applied to a plating tank (amperes) over a period of time (hours).

(3) APPROVED CLEANING METHOD means cleaning using a wet mop, damp cloth, wet wash, low pressure spray nozzle, HEPA vacuum, or other method as approved by the Executive Officer.

(4) BARRIER means a physical divider that can be fixed or portable such as a wall, welding screen, plastic strip curtains, etc.

(5) BUILDING ENCLOSURE means a permanent building or physical structure with a floor, walls, and a roof to prevent exposure to the elements, (e.g. precipitation, wind, run-off), with limited openings to allow access for

people, vehicles, equipment, or parts. A room within a building enclosure with a floor, walls, and a roof would also meet this definition.

(6) DRAGOUT means fluid containing hexavalent chromium, nickel, cadmium, lead, or copper that drips from parts or equipment used to remove parts from a process tank.

~~(3) ELECTROPLATING 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 purpose of electroplating metal out of the solution onto a workpiece or for oxidizing the base material.~~

(~~4~~7) ENCLOSED STORAGE AREA ~~is~~ means any space or structure used to ~~contain~~ store equipment or material containing metals to ~~material that~~ prevent~~s its contents~~metals from being emitted into the atmosphere.

~~(5) FUGITIVE DUST means any solid particulate matter that becomes airborne by natural or man-made activities, excluding particulate matter emitted from an exhaust stack. Fugitive dust includes material containing hexavalent chromium, nickel, cadmium, lead, and copper.~~

(8) HEPA VACUUM means a vacuum that is both designed to be fitted and used with a HEPA filter that is both individually dioctyl phthalate tested and certified by the manufacturer to have a control efficiency of not less than 99.97 percent on 0.3 micron particles.

(9) METAL means hexavalent chromium, nickel, cadmium, lead, or copper.

(10) METAL FINISHING means a process used to prepare or treat the surface of a part by submerging the part into a tank of solution that contains a metal.

~~(6) METAL PLATING FACILITY means, for the purpose of this rule, a facility which performs electroplating of chromium, nickel, cadmium, lead or copper, or chromic acid anodizing.~~

(11) PERMANENT TOTAL ENCLOSURE means a permanent building or containment structure, enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-off) that has limited openings to allow access for people and vehicles, that is free of breaks or deterioration that could cause or result in fugitive emissions, and has been evaluated to meet the design requirements set forth in U.S. EPA Method 204, or other design approved by the Executive Officer.

(~~7~~12) PROCESS TANK means any tank used for metal finishing with a solution containing hexavalent chromium, nickel, cadmium, lead, or copper.

~~associated with a chromium, nickel, cadmium, lead or copper electroplating operation, or a chromic acid anodizing operation, excluding rinse and dragout tanks.~~

(13) SCHOOL means any public or private school, including juvenile detention facilities with classrooms, used for the education of more than 12 children at the school in kindergarten through grade 12. A school also includes an Early Learning and Developmental Program by the U.S. Department of Education or any state or local early learning and development programs such as preschools, Early Head Start, Head Start, First Five, and Child Development Centers. A school does not include any private school in which education is primarily conducted in private homes. The term school includes any building or structure, playground, athletic field, or other area of school property.

(~~8~~1 SENSITIVE RECEPTOR ~~LOCATIONS include schools (kindergarten through grade 12), licensed daycare centers, hospitals and convalescent homes.~~ means any residence including private homes, condominiums, apartments, and living quarters. A sensitive receptor also includes schools, daycare centers, health care facilities such as hospitals or retirement and nursing homes, long term care hospitals, hospices, prisons, and dormitories or similar live-in housing.

~~(9) STALAGMOMETER means a device used to measure the surface tension of a solution by determining the number of drops, or the weight of each drop, in a given volume of liquid.~~

~~(10) 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.~~

(15) TANK PROCESS AREA means an area surrounding a process tank that is within 15 feet or to a wall, whichever is closer.

~~(11) TENSIOMETER means a device used to measure the surface tension of a solution by measuring the force necessary to pull a filament or ring from the surface of a liquid.~~

(16) WEEKLY means at least once every seven calendar days.

