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40 CFR Part 63

National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[EPA–HQ–OAR–2005–0084; FRL–8541–9]

RIN 2060–AM37

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

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: EPA is proposing national emission standards for control of hazardous air pollutants (HAP) for the plating and polishing area source category. This rule proposes emission standards in the form of management practices for new and existing tanks, thermal spraying equipment, and mechanical polishing equipment in certain plating and polishing processes. These proposed standards reflect EPA's determination regarding the generally achievable control technology (GACT) and/or management practices for the area source category.

DATES: Comments must be received on or before April 14, 2008, unless a public hearing is requested by March 24, 2008. If a hearing is requested on this proposed rule, written comments must be received by April 28, 2008. Under the Paperwork Reduction Act, comments on the information collection provisions must be received by OMB on or before April 14, 2008.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–HQ–OAR–2005–0084, by one of the following methods:

- *http://www.regulations.gov:* Follow the on-line instructions for submitting comments.
- *E-mail: a-and-r-Docket@epa.gov.*
- *Fax:* (202) 566–9744.
- *Mail:* NESHAP: Area Source Standards for Plating and Polishing Operations Docket, Environmental Protection Agency, Air and Radiation Docket and Information Center, Mailcode: 2822T, 1200 Pennsylvania Ave., NW., Washington, DC 20460. Please include a total of two copies. In addition, please mail a copy of your comments on the information collection provisions to the Office of Information and Regulatory Affairs, Office of Management and Budget (OMB), Attn: Desk Officer for EPA, 725 17th St., NW., Washington, DC 20503.
- *Hand Delivery:* EPA Docket Center, Public Reading Room, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC 20460. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. EPA–HQ–OAR–2005–0084. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at *http://www.regulations.gov,* including any personal information provided, unless the comment includes information claimed to be confidential business information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *http://www.regulations.gov* or e-mail. The *http://www.regulations.gov* Web site is an ''anonymous access'' system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through *http://www.regulations.gov,* your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket: All documents in the docket are listed in the *http://www.regulations.gov* index. Although listed in the index, some information is not publicly available, *e.g.*, CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through *http://www.regulations.gov* or in hard copy at the ''NESHAP for Plating and Polishing Area Sources'' Docket, at the EPA Docket and Information Center, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the Air Docket is (202) 566–1742.

FOR FURTHER INFORMATION CONTACT: Dr. Donna Lee Jones, Sector Policies and Programs Division, Office of Air Quality Planning and Standards (D243–02), Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone number: (919) 541–5251; fax number: (919) 541–3207; e-mail address: *jones.donnalee@epa.gov.*

SUPPLEMENTARY INFORMATION:

Outline. The information in this preamble is organized as follows:

I. General Information

A. Does this action apply to me?

The regulated category and entities potentially affected by this proposed action include:

Category	NAICS code[1]	Examples of regulated entities
Industry	332813	Area source facilities engaged in any one or more types of nonchromium electroplating; electropolishing; electroforming; electroless plating, including thermal metal spraying, chromate conversion coating, and coloring; or mechanical polishing of metals and formed products for the trade. Regulated sources do not include chromium electroplating and chromium anodizing sources, as those sources are subject to 40 CFR part 63, subpart N, ''Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks.''
Manufacturing	32, 33	Area source establishments engaged in one or more types of nonchromium electroplating; electropolishing; electroforming; electroless plating, including thermal metal spraying, chromate conversion coating, and coloring; or mechanical polishing of metals and formed products for the trade. Examples include: 33251, Hardware Manufacturing; 323111, Commercial Gravure Printing; 332116, Metal Stamping; 332722, Bolt, Nut, Screw, Rivet, and Washer Manufacturing; 332811, Metal Heat Treating; 332812, Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers; 332913, Plumbing Fixture Fitting and Trim Manufacturing; Other Metal Valve and Pipe Fitting Manufacturing; 332999, All Other Miscellaneous Fabricated Metal Product Manufacturing; 334412, Bare Printed Circuit Board Manufacturing; 336412, Aircraft Engine and Engine Parts Manufacturing; and 339911, Jewelry (except Costume) Manufacturing.

[1] North American Industry Classification System.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by this action. To determine whether your facility would be regulated by this action, you should examine the applicability criteria in 40 CFR 63.11475, '' Am I subject to this subpart?'' of subpart WWWWWW (National Emission Standards for Hazardous Air Pollutants (NESHAP): Area Source Standards for Plating and Polishing Operations). If you have any questions regarding the applicability of this action to a particular entity, consult either the air permit authority for the entity or your EPA regional representative as listed in § 63.13 of the General Provisions to part 63 (40 CFR part 63, subpart A).

B. What should I consider as I prepare my comments to EPA?

Do not submit information containing CBI to EPA through *http://www.regulations.gov* or e-mail. Send or deliver information identified as CBI only to the following address: Roberto Morales, OAQPS Document Control Officer (C404–02), Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina 27711, Attention Docket ID EPA–HQ–OAR–2005–0084. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD ROM that you mail to EPA, mark the outside of the disk or CD ROM as CBI and then identify electronically within the disk or CD ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

C. Where can I get a copy of this document?

In addition to being available in the docket, an electronic copy of this proposed action will also be available on the Worldwide Web (WWW) through EPA's Technology Transfer Network (TTN). A copy of this proposed action will be posted on the TTN's policy and guidance page for newly proposed or promulgated rules at the following address: *http://www.epa.gov/ttn/oarpg/*. The TTN provides information and technology exchange in various areas of air pollution control.

D. When would a public hearing occur?

If anyone contacts EPA requesting to speak at a public hearing concerning this proposed rule by March 24, 2008, we will hold a public hearing on March 31, 2008. If you are interested in attending the public hearing, contact Ms. Pamela Garrett at (919) 541–7966 to verify that a hearing will be held. If a public hearing is held, it will be held at 10 a.m. at the EPA's Environmental Research Center Auditorium, Research Triangle Park, NC, or an alternate site nearby.

II. Background Information for Proposed Area Source Standards

A. What is the statutory authority and regulatory approach for the proposed standards?

Section 112(d) of the Clean Air Act (CAA) requires us to establish NESHAP for both major and area sources of HAP that are listed for regulation under CAA section 112(c). A major source emits or has the potential to emit 10 tons per year (tpy) or more of any single HAP or 25 tpy or more of any combination of HAP. An area source is a stationary source that is not a major source.

Section 112(k)(3)(B) of the CAA calls for EPA to identify at least 30 HAP which, as the result of emissions from area sources, pose the greatest threat to public health in the largest number of urban areas. EPA implemented this provision in 1999 in the Integrated Urban Air Toxics Strategy (64 FR 38715, July 19, 1999). Specifically, in the Strategy, EPA identified 30 HAP that pose the greatest potential health threat in urban areas, and these HAP are referred to as the ''30 urban HAP.'' Section 112(c)(3) requires EPA to list sufficient categories or subcategories of area sources to ensure that area sources representing 90 percent of the emissions of the 30 urban HAP are subject to regulation. We implemented these requirements through the Integrated Urban Air Toxics Strategy (64 FR 38715, July 19, 1999). A primary goal of the Strategy is to achieve a 75 percent reduction in cancer incidence attributable to HAP emitted from stationary sources.

Under CAA section 112(d)(5), we may elect to promulgate standards or requirements for area sources ''which provide for the use of generally available control technologies or management practices by such sources to reduce emissions of hazardous air pollutants.'' Additional information on GACT is found in the Senate report on the legislation (Senate Report Number 101–228, December 20, 1989), which describes GACT as:

* * * methods, practices and techniques which are commercially available and appropriate for application by the sources in the category considering economic impacts and the technical capabilities of the firms to operate and maintain the emissions control systems.

Consistent with the legislative history, we can consider costs and economic impacts in determining GACT, which is particularly important when developing regulations for source categories that have many small businesses.

Determining what constitutes GACT involves considering the control technologies and management practices that are generally available to the area sources in the source category. We also consider the standards applicable to major sources in the same industrial sector to determine if the control technologies and management practices are transferable and generally available to area sources. In appropriate circumstances, we may also consider technologies and practices at area and major sources in similar categories to determine whether such technologies and practices could be considered generally available for the area source category at issue. Finally, as we have already noted, in determining GACT for a particular area source category, we consider the costs and economic impacts of available control technologies and management practices on that category.

We are proposing these national emission standards in response to a court-ordered deadline that requires EPA to issue standards for 11 source categories listed pursuant to section 112(c)(3) and (k) by June 15, 2008 (*Sierra Club* v. *Johnson*, no. 01–1537, D.D.C., March 2006). We have already issued regulations addressing one of the 11 source categories. See regulations for Wood Preserving (**Federal Register**, 72 (135), July 16, 2007.) Other rulemakings will include standards for the remaining source categories that are due in June 2008.

B. What area source category is affected by the proposed standards?

The Plating and Polishing Area Source Category includes any facility engaged in one or more of the following operations or processes: electroplating without chromium; electroforming; electropolishing; electroless plating; other non-electrolytic metal coating, such as chromate conversion coating and thermal spraying; and the mechanical polishing of finished metals and formed products after plating. Note that facilities that are engaged in chromium electroplating that also perform any of the above plating and polishing processes are included in the Plating and Polishing Area Source Category for these processes.

Plating and polishing facilities are primarily classified under NAICS code 332813. However, plating and polishing processes are also co-located at many facilities that are classified under other NAICS codes. Examples include NAICS 33251, Hardware Manufacturing; 323111, Commercial Gravure Printing; 332116, Metal Stamping; 332722, Bolt, Nut, Screw, Rivet, and Washer Manufacturing; 332811, Metal Heat Treating; 332812, Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers; 332913, Plumbing Fixture Fitting and Trim Manufacturing; Other Metal Valve and Pipe Fitting Manufacturing; 332999, All Other Miscellaneous Fabricated Metal Product Manufacturing; 334412, Bare Printed Circuit Board Manufacturing; 336412, Aircraft Engine and Engine Parts Manufacturing; and 339911, Jewelry (except Costume) Manufacturing.

We added plating and polishing operations to the Integrated Urban Air Toxics Strategy Area Source Category List on June 26, 2002 (67 FR 43113). The inclusion of this source category to the section 112(c)(3) area source category list is based on 1990 emissions data, as EPA used 1990 as the baseline year for that listing. EPA listed this source category for regulation pursuant to section 112(c)(3), based on emissions of compounds of five HAP metals: cadmium, chromium, lead, manganese, and nickel. These five metal HAP represent part of the 90 percent of those urban HAP emissions in the 1990 inventory to be regulated, and are hereafter referred to as ''plating and polishing metal HAP.'' This source category was also listed for emissions of the organic HAP trichloroethylene (TCE). Chlorinated solvents such as TCE are used as degreasers in the plating industry. We subsequently discovered that the 1990 emissions data for TCE was for plating facilities that used TCE in degreasing operations, which are not part of this source category. Rather, these emission units at both major and area sources are subject to standards for halogenated solvent cleaning under 40 CFR part 63, subpart T. Consequently, we are not proposing standards for TCE from plating and polishing facilities. The plating and polishing source category listed for TCE emissions remains a listed source category pursuant to section 112(c)(3) of this part, and this proposed rule establishes standards for emissions of plating and polishing metal HAP. Therefore, we are clarifying that we do not need plating and polishing to meet the section 112(c)(3) 90 percent requirement regarding area source emissions of TCE.

C. How did we gather information for this proposed rule?

We gathered information for this proposed rule from industry representatives, trade associations, technical experts, published literature, the 2002 EPA National Emission Inventory, and a 2006 EPA survey of the industry that we performed specifically for the plating and polishing area source rule.

The EPA survey, also called information collection requests (ICR), was developed by EPA under the authority of section 114 of the CAA. A copy of the ICR questionnaire and the responses can be found in the docket for the Plating and Polishing Area Source Rule (Docket Number EPA–HQ–OAR–2005–0084).

The first version of the questionnaire was sent out in November 2004 to nine recipients; responses were received from eight facilities. A **Federal Register** Notice (FRN) was published in July 2005 (70 FR 43865, July 29, 2005) requesting comment on a second, improved questionnaire that was revised based on comments received from the first version. A second FRN was published on October 26, 2005 (70 FR 61810) to announce that the questionnaire had been submitted to the OMB for approval. Approval was received from OMB on February 23, 2006 (OMB 2060–0577, ICR 2186.01, Form No. 7610–32). A total of 1,151 questionnaires were mailed on May 10, 2006; most responses were received by July 31, 2006.

Potential recipients for the ICR were identified from names and addresses of facilities listed in several on-line databases, company websites, and information obtained from EPA Regional offices and State and local regulatory agencies. Through this process a list of approximately 2,500 facilities was compiled that was later reduced to 1,151 by eliminating plants with incomplete mailing addresses or plants that appeared to not belong to the source category. From the 1,151 total

ICR mailed, EPA received back 598 questionnaires. Adding these ICR to the previous 8 surveys, the total number of industry responses received by EPA was 606. Of this total, 120 were excluded from the area source analysis because either the information was not complete (80 ICR) or because the facilities were major sources that were not within the plating and polishing area source category (40 ICR).[a] The result was 486 surveys from area sources in the plating and polishing source category.

In the 2006 EPA survey responses, no facility was found to be a major source for their plating and polishing processes. There were 15 NESHAP (40 CFR part 63) that were reported to be applicable to processes at the surveyed facilities co-located with plating and polishing processes. The most frequently identified NESHAP included ''Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks'' (subpart N) and ''Halogenated Solvent Cleaning'' (subpart T). These NESHAP (subparts N and T) apply to both major and area sources. Of the 486 area source plating and polishing facilities that responded to the 2006 EPA survey, approximately 250 have co-located area source processes subject to one or both of these two NESHAP.

The results of the survey analyses can be found in a memorandum for the Plating and Polishing Area Source Rule. (See Docket No. EPA–HQ–OAR–2005–0084.)

D. What is the industry profile?

Based on 2002 U.S. Census data and the 2006 EPA survey of the industry, we estimate that 2,900 plating and polishing area source facilities are currently operating in the U.S. Independent estimates by the industry trade association confirm our estimate. The estimate includes several plating and polishing area sources that are captive facilities (*i.e.*, co-located at manufacturing and other facilities engaged primarily in other operations). See section I(A) above, ''Does this action apply to me?'' for examples of some of these operations.

The 2006 EPA survey results indicated about 80 percent of the industry is located in 14 States, with about 40 percent of the area source facilities located in three States (Illinois, California, and Ohio). Nearly all (97 percent) of the plating and polishing facilities are in urban areas[b] based on the 2006 EPA survey. Our analyses also indicate that between 92 and 98 percent of the plating and polishing area source category is comprised of small businesses, which the Small Business Administration defines to be facilities with less than 500 employees. The 2002 Census data also showed that 50 percent of the facilities in this source category had less than 10 employees.

For the 2,900 estimated area source facilities in the plating and polishing industry, we estimate that there are approximately 22,000 tanks and 1,400 thermal spray lines that use the plating and polishing metal HAP. Based on the 2006 EPA survey, the number of tanks per facility with plating and polishing metal HAP is estimated to range from 1 to 20 with an average of 10 tanks per facility. For the estimated 300 area source facilities that do thermal spraying with plating and polishing metal HAP, we estimate that these facilities have from 1 to 20 lines, with an average of 5 thermal spraying lines per facility.

