# DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

## DIVISION OF AIR AND WASTE MANAGEMENT

Statutory Authority: 7 Delaware Code, Chapter 60 (7 **Del.C.** Ch. 60)
7 **DE Admin. Code** 1138

## PROPOSED

**REGISTER NOTICE**
**SAN # 2009-07**

1. **Title of the Regulations:**
   Amendment to Regulation 1138 Emission Standards for Hazardous Air Pollutants for Source Categories

2. **Brief Synopsis of the Subject, Substance and Issues:**
   Under Section 112(k) of the 1990 Clean Air Act Amendments, Congress mandated that the EPA identify 30 or more hazardous air pollutants (HAPs) that posed the greatest threat to public health in urban areas, to identify the small area sources that emit those pollutants and to develop regulations to reduce the emission of HAPs. In 1999, the EPA identified 33 HAPs that posed the greatest threat to public health and has, since that time, identified over 60 new area source categories for which regulations are being developed.
   In July 2008, the EPA promulgated another of these area source category standards that will affect existing and future Delaware sources; the area source standard for plating and polishing operations under 40 CFR Part 63 Subpart WWWWWW.
   Delaware is proposing to amend Regulation 1138 by adding a new Section 10 that covers plating and polishing operations. The purpose of this proposed amendment is to provide increased protection for Delaware citizens against a variety of potential adverse health effects linked to a long term exposure to cadmium, chromium, lead, manganese, or nickel compounds. In addition, all of these compounds, except the manganese compounds, are classified as known or probable human carcinogen by the EPA. The proposed amendment will provide greater consistency between Delaware's air toxics standards and the recently promulgated federal standard (40 CFR Part 63 Subpart WWWWWW) on which this proposed amendment is heavily based. In addition, this amendment proposes to include more health protective requirements that currently exist in similar air standards found in Regulation 1138 and other Delaware air regulations.

3. **Possible Terms of the Agency Action:**
   None

4. **Statutory Basis or Legal Authority to Act:**
   7 Delaware Code, Chapter 60

5. **Other Regulations That May Be Affected By The Proposal:**
   None

6. **Notice of Public Comment:**
   Statements and testimony may be presented either orally or in writing at a public hearing to be held on Tuesday, August 25, 2009 beginning at 6:00 PM in the main conference room at the DNREC Air Quality Management Office, 715 Grantham Lane (first building on right after turning off Rt. 9), New Castle, DE. Interested parties may submit comments in writing to: Jim Snead, DNREC Air Quality Management Section, 715 Grantham Lane, New Castle, DE 19720.

7. **Prepared By:**
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**1138 Emission Standards for Hazardous Air Pollutants for Source Categories**

***(Break in Continuity of Sections)***

**10.0 ~~[Reserved]~~ Emission Standards for Hazardous Air Pollutants for Area Source Plating and Polishing Operations**

~~10/11/08~~ 11/11/09

10.1 Applicability.

10.1.1 The provisions of 10.0 of this regulation apply to each plating and polishing operation that is an area source of hazardous air pollutant (HAP) emissions and meets the criteria in 10.1.1.1 through 10.1.1.3 of this regulation.

10.1.1.1 A plating and polishing operation is any operation that is engaged in one or more of the processes listed in 10.1.1.1.1 through 10.1.1.1.6 of this regulation.

10.1.1.1.1 Non-chromium electroplating.

10.1.1.1.2 Electroless plating.

10.1.1.1.3 Other non-electrolytic metal coating processes, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating. Thermal spraying is also a non-electrolytic metal coating process.

10.1.1.1.4 Dry mechanical polishing of finished metals or formed products after plating.

10.1.1.1.5 Electroforming.

10.1.1.1.6 Electropolishing.

10.1.1.2 An area source of HAP emissions is a source of hazardous air pollutants (HAPs) that is not a major source of HAP emissions, is not located at a major source of HAP emissions, and is not part of a major source of HAP emissions. A major source of HAP emissions is 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 aggregate, 10 tons per year or more of any HAP or 25 tons per year or more of any combination of HAPs.

10.1.1.3 The plating and polishing operation uses or has emissions of one or more plating and polishing metal HAPs, which means any compound of any of the following metals: cadmium, chromium, lead, manganese, and nickel. With the exception of lead, plating and polishing metal HAPs also include any of these metals in their elemental form.

10.1.2 [Reserved]

10.1.3 The provisions of 10.0 of this regulation apply to each new, reconstructed, or existing affected source. The affected source is each process tank or other operation specified in 10.1.3.1 through 10.1.3.3 of this regulation.

10.1.3.1 Each process tank that contains one or more of the plating and polishing metal HAPs and is used for non-chromium electroplating, electroforming, electropolishing, electroless plating, or other non-electrolytic metal coating processes, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating.

10.1.3.2 Each thermal spraying operation that applies one or more of the plating and polishing metal HAPs.

10.1.3.3 Each dry mechanical polishing operation that emits one or more of the plating and polishing metal HAPs.

10.1.4 An affected source is existing if the owner or operator commenced construction or reconstruction of the affected source on or before March 14, 2008.

10.1.5 An affected source is new if the owner or operator commenced construction or reconstruction of the affected source after March 14, 2008.

10.1.6 The provisions of 10.0 of this regulation do not apply to any of the process tanks or other operations specified in 10.1.6.1 through 10.1.6.6 of this regulation.

10.1.6.1 Process tanks that are subject to the requirements of 6.0 of this regulation.

10.1.6.2 Research and development process tanks.

10.1.6.3 Process tanks that are used strictly for educational purposes.

10.1.6.4 Thermal spraying operations conducted to repair surfaces.

10.1.6.5 Dry mechanical polishing operations conducted to restore the original finish to a surface.

10.1.6.6 Any plating or polishing operation that does not use any material that contains cadmium, chromium, lead, or nickel in amounts of 0.1% or more by weight or does not use any material that contains manganese in amounts of 1.0% or more by weight, as reported on the Material Safety Data Sheet for the material.

10.1.7 The owner or operator of an area source subject to 10.0 of this regulation is exempt from the obligation to obtain a Title V operating permit under 7 **DE Admin. Code** 1130 of State of Delaware "Regulations Governing the Control of Air Pollution", if the owner or operator is not required to obtain a Title V operating permit under 3.1 of 7 **DE Admin. Code** 1130 for a reason other than the owner or operator's status as an area source under 10.0. Notwithstanding the previous sentence, the owner or operator shall continue to comply with the provisions of 10.0.

10.2 Definitions.

Unless defined below, all terms in 10.0 of this regulation have the meaning given them in the Act or in 3.2 of this regulation.

"**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 immersed in an electrolytic process tank bath 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 process tank that is used for metal coating operations located at a plating and polishing operation.

"**Capture system**" means the collection of components used to capture gases and fumes released from one or more emission points and then to transport the captured gas stream to a control device. 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 particulate matter (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 of 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 used for 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 used to collect or reduce 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 overall control efficiency of any control system is a combination of the ability 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.

"**Cyanide electrolytic process tank**" means an electrolytic process tank used for cyanide electrolytic processes.