~~(c) Requirements~~

~~(1) Initial Compliance Report~~

~~The owner or operator of a metal plating facility subject to this rule shall submit an initial compliance report to the Executive Officer by February 1, 2004 to report process and receptor information. The report shall contain the information identified in Appendix 1.~~

~~(2) Compliance Report~~

~~The owner or operator of a metal plating facility subject to this rule shall submit a report to the Executive Officer by February 1, 2005 to report information on process activity and significant changes since the initial report was filed. The report shall contain the information identified in Appendix 2.~~

~~(3) Data Collection~~

~~The owner or operator of a metal plating facility subject to this rule shall begin collecting data required under subparagraphs (c)(1) and (c)(2) within 60 days after May 2, 2003.~~

~~(4) Air Sparging of Tanks Containing Chromic Acid~~

~~Tanks containing chromic acid shall not be air sparged when the tank is not in use, and shall only be air sparged up to one hour prior to parts being placed in the tank, and one hour after parts are removed from the tank.~~

~~(5) Housekeeping Practices for Nickel, Cadmium, Lead and Copper~~

~~On and after July 1, 2003 housekeeping practices shall be implemented at a facility to reduce fugitive emissions caused by the storage, handling and transport of nickel, cadmium, lead or copper in powder or metal salt form. These practices shall include:~~

~~(A) Nickel, cadmium, lead and copper in powder or metal salt form shall be stored in a closed container in an enclosed storage area;~~

~~(B) Nickel, cadmium, lead and copper in powder or metal salt form shall be transported from an enclosed storage area to electroplating tanks in a closed container;~~

~~(C) Surfaces within the enclosed storage area that accumulate dust shall be washed down, vacuumed, or wet mopped, or shall be maintained with the use of non-toxic chemical dust suppressants; and~~

~~(D) Wastes which contain nickel, cadmium, lead or copper generated from housekeeping activities shall be stored, disposed of, recovered, or recycled using practices that do not lead to fugitive dust.~~

~~(d) Inspection and Maintenance Requirements~~

~~(1) The owner or operator of a nickel, cadmium, lead, or copper electroplating operation using add-on air pollution control equipment shall comply with the manufacturers recommended schedule for inspecting and maintaining control equipment. If the inspection frequency is not specified by the manufacturer, recommended inspection and maintenance activities shall be conducted at least once per quarter.~~

(d) Building Enclosure Requirements for Process Tanks

Beginning [180 Days After Date of Rule Adoption], an owner or operator of a facility performing metal finishing shall operate process tank(s) within a building enclosure where:

(1) Any building enclosure openings that open to the exterior and are on opposite ends of the building enclosure where air can pass through shall not be simultaneously open except during the passage of vehicles, equipment, or people by using one or more of the following:

(A) Door that automatically closes;

(B) Overlapping plastic strip curtain;

(C) Vestibule;

(D) Airlock system;

(E) Alternative method to minimize the release of fugitive emissions from the building enclosure that an owner or operator of a facility performing metal finishing can demonstrate to the Executive Officer is an equivalent or more effective method to minimize the movement of air within the building enclosure; or

(F) Barrier or obstruction, such as a large piece of equipment that restricts air from moving through the building enclosure.

(2) Except during the movement of vehicles, equipment, or people, close any building enclosure opening by using one or more of the methods listed in subparagraphs (d)(1)(A) through (d)(1)(E) that directly faces and opens towards the nearest:

(A) Sensitive receptor, with the exception of a school, that is located within 1,000 feet, as measured from the property line of the sensitive receptor to the building enclosure opening; and

(B) School that is located within 1,000 feet, as measured from the property line of the school to the building enclosure opening.

(e) Housekeeping Requirements

Beginning [90 Days After Date of Rule Adoption], an operator of a facility performing metal finishing shall:

(1) Store chemicals that may contain a metal in a spill proof container in an enclosed storage area when not in use;

(2) Use a spill proof container when transporting substances listed in paragraph (e)(1) between an enclosed storage area and tank process area;

(3) Clean, using an approved cleaning method, any liquid or solid material that may contain a metal that is spilled, except in a drip tray or containment device, immediately and no later than one hour after being spilled onto a solid surface.

(4) Clean, using an approved cleaning method, weekly:

(A) Surfaces within an enclosed storage area;

(B) Open floor and walkways in a tank process area;

(C) Surfaces potentially contaminated with metals;

(D) Surfaces that potentially accumulate dust;

(E) Splashguards;

(F) Drip trays; and

(G) Containment devices.

(5) Store waste materials that may contain a metal in a spill proof container that is kept closed at all times except during filling or emptying.

(6) Use an approved cleaning method to clean floors within 20 feet of a buffing, grinding, or polishing workstation on days when buffing, grinding, or polishing are conducted.

(7) Eliminate all flooring in the tank process areas that is made of a fabric material, such as carpets or rugs, where metal containing materials can become trapped.

(8) Store reusable tank covers, cleaning equipment, hangers, anodes, and cathodes that have been in contact with a metal in closed containers or in an enclosed storage area when not in use.