E. What are the production processes, emission sources, and available controls?

1. Plating and Polishing Processes

Plating and polishing facilities perform several operations that use and can emit the plating and polishing metal HAP. These include electrolytic processes, non-electrolytic processes, thermal spraying processes, and dry mechanical polishing operations. Electrolytic processes include non-chromium electroplating, electroforming, and electropolishing. Non-electrolytic processes include electroless nickel plating, chromate conversion coating, and other tank-based processes, such as nickel acetate sealing. Electroplating, electroforming, electropolishing, and non-electrolytic (or ''electroless'') plating all take place in a tank or ''bath.''

From the analyses performed with data acquired in the 2006 EPA survey, it is estimated that more than half of the plating and polishing area source facilities (estimated at over 1,500 facilities) perform electroplating with the plating and polishing metal HAP, with nickel the predominant metal plated; 4 percent or 80 facilities are estimated to perform electropolishing with the plating and polishing metal HAP; and less than 1 percent or 25 facilities are estimated to perform electroforming with the plating and polishing metal HAP. For the non-electrolytic processes, approximately 25 percent of the facilities are estimated to perform electroless nickel and/or other electroless coating with the plating and polishing metal HAP. For the mechanical polishing process, we estimate that approximately 25 percent, or 700 facilities, perform mechanical polishing of the plating and polishing metal HAP. For thermal spraying process, we estimate that approximately 11 percent, or 300 facilities, have thermal spraying processes that use the plating and polishing metal HAP.

Many facilities perform more than one type of metal plating or polishing. From the analyses performed with data acquired in the 2006 EPA survey, we estimate that 80 percent of the facilities use nickel (with two-thirds of the nickel used in electroplating and one-third in electroless nickel plating); 29 percent use lead, 16 percent use chromium (in non-electroplating tanks), 5 percent use manganese, and 4 percent use cadmium. This includes both tank-based plating as well as thermal spraying processes, and where more than one plating or polishing process occurs at many facilities.

Electrolytic Plating and Polishing Processes. Electrolytic processes include electroplating, electroforming, and electropolishing. In the electroplating process, metal ions in either acid (pH less than 7), alkaline (pH greater than 7), or neutral (pH approximately equal to 7) solutions are reduced onto the surface of the work piece (the cathode or substrate) via an electrical current. The metal ions in the solution are usually replenished by the dissolution of metal from solid metal anodes (made of the same metal as that being plated), or by direct replenishment of the solution with metal salts or oxides. Electroplating can be performed with or without cyanide in the bath. Cyanide is a constituent of some baths and works to keep the metals in solution. More discussion of plating with cyanide follows below.

Electroforming is similar to electroplating, except that the plated surface is the product and the item that shapes the metal (the mandrel) is removed and discarded afterwards. Otherwise, electroforming is similar in chemistry to electroplating processes. Electroforming can be performed with or without cyanide in the bath.

Electropolishing is essentially the opposite of electroplating; the metal to be polished acts as the anode in an electric circuit. In this process, the work piece is attached to the anode and metal substrate is dissolved electrolytically, thereby removing the surface contaminant. Electropolishing can be

[a] We did, however, analyze separately the information on major sources in similar source categories to determine if the control technologies and management practices were transferable and generally available to the plating and polishing area source category.

[b] These urban areas are defined to be the urban 1 and urban 2 areas that formed the basis of the listing decisions under 112(c)(3) and (k).

performed in acid or alkaline baths, although most electropolishing is performed in acid baths containing phosphoric acid and one or more additional acids. Other acids that are used in electropolishing baths include sulfuric, chromic, fluoboric, hydrochloric, citric, and glycolic acid. According to industry experts, less than 1 percent of plating and polishing facilities currently use chromic acid in electropolishing processes. Electropolishing is not performed with cyanide in the bath.

Most electroplating tank chemical formulations (or ''chemistries'') that do not use cyanide incorporate a wetting agent to minimize pitting from the hydrogen gas bubbles that form on the surface of the parts being plated. Wetting agents prevent the bubbles from adhering to the surface of the parts. Wetting agents also lower the surface tension of the plating bath and act to reduce the amount of energy released when the gas bubbles rise to the surface of the bath and burst. Consequently, the wetting agents also reduce the level of misting and metal HAP emissions from the tank. As a result of this dual function, these chemical compounds are referred to collectively as wetting agent/fume suppressants (WAFS). Because WAFS prevent metal HAP emissions, as opposed to collecting metal HAP emissions after they occur with add-on control devices, they are considered a pollution prevention technique.

Some chemicals that are not part of the initial plating bath chemistries are added ''over the side'' of the plating tanks, and include chemicals such as WAFS. This is especially true for the plating tanks that lose a significant amount of their ingredients through what is called ''drag-out,'' or the loss of tank solution that occurs when parts are removed. The occurrence of drag-out necessitates the replenishing of the bath ingredients ''over the side'' during the plating process.

As noted above, some plating baths use cyanide as a major bath ingredient. Cyanide is added to dissolve the metal cyanide compound (*e.g.*, cadmium cyanide) and to create free cyanide in solution, which helps to corrode the anode. Caustic soda and carbonate also are added to the bath. These three constituents (cyanide, caustic soda, and carbonate) all work to increase the pH of the solution to at least 12. These tanks are self-regulating to a pH equal to or greater than 12 due to the nature of the cyanide bath chemistry.

The cyanide in the bath is a major bath constituent and not an additive. However, because of the self-regulating chemistry of the bath, the cyanide causes the bath to act as if WAFS are being used to prevent the metal HAP from being emitted rather than plated. All cyanide plating baths at pH greater than or equal to 12 have cyanide-metal complexes in solution. The metal to be plated is either bound in the metal-cyanide complex, or reduced at the cathode to elemental metal and plated onto the immersed parts. According to the technical literature and industry experts, considering the self-regulating chemistry of the bath, emissions of cyanide in the form of hydrogen cyanide would occur only at a pH of less than 12. Cyanide baths are not intentionally operated at pH less than 12 since unfavorable plating conditions would occur in the tank, among other negative effects. See the docket for this rule for minutes of meetings with industry representative and literature documents related to cyanide bath chemistry. (Docket No. EPA-HQ-OAR–2005–0084).

Non-electrolytic Processes. Non-electrolytic or ''electroless'' plating involves the deposition of a metallic coating on a metallic or nonmetallic surface without the use of external electrical energy. The basic ingredients in an electroless plating solution are a metal (usually in the form of a salt), a reducer, a complexing agent to hold the metal in solution, a WAFS, and various buffers and other chemicals to maintain bath stability and increase bath life. Non-electrolytic processes include electroless nickel plating, chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating.

Conversion coatings, such as chromate, are produced on various metal substrates to create a protective film that is formed when a portion of the base metal is converted to one of the components of the film by reaction with aqueous solutions containing the metal (such as hexavalent chromium) and other active organic or inorganic compounds. Chromate conversion coatings are most frequently applied to zinc, cadmium, aluminum, magnesium, copper, tin, chromium, brass, bronze, and silver metal base products. Manganese phosphate coating is another type of conversion coating used to increase wear resistance. In this process, the work piece is immersed in a tank with a heated bath that includes phosphoric acid and manganese dioxide for a period of minutes up to several hours, depending on the application.

Nickel acetate, dichromate, and lead acetate sealing are steps that help to seal work pieces to increase corrosion resistance. These processes involve immersing the part in a tank with a heated bath for a relatively short period of time (*e.g.*, 5 to 10 minutes).

Thermal/flame Spraying Processes. Thermal spraying or flame spraying is another type of metal coating operation that uses one or more of the plating and polishing metal HAP. Thermal spraying usually is performed at dedicated facilities that specialize in this process and do not perform the other plating and polishing processes described in this section. In thermal spraying, a metal, such as chromium or nickel, is melted and then immediately sprayed onto a part or surface. Commonly-used thermal spraying processes are flame spraying, electric arc spraying, plasma arc spraying, and high velocity oxy-fuel. Unlike the other plating and coating processes discussed previously that involve immersing the work piece in a liquid-filled tank, thermal spraying is performed in a spray booth. Thermal spraying is not a complete substitute for tank plating because thermal spraying can only apply metal coatings to line-of-sight surfaces and does not penetrate into the depressions and holes of the work piece as in tank plating.

Dry Mechanical Polishing Processes. Dry mechanical polishing is performed using hard-faced wheels constructed of muslin, canvas, felt or leather. Abrasives are applied to the wheels with synthetic adhesives or cements, typically silicate-base cements. Abrasive belts coated with adhesives and abrasives in the same way as the wheels are also used for polishing. Lubricants including oil, grease, tallow, and special bar lubricants are often used to prevent gouging and tearing when a fine polished surface is required and also to minimize frictional heat.

2. Plating and Polishing Metal HAP Emission Sources

In the plating industry, the metal being plated is part of the product sold, therefore, any metal HAP emissions are an economic loss, *i.e.*, cost, to the facility and are avoided as much as possible. Generally, the primary plating and polishing metal HAP emission sources are the tanks in which plating processes occur.

Electrolytic Plating and Polishing Metal HAP Emissions. The primary mechanism that can release any metal HAP, including the plating and polishing metal HAP, from electrolytic plating and polishing tanks is the evolution of hydrogen and oxygen gas in bubbles that form on the surfaces of the submerged work piece, or on anodes or cathodes during electroplating. These gas bubbles rise to the surface and then burst, carrying liquid with them in the form of a fine mist. In electroplating, the

rate of bubbling is a function of the chemical or electrochemical activity in the tank and increases with the amount of work in the tank, the strength and temperature of the solution, and the current densities in the plating tanks.

A term commonly used to describe the ease or difficulty of electroplating a specific metal is its cathodic efficiency, which refers to the ability of the cathode to reduce the metal to the elemental form so that the metal can be plated onto the part surface. The cathodic efficiencies of nickel and cadmium, the most common metals plated in the plating and polishing industry of this proposed rule, are high and on the order of 90 percent or more. Chromium, on the other hand, has a relatively low cathodic efficiency of less than 20 percent. Plating processes with high cathodic efficiencies, such as nickel and cadmium, generate less gassing at the anode and consequently have lower emissions than plating processes with low cathodic efficiencies, such as chromium.

As discussed above in section (1), ''Plating and Polishing Processes,'' WAFS, a common ingredient in plating tanks for purposes of generating a better plated product, also incidentally lower the surface tension of the bath. The WAFS act to reduce the amount of energy released when gas bubbles rise to the surface of the bath and burst, thereby reducing the level of misting and metal HAP emissions from the tank. Because WAFS prevent most metal HAP emissions from occurring, they are considered a pollution prevention technique, as opposed to techniques that control emissions after they occur, such as add-on control devices. All non-chromium electroplating baths use WAFS, except for cyanide electroplating. The reason for the exception to this practice is discussed below.

In plating tanks that use cyanide as a major bath ingredient, which are operated at a pH of at least 12, the self-regulating chemistry of the cyanide in the bath causes the bath to operate as if WAFS were being used, which ensures an optimum plating process, as discussed above in section (1), ''Plating and Polishing Processes.'' All cyanide plating baths are composed of cyanide-metal complexes in solution. There are little metal HAP emissions from these tanks because the metal to be plated is either bound in the metal-cyanide complex or reduced at the cathode to elemental metal and plated onto the immersed parts. Emissions of cyanide in the form of hydrogen cyanide are also low or nonexistent; these emissions would occur only at pH values less than 12.

Non-Electrolytic Plating Metal HAP Emissions. Plating tanks that do not use electrical current have much lower metal HAP emissions than electroplating tanks because the bubbling that occurs from electrolysis is not present. Chromium conversion coating was excluded from the estimates of chromium emissions in the Occupational Safety and Health (OSHA) work place rule for hexavalent chromium (**Federal Register** 71 (39), 10099–10385, February 28, 2006).

In addition, the concentration of the metals in non-electrolytic tanks is much lower than the concentration in their electrolytic bath counterparts. For example, the concentration of nickel in an electroless plating bath is less than one ounce of nickel metal per gallon (oz/gal) of tank contents (less than 7 grams per liter (g/L)) as compared to the concentration of nickel in a nickel electroplating bath of 13 oz/gal (91 g/L). In manganese phosphating, the manganese concentration is less than 1 percent by volume (v/v).

Metal HAP Emissions from Procedures Used for All Tank-based Processes. Procedures that can result in emissions from all plating and polishing tanks are: Bath agitation; placement of the work pieces in the tank; and removal of the work pieces from the tank. Bath agitation typically is accomplished by air sparging (*i.e.*, bubbling air through the tank), or by mechanical agitation using eductors; emissions generally are greater when air sparging is used.

Plating emissions can also be affected by whether rack or barrel plating is performed. In rack plating, the parts to be plated are mounted on racks and immersed in the plating solution, where they remain stationary. In barrel plating, the parts to be plated are placed in a slotted or perforated barrel that is immersed in the plating solution and rotated to ensure even coverage of the plate on the parts. The movement of the barrel has the potential to cause more emissions to be generated than rack plating.

Metal HAP Emissions from Thermal Spraying and Dry Mechanical Polishing Processes. Metal HAP emissions from thermal spraying and dry mechanical polishing are in the form of particulate matter (PM). In thermal spraying, the PM is emitted as excess metal spray that results from over-spraying during application of the metal to the product. The PM emitted from dry mechanical polishing results mostly from excess plated metal that is removed from the product along with a small amount of PM that originates from the abrasive material on the polishing wheel or machine. For affected plating and polishing area sources, all the PM described above, except the PM from abrasive material on the wheel, includes metal HAP.

3. Plating and Polishing Metal HAP Emission Controls

As discussed above in section (2), ''Plating and Polishing Metal HAP Emission Sources,'' the metal being plated is part of the products from the plating industry, therefore, any metal HAP emissions are an economic loss (*i.e.*, cost) to the facility and are avoided as much as possible. Consequently, a variety of methods are used by the industry to prevent emissions from plating and polishing processes. These methods are designed to reduce the amount of metal HAP emitted from plating tanks by using what is called ''in-tank controls,'' that are discussed in more detail below.

Some facilities use add-on control systems to control emissions from plating and polishing tanks that involve capturing emissions and exhausting them to add-on emission control devices. Control systems are the combination of a capture system and an add-on control device. The capture system is designed to collect and transport air emissions from the affected source to the control device. The overall control efficiency of any control system is a combination of the ability of the system to capture the air emissions (*i.e.*, the capture efficiency) and the control device efficiency. Consequently, it is important to achieve good capture to ensure good overall control efficiency. Capture devices that are known to provide high capture efficiencies include hoods, enclosures, or any other duct intake devices with ductwork, dampers, manifolds, plenums, or fans.

Add-on controls in the plating and polishing industry are used to control water vapor (steam) and other non-HAP tank ingredients that evaporate from the tank. These add-on control systems also incidentally capture and control any metal HAP that may be emitted from the tank. In addition, add-on controls are used to control PM, which is a surrogate for metal HAP, from thermal spraying and dry mechanical polishing processes. These add-on controls are discussed in more detail below.

In-tank Pollution Prevention Controls. Wetting agent/fume suppressants, as previously discussed, are ingredients included in plating tanks for purposes of generating a better plated product. The WAFS also incidentally lower the surface tension of the bath and in turn

the metal HAP emissions, and therefore are a pollution prevention control technique. The WAFS act to reduce the amount of energy released when gas bubbles rise to the surface of the bath and burst, thereby significantly reducing the level of misting and metal HAP emissions from the tank. All non-cyanide electroplating baths use WAFS.