"**Cyanide electrolytic process**" means an electrolytic process that uses cyanide as a major bath ingredient, that operates at pH of 12 or more, and that uses or emits any of the plating and polishing metal HAPs. The cyanide in the bath works to dissolve the metal HAP 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 electroplating process. All cyanide electroplating 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 electroplating conditions would occur in the tank.

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

- "Fails to meet any requirement or obligation established in 10.0 of this regulation including, but not limited to, any equipment standard (including emission and operating limit), management practice, or operation and maintenance requirement;
- "Fails to meet any term or condition that is adopted to implement an applicable requirement in 10.0 of this regulation and that is included in the operating permit for any affected source required to obtain such a permit; or
- "Fails to meet any equipment standard (including emission and operating limit), management practice, or operation and maintenance requirement in 10.0 of this regulation during startup, shutdown, or malfunction.

"**Dry mechanical polishing**" means a process used for removing defects from or smoothing the surface of finished metals or formed products after electroplating with any of the plating and polishing metal HAPs using hard-faced abrasive wheels or belts and where no liquids or fluids are used to trap the removed metal particles.

"**Electroforming**" means an electrolytic process that uses or emits any of the plating and polishing metal HAPs that is used for fabricating metal parts. This process is essentially the same as electroplating except that the plated substrate or 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 process that uses or emits any of the plating and polishing metal HAPs in which metallic ions in a tank bath 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.

"**Electrolytic process**" means a process that uses or emits any of the plating and polishing metal HAPs in which metallic ions in a tank bath are reduced to form a metal coating on or to remove a metal coating from the surface of parts or products using electrical energy.

"**Electrolytic process tank**" means a process tank in which electrolytic processes occur. This term does not include tanks containing solutions that are used to rinse or wash parts prior to placing the parts in the electrolytic process tank or subsequent to removing the parts from the electrolytic process tank. This term also does not include thermal spraying or dry mechanical polishing.

"**Electroplating**" means an electrolytic process that uses or emits any of the plating and polishing metal HAPs in which metal ions in a tank bath are reduced onto the surface of the work piece (the cathode) via an electrical current. The metal ions in the tank bath 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 tank bath with metal salts or oxides. Electroplating is also called electrolytic plating.

"**Electropolishing**" means an electrolytic process that uses or emits any of the plating and polishing metal HAPs 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.

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

"**Flash or short-term electrolytic process tank**" means an electrolytic process tank in which flash or short-term electroplating occurs.

"**Flash or short-term electroplating**" means an electrolytic process that uses or emits any of the plating and polishing metal HAPs and that is used no more than three cumulative minutes per hour or no more than one cumulative hour per day.

"**HAP**" means any air pollutant listed in or pursuant to Section 112(b) of the Act. HAPs are also called air toxics. The five plating and polishing metal HAPs are listed in Section 112(b).

"**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% of airborne particles that are 0.3 micrometers or larger in diameter.

"**Mesh pad mist eliminator**" means a type of control device that uses layers of interlocked filaments densely packed between two supporting grids to 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 process tank that contains liquids or as part of a spraying operation that applies one or more plating and polishing metal HAPs to parts or products used in manufacturing. These processes include, but are not limited to, non-chromium electroplating, electroforming, electropolishing, other non-electrolytic metal coating processes, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating, and thermal spraying.

"**Non-chromium electroplating**" means an electroplating process that uses or emits any of the plating and polishing metal HAPs that is not subject to the provisions of 6.0 of this regulation.

"**Non-cyanide electrolytic process**" means an electrolytic process that uses or emits any of the plating and polishing metal HAPs performed without cyanide in the tank. This process does not use cyanide in the process tank and operate at pH values less than 12. This process uses electricity and adds or removes metals such as plating and polishing metal HAPs from parts or products used in manufacturing.

"**Non-cyanide electrolytic process tank**" means a tank used for non-cyanide electrolytic processes.

"**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.

"**Permanent thermal spraying**" means a thermal spraying operation that is not a temporary thermal spraying operation.

"**Plating and polishing operation**" means an operation that uses or emits any of the plating and polishing metal HAPs and is engaged in one or more of the following:

- "Non-chromium electroplating;
- "Electroforming;
- "Electropolishing;
- "Electroless plating;
- "Other non-electrolytic metal coating processes, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating;
- "Thermal spraying; or
- "Dry mechanical polishing of finished metals or formed products after plating.

"**Plating and polishing metal HAPs**" means compounds 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% by weight and does not contain manganese in amounts greater than or equal to 1.0% by weight, as reported on the Material Safety Data Sheet for the material, is not considered to be a plating and polishing metal HAP.

"**PM**" means solids or particulate matter that is emitted into the air.

"**Research and development process tank**" means any process tank 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.

"**Surface cover**" means a solid structure or combination of structures, made of an impervious material that is designed to cover at least 75% of the open surface area of a continuous electrolytic process tank.

"**Tank cover**" means a solid structure made of an impervious material that is designed to cover the entire open surface of a batch electrolytic process tank or a flash or short-term electrolytic process tank.

"**Temporary thermal spraying**" means a thermal spraying operation that uses or emits any of the plating and polishing metal HAPs that lasts no more than one hour in duration during any one day, and that 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**" means a process that uses or emits any of the plating and polishing metal HAPs in which a metallic coating is applied by projecting molten or semi-molten metal particles onto a substrate. Commonly used thermal spraying methods include high velocity oxy-fuel spraying, flame spraying, electric arc spraying, plasma arc spraying, and detonation gun spraying. This process is also called metal spraying or flame spraying.

"**Water curtain**" means a type of control device that draws a gas stream through a continuous curtain of moving water to collect and remove suspended PM from the gas stream.

"**Wetting agent/fume suppressant**" means any chemical agent that reduces or suppresses fumes or mists from an electrolytic process tank by reducing the surface tension of the tank bath.

10.3 Compliance dates.

10.3.1 The owner or operator of an existing affected source shall be in compliance with the applicable provisions of 10.0 of this regulation by no later than July 1, 2010.

10.3.2 The owner or operator of a new or reconstructed affected source that has an initial startup on or before July 1, 2008 shall be in compliance with the applicable provisions of 10.0 of this regulation by no later than November 11, 2009.

10.3.3 The owner or operator of a new or reconstructed affected source that has an initial startup after July 1, 2008 shall be in compliance with the applicable provisions of 10.0 of this regulation immediately upon startup or November 11, 2009, whichever is later.

10.4 Standards.

10.4.1 The owner or operator of an affected non-cyanide electrolytic process tank shall be in compliance with the requirements in 10.4.1.1, 10.4.1.2, or 10.4.1.3 of this regulation.

10.4.1.1 The owner or operator shall use a wetting agent/fume suppressant in the tank bath of the affected process tank in compliance with the requirements in 10.4.1.1.1 through 10.4.1.1.3 of this regulation.

10.4.1.1.1 The owner or operator shall initially add the wetting agent/fume suppressant to the tank bath according to the manufacturer's specifications and instructions.

10.4.1.1.2 When replenishing the tank bath, the owner or operator shall add the wetting agent/ fume suppressant to the other bath chemistry ingredients in the same proportion as in the original make-up of the tank bath.

10.4.1.1.3 If the wetting agent/fume suppressant is incorporated into the other bath chemistry ingredients, it is not necessary to add additional wetting agent/fume suppressant to the tank bath to comply with 10.0 of this regulation.