(9) Operate a HEPA vacuum only after inspecting that the HEPA filter is:

(A) Free of tears, fractures, holes, or other damage; and

(B) Situated in the vacuum properly and latched in place to prevent air leakage from the filtration system.

(f) Best Management Practices

Beginning [90 Days After Date of Rule Adoption], an owner or operator of a facility performing metal finishing shall:

(1) Minimize dragout from a process tank in an automated line by installing a drip tray or other collection or containment device between the process tanks such that liquid does not fall through the space between tanks and the liquid that is collected shall be returned back to the tank(s).

(2) Minimize dragout from a process tank in a non-automated line by handling each part or equipment used to handle these parts, so that liquid is not dripped outside the process tank unless the liquid is captured by a drip tray or other collection or containment device and the liquid that is collected shall be returned back to the tank(s).

(3) Not conduct spray rinsing of parts or equipment that were previously in a process tank, unless the part or equipment are:

(A) Fully lowered inside a tank where the liquid is captured inside the tank;

(B) Above a tank where all liquid is captured and returned to the tank using splash guard(s) that are free of holes, tears, or openings; or

(C) Above a tank where all liquid is captured and returned to the tank and a low pressure spray nozzle is used, and the tanks are located within a process line utilizing an overhead crane system that would be restricted by the installation of splash guards specified in subparagraph (f)(3)(B).

(4) Maintain clear labeling for each tank that specifies the tank name or other identifier, South Coast AQMD permit number and tank number, bath contents, maximum concentration (in ppm) of all metals, rectification, operating temperature range, and any agitation methods used, if applicable.

(5) Conduct all buffing, grinding, and polishing operations within a building enclosure.

(6) Install a barrier to prevent the migration of dust from buffing, grinding, or polishing areas to a process tank that is located in the same building enclosure.

(7) Not conduct compressed air cleaning or drying operations within 15 feet of any process tank unless:

(A) A barrier separates the compressed air cleaning or drying operation from the process tank; or

(B) Compressed air cleaning or drying operations are conducted in a permanent total enclosure.

(8) Comply with the manufacturers recommended schedule for inspecting and maintaining add-on air pollution control equipment that controls nickel, cadmium, lead, or copper electroplating operation(s). If the inspection frequency is not specified by the manufacturer, recommended inspection and maintenance activities shall be conducted at least once per calendar quarter.

(9) Not air sparge a process tank when metal finishing is not occurring or while a dry chemical containing a metal is being added.

(eg) Recordkeeping

(1) ~~Monitoring Data Records~~

~~The owner or operator shall maintain records of all required monitoring data including the date the data are collected.~~

An owner or operator of a facility performing metal finishing with an ampere-hour meter equipped at a process tank shall record the actual cumulative rectifier usage for each calendar month and the total for each calendar year.

~~(A) Cumulative Rectifier Usage Records~~

~~The owner or operator of electroplating operations with dedicated ampere*hour meters shall record the actual cumulative rectifier usage for each calendar month, and the total for each calendar year.~~

(2) Prior to replacement of a continuous recording non-resettable ampere-hour meter equipped at a process tank, an owner or operator of a facility performing metal finishing shall photograph the actual ampere-hour reading of:

(A) The ampere-hour meter being replaced; and

(B) The new ampere-hour meter immediately after installation.

~~(2) Housekeeping Measures~~

~~The owner or operator shall maintain records demonstrating compliance with housekeeping practices, as required by paragraph (e)(5), including the name of the person performing specified activities, the dates on which specific activities were completed, and records showing that wastes containing chromium, nickel, cadmium, lead or copper have been stored, disposed of, recovered, or recycled.~~

(3) An owner or operator of a facility performing metal finishing shall maintain records demonstrating compliance with the requirements of subdivisions (e), (f), and (g).

(~~4~~3) ~~Records Retention~~

All records shall be maintained for at least five years; at least the two most current years shall be kept on site.

~~(f) Rule 1402 Inventory Requirements~~

~~The owner or operator of a facility that is in compliance with this rule will not be required to submit an emission inventory to the Executive Officer for emissions of toxic compounds subject to this rule, pursuant to subparagraph (n)(1)(B) of Rule 1402 - Control of Toxic Air Contaminants from Existing Sources.~~

(h) Reporting

(1) An owner or operator of a facility performing metal finishing shall submit a Tank Inventory Report to the Executive Officer by the following deadline:

(A) No later than February 1, 2022 for tank information at the facility as of January 1, 2022; or

(B) Prior to operation of a process tank for facilities that become subject to this rule after January 1, 2022.