Data compiled during the development of the NESHAP for ''Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks (subpart N), hereafter called the ''Chromium Electroplating NESHAP,'' and during a recent study of nickel plating sponsored by EPA's Office of Research and Development (ORD), demonstrated that plating tanks that use WAFS have significantly lower emissions than tanks that do not use wetting agents. The use of WAFS was found to reduce plating emissions by up to 95 percent, depending on the initial level of emissions without WAFS.

Other types of in-the-tank controls for plating tanks include foam blankets and polyballs, both of which reduce emissions by covering the liquid surface of the tank thereby minimizing the misting that results from the bursting of gas bubbles at the tank surface. These technologies are estimated to reduce emissions by 70 to 80 percent provided they cover the entire surface of the tank bath. The difficulty in maintaining complete coverage of the tank surface prevents many plants from using foam blankets and polyballs as their sole emission control technique.

Tank Add-on Controls. Add-on controls are used in plating and polishing facilities to collect water vapor (steam) and other non-HAP tank ingredients that evaporate from the tank. These add-on controls also incidentally capture and control any metal HAP that may be emitted from the tank. Add-on control devices used to reduce emissions from plating and polishing tanks include composite mesh pads (CMP), packed bed scrubbers (PBS), and mesh pad mist eliminators (MPME). CMP, which are used on many chromium electroplating tanks, operate at 99 percent control efficiency. The data compiled for the Chromium Electroplating NESHAP demonstrate that PBS operate at 94 to 99 percent control efficiency. MPME typically achieve 98 to 99 percent control. Simple mist eliminators reduce emissions by 80 to 99 percent depending on design; chevron blade mist eliminators achieve 80 to 95 percent control.

The overall control efficiency of any control system is a combination of the ability of the system to capture the fumes (*i.e.*, capture efficiency) and the control device efficiency. The capture system transports the HAP emissions from the affected source to the control device; consequently, it is important to achieve good capture of the plating HAP emissions to ensure control of the majority of the metal HAP emissions. Capture devices that are known to provide high capture efficiencies include hoods, enclosures, or any other duct intake devices with ductwork, dampers, manifolds, plenums, or fans that draw greater than 90 percent of the emissions from the process into the control device.

Thermal Spraying Add-on Controls. Thermal spraying processes in the plating and polishing industry are performed in spray booths where metal HAP emissions are most often controlled with add-on controls for PM such as fabric filters or high efficiency particulate air (HEPA) filters. Both of these filtration techniques reduce emissions by 95 to 99 percent, depending on the capture efficiency of the system, as discussed above under ''Tank Add-on Controls.'' Water curtains, which achieve 90 percent control, also are used in the plating and polishing industry for controlling PM from thermal spraying.

The large amount of PM generated during thermal spraying has made it necessary for facilities to control the PM emitted at all times to protect the worker and working environment. Consequently, by controlling the PM facilities are also simultaneously controlling the metal HAP, where the PM is a surrogate for the metal HAP.

Dry Mechanical Polishing Controls. The metal HAP emissions from dry mechanical polishing, which are in the form of PM in this process, are controlled with a control system, as discussed above in section II (E)(3), ''Plating and Polishing Metal HAP Emission Controls.'' Historically, the large amount of PM generated during the dry mechanical polishing operations has made it necessary for facilities to control the PM emitted at all times to protect the work environment. Metal HAP are simultaneously controlled as an additional benefit of this current control practice.

The control system for dry mechanical polishing is the combination of a capture system and an add-on control device. The capture system is designed to collect and transport air emissions from the affected source to the control device. The overall control efficiency of a control system is a combination of the ability of the system to capture the air emissions (i.e., the capture efficiency) and the control device efficiency. Consequently, it is important to achieve good capture to ensure good overall control efficiency.

Capture devices that are known to provide high capture efficiencies include hoods or any other duct intake devices with ductwork, dampers, manifolds, plenums, or fans. Control devices used for dry mechanical polishing include filtration devices such as cartridge, fabric, or HEPA filters, where PM is controlled as a surrogate for metal HAP. These control techniques reduce PM and metal HAP emissions by more than 90 percent, depending on the capture efficiency of the system. Complete capture of the PM (and also metal HAP) by the exhaust system is not typical in this industry because of the need for the workers to be close to the polishing wheels, which precludes the use of total enclosures.

III. Summary of Proposed Standards

A. Do the proposed standards apply to my source?

The proposed subpart WWWWWW applies to new and existing area sources of plating and polishing that use any of the plating and polishing metal HAP (cadmium, chromium,[c] lead, manganese, or nickel) in tanks or thermal spraying processes; and dry mechanical polishing operations used to remove or polish products with these metal HAP. A new source is any affected source where you commenced construction or reconstruction of the affected source on or after the date that this proposed rule is published in the **Federal Register**.

B. When do I comply with the proposed standards?

All existing area source facilities with operations subject to this proposed rule would be required to comply with the rule requirements for their existing operations no later than 2 years after the date of publication of the final rule in the **Federal Register**. The owner or operator of a new area source operation would be required to comply with the rule requirements by the date of publication of the final rule in the **Federal Register** or upon startup, whichever is later.

[c] Regulated sources do not include chromium electroplating and chromium anodizing sources, as those sources are subject to 40 CFR part 63, subpart N, ''Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks.''

C. What emissions control requirements is EPA proposing?

1. Controls for All Affected Plating and Polishing Process Tanks

Owners or operators of all new and existing affected plating and polishing processes performed in tanks, regardless of bath pH, presence of cyanide, or use of electricity, would be required to comply with the following management and pollution prevention practices: (1) Minimize bath agitation when removing tank objects; (2) maximize dripping of bath solution back into tank by extending drip time when removing the tank objects and using drain boards (also known as drip shields); (3) optimize the design of barrels, racks, and parts to minimize dragout of bath solution, such as by using slotted barrels and tilted racks, or by using designs with flow-through holes to allow the tank solution to drip back into the tank; (4) use tank covers, if available on-site at the facility, whenever possible (*i.e.*, not during lifting or lowering parts); and (5) minimize or reduce heating during tank operation and when tanks are not in use.

2. Controls for Non-cyanide Electrolytic Process Tanks Operated at pH Less than 12.

Non-cyanide electrolytic process tanks are operated at pH less than 12 (hereafter referred to as non-cyanide electrolytic process tanks) and include tanks that are used for electroplating, electroforming, or electropolishing, as defined in § 63.11510, ''Definitions.'' This proposed rule would require owners or operators of new and existing affected non-cyanide electrolytic processes, which are operated at a pH of less than 12, to use a WAFS in the tank bath as directed by the manufacturer of plating chemicals, as an equipment standard. All electroplating baths in the plating and polishing source category use WAFS, except for tanks that perform electroplating with cyanide in the bath. This proposed rule would also require owners or operators of affected non-cyanide electrolytic process tanks to implement the management and pollution prevention practices described previously in section (1), ''Controls for All Affected Tanks.''

The requirement for WAFS would not apply to cyanide electroplating and electroforming tanks that operate at pH of 12 or greater, or facilities that comply with the requirement for electroplating for short time periods discussed below. The in-tank control requirements proposed for these processes are discussed below in sections (4) and (5).

To meet the requirement for WAFS, the owner or operator would operate either a tank with bath chemistry that includes a WAFS or add WAFS separately to the bath. The owner or operator would also document that WAFS are added when each tank is initially filled for plating and polishing operations. For tanks where WAFS are separately purchased tank ingredients, the use of WAFS would also be documented every time other bath ingredients are replenished during the plating process, where the WAFS are to be added in the same proportion as in the original bath.

As a compliance option we are proposing that in lieu of using WAFS, facilities may use control systems that include capture devices designed to capture the plating and polishing metal HAP emissions from the tanks and to transport these metal HAP emissions to CMP, PBS, or MPME control devices. These control systems include capture devices such as hoods, enclosures, or any other duct intake devices with ductwork, dampers, manifolds, plenums, or fans. The use of such capture devices, in combination with CMP, PBS, and MPME control devices, if operated according to the manufacturers' specifications, has been demonstrated to achieve equivalent emission reductions to WAFS, which we determined to be GACT for non-cyanide electrolytic process tanks). Add-on controls are used to control water vapor (steam) and other non-HAP tank ingredients that evaporate from the tank; these add-on controls also incidentally capture and control any metal HAP that may be emitted from the tank at a level of at least 95 percent control when operated according to the manufacturer's specifications.

Facilities that would like to use equipment other than those listed above can seek approval to do so pursuant to the procedures in § 63.6(g) of the General Provisions to part 63, which require the owner or operator to demonstrate that the alternative means of emission limitation achieves at least equivalent HAP emission reductions as the controls specified in this rule.

3. Non-electrolytic (Electroless) Process Tanks

This proposed rule would require owners or operators of new and existing affected non-electrolytic process tanks to implement the management and pollution prevention practices described previously in section (1), ''Controls for All Affected Tanks.'' Affected non-electrolytic processes under this proposed rule would include but are not limited to processes such as electroless nickel plating; chromate conversion coating; manganese phosphating; and nickel acetate, dichromate, and lead sealing processes.

4. Controls for Electroplating and Electroforming Process Tanks with Cyanide Operated at a pH Equal to or Greater than 12

This proposed rule would require owners or operators of new and existing affected electroplating and electroforming process tanks with cyanide operated at pH equal to or greater than 12, to implement the management and pollution prevention practices described in section (1) above, ''Controls for All Affected Tanks.''

5. Controls for Flash or Short-term Electroplating Process Tanks

Under this proposed rule, new and existing affected ''flash'' or short-term electroplating processes are defined to be tanks that perform plating no more than 1 hour per day or 3 minutes per hour of plating time; or use covers for 95 percent of the total plating time. These electroplating processes are performed infrequently or for short periods of time, some of which are on the order of 30 seconds or less, as a quick dip. These tanks would be required to meet the management and pollution prevention practices, described previously in section (1) above, ''Controls for All Affected Tanks,'' which include the requirement to reduce the heat when the tanks are not in use.

6. Controls for Thermal Spraying Processes

For existing affected thermal spraying processes, this proposed rule would require control systems that are designed to provide capture of the plating and polishing metal HAP emissions from thermal spraying processes and transport these metal HAP emissions to water curtains, fabric filters, or HEPA filters. The control systems include capture devices such as hoods, enclosures, or any other duct intake devices with ductwork, dampers, manifolds, plenums, or fans. The use of such capture devices in combination with water curtains, fabric filters, or HEPA filters, if operated according to the manufacturers specifications, have been demonstrated to achieve at least 90 percent overall control. Based on our surveys and a thorough review of the industry, we determined that the above capture and control devices are currently used by the industry.

This proposed rule would require new thermal spraying processes to install control systems that are designed

to provide capture and control of the metal HAP emissions from these sources and that transport these emissions from the affected source to fabric or HEPA filters. These control systems include capture devices such as hoods, enclosures, or any other duct intake devices with ductwork, dampers, manifolds, plenums, or fans. The use of such capture devices in combination with fabric or HEPA filters, if operated according to the manufacturers specifications, have been demonstrated to achieve 95 percent overall control. Based on our surveys and a thorough review of the industry, we determined that the above capture and control devices are currently used by the industry.

Facilities that would like to use equipment other than those listed above can seek approval to do so pursuant to the procedures in § 63.6(g) of the General Provisions to part 63, which require the owner or operator to demonstrate that the alternative means of emission limitation achieves at least equivalent HAP emission reductions as the controls specified in this proposed rule.

7. Controls for Dry Mechanical Polishing Operations

For new and existing affected dry mechanical polishing operations, this proposed rule would require control systems that are designed to capture the plating and polishing metal HAP emissions from dry mechanical polishing operations and transport these metal HAP emissions to cartridge, fabric, or HEPA filters. These control systems include capture devices such as hoods, enclosures, or any other duct intake devices with ductwork, dampers, manifolds, plenums, or fans. The use of such capture devices in combination with cartridge, fabric, or HEPA filters, if operated according to the manufacturers specifications, have been demonstrated to achieve 90 percent overall control. Based on our surveys and a thorough review of the industry, we determined that the above capture and control devices are currently used by the industry. Complete capture of the PM, which is a surrogate for metal HAP, by the exhaust system is not typical in this industry because of the need for the workers to be close to the polishing wheels and which precludes the use of total enclosures.

Facilities that would like to use equipment other than those listed above can seek approval to do so pursuant to the procedures in § 63.6(g) of the General Provisions to part 63, which require the owner or operator to demonstrate that the alternative means of emission limitation achieves at least equivalent HAP emission reductions as the controls specified in this proposed rule.

D. What are the initial compliance requirements?

To demonstrate initial compliance with this proposed rule, owners or operators of affected new or existing plating and polishing tanks would certify they have implemented the management and pollution prevention practices specified in this proposed rule and are maintaining the appropriate records to document compliance. The owner or operator of a facility that uses an affected flash electroplating process would also demonstrate initial compliance by documenting that the plating tank is operated no more than 1 hour per day or 3 minutes per hour; or that the tank is covered for at least 95 percent of the plating time.

Owners or operators of affected new or existing non-cyanide electrolytic process tanks that comply with the WAFS requirement would demonstrate initial compliance with this proposed rule by certifying that WAFS has been added to the tank when each tank is initially filled for plating and polishing operations, according to the manufacturer's specifications and operating instructions. In addition, owners or operators of all affected electrolytic process tanks would certify that they have implemented the management and pollution prevention practices required for all affected plating tanks in this proposed rule.

As an alternative to the use of WAFS, we are proposing as a compliance option that owners or operators of affected new or existing non-cyanide electrolytic process tanks use a control system that captures the metal HAP emissions from plating tanks and transports these emissions to CMP, PBS, or MPME. These control systems are known to be able to achieve at least 95 percent control efficiency if operated according to the manufacturers' specifications. Owners or operators can use other devices to the extent those devices provide at least equivalent HAP emission reductions and are approved in accordance with the procedures of 40 CFR 63.6(g).

Owners or operators that choose the alternative compliance option (i.e., that use either CMP, PBS, or MPME), would certify that they have installed and are operating an emissions control system according to the manufacturer's specifications and operating instructions, and that the control system is designed to provide capture of the metal HAP emissions from these sources and transport these emissions from the affected source to CMP, PBS, or MPME which achieve equivalent emission reductions to the use of WAFS. Capture devices include devices such as hoods, enclosures, or any other duct intake devices with ductwork, dampers, manifolds, plenums, or fans. These control systems have been demonstrated to achieve equivalent emission reductions to the use of WAFS if operated according with the manufacturer's specifications. Facilities could demonstrate that other control devices are at least equivalent for control of metal HAP emissions according to the procedures in § 63.6(g) of the General Provisions to part 63.

The owners or operators of affected new and existing dry mechanical polishing processes would demonstrate initial compliance by certifying that they have installed and are operating an emissions control system according to the manufacturer's specifications and operating instructions and that the capture system is designed to provide capture of the metal HAP emissions from these sources and to transport these emissions from the affected source to cartridge, fabric, or HEPA filters. Capture devices include devices such as hoods, enclosures, or any other duct intake devices with ductwork, dampers, manifolds, plenums, or fans that transport the metal HAP from the process into cartridge, fabric, or HEPA filters. These control systems have been demonstrated to achieve 90 percent control if operated according with the manufacturer's specifications. Facilities could demonstrate that other control devices are at least equivalent for control of metal HAP emissions according to the procedures in § 63.6(g) of the General Provisions to part 63.