10.4.1.2 The owner or operator shall operate a capture system that collects the emissions from the affected process tank and transports the emissions to a composite mesh pad, packed-bed scrubber, or mesh pad mist eliminator in compliance with the requirements in 10.4.1.2.1 and 10.4.1.2.2 of this regulation.

10.4.1.2.1 The owner or operator shall operate the capture system and control device according to the manufacturer's specifications and operating instructions.

10.4.1.2.2 The owner or operator shall, at all times, keep the manufacturer's specifications and operating instructions in a location at the facility where they can be easily accessed by the operators.

10.4.1.3 The owner or operator shall cover the affected process tank surface in compliance with the requirements in 10.4.1.3.1 or 10.4.1.3.2 of this regulation.

10.4.1.3.1 For batch electrolytic process tanks, the owner or operator shall use a tank cover over all of the effective surface area of the process tank for at least 95% of the electrolytic process operating time.

10.4.1.3.2 For continuous electrolytic process tanks, the owner or operator shall use a surface cover over at least 75% of the surface area of the process tank, whenever the electrolytic process tank is in operation.

10.4.2 The owner or operator of an affected flash or short-term electrolytic process tank shall be in compliance with the requirements in 10.4.2.1 or 10.4.2.2 of this regulation.

10.4.2.1 The owner or operator shall limit flash or short-term electroplating to no more than one cumulative hour per day or three cumulative minutes per hour of electroplating time.

10.4.2.2 The owner or operator shall use a tank cover over all of the effective surface area of the process tank for at least 95% of the electrolytic process operating time.

10.4.3 The owner or operator of an affected process tank that is used both for flash or short-term electroplating and for electrolytic processing of longer duration (i.e., processing that does not meet the definition of flash or short-term electroplating in 10.2 of this regulation) shall be in compliance with the requirements in 10.4.1 or 10.4.2 of this regulation, whichever applies to the process operation.

10.4.4 The owner or operator of an affected cyanide electrolytic process tank shall measure and record the pH of the tank bath upon startup. No additional pH measurements are required.

10.4.5 The owner or operator of an affected dry mechanical polishing operation shall operate a capture system that collects particulate matter (PM) emissions from the affected dry mechanical polishing operation and transports the emissions to a cartridge, fabric, or high efficiency particulate air (HEPA) filter in compliance with the requirements in 10.4.5.1 and 10.4.5.2 of this regulation.

10.4.5.1 The owner or operator shall operate the capture system and control device according to the manufacturer's specifications and operating instructions.

10.4.5.2 The owner or operator shall, at all times, keep the manufacturer's specifications and operating instructions in a location at the facility where they can be easily accessed by the operators.

10.4.6 The owner or operator of an affected thermal spraying operation shall be in compliance with the applicable requirements in 10.4.6.1 through 10.4.6.3 of this regulation.

10.4.6.1 For existing permanent thermal spraying operations, the owner or operator shall operate a capture system that collects PM emissions from the affected thermal spraying operation and transports the PM emissions to a water curtain, fabric filter, or HEPA filter in compliance with the requirements in 10.4.6.1.1 and 10.4.6.1.2 of this regulation.

10.4.6.1.1 The owner or operator shall operate the capture system and control device according to the manufacturer's specifications and operating instructions.

10.4.6.1.2 The owner or operator shall, at all times, keep the manufacturer's specifications and operating instructions in a location at the facility where they can be easily accessed by the operators.

10.4.6.2 For new or reconstructed permanent thermal spraying operations, the owner or operator shall operate a capture system that collects PM emissions from the affected thermal spraying operation and transports the PM emissions to a fabric or HEPA filter in compliance with the requirements in 10.4.6.2.1 and 10.4.6.2.2 of this regulation.

10.4.6.2.1 The owner or operator shall operate the capture system and control device according to the manufacturer's specifications and operating instructions.

10.4.6.2.2 The owner or operator shall, at all times, keep the manufacturer's specifications and operating instructions in a location at the facility where they can be easily accessed by the operators.

10.4.6.3 For temporary thermal spraying operations, the owner or operator shall be in compliance with the requirements in 10.4.6.3.1 and 10.4.6.3.2 of this regulation.

10.4.6.3.1 The owner or operator shall limit temporary thermal spraying operations to no more than one hour during any one day.

10.4.6.3.2 The owner or operator shall document the amount of time the thermal spraying operations occur during each day and where the thermal spraying is conducted.

10.4.7 Except for the owner or operator of a dry mechanical polishing operation, the owner or operator of an affected source subject to the provisions of 10.0 of this regulation shall implement the applicable management practices in 10.4.7.1 through 10.4.7.13 of this regulation.

10.4.7.1 Minimize tank bath agitation when removing any parts from the process tank, as practicable, except when necessary to meet part quality requirements.

10.4.7.2 Maximize the draining of tank bath solution back into the process tank by extending drip time when removing parts from the process tank, by using drain boards or drip shields, or by withdrawing parts slowly from the process tank, as practicable.

10.4.7.3 Optimize the design of barrels, racks, and parts to minimize drag out of tank bath solution (such as by using slotted barrels and tilted racks or by designing parts with flow-through holes to allow the tank bath solution to drip back into the tank), as practicable.

10.4.7.4 Use tank covers, if already owned and available at the facility, whenever practicable.

10.4.7.5 Minimize or reduce heating of tank baths, as practicable (e.g., when doing so would not interrupt production or adversely affect part quality).

10.4.7.6 Perform regular repair, maintenance, and preventive maintenance of racks, barrels, and other equipment associated with affected sources, as practicable.

10.4.7.7 Minimize tank bath contamination through the prevention or quick recovery of dropped parts, the use of distilled/de-ionized water, the use of water filtration, the pre-cleaning of parts to be plated, and the thorough rinsing of pre-treated parts to be plated, as practicable.

10.4.7.8 Maintain quality control of chemicals, as practicable.

10.4.7.9 Maintain quality control of chemical and other bath ingredient concentrations in the process tanks, as practicable.

10.4.7.10 Perform general good housekeeping through regular sweeping or vacuuming and periodic wash downs, as practicable.

10.4.7.11 Minimize spills and overflow of process tanks, as practicable.

10.4.7.12 Use a squeegee system in continuous or reel-to-reel process tanks, as practicable.

10.4.7.13 Perform regular inspections to identify leaks and opportunities for pollution prevention.

10.4.8 The owner or operator of an affected source, who uses a control system to comply with 10.4.1.2, 10.4.5, 10.4.6.1, or 10.4.6.2 of this regulation, shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the affected source during periods of startup, shutdown, and malfunction and a program of

corrective actions for malfunctioning process, control device, and monitoring equipment used to comply with 10.0 of this regulation. At a minimum, this plan shall include the following:

10.4.8.1 The specifications for each control device including minimum and maximum differential pressure drop readings that define the proper operating ranges.

10.4.8.2 The monitoring frequency for each control device.

10.4.8.3 The scheduled dates for performing inspections on each control device.

10.4.8.4 The routine maintenance schedule and procedures for each control device developed in accordance with the manufacturer's recommendations.