(2) An owner or operator of a facility performing metal finishing shall include the following information in the Tank Inventory Report:

(A) Facility name;

(B) South Coast AQMD facility identification number;

(C) Equipment address;

(D) Business hours;

(E) Facility contact information with name, title, and phone number; and

(F) Process tank operating parameters including:

(i) Tank name or other identifier;

(ii) South Coast AQMD permit number and tank number;

(iii) Bath contents;

(iv) Maximum concentration (in ppm) of all metals;

(v) Rectification, if applicable;

(vi) Operating temperature range, if applicable; and

(vii) Agitation method used, if applicable.

(3) Prior to changing any process tank operating parameters listed in subparagraph (h)(2)(F), an owner or operator of a facility performing metal finishing shall create a new version of the Tank Inventory Report, to reflect any changes.

(4) An owner or operator of a facility performing metal finishing shall keep onsite and make available all versions of the Tank Inventory Report(s) to the Executive Officer upon request.

(i) Exemptions

~~The owner or operator of a facility that has submitted an inventory prepared pursuant to Rule 1402 – Control of Toxic Air Contaminants from Existing Sources, subdivisions (n) [Emissions Inventory Requirements] that has been approved by the Executive Officer, and that contains process and tank information for all of the tanks subject to this rule is exempt from complying with the requirements of paragraphs (c)(1), (c)(2) and (c)(3).~~

(1) A tank shall be exempt from the requirements of subdivisions (d), (e), and (f) provided:

(A) The tank has a concentration of less than 1,000 ppm individually for hexavalent chromium, nickel, cadmium, lead, and copper which is demonstrated through a laboratory analysis performed once every 180 days;

(B) Any South Coast AQMD permit for the tank does not specify an operating condition where the maximum tank concentration is 1,000 ppm or greater individually for hexavalent chromium, nickel, cadmium, lead, or copper; and

(C) Laboratory analysis reports pursuant to (i)(1)(A) are kept onsite and made available to the Executive Officer upon request.

(2) A facility performing metal finishing shall be exempt from this rule provided:

(A) All tanks have a concentration of less than 1,000 ppm individually for hexavalent chromium, nickel, cadmium, lead, and copper which is demonstrated through a laboratory analysis performed once every 180 days;

(B) All South Coast AQMD permit(s) do not specify an operating condition where the maximum tank concentration is 1,000 ppm or greater individually for hexavalent chromium, nickel, cadmium, lead, or copper; and

(C) Laboratory analysis reports pursuant to (i)(2)(A) are kept onsite and made available to the Executive Officer upon request.

(3) A facility performing metal finishing that is required to comply with a specific equivalent or more stringent provision of Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations or Rule 1420 – Emissions Standard for Lead, for a specific metal shall only comply with that equivalent or more stringent provision for that specific metal.

~~Appendix 1 – Content of Initial Compliance Report~~

~~Initial compliance reports shall contain the following information:~~

~~1. Facility name, SCAQMD ID number, facility address, owner or operator name, and contact telephone number;~~

~~2. A description of the process performed in each affected plating or process tank;~~

~~3. The purchase records for nickel used in nickel electroplating operations for the preceding 12 months. The information should include the total metallic nickel purchased (in lbs/yr), and the typical nickel content in purchased plating solutions used for nickel sulfate, nickel chloride, nickel sulfamate and other types of nickel plating operations. Indicate the nickel in inventory at the beginning of the reporting period and the nickel remaining in inventory at the end of the reporting period;~~

~~4. The purchase records for cadmium used in cadmium electroplating operations for the preceding 12 months. The information should include the total cadmium purchased (in lbs/yr), and the typical cadmium content in purchased plating solutions used for cadmium cyanide, cadmium sulfate, and other types of cadmium plating operations. Indicate the cadmium in inventory at the beginning of the reporting period and the cadmium remaining in inventory at the end of the reporting period;~~

~~5. The purchase records for lead used in lead electroplating operations for the preceding 12 months. The information should include the total lead purchased (in lbs/yr), and the typical lead content in purchased plating solutions used for lead sulfamate, lead acetate, and other types of lead plating operations. Indicate the lead in inventory at the beginning of the reporting period and the lead remaining in inventory at the end of the reporting period;~~

~~6. The purchase records for copper used in copper electroplating operations for the preceding 12 months. The information should include the total copper purchased (in lbs/yr), and the typical copper content in purchased plating solutions used for all cuprous and cupric plating operations. Indicate the copper in inventory at the beginning of the reporting period and the copper remaining in inventory at the end of the reporting period;~~