Owners or operators of affected existing thermal spraying processes would demonstrate initial compliance by certifying that they have installed and are operating an emissions control system according to the manufacturer's specifications and operating instructions, and that the control system is designed to provide capture of the metal HAP emissions from these sources and to transport these emissions from the affected source to water curtains, fabric filters, or HEPA filters. Capture devices include devices such as hoods, enclosures, or any other duct intake devices with ductwork, dampers, manifolds, plenums, or fans. These control systems have been demonstrated to achieve at least 90 percent control if operated according to the manufacturer's specifications. Facilities could demonstrate that other control systems are at least equivalent for

control of metal HAP emissions according to the procedures in § 63.6(g) of the General Provisions to part 63.

Owners or operators of affected new thermal spraying processes would demonstrate initial compliance by certifying that they have installed and are operating an emissions control system according to the manufacturer's specifications and operating instructions and that the control system is designed to provide capture of the metal HAP emissions from these sources and transport these emissions from the affected source to fabric or HEPA filters. Capture devices include devices such as hoods, enclosures, or any other duct intake devices with ductwork, dampers, manifolds, plenums, or fans. These control systems have been demonstrated to achieve 95 percent control if operated according to the manufacturer's specifications. Facilities could demonstrate that other control systems are at least equivalent for control of metal HAP emissions according to the procedures in § 63.6(g) of the General Provisions to part 63.

E. What are the continuous compliance requirements?

This proposed rule also requires owners or operators of all affected plating and polishing process tanks to demonstrate continuous compliance by adhering to the management and pollution prevention practices specified in this proposed rule and maintaining the appropriate records to document compliance.

For affected non-cyanide electrolytic process tanks that comply by using WAFS, where the WAFS are purchased separately from other tank materials, the use of WAFS would be documented every time other bath ingredients are replenished during the plating process. The WAFS are to be added in the same proportion as in the original bath, according to the manufacturer's specifications and operating instructions. Records would also be maintained of all the chemical additions. The WAFS should be added in proportion to the amounts of other bath chemistry ingredients that are added to replenish the tank bath, as in the original make-up of the tank.

Owners or operators that comply with the rule by operating control systems are required to operate and maintain each capture system and add-on control device according to the manufacturer's specifications and operating instructions, and to keep these documents at the facility at all times in a location where it can be easily accessed by the operators. Owners or operators also are required to maintain records to document conformance with this requirement.

The owner or operator of a facility that uses an affected flash electroplating process would demonstrate continuous compliance by keeping records of daily plating time; the time the tank operates with the cover in place, if applicable; and maintaining the appropriate records to document compliance with the management and pollution prevention practices specified in this proposed rule.

F. What are the notification, recordkeeping, and reporting requirements?

The owner or operator of a new or existing affected source is required to comply with certain requirements of the General Provisions to part 63, which are identified in Table 1 of this proposed rule. Each facility is required to submit an Initial Notification and a Notification of Compliance Status according to the requirements in 40 CFR 63.9, General Provisions to part 63. The owner or operator of an affected source is required to submit an annual compliance certification and, if there were any deviations during the year, a report that describes the deviations and the corrective action taken.

Owners and operators also are required to maintain all records that demonstrate initial and continuous compliance with this proposed rule, including records of all required notifications and reports, with supporting documentation; and records showing compliance with the management and pollution prevention practices. Owners and operators would also maintain records of the following, if applicable: Amount and frequency of WAFS additions; daily plating time; the time the tank is operated with a cover in place; and maintenance of any required control systems.

IV. Rationale for This Proposed Rule

A. How did we select the source category?

Plating and Polishing was listed as an area source category on June 26, 2002 (67 FR 43112). The inclusion of this source category on the area source category list was based on data from the CAA section 112(k) inventory, which represents 1990 urban air information. Those data indicated that plating and polishing plants were contributors to emissions of five of the listed urban HAP metals: cadmium, chromium, manganese, nickel, and lead.

B. How did we select the affected sources?

The affected sources for the proposed rule include plating and polishing tanks (other than those that are subject to the Chromium Electroplating NESHAP), dry mechanical polishing operations, and thermal spray processes, which have the potential to emit the five plating and polishing metal HAP. We selected these sources because the plating and polishing metal HAP are used in and have the potential to be emitted from these sources.

Electrolytic process tanks emit metal HAP when gas bubbles formed by the electrolytic process rise to the tank surface and burst; as the result of bath agitation, particularly when air sparging is practiced; and from the placing of parts in, or the removal of parts from, the tank. Non-electrolytic process tanks emit metal HAP as the result of bath agitation, and from the placing of parts in, or the removal of parts from, the tank. Emissions of metal HAP from thermal spraying result from overspray, when the sprayed metal does not contact or adhere to the target part and becomes entrained in the air. Emissions of metal HAP from dry mechanical polishing operations occur as the result of the abrasion of metal surfaces and the subsequent entrainment of the abraded particles in the air.

The Plating and Polishing Source Category also was listed as an area source of TCE emissions. Chlorinated solvents such as TCE are used as degreasers in the plating industry. We subsequently discovered that the 1990 emissions data for TCE was for plating facilities that used TCE in degreasing operations, which are not part of this source category. Rather, these emission units at both major and area sources are subject to standards for halogenated solvent cleaning under 40 CFR part 63, subpart T. Consequently, we are not proposing standards for TCE from plating and polishing facilities. The plating and polishing source category listed for TCE emissions remains a listed source category pursuant to section 112(c)(3) of this part, and this proposed rule establishes standards for emissions of plating and polishing metal HAP. Therefore, we are clarifying that we do not need plating and polishing to meet the section 112(c)(3) 90 percent requirement regarding area source emissions of TCE.

Several plating and polishing area source facilities also perform chromium electroplating and chromium anodizing. The chromium electroplating and chromium anodizing tanks at these facilities are already subject to the

Chromium Electroplating NESHAP (subpart N) that apply to both major and area sources. Therefore, these chromium electroplating and chromium anodizing tanks would not be affected sources under the proposed rule although their plating and polishing area source processes would be subject.

C. How did we subcategorize plating and polishing processes?

As part of the GACT analysis, we considered whether there were differences in processes, sizes, or other factors affecting emissions and control technologies that would warrant subcategorization. Under section 112(d)(1) of the CAA, EPA ''may distinguish among classes, types, and sizes within a source category or subcategory in establishing such standards * * *''

In our review of the available data, we observed significant differences in the chemistry and operation of some electroplating and electroforming processes. We therefore have identified three subcategories of electrolytic process units: (1) Non-cyanide electrolytic process tanks, operated at pH less than 12, (2) Electroplating and electroforming process tanks with cyanide, operated at a pH greater than or equal to 12; and (3) Flash or short-term electroplating processes.

Non-cyanide electrolytic process tanks are operated at pH less than 12, and use WAFS as part of their normal bath chemistry. In electroplating and electroforming process tanks that have cyanide in the bath and which have a pH of 12 or greater, there are metal complexing agents, called anions or ligands, which keep the metals to be plated in solution as an ionic complex with the result that minimal emissions of either the anion or metal HAP occur. According to technical literature, these highly alkaline solutions are self-regulating and simulate the effect of adding WAFS to the bath. Ionic baths are used in the plating of brass (copper and zinc), bronze (copper and tin), cadmium, copper, gold, silver, and zinc, of which only cadmium is an urban HAP. Note that electropolishing is not performed with cyanide.

Flash or short-term electroplating is conducted infrequently and for short periods of time, on the order of 30 seconds or less as a quick dip, for no more than 3 minutes total per hour. Facilities that use this process generally keep the tanks covered and, if the bath is heated, reduce the heat when the tanks are not in use. General practice in the industry does not include monitoring WAFS levels or the use of add-on emission controls. Only a small number of the total tanks in the plating and polishing industry are ''flash'' plating tanks, and are estimated to be less than 3 percent of all tanks in the industry.

D. How was GACT determined?

As provided in CAA section 112(d)(5), we are proposing standards representing GACT for the Plating and Polishing Area Source Category. As noted in section II of this preamble, the statute requires the Agency to establish standards for area sources listed pursuant to section 112(c) based on GACT. The statute does not set any condition precedent for issuing standards under section 112(d)(5) other than that the area source category or subcategory at issue must be one that EPA listed pursuant to section 112(c), which is the case here.

The tank-based operations of this proposed rule, that include electroplating (without chromium), electroless plating, and polishing, have little or no emissions compared to chromium electroplating. We evaluated the control technologies and management practices that reduce HAP emissions that are generally available for the Plating and Polishing Area Source Category. We also considered costs and economic impacts in determining GACT. We believe the consideration of costs and economic impacts is especially important for plating and polishing area sources because requiring additional controls would result in only marginal reductions in emissions at very high costs for modest incremental improvement in control for this area source category. Furthermore, more than 90 percent of plating and polishing plants are small businesses. We explain our proposed GACT below, in sections (1) through (5).

1. GACT for All Plating and Polishing Process Tanks

From the 2006 EPA survey of the industry, we identified several management and pollution prevention practices that minimize emissions from plating and polishing process tanks and are commonly used in the industry. These practices include minimizing bath agitation when removing and plating parts; maximizing dripping of tank solution back into bath by extending drip time when removing the tank objects and using drain boards (also known as drip shields); optimizing the design of barrels, racks, and parts to minimize dragout of bath solution, such as by using slotted barrels and tilted racks, or by using designs with flow-through holes to allow the tank solution to drip back into the tank; using tank covers whenever possible; and minimizing or reducing heating during tank operation and when the tanks are not in use.

The above practices reflect the practices employed by the plating and polishing area source category. In addition, other source categories with similar industrial processes use these same management practices to reduce HAP emissions and water pollution. Because these practices are standard industry practice, we are proposing that these practices are GACT for all new and existing affected plating and polishing processes performed in tanks that include electrolytic process tanks with and without cyanide, as well as non-electrolytic process tanks. The costs of implementing these management practices are reasonable due to the relatively small amount of time needed to perform the practices, the relatively small amount of materials used, and especially because they are oftentimes cost savings measures. These benefits were reported by facilities in the 2006 EPA survey and in discussions with industry representatives.

Some of these management and pollution prevention practices also have the co-benefit of reducing water pollution since they prevent metal from reaching nearby water systems. These pollution prevention practices are also recommended for this industry by EPA's Office of Water for this industry. See ''Development Document for the Final Effluent Limitations Guidelines and Standards for the Metal Products and Machinery Point Source Category,'' EPA–821–B–03–001, February 2003. [Available at: *http://www.epa.gov/guide/mpm/tdd/index.htm*]

2. GACT for Non-cyanide Electrolytic Process Tanks Operated at pH Less Than 12

We are proposing GACT for non-cyanide electroplating process tanks, which operate at pH less than 12, to be the use of WAFS in the plating bath. This requirement was also the control specified as MACT in the Chromium Electroplating NESHAP that applies to both major and area sources.

All non-cyanide electrolytic plating tanks that operate with a pH less than 12 include a WAFS in the bath chemistry to prevent gas bubbles from adhering to the surfaces of work pieces, thereby ensuring a smooth plating finish. The WAFS also lower the surface tension of the bath to allow the bath solution to cover or coat, *i.e.*, ''wet,'' the surfaces of the parts and consequently also lower metal HAP emissions. Using WAFS to maintain the bath surface tension below specified levels is one of

the control options specified in the Chromium Electroplating NESHAP. The use of WAFS is also a pollution prevention technique since it prevents the metal HAP from being emitted rather than controlling the metal after it is emitted, as in add-on control strategies.

A recent ORD study of emissions from nickel plating also showed that WAFS in nickel electroplating is an effective means of reducing nickel emissions from electroplating that achieves a comparable post-control metal HAP emissions concentration as the levels of chromium under the maximum achievable control technology (MACT) standards in the Chromium Electroplating NESHAP. Test data for nickel electroplating tanks using WAFS that were submitted with the 2006 EPA survey responses show the same low level of post-control HAP metal emission concentration as the ORD data.

Electroforming is essentially the same process as electroplating except the metal plate is subsequently removed from the plated mold and becomes the product. Because non-cyanide electroforming bath chemistries are the same as for non-cyanide electroplating, WAFS are also used in electroforming baths. Therefore, we are proposing GACT for non-cyanide electroforming baths, which operate at pH less than 12, also to be the use of WAFS.

Electropolishing commonly uses non-HAP acids such as sulfuric and phosphoric, and occasionally chromic acid (at 5 to 7 percent in the bath) to prepare the metal surface for plating. For those electropolishing processes that do use chromic acid, using WAFS prevents significant chromium emissions.

For these non-cyanide electrolytic process tanks operated at pH less than 12, we are also proposing that GACT includes the management and pollution prevention practices described above in section (1), ''GACT for All Plating and Polishing Process Tanks.'' These practices reflect the practices employed by the plating and polishing area source category. In addition, other source categories with similar industrial processes use these same management practices to reduce HAP emissions and water pollution. Because these practices are standard industry practice, we are proposing that these practices are GACT for new and existing affected non-cyanide electrolytic process tanks operated at pH less than 12. The costs of implementing these management practices are reasonable due to the relatively small amount of time needed to perform the practices; the relatively small amount of materials used, as reported in the 2006 EPA survey and in discussions with the industry; and especially because they are cost savings measures.

Because the tank chemical constituents are depleted as bath liquid is lost by drag-out of parts and other mechanisms, tank chemical ingredients often are added ''over the side'' of tanks to maintain the proper concentrations. Therefore, to ensure continuous compliance with GACT, we are proposing that non-cyanide electrolytic process tanks add WAFS to the tank when any other bath ingredient is replenished. For tanks that purchase WAFS separate from other tank ingredients, we are proposing that WAFS are to be added when other tank ingredients are replenished, in the same proportion to the other ingredients as in the original make-up of the bath. This will ensure that any WAFS that are lost during the plating and polishing process are replenished.

As an alternative to the use of WAFS, we are proposing as a compliance option that owners or operators can use control systems that include capture devices that are designed to capture the plating and polishing metal HAP emissions from the tanks and transport these metal HAP emissions to CMP, PBS, or MPME control devices. These control systems include capture devices such as hoods, enclosures, or any other duct intake devices with ductwork, dampers, manifolds, plenums, or fans. The use of such capture devices in combination with CMP, PBS, and MPME control devices, if operated according to the manufacturers' specifications, has been demonstrated to achieve equivalent emission reductions to WAFS, which we determined to be GACT for non-cyanide electrolytic process tanks). Add-on controls are used to control water vapor (steam) and other non-HAP tank ingredients that evaporate from the tank; these add-on controls also incidentally capture and control any metal HAP that may be emitted from the tank. Data from the chromium electroplating industry indicate that CMP, PBS, and MPME achieve chromium emission control efficiencies of at least 95 percent.

Because these add-on control devices are not pollution prevention technologies, and because of the high costs required to purchase, install, and operate add-on controls for a relatively low level of plating and polishing metal HAP emissions, these devices are not being proposed as GACT. From the information acquired during the development of the Chromium Electroplating NESHAP that applied to similar electroplating processes in tanks, the cost of using add-on controls to reduce metal HAP emissions from the electroplating tanks ranged from $100,000 to $1 million per ton of chromium removed. Much higher costs, on the order of five to 10 times higher or more, are expected for plating and polishing process electroplating tanks since the metal HAP emissions from these tanks are lower due to the higher cathodic efficiency of the plating and polishing metal HAP as opposed to chromium. This level of costs would impose a large negative economic impact upon the area sources in the plating and polishing industry, which are predominately small businesses. Therefore, we propose that this technology does not represent GACT for the plating and polishing area source category.