10.4.8.5 The operational plan that describes, in detail, a program of corrective actions to be taken when monitoring results are outside proper operating ranges.

10.4.8.6 The required recordkeeping requirements associated with the startup, shutdown, and malfunction plan.

10.4.8.7 The schedule for review and update of the startup, shutdown, and malfunction plan.

10.5 Monitoring requirements.

The owner or operator of an affected source, who uses a control system to comply with 10.4.1.2, 10.4.5, 10.4.6.1, or 10.4.6.2 of this regulation, shall install, maintain, and operate a pressure drop monitoring device to measure the differential pressure drop across each control device during all times that the affected process tank or other operation is operating. The differential pressure drop shall be recorded at least once per day. If a differential pressure drop is observed outside of the operating range specified by the control device manufacturer, the owner or operator shall take immediate corrective action. The owner or operator shall also record the incident and the corrective actions taken.

10.6 Initial compliance demonstration.

To demonstrate initial compliance, the owner or operator of an affected source subject to the provisions of 10.0 of this regulation shall be in compliance with the applicable requirements in 10.6.1 through 10.6.12 of this regulation.

10.6.1 The owner or operator of an affected non-cyanide electrolytic process tank, who uses a wetting agent/fume suppressant to comply with 10.4.1.1 of this regulation, shall demonstrate initial compliance according to 10.6.1.1 through 10.6.1.4 of this regulation.

10.6.1.1 The owner or operator shall add the wetting agent/fume suppressant to the tank bath according to the manufacturer's specifications and instructions.

10.6.1.2 The owner or operator shall state in the notification of compliance status that the wetting agent/fume suppressant has been added to the tank bath according to the manufacturer's specifications and instructions.

10.6.1.3 The owner or operator shall implement the applicable management practices in 10.4.7 of this regulation.

10.6.1.4 The owner or operator shall state in the notification of compliance status that the applicable management practices in 10.4.7 of this regulation have been implemented, as practicable.

10.6.2 The owner or operator of an affected non-cyanide electrolytic process tank, who uses a control system to comply with 10.4.1.2 of this regulation, shall demonstrate initial compliance according to 10.6.2.1 through 10.6.2.6 of this regulation.

10.6.2.1 The owner or operator shall install a control system designed to collect emissions from the affected process tank and transport the emissions to a composite mesh pad, packed-bed scrubber, or mesh pad mist eliminator.

10.6.2.2 The owner or operator shall, at all times, follow the manufacturer's specifications and operating instructions for the control system.

10.6.2.3 The owner or operator shall, at all times, keep the manufacturer's operating instructions in a location at the facility where they can be easily accessed by the operators.

10.6.2.4 The owner or operator shall state in the notification of compliance status that a control system has been installed and operated according to the manufacturer's specifications and operating instructions.

10.6.2.5 The owner or operator shall implement the applicable management practices in 10.4.7 of this regulation.

10.6.2.6 The owner or operator shall state in the notification of compliance status that the applicable management practices in 10.4.7 of this regulation have been implemented, as practicable.

10.6.3 The owner or operator of an affected batch electrolytic process tank, who uses a tank cover to comply with 10.4.1.3.1 of this regulation, shall demonstrate initial compliance according to 10.6.3.1 through 10.6.3.4 of this regulation.

10.6.3.1 The owner or operator shall install a tank cover on the process tank.

10.6.3.2 The owner or operator shall state in the notification of compliance status that the process tank is operated with the tank cover in place at least 95% of the electrolytic process operating time.

10.6.3.3 The owner or operator shall implement the applicable management practices in 10.4.7 of this regulation.

10.6.3.4 The owner or operator shall state in the notification of compliance status that the applicable management practices in 10.4.7 of this regulation have been implemented, as practicable.

10.6.4 The owner or operator of an affected continuous electrolytic process tank, who uses a surface cover to comply with 10.4.1.3.2 of this regulation, shall demonstrate initial compliance according to 10.6.4.1 through 10.6.4.4 of this regulation.

10.6.4.1 The owner or operator shall install a surface cover on the process tank.

10.6.4.2 The owner or operator shall state in the notification of compliance status that the process tank is operated with a surface cover that covers at least 75% of the surface area of the process tank, whenever the electrolytic process tank is in operation.

10.6.4.3 The owner or operator shall implement the applicable management practices in 10.4.7 of this regulation.

10.6.4.4 The owner or operator shall state in the notification of compliance status that the applicable management practices in 10.4.7 of this regulation have been implemented, as practicable.

10.6.5 The owner or operator of an affected flash or short-term electrolytic process tank, who limits the electroplating time to comply with 10.4.2.1 of this regulation, shall demonstrate initial compliance according to 10.6.5.1 through 10.6.5.3 of this regulation.

10.6.5.1 The owner or operator shall state in the notification of compliance status that the flash or short-term electroplating is limited to no more than one cumulative hour per day or three cumulative minutes per hour of electroplating time.

10.6.5.2 The owner or operator shall implement the applicable management practices in 10.4.7 of this regulation.

10.6.5.3 The owner or operator shall state in the notification of compliance status that the applicable management practices in 10.4.7 of this regulation have been implemented, as practicable.

10.6.6 The owner or operator of an affected flash or short-term electrolytic process tank, who uses a tank cover to comply with 10.4.2.2 of this regulation, shall demonstrate initial compliance according to 10.6.6.1 through 10.6.6.4 of this regulation.

10.6.6.1 The owner or operator shall install a tank cover on the process tank.

10.6.6.2 The owner or operator shall state in the notification of compliance status that the process tank is operated with the tank cover in place at least 95% of the electrolytic process operating time.

10.6.6.3 The owner or operator shall implement the applicable management practices in 10.4.7 of this regulation.

10.6.6.4 The owner or operator shall state in the notification of compliance status that the applicable management practices in 10.4.7 of this regulation have been implemented, as practicable.

10.6.7 The owner or operator of an affected cyanide electrolytic process tank shall demonstrate initial compliance according to 10.6.7.1 through 10.6.7.3 of this regulation.

10.6.7.1 The owner or operator shall state in the notification of compliance status that the pH of the tank bath is measured upon startup according to the requirements of 10.4.4 of this regulation.

10.6.7.2 The owner or operator shall implement the applicable management practices in 10.4.7 of this regulation.

10.6.7.3 The owner or operator shall state in the notification of compliance status that the applicable management practices in 10.4.7 of this regulation have been implemented, as practicable.

10.6.8 The owner or operator of an affected dry mechanical polishing operation shall demonstrate initial compliance according to 10.6.8.1 through 10.6.8.4 of this regulation.

10.6.8.1 The owner or operator shall install a control system that is designed to collect PM emissions from the dry mechanical polishing operation and transport the PM emissions to a cartridge, fabric, or HEPA filter.

10.6.8.2 The owner or operator, at all times, shall follow the manufacturer's specifications and operating instructions for the control system.

10.6.8.3 The owner or operator shall, at all times, keep the manufacturer's specifications and operating instructions in a location at the facility where they can be easily accessed by the operators.

10.6.8.4 The owner or operator shall state in the notification of compliance status that a control system has been installed and operated according to the manufacturer's specifications and operating instructions.