~~7. For each nickel, cadmium, lead, or copper electroplating tank, the surface area of the tank, (ft^2), volume of the tank (ft^3), and typical bath concentrations of nickel, cadmium, lead, or copper (wt.% or oz./gal, typical operating range acceptable);~~

~~8. For each nickel, cadmium, lead, or copper electroplating tank, the control equipment which serves it (permit number), and a copy of the most recent performance test conducted to demonstrate compliance with a permit condition or control equipment efficiency, if applicable;~~

~~9. For each rectifier with a dedicated ampere*hour meter used at a nickel, cadmium, lead or copper electroplating tank, at least the most recent four months of operating data (ampere*hours);~~

~~10. For each process tank (excluding rinse and dragout tanks) associated with an electroplating process that contains sulfuric acid, nitric acid, hydrochloric acid or chromic acid (excluding chromic acid in electroplating tanks), the tank designation, the surface area of the tank, (ft^2), volume of the tank (ft^3), concentration of sulfuric acid, nitric acid, hydrochloric acid or chromic acid (wt% or oz/gal, typical operating range acceptable), and identification of air pollution control equipment (permit number), if applicable;~~

~~11. For each process tank containing sodium hydroxide used in a spraying operation, the concentration of NaOH in the tank in percent by weight, the spray rate of the NaOH spray system in gallons per minute, and the hours of operation per month;~~

~~12. The distance to the nearest commercial/industrial building, measured as indicated in Table A-1;~~

~~13. The distance to the nearest residence, measured as indicated in Table A-1;~~

~~14. The distance(s) to all sensitive receptor locations within one-quarter of a mile from the facility, measured as indicated in Table A-1;~~

~~15. The name, title and signature of the responsible company official certifying the accuracy of the reported information; and,~~

~~16. Date of the report.~~

~~**Table A-1**~~

~~**Measuring Receptor Distance**~~

~~**Source Type**~~	~~**Measure From:**~~	~~**Measure To:**~~
~~Point Source, Single Stack~~	~~Stack~~	~~Property Line of Nearest Receptor~~
~~Point Source, Multiple Stacks~~	~~Centroid of Stacks~~	~~Property Line of Nearest Receptor~~
~~Volume Source No Stack~~	~~Center of Building~~	~~Property Line of Nearest Receptor~~

~~**Appendix 2 - Content of Compliance Report**~~

~~Compliance reports shall contain the following information:~~

~~1. Facility name, SCAQMD ID number, facility address, owner or operator name, and contact telephone number;~~

~~2. The beginning and ending dates of the reporting period;~~

~~3. The purchase records for nickel used in nickel electroplating operations for the preceding 12 months. The information should include the total metallic nickel purchased (in lbs/yr), and the nickel content in purchased plating solutions used for nickel sulfate, nickel chloride, nickel sulfamate and other types of nickel plating operations. Indicate the nickel in inventory at the beginning of the reporting period and the nickel remaining in inventory at the end of the reporting period;~~

~~4. The purchase records for cadmium used in cadmium electroplating operations for the preceding 12 months. The information should include the total cadmium purchased (in lbs/yr), and the cadmium content in purchased plating solutions used for cadmium cyanide, cadmium sulfate, and other types of cadmium plating operations. Indicate the cadmium in inventory at the beginning of the reporting period and the cadmium remaining in inventory at the end of the reporting period;~~

~~5. The purchase records for lead used in lead electroplating operations for the preceding 12 months. The information should include the total lead purchased (in lbs/yr), and the lead content in purchased plating solutions used for lead sulfamate, lead acetate, and other types of lead plating operations. Indicate the lead in inventory at the beginning of the reporting period and the lead remaining in inventory at the end of the reporting period;~~

~~6. The purchase records for copper used in copper electroplating operations for the preceding 12 months. The information should include the total copper purchased (in lbs/yr), and the copper content in purchased plating solutions used for all cuprous and cupric plating operations. Indicate the copper in inventory at the beginning of the reporting period and the copper remaining in inventory at the end of the reporting period;~~

~~7. For each rectifier with a dedicated ampere*hour meter used at a nickel, cadmium, lead or copper electroplating tank, the preceding twelve months of operating data (ampere*hours) in monthly and annual totals;~~

~~8. A description of all new permit applications filed for new electroplating or process tanks and for air pollution control equipment since the Initial Compliance Report was submitted;~~

~~9. The distance from the property line of the facility to residences and sensitive receptor locations within 25 meters from the facility, for any new residence or sensitive receptor since the Initial Compliance Report was submitted;~~

~~10. The name, title, and signature of the responsible official certifying the accuracy of the reported information; and,~~

~~11. The date of the report.~~