Because some facilities already have these control systems in place or, for new sources, want to control water vapor (steam) and other non-HAP tank ingredients that evaporate from the tank, we are allowing these devices as an equivalent alternative to the use of WAFS as GACT for control of metal HAP from non-cyanide electrolytic plating and polishing.

3. GACT for Non-Electrolytic (Electroless) Processes

Under this proposed rule, affected non-electrolytic processes include electroless nickel plating, chromate conversion coating, nickel acetate sealing, dichromate sealing, and manganese phosphate coating. For these processes we are proposing GACT is management and pollution prevention practices as described above in section (1), ''GACT for All Plating and Polishing Process Tanks.'' These practices reflect the practices employed by the plating and polishing area source category. In addition, other source categories with similar industrial processes use these same management practices to reduce HAP emissions and water pollution. Because these practices are standard industry practice, we are proposing that these practices are GACT for all new and existing affected non-electrolytic (electroless) processes. The costs of implementing these management practices are reasonable due to the relatively small amount of time needed to perform the practices; the relatively small amount of materials used, as reported in the 2006 EPA survey and in discussions with the industry; and especially because they are cost savings measures.

Emissions of the plating and polishing metal HAP from non-electrolytic process tanks are significantly lower than are emissions from electrolytic

process tanks for several reasons. Unlike electrolytic processes, these processes do not apply electrical currents to the tank baths. As a result, there is no mechanism that produces the hydrogen and oxygen gas bubbles which cause the misting from electrolytic tanks; therefore, fume suppressants are not needed. Furthermore, the non-electrolytic processes do not require vigorous agitation of the baths, which is another source of emissions from electrolytic process tanks that can be significant in some situations. The concentration of metal in non-electrolytic process tanks also is relatively low. For example, the concentration of nickel in electroless nickel plating baths is less than one oz/gal of bath solution (less than 7 g/L), whereas in nickel electroplating baths, the concentration of nickel is 13 oz/gal (91 g/L). In manganese phosphate coating, the manganese concentration is less than 1 percent (v/v). The low chromium emissions from chromium conversion coating were well documented during development of the OSHA workplace standard for hexavalent chromium. Consequently, we are setting GACT as the management and pollution prevention practices described above in this section.

Because of the relatively low emissions from these tanks, a requirement for add-on controls for these operations would not be cost-effective and would result in costs on the upper end of the estimated cost impacts for plating and polishing sources, at 10 or more times the cost levels of $100,000 to $1 million per ton of chromium removed found for chromium electroplating.

4. GACT for Electroplating and Electroforming Process Tanks With Cyanide Operated at pH Values Greater Than or Equal to 12

For cyanide electroplating baths with pH greater than or equal to 12, such as cadmium cyanide plating, metal HAP emissions are minimal because the metal remains in solution as a metal-cyanide complex. The chemistry of electroplating baths with cyanide are such that a high pH ($pH \geq 12$) is maintained to keep the cyanide and metals to be plated in solution as a metal-cyanide ionic complex, with minimal emissions of cyanide gas or metal HAP. According to the technical literature, the self-regulating chemistry of the highly alkaline bath solutions simulate the effect of adding WAFS to the bath, which is GACT for the non-cyanide electroplating processes. Cyanide baths are not intentionally operated at pH less than 12 since unfavorable plating conditions would occur in the tank, among other negative effects.

Therefore, we are proposing that GACT for these tanks consists of the management practices described above in section (1), ''GACT for All Plating and Polishing Process Tanks.'' These practices reflect the practices employed by the plating and polishing area source category. In addition, other source categories with similar industrial processes use these same management practices to reduce HAP emissions and water pollution. Because these practices are standard industry practice, we are proposing that these practices are GACT for electroplating and electroforming process tanks with cyanide operated at pH values greater than or equal to 12. The costs of implementing these management practices are reasonable due to the relatively small amount of time needed to perform the practices; the relatively small amount of materials used, as reported in the 2006 EPA survey and in discussions with the industry; and especially because they are cost savings measures.

5. GACT for Short-Term or ''Flash'' Electroplating

In this proposed rule, we define flash electroplating tanks as those tanks that operate one hour plating per day or 3 minutes per hour, or tanks that have a cover in place during 95 percent of the plating time. Plating that occurs for only one hour daily (or 3 minutes per hour for 24 hours) or tanks that are covered 95 percent of the plating time have equivalent emissions to plating that is performed less than 5 percent of the day. Since plating tanks can be operated continuously, 24 hours per day, this level of operation is equivalent to 95 percent control of emissions.

We are proposing that GACT for these short-term operations is the management and pollution prevention practices described above in section (1), ''GACT for All Plating and Polishing Process Tanks,'' that are applicable to this process, such as reducing the heat when not in use. These management practices reflect the practices employed by the plating and polishing area source category. In addition, other source categories with similar industrial processes use these same management practices to reduce HAP emissions and water pollution. Because these practices are standard industry practice, we are proposing that these practices are GACT for short-term or ''flash'' electroplating processes performed in tanks. The costs of implementing these management practices are reasonable due to the relatively small amount of time needed to perform the practices; the relatively small amount of materials used, as reported in the 2006 EPA survey and in discussions with the industry; and especially because they are cost savings measures.

Because of the combination of low levels of emissions and short time periods it is not cost-effective to install add-on emission controls and it would be unnecessarily burdensome to require recordkeeping of WAFS levels use. From the information acquired during the development of the Chromium Electroplating NESHAP, which was described further above, the cost of using add-on controls for similar electroplating tanks ranged from $100,000 to $1 million per ton of chromium removed. Much higher costs, on the order of 100 to 200 times higher or more, are expected for these short-term plating and polishing process tanks since the metal HAP emissions from these tanks are lower due to the short periods of time the tanks are used or operate uncovered. This level of costs would impose a large negative economic impact upon the area sources in the plating and polishing industry, which are predominately small businesses. Therefore, we propose that this technology does not represent GACT for the plating and polishing area source category.

Only a small number of the total tanks in the plating and polishing industry are ''flash'' plating tanks, and are estimated to be less than 3 percent of all the tanks in the industry. Because of the short time periods for operation of these ''flash'' processes, the emissions from these processes are equivalent to the 95 percent control achieved by add-on controls that are GACT for continuous electroplating processes.

6. GACT for Dry Mechanical Polishing Operations

For new and existing sources of dry mechanical polishing operations, we are proposing GACT to be control systems that are designed to provide capture of the plating and polishing metal HAP emissions from the process and transport these metal HAP emissions to cartridge, fabric, or HEPA filters. These control systems include capture devices such as hoods, enclosures, or any other duct intake devices with ductwork, dampers, manifolds, plenums, or fans. The use of such capture devices in combination with cartridge, fabric, or HEPA filters, if operated according to the manufacturers specifications, have been demonstrated to achieve at least 90 percent overall control. Based on our surveys and a thorough review of the industry, we determined that the above

capture and control devices are currently used by the industry.

Only dry mechanical polishing that has the potential to generate one or more of the five plating and polishing metal HAP of cadmium, chromium, lead, manganese, and nickel would be subject to this part of the standard. This GACT requirement would be an equipment standard.

Dry mechanical polishing generates a fine metal dust which is controlled by PM collection systems, using PM as a surrogate for metal HAP, that include a local capture device exhausted to a filtration device. These devices are the best available control technology and are standard practice in the industry to protect the workers and workplace from PM. Because of the need for the workers to be close to the polishing wheels, total enclosures around the polishing equipment are not possible.

Requiring source testing to determine control efficiency or emissions would be an economic burden for the facilities that in most cases are small businesses; therefore, we are proposing that compliance with GACT is to operate the control devices according to the manufacturer's instructions.

7. GACT for Thermal Spraying Processes

For existing thermal spraying processes, we are proposing GACT to be control systems that are designed to provide capture of the plating and polishing metal HAP emissions from thermal spraying processes and transport these metal HAP emissions to water curtains, fabric filters, or HEPA filters. These control systems include capture devices such as hoods, enclosures, or any other duct intake devices with ductwork, dampers, manifolds, plenums, or fans. The use of such capture devices in combination with water curtains, fabric filters, or HEPA filters, if operated according to the manufacturers specifications, have been demonstrated to achieve at least 90 percent overall control. Based on our surveys and a thorough review of the industry, we determined that the above capture and control devices are currently used by the industry.

This GACT requirement is an equipment standard. Facilities could demonstrate that other control devices are at least equivalent for control of metal HAP emissions according to the procedures in § 63.6(g) of the General Provisions to part 63.

For new thermal spraying sources, we are proposing that GACT is to install control systems that are designed to provide capture and control of the metal HAP emissions from these sources and that transport these emissions from the affected source to fabric or HEPA filters. These control systems include capture devices such as hoods, enclosures, or any other duct intake devices with ductwork, dampers, manifolds, plenums, or fans. The use of such capture devices in combination with fabric or HEPA filters, if operated according to the manufacturers specifications, have been demonstrated to achieve at least 95 percent overall control. Based on our surveys and a thorough review of the industry, we determined that the above capture and control devices are currently in use by the industry and generally available for new sources.

Requiring source testing to determine control efficiency or emissions would be an economic burden for the facilities that in most cases are small businesses; therefore, we are proposing that compliance with GACT is to operate the control devices according to the manufacturer's instructions.

E. How did we select the compliance requirements?

We are proposing notification, reporting, and recordkeeping requirements to ensure compliance with this proposed rule. We are requiring an Initial Notification and Notification of Compliance Status because these requirements are consistent with section § 63.9(h) of the General Provisions to part 63.

For demonstrating initial compliance, this proposed rule requires affected facilities to certify that the required management practices and equipment standards have been implemented; and if applicable, the existing add-on control devices have been installed properly.

For demonstrating continuous compliance, the proposed requirements include annual certifications that the management practices are being followed and control systems, if any, are being properly operated and maintained. Because all facilities currently operate at the GACT level of control and greater than 90 percent of the affected facilities are small businesses, we are proposing a requirement for the minimum information necessary to ensure compliance. We believe the proposed requirements for annual certifications achieve that objective.

Consequently, we are not requiring emission testing and compliance with a control efficiency requirement to establish proper operation of control devices as part of compliance with equipment standards. Testing a plating and polishing tank would require a ventilation system and exhaust duct or stack for sampling emissions, and the large majority of plating and polishing tanks are not equipped with ventilation and exhaust systems. Emission testing would necessitate installing either a permanent or temporary exhaust system, which would significantly increase the costs of the emission test. For these reasons, we are proposing to allow affected facilities to demonstrate compliance without incurring the costs of installing ventilation and exhaust systems and conducting emission tests. Considering that more than 90 percent of the companies that would be affected by this proposed rule are small businesses, the proposed formats would help to minimize the burden on the regulated community.

This proposed rule also would require recordkeeping in accordance with § 63.10 of the General Provisions to part 63. These records are needed for EPA to determine compliance with specific rule requirements.

Under this proposed rule, each facility would also submit an annual compliance certification and an annual compliance report. The annual report identifies deviations, if any, from the equipment and work practice requirements. We are also proposing annual compliance certifications and annual compliance reports, which should help identify facilities with potential compliance issues.

We are proposing a 2-year period for existing facilities to achieve compliance. Since many facilities may be subject to EPA rules for the first time and because most of these facilities are small businesses with 50 percent of the firms having less than 10 employees, we believe the 2-year period is needed to provide time for facilities to identify any changes that are needed to comply with the recordkeeping and reporting requirements and institute those changes. All new area source processes or facilities would be required to comply upon the date of publication of the final rule, or startup, whichever is later.

F. How did we decide to exempt this area source category from title V permitting requirements?

We are proposing exemption from title V permitting requirements for affected facilities in the plating and polishing area source category for the reasons described below. Section 502(a) of the CAA provides that the Administrator may exempt an area source category from title V if she determines that compliance with title V requirements is ''impracticable, infeasible, or unnecessarily burdensome'' on an area source

category. See CAA section 502(a). In December 2005, in a national rulemaking, EPA interpreted the term ''unnecessarily burdensome'' in CAA section 502 and developed a four-factor balancing test for determining whether title V is unnecessarily burdensome for a particular area source category, such that an exemption from title V is appropriate. See 70 FR 75320, December 19, 2005 (''Exemption Rule'').

The four factors that EPA identified in the Exemption Rule for determining whether title V is ''unnecessarily burdensome'' on a particular area source category include: (1) Whether title V would result in significant improvements to the compliance requirements, including monitoring, recordkeeping, and reporting that are proposed for an area source category (70 FR 75323); (2) whether title V permitting would impose significant burdens on the area source category and whether the burdens would be aggravated by any difficulty the sources may have in obtaining assistance from permitting agencies (70 FR 75324); (3) whether the costs of title V permitting for the area source category would be justified, taking into consideration any potential gains in compliance likely to occur for such sources (70 FR 75325); and (4) whether there are implementation and enforcement programs in place that are sufficient to assure compliance with the NESHAP for the area source category, without relying on title V permits (70 FR 75326).

In discussing these factors in the Exemption Rule, we further explained that we considered on ''a case-by-case basis the extent to which one or more of the four factors supported title V exemptions for a given source category, and then we assessed whether considered together those factors demonstrated that compliance with title V requirements would be 'unnecessarily burdensome' on the category, consistent with section 502(a) of the Act.'' See 70 FR 75323. Thus, in the Exemption Rule, we explained that not all of the four factors must weigh in favor of exemption for EPA to determine that title V is unnecessarily burdensome for a particular area source category. Instead, the factors are to be considered in combination, and EPA determines whether the factors, taken together, support an exemption from title V for a particular source category.

In the Exemption Rule, in addition to determining whether compliance with title V requirements would be unnecessarily burdensome on an area source category, we considered, consistent with the guidance provided by the legislative history of section 502(a), whether exempting the area source category would adversely affect public health, welfare or the environment. See 70 FR 15254–15255, March 25, 2005. We have determined that the proposed exemptions from title V would not adversely affect public health, welfare and the environment. Our rationale for this decision follows here.

In considering the proposed exemption from title V requirements for sources in the category affected by this proposed rule, we first compared the title V monitoring, recordkeeping, and reporting requirements (factor one) to the requirements in the proposed NESHAP for the Plating and Polishing area source category. EPA determined that the management practices currently used by plating and polishing facilities is GACT, and this proposed rule would require recordkeeping, which serves as monitoring and deviation reporting, to assure compliance with the NESHAP. The monitoring component of the first factor favors title V exemption because this proposed standard would provide for monitoring in the form of recordkeeping that would assure compliance with the requirements of this proposed rule. This proposed NESHAP would require annual compliance certification and annual deviation reports which should call attention to those facilities in need of supervision to the state agency in the same way as a title V permit. Monitoring other than recordkeeping would not be practical or appropriate because the requirements are management practices. Records would be required to ensure that the management practices are followed, including such records as the amount of WAFS added to the plating tanks.

As part of the first factor, we have considered the extent to which title V could potentially enhance compliance for area sources covered by this proposed rule through recordkeeping or reporting requirements. We have considered the various title V recordkeeping and reporting requirements, including requirements for a 6-month monitoring report, deviation reports, and an annual certification in 40 CFR 70.6 and 71.6. For any affected plating and polishing area source facility, this proposed NESHAP would require an Initial Notification and a Notification of Compliance Status. This proposed Plating and Polishing NESHAP also would require affected facilities to maintain records showing compliance with the required equipment standard and management practices. The information that would be required in the notifications and records is similar to the information that would be provided in the deviation reports required under 40 CFR 70.6(a)(3) and 40 CFR 71.6(a)(3). We acknowledge that title V might impose additional compliance requirements on this category, but we have determined that the monitoring, recordkeeping, and reporting requirements of this proposed NESHAP for plating and polishing would be sufficient to assure compliance with the provisions of the NESHAP, and title V would not significantly improve those compliance requirements.