10.6.9 The owner or operator of an existing affected permanent thermal spraying operation shall demonstrate initial compliance according to 10.6.9.1 through 10.6.9.6 of this regulation.

10.6.9.1 The owner or operator shall install a control system that is designed to collect PM emissions from the thermal spraying operation and transport the PM emissions to a water curtain, fabric filter, or HEPA filter.

10.6.9.2 The owner or operator shall, at all times, follow the manufacturer's specifications and operating instructions for the control system.

10.6.9.3 The owner or operator shall, at all times, keep the manufacturer's specifications and operating instructions in a location at the facility where they can be easily accessed by the operators.

10.6.9.4 The owner or operator shall state in the notification of compliance status that a control system has been installed and operated according to the manufacturer's specifications and operating instructions.

10.6.9.5 The owner or operator shall implement the applicable management practices in 10.4.7 of this regulation.

10.6.9.6 The owner or operator shall state in the notification of compliance status that the applicable management practices in 10.4.7 of this regulation have been implemented, as practicable.

10.6.10 The owner or operator of a new or reconstructed affected permanent thermal spraying operation shall demonstrate initial compliance according to 10.6.10.1 through 10.6.10.6 of this regulation.

10.6.10.1 The owner or operator shall install a control system that is designed to collect PM emissions from the thermal spraying operation and transport the PM emissions to a fabric or HEPA filter.

10.6.10.2 The owner or operator shall, at all times, follow the manufacturer's specifications and operating instructions for the control system.

10.6.10.3 The owner or operator shall, at all times, keep the manufacturer's specifications and operating instructions in a location at the facility where they can be easily accessed by the operators.

10.6.10.4 The owner or operator shall state in the notification of compliance status that a control system has been installed and operated according to the manufacturer's specifications and operating instructions.

10.6.10.5 The owner or operator shall implement the applicable management practices in 10.4.7 of this regulation.

10.6.10.6 The owner or operator shall state in the notification of compliance status that the applicable management practices in 10.4.7 of this regulation have been implemented, as practicable.

10.6.11 The owner or operator of an affected temporary thermal spraying operation shall demonstrate initial compliance according to 10.6.11.1 through 10.6.11.3 of this regulation.

10.6.11.1 The owner or operator shall state in the notification of compliance status that the temporary thermal spraying operation is limited to no more than one hour during any one day.

10.6.11.2 The owner or operator shall implement the applicable management practices in 10.4.7 of this regulation.

10.6.11.3 The owner or operator shall state in the notification of compliance status that the applicable management practices in 10.4.7 of this regulation have been implemented, as practicable.

10.6.12 Except as otherwise provided for in 10.6.1 through 10.6.11 of this regulation, the owner or operator of an affected source subject to the provisions of 10.0 of this regulation shall demonstrate initial compliance according to 10.6.12.1 through 10.6.12.2 of this regulation.

10.6.12.1 The owner or operator shall implement the applicable management practices in 10.4.7 of this regulation.

10.6.12.2 The owner or operator shall state in the notification of compliance status that the applicable management practices in 10.4.7 of this regulation have been implemented, as practicable.

10.7 Ongoing compliance demonstration.

To demonstrate continuous compliance, the owner or operator of an affected source subject to the provisions of 10.0 of this regulation shall be in compliance with the applicable requirements in 10.7.1 through 10.7.13 of this regulation.

10.7.1 The owner or operator shall always operate and maintain the affected source, including the control system, according to the manufacturer's specifications and operating instructions.

10.7.2 The owner or operator shall prepare an annual compliance certification report according to the requirements in 10.9 of this regulation and keep the annual compliance certification reports in a readily-accessible location for inspector review.

10.7.3 The owner or operator of an affected non-cyanide electrolytic process tank, who uses a wetting agent/fume suppressant to comply with 10.4.1.1 of this regulation, shall demonstrate continuous compliance according to 10.7.3.1 through 10.7.3.5 of this regulation.

10.7.3.1 The owner or operator shall record that the wetting agent/fume suppressant was added to the tank bath in the original make-up of the process tank.

10.7.3.2 For process tanks where the wetting agent/fume suppressant is a separately purchased ingredient from the other bath chemistry ingredients, the owner or operator shall demonstrate continuous compliance according to 10.7.3.2.1 and 10.7.3.2.2 of this regulation.

10.7.3.2.1 When replenishing the tank bath, the owner or operator shall add the wetting agent/ fume suppressant to the other bath chemistry ingredients in the same proportion as in the original make-up of the tank bath.

10.7.3.2.2 The owner or operator shall record each addition of the wetting agent/fume suppressant to the tank bath.

10.7.3.3 The owner or operator shall state in the annual compliance certification report that the wetting agent/fume suppressant has been added to the tank bath according to the manufacturer's specifications and instructions.

10.7.3.4 The owner or operator shall implement the applicable management practices in 10.4.7 of this regulation, whenever the process tank is in operation.

10.7.3.5 The owner or operator shall state in the annual compliance certification report that the applicable management practices in 10.4.7 of this regulation have been implemented, as practicable.

10.7.4 The owner or operator of an affected non-cyanide electrolytic process tank, who uses a control system to comply with 10.4.1.2 of this regulation, shall demonstrate continuous compliance according to 10.7.4.1 through 10.7.4.7 of this regulation.

10.7.4.1 The owner or operator shall operate and maintain the control system according to the manufacturer's specifications and operating instructions.

10.7.4.2 The owner or operator shall, at all times, keep the manufacturer's specifications and operating instructions in a location at the facility where they can be easily accessed by the operators.

10.7.4.3 Following any malfunction or failure of the capture system or control device to operate properly, the owner or operator shall take immediate corrective action to return the equipment to proper operation according to the manufacture's specifications and operating instructions.

10.7.4.4 The owner or operator shall record the results of all control system inspections, any deviations from proper operation, and any corrective action taken.

10.7.4.5 The owner or operator shall state in the annual compliance certification report that the control system has been operated and maintained according to the manufacturer's specifications and operating instructions.

10.7.4.6 The owner or operator shall implement the applicable management practices in 10.4.7 of this regulation, whenever the process tank is in operation.

10.7.4.7 The owner or operator shall state in the annual compliance certification report that the applicable management practices in 10.4.7 of this regulation have been implemented, as practicable.

10.7.5 The owner or operator of an affected batch electrolytic process tank, who uses a tank cover to comply with 10.4.1.3.1 of this regulation, shall demonstrate continuous compliance according to 10.7.5.1 through 10.7.5.5 of this regulation.

10.7.5.1 The owner or operator shall operate the process tank with the tank cover in place at least 95% of the electrolytic process operating time.

10.7.5.2 The owner or operator shall record the times that the process tank is operated and the times that the tank cover is in place on a daily basis.

10.7.5.3 The owner or operator shall state in the annual compliance certification report that the process tank has been operated with the tank cover in place at least 95% of the electrolytic process operating time.

10.7.5.4 The owner or operator shall implement the applicable management practices in 10.4.7 of this regulation, whenever the process tank is in operation.

10.7.5.5 The owner or operator shall state in the annual compliance certification report that the applicable management practices in 10.4.7 of this regulation have been implemented, as practicable.

10.7.6 The owner or operator of an affected continuous electrolytic process tank, who uses a surface cover to comply with 10.4.1.3.2 of this regulation, shall demonstrate continuous compliance according to 10.7.6.1 and 10.7.6.4 of this regulation.

10.7.6.1 The owner or operator shall operate the process tank with a surface cover that covers at least 75% of the surface area of the process tank, whenever the electrolytic process tank is in operation.

10.7.6.2 The owner or operator shall state in the annual compliance certification report that the process tank has been operated with a surface cover that covers at least 75% of the surface area of the process tank, whenever the electrolytic process tank is in operation.

10.7.6.3 The owner or operator shall implement the applicable management practices in 10.4.7 of this regulation, whenever the process tank is in operation.

10.7.6.4 The owner or operator shall state in the annual compliance certification report that the applicable management practices in 10.4.7 of this regulation have been implemented, as practicable.

10.7.7 The owner or operator of an affected flash or short-term electrolytic process tank, who limits the electroplating time to comply with 10.4.2.1 of this regulation, shall demonstrate continuous compliance according to 10.7.7.1 through 10.7.7.5 of this regulation.

10.7.7.1 The owner or operator shall limit flash or short-term electroplating to no more than one cumulative hour per day or three cumulative minutes per hour of electroplating time.

10.7.7.2 The owner or operator shall record the times that the process tank is operated each day.

10.7.7.3 The owner or operator shall state in the annual compliance certification report that flash or short-term electroplating has been limited to no more than one cumulative hour per day or three cumulative minutes per hour of electroplating time.

10.7.7.4 The owner or operator shall implement the applicable management practices in 10.4.7 of this regulation, whenever the process tank is in operation.

10.7.7.5 The owner or operator shall state in the annual compliance certification report that the applicable management practices in 10.4.7 of this regulation have been implemented, as practicable.

10.7.8 The owner or operator of an affected flash or short-term electrolytic process tank, who uses a tank cover to comply with 10.4.2.2 of this regulation, shall demonstrate continuous compliance according to 10.7.8.1 through 10.7.8.5 of this regulation.

10.7.8.1 The owner or operator shall operate the process tank with the tank cover in place at least 95% of the electrolytic process operating time.

10.7.8.2 The owner or operator shall record the times that the process tank is operated and the times that the tank cover is in place on a daily basis.

10.7.8.3 The owner or operator shall state in the annual compliance certification report that the process tank has been operated with the tank cover in place at least 95% of the electrolytic process operating time.

10.7.8.4 The owner or operator shall implement the applicable management practices in 10.4.7 of this regulation, whenever the process tank is in operation.

10.7.8.5 The owner or operator shall state in the annual compliance certification report that the applicable management practices in 10.4.7 of this regulation have been implemented, as practicable.

10.7.9 The owner or operator of an affected cyanide electrolytic process tank shall demonstrate continuous compliance according to 10.7.9.1 and 10.7.9.4 of this regulation.

10.7.9.1 The owner or operator shall measure and record the pH of the tank bath upon startup.

10.7.9.2 The owner or operator shall state in the annual compliance certification report that the pH has been measured upon startup.

10.7.9.3 The owner or operator shall implement the applicable management practices in 10.4.7 of this regulation, whenever the process tank is in operation.

10.7.9.4 The owner or operator shall state in the annual compliance certification report that the applicable management practices in 10.4.7 of this regulation have been implemented, as practicable.

10.7.10 The owner or operator of an affected dry mechanical polishing operation shall demonstrate continuous compliance according to 10.7.10.1 through 10.7.10.5 of this regulation.

10.7.10.1 The owner or operator shall operate and maintain the control system according to the manufacturer's specifications and operating instructions.

10.7.10.2 The owner or operator shall, at all times, keep the manufacturer's specifications and operating instructions in a location at the facility where they can be easily accessed by the operators.

10.7.10.3 Following any malfunction or failure of the capture system or control device to operate properly, the owner or operator shall take immediate corrective action to return the equipment to proper operation according to the manufacturer's specifications and operating instructions.

10.7.10.4 The owner or operator shall record the results of all control system inspections, any deviations from proper operation, and any corrective action taken.

10.7.10.5 The owner or operator shall state in the compliance certification report that the control system has been operated and maintained according to the manufacturer's specifications and operating instructions.

10.7.11 The owner or operator of an affected permanent thermal spraying operation shall demonstrate continuous compliance according to 10.7.11.1 through 10.7.11.7 of this regulation.

10.7.11.1 The owner or operator shall operate and maintain the control system according to the manufacturer's specifications and operating instructions.

10.7.11.2 The owner or operator shall, at all times, keep the manufacturer's specifications and operating instructions in a location at the facility where they can be easily accessed by the operators.

10.7.11.3 Following any malfunction or failure of the capture system or control device to operate properly, the owner or operator shall take immediate corrective action to return the equipment to proper operation according to the manufacturer's specifications and operating instructions.

10.7.11.4 The owner or operator shall record the results of all control system inspections, any deviations from proper operation, and any corrective action taken.

10.7.11.5 The owner or operator shall state in the compliance certification report that the control system has been operated and maintained according to the manufacturer's specifications and operating instructions.

10.7.11.6 The owner or operator shall implement the applicable management practices in 10.4.7 of this regulation, whenever conducting thermal spraying operations.

10.7.11.7 The owner or operator shall state in the annual compliance certification report that the applicable management practices in 10.4.7 of this regulation have been implemented, as practicable.

10.7.12 The owner or operator of an affected temporary thermal spraying operation shall demonstrate continuous compliance according to 10.7.12.1 through 10.7.12.3 of this regulation.

10.7.12.1 The owner or operator shall state in the notification of compliance status that the temporary thermal spraying operation has been limited to no more than one hour during any one day.

10.7.12.2 The owner or operator shall implement the applicable management practices in 10.4.7 of this regulation, whenever conducting thermal spraying operations.

10.7.12.3 The owner or operator shall state in the annual compliance certification report that the applicable management practices in 10.4.7 of this regulation have been implemented, as practicable.

10.7.13 Except as otherwise provided for in 10.7.3 through 10.7.12 of this regulation, the owner or operator of an affected source subject to the provisions of 10.0 of this regulation shall demonstrate continuous compliance according to 10.7.13.1 and 10.7.13.2 of this regulation.

10.7.13.1 The owner or operator shall implement the applicable management practices in 10.4.7 of this regulation during all times that the affected process tank or other operation is operating.

10.7.13.2 The owner or operator shall state in the annual compliance certification report that the applicable management practices in 10.4.7 of this regulation have been implemented, as practicable.

10.8 Notification requirements.

10.8.1 The owner or operator of an affected source subject to the provisions of 10.0 of this regulation shall submit an initial notification in accordance with 10.8.1.1 through 10.8.1.2 of this regulation by the applicable date in 10.8.1.3 or 10.8.1.4 of this regulation.

10.8.1.1 The initial notification shall include the information specified in 10.8.1.1.1 through 10.8.1.1.4 of this regulation.

10.8.1.1.1 The name and address of the owner or operator;

10.8.1.1.2 The address (i.e., physical location) of the affected source;

10.8.1.1.3 An identification of the relevant standard (i.e., 10.0 of 7 **DE Admin. Code** 1138) that is the basis of the notification and the affected source's compliance date; and

10.8.1.1.4 A brief description of the nature, size, design, and method of operation of the affected source and an identification of the types of emission points within the affected source subject to the relevant standard and types of plating and polishing metal HAPs emitted.