For the second factor, we determine whether title V permitting would impose a significant burden on the area sources in the category and whether that burden would be aggravated by any difficulty the source may have in obtaining assistance from the permitting agency. Subjecting any source to title V permitting imposes certain burdens and costs that do not exist outside of the title V program. EPA estimated that the average cost of obtaining and complying with a title V permit was $38,500 per source for a 5-year permit period, including fees. See ICR for Part 70 Operating Permit Regulations, January 2000, EPA ICR Number 1587.05. EPA does not have specific estimates for the burdens and costs of permitting plating and polishing area sources; however, there are certain activities associated with the part 70 and 71 rules. These activities are mandatory and impose burdens on the facility. They include reading and understanding permit program guidance and regulations; obtaining and understanding permit application forms; answering follow-up questions from permitting authorities after the application is submitted; reviewing and understanding the permit; collecting records; preparing and submitting monitoring reports on a 6-month or more frequent basis; preparing and submitting prompt deviation reports, as defined by the State, which may include a combination of written, verbal, and other communications methods; collecting information, preparing, and submitting the annual compliance certification; preparing applications for permit revisions every 5 years; and, as needed, preparing and submitting applications for permit revisions. In addition, although not required by the permit rules, many sources obtain the contractual services of consultants to help them understand and meet the permitting program's requirements. The ICR for part 70 provides additional information on the overall burdens and

costs, as well as the relative burdens of each activity. Also, for a more comprehensive list of requirements imposed on part 70 sources (hence, burden on sources), see the requirements of 40 CFR 70.3, 70.5, 70.6, and 70.7.

In assessing the second factor for plating and polishing facilities, we found that nearly all of the approximately 2,900 plating and polishing facilities affected by this proposed rule are small businesses, some with as few as one or two employees. These small sources lack the technical resources that would be needed to comply with permitting requirements and the financial resources that would be needed to hire the necessary staff or outside consultants. As discussed previously, title V permitting would impose significant costs on these area sources, and, accordingly, we propose that title V would be a significant burden for sources in this category. More than 90 percent of the facilities that would be subject to this proposed rule are small businesses with limited resources, and under title V they would be subject to numerous mandatory activities with which they would have difficulty complying, whether they were issued a standard or a general permit. Furthermore, given the number of sources in the category and the relatively small size of many of those sources, it would likely be difficult for them to obtain assistance from the permitting authority. Thus, we believe that the second factor strongly supports the proposed title V exemption for plating and polishing facilities.

The third factor, which is closely related to the second factor, is whether the costs of title V permitting for these area sources would be justified, taking into consideration any potential gains in compliance likely to occur for such sources. We explained for the second factor that the costs of compliance with title V would impose a significant burden on nearly all of the approximately 2,900 plating and polishing facilities affected by this proposed rule. We also believe in considering the first factor that, while title V might impose additional requirements, the monitoring, recordkeeping and reporting requirements in this proposed NESHAP would assure compliance with the equipment standard and management practices imposed in the NESHAP. In addition, in our consideration of the fourth factor, we find that there are adequate implementation and enforcement programs in place to assure compliance with the NESHAP. Because the costs, both economic and non-economic, of compliance with title V are so high, and the potential for gains in compliance is low, we propose that title V permitting is not justified for this source category. Accordingly, the third factor supports the proposed title V exemptions for plating and polishing area sources.

The fourth factor we considered in determining if title V is unnecessarily burdensome is whether there are implementation and enforcement programs in place that are sufficient to assure compliance with the NESHAP without relying on title V permits. There are State programs in place to enforce this area source NESHAP, and we believe that the State programs will be sufficient to assure compliance with this NESHAP. We also note that EPA retains authority to enforce this NESHAP anytime under CAA sections 112, 113 and 114. We further note that small business assistance programs required by CAA section 507 may be used to assist area sources that have been exempted from title V permitting. Also, States and EPA often conduct voluntary compliance assistance, outreach, and education programs (compliance assistance programs), which are not required by statute. These additional programs would supplement and enhance the success of compliance with this area source NESHAP. We believe that the statutory requirements for implementation and enforcement of this NESHAP by the delegated States and EPA, combined with the additional assistance programs would be sufficient to assure compliance with this area source NESHAP without relying on title V permitting.

In applying the fourth factor in the Exemption Rule, where EPA had deferred action on the title V exemption for several years, we had enforcement data available to demonstrate that States were not only enforcing the provisions of the area source NESHAP that we exempted, but that the States were also providing compliance assistance to assure that the area sources were in the best position to comply with the NESHAP. See 70 FR 75325–75326. In proposing this rule, we do not have similar data available on the specific enforcement as in the Exemption rule, but we have no reason to think that States will be less diligent in enforcing this NESHAP. See 70 FR 75326. In fact, States must have adequate programs to enforce the section 112 regulations and provide assurances that they will enforce all NESHAP before EPA will delegate the program. See 40 CFR part 63, General Provisions, subpart E.

In light of all the information presented here, we believe that there are implementation and enforcement programs in place that are sufficient to assure compliance with the Plating and Polishing NESHAP without relying on title V permitting.

Balancing the four factors for this area source category strongly supports the proposed finding that title V is unnecessarily burdensome. While title V might add additional compliance requirements if imposed, we believe that there would not be significant improvements to the compliance requirements in the NESHAP because the requirements in this proposed rule are specifically designed to assure compliance with the standards and management practices imposed on this area source category. We further maintain that the economic and non-economic costs of compliance with title V, in conjunction with the likely difficulty this number of small sources would have obtaining assistance from the permitting authority, would impose a significant burden on the sources. In addition, the high relative costs would not be justified given that there is likely to be little or no potential gain in compliance if title V were required. And, finally, there are adequate implementation and enforcement programs in place to assure compliance with the NESHAP. Thus, we propose that title V permitting is ''unnecessarily burdensome'' for the Plating and Polishing area source category.

In addition to evaluating whether compliance with title V requirements is ''unnecessarily burdensome,'' EPA also considered, consistent with guidance provided by the legislative history of section 502(a), whether exempting the Plating and Polishing area source category from title V requirements would adversely affect public health, welfare, or the environment. Exemption of the Plating and Polishing area source category from title V requirements would not adversely affect public health, welfare, or the environment because the level of control would remain the same if a permit were required. The title V permit program does not impose new substantive air quality control requirements on sources, but instead requires that certain procedural measures be followed, particularly with respect to determining compliance with applicable requirements. As stated in our consideration of factor one for this category, title V would not lead to significant improvements in the compliance requirements applicable to existing or new area sources.

Furthermore, we explained in the Exemption Rule that requiring permits for the large number of area sources could, at least in the first few years of implementation, potentially adversely affect public health, welfare, or the environment by shifting State agency resources away from assuring compliance for major sources with existing permits to issuing new permits for these area sources, potentially reducing overall air program effectiveness. Based on this analysis, we believe that title V exemptions for plating and polishing area sources would not adversely affect public health, welfare, or the environment for all of the reasons previously explained.

For the reasons stated here, we are proposing to exempt the Plating and Polishing area source category from title V permitting requirements.

V. Impacts of the Proposed Standards

A. What are the air impacts?

Since 1990, the plating and polishing industry has reduced their air impacts by voluntary controls that were likely motivated by concerns for worker safety. These controls would have reduced approximately 20 tons of the metal HAP (cadmium, chromium, lead, manganese, and nickel) attributed to this industry in the 1990 urban HAP inventory. Although there are no additional air emission reductions as a result of this proposed rule, we believe that this proposed rule will assure that the emission reductions made by the industry since 1990 will be maintained.

Along with the HAP described above, there is an undetermined amount of PM that has been co-controlled in thermal spraying and mechanical polishing processes that contributed to criteria pollutant emissions in 1990.

B. What are the cost impacts?

All facilities are expected to be achieving the level of control required by the proposed standard; therefore, no additional air pollution control devices or systems are required. Many of the management and pollution prevention practices are expected to provide a cost savings for facilities, as reported by facilities in the 2006 EPA survey. Therefore, no capital costs are associated with this proposed rule. No operation and maintenance costs are associated with this proposed rule because facilities are already following the manufacturer's instructions for operation and maintenance of pollution control devices and systems.

We estimate the only impact to affected sources is the labor burden associated with the reporting and recordkeeping requirements. The cost associated with recordkeeping and reporting requirements is estimated to be $722 per facility after the first year, or less than 0.04 percent of revenues. Costs for initial notifications in the first year are estimated at $380 per facility, for a total of $1,115 per facility in the first year for all costs. Detailed information on our impact estimates for the affected sources is available in the docket. (See Docket Number EPA–HQ–OAR–2005–0084.)

C. What are the economic impacts?

This proposed standard is estimated to impact a total of 2,900 area source facilities. We estimate that more than 2,600 of these facilities are small entities. Our analysis indicates that this proposed rule would not impose a significant adverse impact on any facilities, large or small. The economic impacts are estimated to be less than 0.04 percent of revenues.

D. What are the non-air health, environmental, and energy impacts?

No detrimental secondary impacts are expected to occur because all facilities are currently achieving the GACT level of control. Therefore, no facilities would be required to install and operate new or additional control devices or systems. In addition, no facilities would be required to install and operate monitoring devices or systems. Therefore, no additional solid waste would be generated as a result of the PM and metal HAP emissions collected. There also are no additional energy impacts associated with operation of control devices or monitoring systems.

Because some of the management practices we are proposing in this proposed rule also have the potential co-benefit of reducing water pollution, there would be a beneficial effect of this proposed rule to reduce water pollution. However, today's proposed regulatory changes will not: (1) Increase the amount of discharged wastewater pollutants at the industry or facility levels; or (2) interfere with the ability of facilities in the plating and polishing area source category to comply with the Clean Water Act requirements (*e.g.*, Metal Finishing Effluent Guidelines, 40 CFR Part 433).

VII. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

This action is not a ''significant regulatory action'' under the terms of Executive Order 12866 (58 FR 51735, October 4, 1993) and is therefore not subject to review under the EO.

B. Paperwork Reduction Act

The information collection requirements in this proposed rule have been submitted for approval to OMB under the *Paperwork Reduction Act,* 44 U.S.C. 3501 *et seq.* The ICR document prepared by EPA has been assigned EPA ICR number 2294.01.

The recordkeeping and reporting requirements in this proposed rule are based on the requirements in EPA's NESHAP General Provisions to part 63. This proposed NESHAP requires plating and polishing area sources to submit an Initial Notification and a Notification of Compliance Status according to the requirements in 40 CFR 63.9 of the General Provisions to part 63.

Records would be required to demonstrate compliance with good operation and maintenance of capture systems and control devices, use of wetting agents and fume suppressants, plating time, use of tank covers, and other management practices. The owner or operator of a plating and polishing facility also is subject to notification and recordkeeping requirements in 40 CFR 63.9 and 63.10 of the General Provisions to part 63. Annual compliance certifications and annual compliance reports are required instead of the semiannual excess emissions reports required by the General Provisions to part 63.

The average annual burden for this information collection, averaged over the first 3 years of this ICR, is estimated to total 33,568 labor hours per year at a cost of $1,057,733, which is less than 0.02 percent of revenues. The average annual reporting burden is 10 hours per response, with approximately one response per facility for the 2,900 facilities. The only costs attributable to the proposed standards are associated with the monitoring, recordkeeping, and reporting requirements. There are no capital, operating, maintenance, or purchase of services costs expected as a result of this proposed rule.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, disclose, or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able

to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in 40 CFR part 63 are listed in 40 CFR part 9.

To comment on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques, EPA has established a public docket for this action, which includes this ICR, under Docket ID number EPA–HQ–OAR–2005–0084. Submit any comments related to the ICR for this proposed rule to EPA and OMB. See **ADDRESSES** section at the beginning of this notice for where to submit comments to EPA. Send comments to OMB at the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, Attention: Desk Officer for EPA. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after March 14, 2008, a comment to OMB is best assured of having its full effect if OMB receives it by April 14, 2008. This final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule would not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit enterprises, and small governmental jurisdictions.

For the purposes of assessing the impacts of this proposed rule on small entities, small entity is defined as: (1) A small business that meets the Small Business Administration size standards for small businesses found at 13 CFR 121.201 (less than 500 employees for NAICS codes 332813); (2) a small governmental jurisdiction that is a government of a city, county, town, school district, or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of this proposed rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. This proposed rule is estimated to impact a total of 2,900 area source plating and polishing facilities; more than 2,600 of these facilities are estimated to be small entities. We have determined that small entity compliance costs, as assessed by the facilities' cost-to-sales ratio, are expected to be approximately 0.14 percent. The analysis also shows that of the more than 2,600 small entities, no small entities would incur economic impacts exceeding 3 percent of its revenue. Although this proposed rule contains requirements for new area sources, we are not aware of any new area sources being constructed now or planned in the next 3 years, and consequently, we did not estimate any impacts for new sources. Although this proposed rule will not have a significant economic impact on a substantial number of small entities, EPA nonetheless has tried to reduce the impact of this rule on small entities. The standards represent practices and controls that are common throughout the sources engaged in plating and polishing. The standards also require minimal amount of recordkeeping and reporting needed to demonstrate and verify compliance. These standards were developed in consultation with small business representatives on the state and national level and the trade associations that represent small businesses.

We continue to be interested in the potential impacts of this proposed action on small entities and welcome comments on issues related to such impacts.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures by State, local, and tribal governments, in the aggregate, or by the private sector, of $100 million or more in any one year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

EPA has determined that this proposed rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any one year. This proposed rule is not expected to impact State, local, or tribal governments. Thus, this proposed rule is not subject to the requirements of sections 202 and 205 of the UMRA. EPA has determined that this proposed rule contains no regulatory requirements that might significantly or uniquely affect small governments. This proposed rule contains no requirements that apply to such governments, and impose no obligations upon them. Therefore, this proposed rule is not subject to section 203 of the UMRA.

E. Executive Order 13132: Federalism

Executive Order 13132 (64 FR 43255, August 10, 1999) requires EPA to develop an accountable process to ensure ''meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.'' ''Policies that have federalism implications'' is defined in the Executive Order to include regulations that have ''substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.''

This proposed rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. This proposed rule does not impose any requirements on State and local governments. Thus, Executive Order 13132 does not apply to this proposed rule. In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicits comment on this proposed rule from State and local officials.

F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

Executive Order 13175 entitled ''*Consultation and Coordination with Indian Tribal Governments*'' (65 FR 67249, November 6, 2000), requires EPA to develop an accountable process to ensure ''meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.'' This proposed rule does not have tribal implications, as specified in Executive Order 13175. This proposed rule imposes no requirements on tribal governments. Thus, Executive Order 13175 does not apply to this proposed rule. EPA specifically solicits additional comment on this proposed rule from tribal officials.

G. Executive Order 13045: Protection of Children from Environmental Health and Safety Risks

Executive Order 13045, ''Protection of Children from Environmental Health Risks and Safety Risks'' (62 FR 19885, April 23, 1997) applies to any rule that: (1) Is determined to be ''economically significant'' as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, EPA must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

EPA interprets EO 13045 (62 FR 19885, April 23, 1997) as applying to those regulatory actions that concern health or safety risks, such that the analysis required under section 5–501 of the Order has the potential to influence the regulation. This action is not subject to EO 13045 because it is based solely on technology performance.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This rule is not subject to Executive Order 13211, ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use'' (66 FR 28355, May 22, 2001) because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (''NTTAA''), Public Law 104–113 (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This proposed rulemaking does not involve technical standards. Therefore, EPA is not considering the use of any voluntary consensus standards. EPA welcomes comments on this aspect of the proposed rulemaking and, specifically, invites the public to identify potentially-applicable voluntary consensus standards and to explain why such standards should be used in this regulation.

J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898 (59 FR 7629, February 16, 1994) establishes Federal executive policy on environmental justice. Its main provision directs Federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States. EPA has determined that this proposed rule would not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it increases the level of environmental protection for all affected populations without having any disproportionately high and adverse human health or environmental effects on any population, including any minority or low-income population. The nationwide standards would reduce HAP emissions and thus decrease the amount of emissions to which all affected populations are exposed.

List of Subjects in 40 CFR Part 63

Environmental protection, Air pollution control, Hazardous substances, Incorporations by reference, Reporting and recordkeeping requirements.

Dated: March 6, 2008.

Stephen L. Johnson,

Administrator.

For the reasons stated in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations is proposed to be amended as follows:

PART 63—[AMENDED]

1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

2. Part 63 is amended by adding subpart WWWWWW to read as follows:

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

Sec.

Applicability and Compliance Dates

Standards and Compliance Requirements

Other Requirements and Information

Tables to Subpart WWWWWW of Part 63

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

Applicability and Compliance Dates

§ 63.11475 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate a plating and polishing facility that is an area source of hazardous air pollutant (HAP) emissions and meets the criteria specified in paragraphs (a)(1) through (3) of this section.

(1) A plating and polishing facility is a plant site that is engaged in one or more of the processes listed in paragraphs (a)(1)(i) through (vi) of this section.

(i) Electroplating other than chromium electroplating (*i.e.*, non-chromium electroplating).

(ii) Electroless plating.

(iii) Other non-electrolytic metal coating processes, such as chromate conversion coating and thermal spraying.

(iv) Dry mechanical polishing of finished metals and formed products after plating.

(v) Electroforming.

(vi) Electropolishing.

(2) An area source of HAP emissions is any stationary source or group of stationary sources within a contiguous area under common control that does not have the potential to emit any single HAP at a rate of 9.07 megagrams per year (Mg/yr) (10 tons per year (tpy)) or more or any combination of HAP at a rate of 22.68 Mg/yr (25 tpy) or more.

(3) Your plating and polishing facility uses or has emissions of compounds of one or more plating and polishing metal HAP, which means any compound of any of the following metals: cadmium, chromium, lead, manganese, and nickel, as defined in § 63.11510, ''What definitions apply to this subpart?''

(b) [Reserved]

§ 63.11480 What parts of my plant does this subpart cover?

(a) This subpart applies to each new or existing affected sources, as specified in paragraphs (a)(1) through (3) of this section, at all times. A new source is defined in § 63.11510, ''Definitions.''

(1) Each tank that contains compounds of one or more of the plating and polishing metal HAP and is used for non-chromium electroplating; electroforming; electropolishing; electroless plating; or other non-electrolytic metal coating operations, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating.

(2) Each thermal spraying operation that applies compounds of one or more of the plating and polishing metal HAP.

(3) Each dry mechanical polishing operation that emits one or more of the plating and polishing metal HAP.

(b) An affected source is existing if you commenced construction, reconstruction, or operation of the affected source before March 14, 2008.

(c) An affected source is new if you commenced construction, reconstruction, or operation of the affected source on or after March 14, 2008.

(d) This subpart does not apply to research and development process units, as defined in § 63.11510, ''Definitions.''

(e) This subpart does not apply to sources that are subject to the requirements of 40 CFR part 63, subpart N (National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks).

(f) You are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, ''Title V,'' provided you are not otherwise required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.

§ 63.11485 What are my compliance dates?

(a) If you own or operate an existing affected source, you must achieve compliance with the applicable provisions of this subpart by not later than 2 years after the date of publication of the final rule in the **Federal Register**.

(b) If you own or operate a new affected source for which the initial startup date is on or before the date of publication of the final rule in the **Federal Register**, you must achieve compliance with the provisions of this subpart not later than the date of publication of the final rule in the **Federal Register**.

(c) If you own or operate a new affected source for which the initial startup date is after the date of publication of the final rule in the **Federal Register**, you must achieve compliance with the provisions of this subpart upon initial startup of your affected source.

Standards and Compliance Requirements

§ 63.11490 What are my standards and management practices?

(a) If you own or operate an affected new or existing non-cyanide electroplating, electroforming, or electropolishing tank (hereafter referred to as an ''electrolytic'' process tank, as defined in § 63.11510, ''Definitions''), that operates at a pH of less than 12, you must comply with either the requirements in paragraph (a)(1) or (a)(2) of this section.

(1) You must use a wetting agent/fume suppressant in the bath of the affected tank according to paragraphs (a)(1)(i) and (ii) of this section.

(i) You must initially add the wetting agent/fume suppressant in the amounts recommended by the manufacturer for the specific type of wetting agent/fume suppressant process.

(ii) You must add wetting agent/fume suppressant in proportion to the other bath chemistry ingredients that are added to replenish the tank bath, as in the original make-up of the tank.

(2) Alternatively, you must capture and exhaust emissions from the affected tank to any one of the following add-on emission control devices: Composite mesh pad, packed bed scrubber, mesh pad mist eliminator, or any other device that is shown to achieve at least equivalent control of metal HAP emissions, according to § 63.6(g), of the General Provisions of this part (40 CFR part 63, subpart A).

(b) If you own or operate an affected new or existing ''flash'' or short-term electroplating tank, as defined in § 63.11510 ''Definitions,'' you must comply with either the requirement in paragraph (b)(1) or (b)(2) of this section.

(1) You must limit short-term or flash electroplating to no more than 1 hour per day or 3 minutes per hour of plating time.

(2) You must use a tank cover, as defined in § 63.11510 ''Definitions,'' for at least 95 percent of the plating time.

(c) If you own or operate affected new or existing dry mechanical polishing equipment, you must operate a capture system that captures particulate matter (PM) emissions from the dry mechanical polishing process and transport the emissions to a cartridge, fabric, or HEPA filter or other device that achieves equivalent control of PM, which is a surrogate for metal HAP emissions, according to paragraphs (c)(1) through (3) of this section.

(1) You must operate all capture and control devices according to the manufacturer's specifications and operating instructions.

(2) You must keep the manufacturer's specifications and operating instructions at the facility at all times in a location where it can be easily accessed by the operators.

(3) If you use a control device other than one of the devices listed in paragraph (c) of this section, you must establish that the alternate control device is at least equivalent, according to § 63.6(g) of the General Provisions of this part.

(d) If you own or operate affected existing thermal spraying operation, you must operate a capture system that collects PM emissions, which is a surrogate for plating and polishing metal HAP emissions, from the thermal spraying process and transport the emissions to a water curtain, fabric filter, high efficiency particulate air (HEPA) filter, or other device that achieves equivalent control of PM emissions, which is a surrogate for plating and polishing metal HAP emissions, according to paragraphs (d)(1) through (3) of this section.

(1) You must operate all capture and control devices according to the manufacturer's specifications and instructions.

(2) You must keep the manufacturer's operating instructions at the facility at all times in a location where it can be easily accessed by the operators.

(3) If you use a control device other than one of the devices listed in paragraph (d) of this section, you must establish that the alternate control device is at least equivalent according to § 63.6(g) of the General Provisions of this part.

(e) If you own or operate an affected new thermal spraying operation, you must operate a capture system that collects PM emissions from the thermal spraying process and transport the emissions to a fabric or HEPA filter, or other device that achieves equivalent control of PM emissions, which is a surrogate for plating and polishing metal HAP emissions, according to paragraphs (e)(1) through (3) of this section.

(1) You must operate all capture and control devices according to the manufacturer's specifications and instructions.

(2) You must keep the manufacturer's operating instructions at the facility at all times in a location where it can be easily accessed by the operators.

(3) If you use a control device other than one of the devices listed in paragraph (e) of this section, you must establish that the alternate control device is at least equivalent according to § 63.6(g) of the General Provisions of this part.

(f) If you own or operate an affected new or existing plating and polishing process tank, you must meet the management practices specified in paragraphs (f)(1) through (5) of this section.

(1) Minimize bath agitation when removing any tank parts.

(2) Maximize dripping of bath solution back into the tank by extending drip time when removing the tank objects and using drain boards (also known as drip shields).

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

(4) Use tank covers, if already owned and available at the facility, whenever practicable (*i.e.*, not during lifting or lowering parts).

(5) Minimize or reduce heating during tank operation and when tanks are not in use.

§ 63.11495 What are my compliance requirements?

(a) If you own or operate an affected source, you must submit a Notification of Compliance Status in accordance with § 63.9(h) of the General Provisions of this part, and § 63.11500(b) of ''Notification, Reporting, and Recordkeeping.''

(b) You must be in compliance with the applicable management practices and equipment standards in this subpart at all times, except during periods of startup, shutdown, and malfunction.

(c) To demonstrate initial compliance, you must satisfy the requirements specified in paragraphs (c)(1) through (7) of this section.

(1) If you own or operate an affected electroplating, electroforming, or electropolishing tank that is subject to the requirements in § 63.11490(a), ''What are my standards and management practices,'' and you use a wetting agent/fume suppressant to comply with this subpart, you must demonstrate initial compliance according to paragraphs (c)(1)(i) through (iv) of this section.

(i) You must add wetting agent/fume suppressant to the bath of each affected tank according to manufacturer's specifications and instructions.

(ii) You must certify that you add wetting agent/fume suppressant to the bath according to manufacturer's specifications and instructions.

(iii) You must implement the management practices specified in § 63.11490(f), ''Standards and Management Practices.''

(iv) You must certify that you have implemented the management practices.

(2) Alternatively, if you own or operate an affected electroplating, electroforming, or electropolishing tank that is subject to the requirements in § 63.11490(a), ''Standards and Management Practices,'' and you use a control system, as defined in § 63.11510, ''What definitions apply to this subpart,'' to comply with the requirements of § 63.11490(a)(1), you must demonstrate initial compliance according to paragraphs (c)(2)(i) through (vi) of this section.

(i) You must install a control system designed to capture emissions from the affected tank and exhaust them to a composite mesh pad, packed bed scrubber, or mesh pad mist eliminator, or other device that achieves equivalent control of metal HAP, according to manufacturer's specifications and instructions.

(ii) You must certify that you have installed the control system according to the manufacturer's specifications and instructions.

(iii) If you choose to use a control device other than one the devices listed in paragraph (c)(2)(i) of this section, you must establish that the alternate control device is at least equivalent than these control devices according to § 63.6(g) of the General Provisions of this part.

(iv) You must implement the management practices specified in § 63.11490(f) ''Standards and Management Practices,'' as practicable.

(v) You must certify that you have implemented the management practices specified in § 63.11490(f) ''Standards and Management Practices,'' as practicable.

(vi) You must maintain the manufacturer's specifications and operating instructions for the control systems at all times.

(3) If you own or operate an affected flash or short-term electroplating tank that is subject to the requirements in § 63.11490(b), ''Standards and Management Practices,'' and you comply with this subpart by limiting the plating time of the affected tank, you must demonstrate initial compliance according to paragraphs (c)(3)(i) through (iii) of this section.

(i) You must certify that you limit short-term or flash electroplating to no more than 1 hour per day, or 3 minutes per hour of plating time.

(ii) You must implement the management practices specified in § 63.11490(f) ''Standards and Management Practices,'' as practicable.

(iii) You must certify that you have implemented the management practices specified in § 63.11490(f) ''Standards

and Management Practices,'' as practicable.

(4) If you own or operate an affected flash or short-term electroplating tank that is subject to the requirements in § 63.11490(b), ''Standards and Management Practices,'' and you comply by operating the affected tank with a cover, you must demonstrate initial compliance according to paragraphs (c)(4)(i) through (iv) of this section.

(i) You must install a tank cover on the affected tank.

(ii) You must certify that you operate the tank with the cover in place at least 95 percent of the plating time.

(iii) You must implement the management practices specified in § 63.11490(f) ''Standards and Management Practices.''

(iv) You must certify that you have implemented the management practices specified in § 63.11490(f), ''Standards and Management Practices.''

(5) If you own or operate an affected dry mechanical polishing operation that is subject to the requirements in § 63.11490(c), ''Standards and Management Practices,'' you must demonstrate initial compliance according to paragraphs (c)(5)(i) and (iv) of this section.

(i) You must install a control system that is designed to capture PM emissions, which is a surrogate for plating and polishing metal HAP emissions, from the polishing operation and exhaust them to a cartridge, fabric, or HEPA filter, or other equivalent control device.

(ii) You must certify that you have installed the control system according to the manufacturer's specifications and instructions.

(iii) If you choose to use a control device other than one the devices listed in paragraph (c)(5)(i) of this section, you must establish that the alternate control device is at least equivalent than these control devices according to § 63.6(g) of the General Provisions of this part.

(iv) You must keep the manufacturer's operating instructions at the facility at all times in a location where it can be easily accessed by the operators.

(6) If you own or operate an existing affected thermal spraying operation that is subject to the requirements in § 63.11490(d), ''Standards and Management Practices,'' you must demonstrate initial compliance according to paragraphs (c)(6)(i) through (iv) of this section.

(i) You must install a control system that is designed to capture PM emissions, which is a surrogate for plating and polishing metal HAP emissions, from the thermal spaying operation and exhaust them to a water curtain, fabric filter, HEPA filter, or equivalent control device.

(ii) You must certify that you have installed and are operating the control system according to the manufacturer's specifications and instructions.

(iii) If you choose to use a control device other than one the devices listed in paragraph (c)(6)(i) of this section, you must establish that the alternate control device is at least equivalent to these control devices according to § 63.6(g) of the General Provisions of this part.

(iv) You must keep the manufacturer's operating instructions at the facility at all times in a location where it can be easily accessed by the operators.

(7) If you own or operate a new affected thermal spraying operation that is subject to the requirements in § 63.11490(e), ''Standards and Management Practices,'' you must demonstrate initial compliance according to paragraphs (c)(7)(i) through (iv) of this section.

(i) You must install and operate a control system that is designed to capture PM emissions, which is a surrogate for plating and polishing metal HAP emissions, from the thermal spaying operation and exhaust them to a fabric or HEPA filter, or equivalent control device.

(ii) You must certify that you have installed and operate the control system according to the manufacturer's specifications and instructions.

(iii) If you choose to use a control device other than one the devices listed in paragraph (c)(7)(i) of this section, you must establish that the alternate control device is at least equivalent to these control devices according to § 63.6(g) of the General Provisions of this part.

(iv) You must keep the manufacturer's operating instructions at the facility at all times in a location where it can be easily accessed by the operators.

(d) To demonstrate continuous compliance with the applicable management practices and equipment standards specified in this subpart, you must satisfy the requirements specified in paragraphs (d)(1) through (7) of this section.

(1) You must always operate and maintain your affected source, including air pollution control equipment, according to the provisions in § 63.6(e)(1)(i) of the General Provisions of this part.

(2) You must submit an annual compliance certification according the requirements specified in § 63.11500(c), ''Notification, Reporting, and Recordkeeping.''