10.8.1.2 The initial notification shall include a description of the compliance method (e.g., use of wetting agent/fume suppressant, tank cover, surface cover, control system or timing) for each affected source.

10.8.1.3 The owner or operator of an affected source that started up on or before July 1, 2008 shall submit an initial notification not later November 11, 2009.

10.8.1.4 The owner or operator of an affected source that started up after July 1, 2008 shall submit an initial notification not later than 120 calendar days after startup of the affected source or November 11, 2009, whichever is later.

10.8.2 The owner or operator of an affected source subject to the provisions of 10.0 of this regulation shall submit a notification of compliance status in accordance with 10.8.2.1 and 10.8.2.2 of this regulation.

10.8.2.1 The notification of compliance status shall be submitted before the close of business on the compliance date specified in 10.3 of this regulation.

10.8.2.2 The notification of compliance status shall include the items in 10.8.2.2.1 through 10.8.2.2.4 of this regulation.

10.8.2.2.1 Listing of affected sources and the plating and polishing metal HAPs used in, or emitted by, those sources.

10.8.2.2.2 Methods used to comply with the applicable standards and management practices in 10.4 of this regulation.

10.8.2.2.3 Description of the capture system and control device, if used to be in compliance with the applicable standards in 10.4 of this regulation.

10.8.2.2.4 Statement by the owner or operator of the affected source as to whether the source is in compliance with the applicable standards, management practices, or other requirements in 10.0 of this regulation.

10.9 Reporting requirements.

10.9.1 The owner or operator of an affected source subject to the provisions of 10.0 of this regulation shall prepare an annual compliance certification report according to 10.9.1.1 through 10.9.1.12 of

this regulation. These reports do not need to be submitted unless a deviation from the requirements of 10.0 has occurred during the reporting year, in which case, the annual compliance certification report shall be submitted along with the deviation report.

10.9.1.1 The owner or operator of an affected non-cyanide electrolytic process tank that is subject to the requirements in 10.4.1.1 of this regulation shall state in the annual compliance certification report that the wetting agent/fume suppressant has been added to the tank bath according to the manufacturer's specifications and instructions.

10.9.1.2 The owner or operator of an affected non-cyanide electrolytic process tank that is subject to the requirements in 10.4.1.2 of this regulation shall state in the annual compliance certification report that the control system has been operated and maintained according to the manufacturer's specifications and operating instructions.

10.9.1.3 The owner or operator of an affected batch electrolytic process tank that is subject to the requirements in 10.4.1.3.1 of this regulation shall state in the annual compliance certification report that process tank has been operated with the tank cover in place at least 95% of the electrolytic process operating time.

10.9.1.4 The owner or operator of an affected continuous electrolytic process tank that is subject to the requirements in 10.4.1.3.2 of this regulation shall state in the annual compliance certification report that the process tank has been operated with a surface cover that covers at least 75% of the surface area of the process tank, whenever the electrolytic process tank is in operation.

10.9.1.5 The owner or operator of an affected flash or short-term electrolytic process tank that is subject to the requirements in 10.4.2.1 of this regulation shall state in the annual compliance certification report that flash or short-term electroplating has been limited to no more than one cumulative hour per day or three cumulative minutes per hour of electroplating time.

10.9.1.6 The owner or operator of an affected flash or short-term electrolytic process tank that is subject to the requirements in 10.4.2.2 of this regulation shall state in the annual compliance certification report that the process tank has been operated with the tank cover in place at least 95% of the electrolytic process operating time.

10.9.1.7 The owner or operator of an affected cyanide electrolytic process tank that is subject to the requirements in 10.4.4 of this regulation shall state in the annual compliance certification report that the pH of the tank bath has been measured upon startup.

10.9.1.8 The owner or operator of an affected dry mechanical polishing operation that is subject to the requirements in 10.4.5 of this regulation shall state in the annual compliance certification report that the control system has been operated and maintained according to the manufacturer's specifications and operating instructions.

10.9.1.9 The owner or operator of an affected permanent thermal spraying operation that is subject to the requirements in 10.4.6.1 or 10.4.6.2 of this regulation shall state in the annual compliance certification report that the control system has been operated and maintained according to the manufacturer's specifications and operating instructions.

10.9.1.10 The owner or operator of an affected temporary thermal spraying operation that is subject to the requirements in 10.4.6.3 of this regulation shall state in the annual compliance certification report that the temporary thermal spraying operation has been limited to no more than one hour during any one day.

10.9.1.11 The owner or operator of an affected process tank or other operation that is subject to the management practices in 10.4.7 of this regulation shall state in the annual compliance certification report that the applicable management practices have been implemented, as practicable.

10.9.1.12 Each annual compliance certification report shall be prepared no later than January 31 of the year immediately following the reporting period and shall be kept in a readily-accessible location for inspector review. If a deviation has occurred during the reporting

period, the annual compliance certification report shall be submitted along with the deviation report.

10.9.2 If any deviations from the applicable compliance requirements in 10.0 of this regulation occurred during the reporting period, the owner or operator of an affected source shall report the deviations and the corrective actions taken. The owner or operator shall submit the deviation and the annual compliance certification reports to the Department. The reports shall be postmarked or delivered to the Department no later than January 31 of the year immediately following the reporting period.

10.10 Recordkeeping requirements.

10.10.1 The owner or operator of an affected source subject to the provisions of 10.0 of this regulation shall keep the records specified in 10.10.1.1 through 10.10.1.10 of this regulation.

10.10.1.1 A copy of any initial notification, notification of compliance status, and deviation report that the owner or operator submitted and all documentation supporting those notifications and reports.

10.10.1.2 A copy of the annual compliance certification report and all documentation supporting those reports.

10.10.1.3 Records of the daily differential pressure drop observations required in 10.5 of this regulation.

10.10.1.4 The inspection records for the control devices and monitoring equipment, to document that the inspection and maintenance required by the startup, shutdown, and malfunction plan in 10.4.8 of this regulation have taken place. The record can take the form of a checklist and should identify the control device and associated monitoring equipment inspected, the date of inspection, a brief description of the working condition of the control device during the inspection, and any actions taken to correct deficiencies found during the inspection.

10.10.1.5 The records of the occurrence, duration and cause (if known) of each startup, shutdown, or malfunction of an affected process tank or other operation.

10.10.1.6 The records of the occurrence, duration, and cause (if known) of each malfunction of a required control system and associated monitoring equipment.

10.10.1.7 The records of actions taken during periods of malfunction when such actions are inconsistent with the provisions of the startup, shutdown, and malfunction plan in 10.4.8 of this regulation.

10.10.1.8 Records of all required maintenance performed on the control system and associated monitoring equipment.

10.10.1.9 Other records, which may take the form of checklists, necessary to demonstrate conformance with the provisions of the startup, shutdown, and malfunction plan in 10.4.8 of this regulation.

10.10.1.10 The records required to demonstrate continuous compliance with each applicable standard and management practice that applies to the owner or operator in accordance with 10.7 of this regulation.