(3) If you own or operate an affected electroplating, electroforming, or electropolishing tank that is subject to the requirements in § 63.11490(a), ''Standards and Management Practices,'' and you use a wetting agent/fume suppressant to comply with this subpart, you must demonstrate continuous compliance according to paragraphs (d)(3)(i) through (iii) of this section.

(i) You must record that you have added the wetting agent/fume suppressant to the tank bath in the original make-up of the tank.

(ii) For tanks where the wetting agent/fume suppressant is a separate purchased ingredient from the other tank additives, you must demonstrate continuous compliance according to paragraphs (d)(3)(ii)(A) and (B) this section.

(A) You must add wetting agent/fume suppressant in proportion to the other bath chemistry ingredients that are added to replenish the tank bath, as in the original make-up of the tank.

(B) You must record each addition of wetting agent/fume suppressant to the tank bath.

(iii) You must state in your annual compliance certification that you have added wetting agent/fume suppressant to the bath according to the manufacturer's specifications and instructions.

(4) If you own or operate an affected electroplating, electroforming, or electropolishing tank that is subject to the requirements in § 63.11490(a), ''Standards and Management Practices,'' and you use a control system to comply with this subpart; an affected dry mechanical polishing operation that is subject to § 63.11490(c); or an affected thermal spraying operation that is subject to § 63.11490(d) or (e), you must demonstrate continuous compliance according to paragraphs (d)(4)(i) through (v) of this section.

(i) You must operate and maintain the control system according to the manufacturer's specifications and instructions.

(ii) Following any malfunction or failure of the capture or control devices to operate properly, you must take immediate corrective action to return the equipment to normal operation according to the manufacturer's specifications and operating instructions.

(iii) You must state in your annual certification that you have operated and maintained the control system according to the manufacturer's specifications and instructions.

(iv) You must record the results of all control system inspections, deviations from proper operation, and any corrective action taken.

(v) You must keep the manufacturer's operating instructions at the facility at all times in a location where it can be easily accessed by the operators.

(5) If you own or operate an affected flash or short-term electroplating tank that is subject to the requirements in § 63.11490(b), ''Standards and Management Practices,'' and you comply with this subpart by limiting the plating time for the affected tank, you must demonstrate continuous compliance according to paragraphs (d)(5)(i) through (iii) of this section.

(i) You must limit short-term or flash electroplating to no more than 1 hour per day or 3 minutes per hour of plating time.

(ii) You must record the times that the affected tank is operated each day.

(iii) You must state in your annual compliance certification that you have limited short-term or flash electroplating to no more than 1 hour per day or 3 minutes per hour of plating time.

(6) If you own or operate an affected flash or short-term electroplating tank that is subject to the requirements in § 63.11490(b), ''Standards and Management Practices,'' and you comply by operating the affected tank with a cover, you must demonstrate continuous compliance according to paragraphs (d)(6)(i) through (iii) of this section.

(i) You must operate the tank with the cover in place at least 95 percent of the plating time.

(ii) You must record the times that the plating tank is operated and the times that the tank is covered on a daily basis.

(iii) You must state in your annual certification that you have operated the tank with the cover in place at least 95 percent of the plating time.

(7) If you own or operated an affected tank that is subject to the management practices specified in § 63.11490(f), ''Standards and Management Practices,'' you must demonstrate continuous compliance according to paragraphs (d)(7)(i) and (ii) of this section.

(i) You must implement the management practices during all times that the affected tank is in operation.

(ii) You must state in your annual compliance certification that you have implemented the management practices.

(8) If you own or operated an affected tank that uses cyanide in the bath and is subject to the requirements in § 63.11490 (a) through (f), ''Standards and Management Practices,'' you must measure the pH of the tank upon start-up and state the result in your annual compliance certification.

§ 63.11500 What are my notification, reporting, and recordkeeping requirements?

(a) If you own or operate an affected source, as defined in § 63.11480(a) ''What parts of my plant are covered?'', you must submit an Initial Notification in accordance with § 63.9(b) of the General Provisions of this part, and paragraphs (a)(1) through (4) of this section by the dates specified.

(1) The Initial Notification must include the information specified in § 63.9(b)(2)(i) through (iv) of the General Provisions of this part.

(2) The Initial Notification must include a description of the compliance method (*e.g.*, use of wetting agent/fume suppressant) for each affected source.

(3) As specified in § 63.9(b)(2) and (3) of the General Provisions of this part, if you start up your affected source before the date of publication of the final rule in the **Federal Register**, you must submit an Initial Notification not later than 120 calendar days after the date of publication of the final rule in the **Federal Register**.

(4) As specified in § 63.9(b)(3) of the General Provisions of this part , if you start up your new affected source on or after the date of publication of the final rule in the **Federal Register**, you must submit an Initial Notification not later than 120 calendar days after you become subject to this subpart.

(b) If you own or operate an affected source, you must submit a Notification of Compliance Status in accordance with § 63.9(h), of the General Provisions of this part, and paragraphs (b)(1) and (2) of this section.

(1) The Notification of Compliance Status must be submitted before the close of business on the compliance date specified in § 63.11485 ''What are my compliance dates?'', according to § 63.10(d)(2), of the General Provisions of this part.

(2) The Notification of Compliance Status must include the items specified in paragraphs (b)(2)(i) through (iv) of this section.

(i) List of affected sources and the HAP used in, or emitted by, those sources.

(ii) Methods used to comply with the applicable management practices and equipment standards.

(iii) Description of the capture and emission control systems used to comply with the applicable equipment standards.

(iv) Statement by the owner or operator of the affected source as to whether the source has complied with the applicable standards or other requirements.

(c) If you own or operate an affected source, you must submit an annual certification of compliance according to paragraphs (c)(1) through (5) of this section.

(1) If you own or operate an affected electroplating, electroforming, or electropolishing tank that is subject to the requirements in § 63.11490(a), ''Standards and Management Practices,'' you must state in your annual compliance certification that you have added wetting agent/fume suppressant to the bath according to the manufacturer's specifications and instructions.

(2) If you own or operate any one of the following three affected sources:

(i) An electroplating, electroforming, or electropolishing tank that is subject to the requirements in § 63.11490(a), ''Standards and Management Practices,'' and you use a control system to comply with this subpart;

(ii) A dry mechanical polishing operation that is subject to § 63.11490(c); or

(iii) A thermal spraying operation that is subject to § 63.11490(d) or (e), then you must state in your annual certification that you have operated and maintained the control system according to the manufacturer's specifications and instructions.

(3) If you own or operate an affected flash or short-term electroplating tank that is subject to the requirements in § 63.11490(b), ''Standards and Management Practices,'' and you comply with this subpart by limiting the plating time for the affected tank, you must state in your annual compliance certification that you have limited short-term or flash electroplating to no more than 1 hour per day or 3 minutes per hour of plating time.

(4) If you own or operate an affected flash or short-term electroplating tank that is subject to the requirements in § 63.11490(b), ''Standards and Management Practices,'' and you comply by operating the affected tank with a cover, you must state in your annual certification that you have operated the tank with the cover in place at least 95 percent of the plating time.

(5) If you own or operate an affected tank that is subject to the management practices specified in § 63.11490(f), ''Standards and Management Practices,'' you must state in your annual compliance certification that you have implemented the management practices.

(6) If you own or operated an affected tank that uses cyanide in the bath and is subject to the requirements in § 63.11490 (a) through (f), ''Standards and Management Practices,'' you must

state the pH of the tank in your annual compliance certification.

(d) If you own or operate an affected source, and any deviations from the compliance requirements specified in this subpart occurred during the year, you must report the deviations, along with the corrective action taken, in your annual compliance certification.

(e) You must keep the records specified in paragraphs (e)(1) through (4) of this section.

(1) A copy of any Initial Notification and Notification of Compliance Status that you submitted and all documentation supporting those notifications, according to the requirements in § 63.10(b)(2)(xiv) of the General Provisions of this part.

(2) The records in § 63.6(e)(3)(iii) through (v) of the General Provisions of this part, related to startup, shutdown, and malfunction.

(3) The records specified in § 63.10(b)(2) and (c)(1) through (13), of the General Provisions of this part.

(4) The records required to show continuous compliance with each management practice and equipment standard that applies to you, as specified in § 63.11495(d), ''What are my compliance requirements?''

(f) As specified in § 63.10(b)(1), of the General Provisions of this part, you must keep each record for a minimum of 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. You must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You may keep the records offsite for the remaining 3 years.

Other Requirements and Information

§ 63.11505 What General Provisions apply to this subpart?

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

§ 63.11510 What definitions apply to this subpart?

Terms used in this subpart are defined in this section.

Add-on control device means equipment installed on a capture or exhaust system that reduces the quantity of a pollutant that is emitted to the air.

Bath means the liquid contents of a tank that is used for electroplating, electroforming, electropolishing, or other metal coating processes at a plating and polishing facility.

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

Cartridge filter means a type of add-on control device that uses perforated metal cartridges containing a pleated paper or non-woven fibrous filter media to remove PM, which is a surrogate for plating and polishing metal HAP emissions, 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 add-on control device similar to a mesh pad mist eliminator except that the device is designed with multiple pads in series that are woven with layers of material with varying fiber diameters, which produce a coalescing effect on the droplets or PM, which is a surrogate for plating and polishing metal HAP, that impinge upon the pads.

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

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

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

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

(1) Fails to meet any requirement or obligation established by this rule including, but not limited to, any equipment standard (including emissions and operating limits), management practice, or operation and maintenance requirement;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this rule and that is included in the operating permit for any affected facility required to obtain such a permit; or

(3) Fails to meet any equipment standard (including emission and operating limits), management standard, or operation and maintenance requirement in this rule during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this part.

Dry mechanical polishing means a process used for removing defects from and smoothing a metal surface using hard-faced wheels or belts to which abrasives have been applied, and where no liquids or fluids are used to trap the removed metal particles.

Electroforming means an electrolytic process used for fabricating metal parts that is essentially the same as electroplating except that the plated substrate (mandrel) is removed, leaving only the metal plate. In electroforming, the metal plate is self-supporting and generally thicker than in electroplating.

Electroless plating means a non-electrolytic process in which metallic ions in a plating bath or solution are reduced to form a metal coating at the surface of a catalytic substrate without the use of external electrical energy.

Electroless plating is also called non-electrolytic plating.

Electrolytic plating and polishing processes means electroplating, electroforming, and electropolishing, as described in this section, which are the processes in the plating and polishing area source category in which metallic ions in a plating bath or solution are reduced to form a metal coating on the surface of parts and products using electrical energy.

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

Electropolishing means an electrolytic process, 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 add-on air control device used for collecting PM, which is a surrogate for plating and polishing metal HAP, by filtering a process exhaust stream through a filter or filter media. A fabric filter is also known as a baghouse.

Flash electroplating means an electrolytic process that is used no more than 3 continuous minutes per hour in duration.

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

HAP means hazardous air pollutant as defined from the list of 188 chemicals and compounds specified in the Clean air Act Amendments of 1990; HAP are also called ''air toxics.''

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

Mesh pad mist eliminator means a type of add-on control device, consisting of layers of interlocked filaments densely packed between two supporting grids that remove liquid droplets and PM, which is a surrogate for plating and polishing metal HAP, from the gas stream through inertial impaction and direct interception.

Metal coating operation means any process performed in a tank containing liquids that applies one or more plating and polishing HAP metals to parts and products used in manufacturing; these processes include but are not limited to: Non-chromium electroplating; electroforming; electropolishing; and other non-electrolytic metal coating processes, such as chromate conversion coating, phosphate coating; and thermal spraying.

New source means any affected source where you commenced construction or reconstruction on or after the publication of this rule.

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

Non-electrolytic plating means a process in which metallic ions in a plating bath or solution are reduced to form a metal coating at the surface of a catalytic substrate without the use of external electrical energy. Non-electrolytic plating is also called electroless plating.

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

Plating and polishing facility means a facility engaged in one or more of the following processes: Electroplating processes other than chromium electroplating (*i.e.*, non-chromium electroplating); electroless plating; other non-electrolytic metal coating processes, such as chromate conversion coating and thermal spraying; and the polishing of finished metals and formed products after plating.

Plating and polishing metal HAP means any compound of any of the following metals: cadmium, chromium, lead, manganese, and nickel. Plating and Polishing was listed as an area source category based on emissions of these HAP metals, which are included in the list of urban HAP in EPA's Integrated Urban Air Toxics Strategy.

Plating and polishing process tanks means any tank in which a process is performed at affected plating and polishing facility that uses or has the potential to emit plating and polishing metal HAP. The processes performed in plating and polishing tanks include the following: Electroplating processes other than chromium electroplating (*i.e.*, non-chromium electroplating) performed in a tank; electroless plating; and non-electrolytic metal coating processes, such as chromate conversion coating; and electropolishing. This term does not include thermal spraying or dry polishing with machines.

PM means solid or particulate matter that is emitted into the air. For the purposes of this rule, PM emissions are a surrogate pollutant for control of plating and polishing metal HAP emissions.

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

Short-term or ''flash'' electroplating means an electroplating process that is used no more than 3 minutes per hour in duration.

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

Thermal spraying (also referred to as metal spraying or flame spraying) is a process 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 (HVOF) spraying, flame spraying, electric arc spraying, and plasma arc spraying.

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

Wetting agent/fume suppressant means any chemical agent that reduces or suppresses fumes or mists from a non-cyanide plating and polishing tank by reducing the surface tension of the tank bath. This term is abbreviated WAFS in this section.

§ 63.11512 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by EPA or a delegated authority such as your State, local, or

tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency, in addition to EPA, has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that cannot be delegated to State, local, or tribal agencies are specified in paragraphs (c)(1) through (4) of this section.

(1) Approval of an alternative non-opacity emissions standard under 40 CFR 63.6(g), of the General Provisions of this part.

(2) Approval of an alternative opacity emissions standard under § 63.6(h)(9), of the General Provisions of this part.

(3) Approval of a major change to test methods under § 63.7(e)(2)(ii) and (f), of the General Provisions of this part. A ''major change to test method'' is defined in § 63.90.

(4) Approval of a major change to monitoring under § 63.8(f), of the General Provisions of this part. A ''major change to monitoring'' under is defined in § 63.90.

(5) Approval of a major change to recordkeeping and reporting under § 63.10(f), of the General Provisions of this part. A ''major change to recordkeeping/reporting'' is defined in § 63.90.

§ 63.11513 [Reserved]

Tables to Subpart WWWWWW of Part 63

TABLE 1 TO SUBPART WWWWWW OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO PLATING AND POLISHING AREA SOURCES

[As required in § 63.11505, General Provisions Requirements, you must meet each requirement in the following table that applies to you]

Citation	Subject
63.1[1]	Applicability.
63.2	Definitions.
63.3	Units and abbreviations.
63.4	Prohibited activities.
63.5	Construction/reconstruction.
63.6(a), (b)(1)–(b)(5), (c)(1), (c)(2), (c)(5), (g), (i), (j).	Compliance with standards and maintenance requirements.
63.9(a)–(d)	Notification requirements.
63.10(a), (b) except for (b)(2), (d)(1), (d)(4)	Recordkeeping and reporting.
63.12	State authority and delegations.
63.13	Addresses of State air pollution control agencies and EPA regional offices.
63.14	Incorporation by reference.
63.15	Availability of information and confidentiality.
63.16	Performance track provisions.

[1] Section 63.11480(f), ''What parts of my plant are covered,'' exempts affected sources from the obligation to obtain title V operating permits.

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