10.10.2 The owner or operator shall keep each record for a minimum of 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The owner or operator shall keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The owner or operator may keep the records offsite for the remaining 3 years.

10.10.3 The owner or operator shall maintain files of all information (including all reports and notifications) required by 10.0 of this regulation recorded in a form suitable and readily available for expeditious inspection and review. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

10.11 Applicability of general provisions.

The owner or operator of an affected sources subject to the provisions of 10.0 of this regulation shall also be in compliance with the provisions in 3.0 of this regulation that are applicable to 10.0, as specified in Table 10-1 of this regulation.

10.12 [Reserved]

Table 10-1 - Applicability of 3.0 to 10.0 of this Regulation

| **General Provision Reference** | **Applies to 10.0** | **Comment** |
|---|---|---|
| 3.1.1.1 | Yes | Additional terms defined in 10.2 of this regulation; when overlap between 3.0 and 10.0 of this regulation occurs, 10.0 takes precedence. |
| 3.1.1.2 - 3.1.1.3 | Yes | |
| 3.1.1.4 | Yes | 10.0 of this regulation clarifies the applicability of each provision in 3.0 of this regulation to sources subject to 10.0. |
| 3.1.1.5 | No | Reserved. |
| 3.1.1.6 | Yes | |
| 3.1.1.7 - 3.1.1.9 | No | Reserved. |
| 3.1.1.10 - 3.1.1.12 | Yes | |
| 3.1.1.13 - 3.1.1.14 | No | Reserved. |
| 3.1.2.1 - 3.1.2.3 | Yes | |
| 3.1.3.1 | Yes | 10.0 of this regulation clarifies the applicability of each paragraph in 3.0 of this regulation to sources subject to 10.0. |
| 3.1.3.2 | Yes | 10.1.7 of this regulation exempts area sources from the obligation to obtain Title V operating permits. |
| 3.1.3.3 - 3.1.3.4 | No | Reserved. |
| 3.1.3.5 | Yes | |
| 3.1.4 | No | Reserved. |
| 3.1.5 | Yes | |
| 3.2 | Yes | Additional terms defined in 10.2 of this regulation; when overlap between 3.0 and 10.0 of this regulation occurs, 10.0 takes precedence. |
| 3.3 | Yes | |
| 3.4.1.1 - 3.4.1.2 | Yes | |
| 3.4.1.3 - 3.4.1.5 | No | Reserved. |
| 3.4.2 - 3.4.2.2 | Yes | |
| 3.4.2.3 | No | Reserved. |
| 3.4.3 | Yes | |
| 3.5.1 - 3.5.2.1 | Yes | |
| 3.5.2.2 | No | Reserved. |
| 3.5.2.3 - 3.5.2.4 | Yes | |
| 3.5.2.5 | No | Reserved. |
| 3.5.2.6 | Yes | |
| 3.5.3 | No | Reserved. |
| 3.5.4.1.1 - 3.5.4.1.2.8 | Yes | |
| 3.5.4.1.2.9 | No | Reserved. |
| 3.5.4.1.2.10 - 3.5.4.4 | Yes | |
| 3.5.5 | Yes | |

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| 3.5.6 - 3.5.6.1.1 | Yes | |
| 3.5.6.1.2 - 3.5.6.1.4 | No | Reserved. |
| 3.5.6.2 | Yes | |
| 3.6.1 | Yes | |
| 3.6.2 - 3.6.2.5 | Yes | |
| 3.6.2.6 | No | Reserved. |
| 3.6.2.7 | Yes | |
| 3.6.3.1 - 3.6.3.2 | Yes | |
| 3.6.3.3 - 3.6.3.4 | No | Reserved. |
| 3.6.3.5 | Yes | |
| 3.6.4 | No | Reserved. |
| 3.6.5 - 3.6.5.1 | Yes | |
| 3.6.5.2 | No | Reserved. |
| 3.6.5.3 | Yes | However, 10.4.8 of this regulation specifies the minimum contents of the startup, shutdown, and malfunction plan. |
| 3.6.6 - 3.6.6.2.2 | Yes | |
| 3.6.6.2.3 | No | 10.0 of this regulation does not require performance testing. |
| 3.6.6.2.4 - 3.6.6.3 | Yes | |
| 3.6.7 | Yes | |
| 3.6.8 | No | 10.0 of this regulation does not contain any opacity or visible emission standards. |
| 3.6.9 - 3.6.9.6.1.2.1 | Yes | |
| 3.6.9.6.1.2.2 | No | Reserved. |
| 3.6.9.6.1.2.3 - 3.6.9.6.1.2.4 | Yes | |
| 3.6.9.6.1.3 - 3.6.9.6.1.4 | No | Reserved. |
| 3.6.9.6.2 - 3.6.9.14 | Yes | |
| 3.6.9.15 | No | Reserved. |
| 3.6.9.16 | Yes | |
| 3.6.10 | Yes | |
| 3.7 | No | 10.0 of this regulation does not require performance testing. |
| 3.8 - 3.8.5 | No | 10.5 of this regulation specifies the monitoring requirements. |
| 3.8.6 | Yes | |
| 3.8.7 | No | 10.5 of this regulation specifies the monitoring requirements. |
| 3.9.1 - 3.9.1.4 | Yes | |
| 3.9.1.4.1 | No | Reserved. |
| 3.9.1.4.2 - 3.9.2.2.5 | Yes | Except that 10.8.1 of this regulation specifies the initial notification requirements. |
| 3.9.2.3 | No | Reserved. |
| 3.9.2.4 - 3.9.2.4.1 | Yes | |
| 3.9.2.4.2 - 3.9.2.4.4 | No | Reserved. |
| 3.9.2.4.5 - 3.9.4 | Yes | |
| 3.9.5 - 3.9.7 | No | |
| 3.9.8 - 3.9.8.3 | Yes | Except that 10.8.2 of this regulation specifies the notification of compliance status requirements. |
| 3.9.8.4 | No | Reserved. |

| | | |
|---|---|---|
| 3.9.8.5 - 3.9.10 | Yes | |
| 3.10.1 - 3.10.1.4 | Yes | |
| 3.10.1.4.1 | No | Reserved. |
| 3.10.1.4.2 - 3.10.1.7 | Yes | |
| 3.10.2.1 - 3.10.2.2.5 | Yes | |
| 3.10.2.2.6 - 3.10.2.2.13 | No | |
| 3.10.2.2.14 | Yes | |
| 3.10.2.3 | Yes | |
| 3.10.3 | No | |
| 3.10.4.1 | Yes | |
| 3.10.4.2 - 3.10.4.4 | No | |
| 3.10.4.5 | Yes | Except that 10.9 of this regulation specifies reporting requirements under the requirements for the annual compliance certification report and the deviation report. |
| 3.10.5 | No | |
| 3.10.6 | Yes | |
| 3.11 | No | 10.0 of this regulation does not require flares. |
| 3.12 | Yes | |
| 3.13 | Yes | |
| 3.14 | Yes | |
| 3.15 | Yes | |

***Please Note: As the rest of the sections were not amended, they are not being published. A copy of the regulation is available at:**
**http://regulations.delaware.gov/register/august2009/proposed/13 DE Reg ___ 08-01-09.htm**