INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

TO: Interested Parties / Applicant

DATE: August 26, 2008

RE: Delta Faucet Company / 031-20848-00007

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for considerations at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER.dot12/03/07

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Minor Source Operating Permit Renewal
OFFICE OF AIR QUALITY

Delta Faucet Company
1425 West Main Street
Greensburg, Indiana 47240

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a MSOP under 326 IAC 2-6.1.

Operation Permit No.: M031-20848-00007	
Issued by: Original signed by Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date:August 26, 2008 Expiration Date:August 26, 2018

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary chrome faucet electroplating source.

Source Address:	1425 West Main Street, Greensburg, Indiana 47240
Mailing Address:	1425 West Main Street, Greensburg, Indiana 47240
General Source Phone Number:	812-663-4433
SIC Code:	3432
County Location:	Decatur
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary

This stationary source consists of the following emission units and pollution control devices:

(a) One (1) decorative chromium electroplating tank, identified as T27, constructed prior to December 16, 1993, using a hexavalent chromium bath, using a chemical fume suppressant containing a wetting agent for control and exhausting at stack 1038Cr. This tank is also equipped with a three stage mesh-pad scrubber that is not used for compliance to NESHAP. Under 40 CFR 63, Subpart N, this is considered an existing decorative chromium electroplating tank [40CFR 63, Subpart N];

(b) One (1) Multi-Finish electroplating line, identified as 3700, with a capacity of 1,800 pounds of metal and plastic parts per hour, consisting of the following:

(1) Five (5) nickel plating tanks, identified as stations 32 through 35, 39 through 42, 46, and 49 through 52, and 53 through 56, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack;

(2) One (1) copper sulfate plating tank, identified as stations 27 and 28, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack;

(3) One (1) decorative chromium plating tank identified as tank 3700-S6768, with two (2) stations, identified as stations 67 and 68, using a fume suppressant containing a wetting agent as control, and exhausting through the chromium scrubber, which is a three stage mesh-pad scrubber and is not used for compliance to NESHAP, and exhausting through the Multi-Finish Line Chromium Scrubber Stack. Under 40 CFR 63, Subpart N, this is considered an existing decorative chromium electroplating tank [40CFR 63, Subpart N];

(4) One (1) chrome pre-dip tank, identified as station 64, equipped with the chromium scrubber, and exhausting through the Multi-Finish Line Chromium Scrubber Stack;

(5) One (1) rack strip tank, identified as stations 207 through 210, equipped with the

rack strip scrubber, and exhausting through the Multi-Finish Line Rack Strip Scrubber Stack;

(6) One (1) rack strip tank, identified as stations 193 through 194, utilizing approximately 13 % ammonium bifluoride, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack;

(7) Two (2) chrome strip tanks, identified as stations 15, 197 and 198, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack;

(8) Rinse tanks, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack;

(9) Six (6) cleaner tanks, identified as stations 3 through 5, 7 through 8, 11 through 12, 18, 22, and 62 equipped with the nickel/cleaner scrubber as in 6 through 8, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack;

(c) Natural Gas Combustion Boilers:

(1) One (1) natural gas-fired boiler, identified as 586, constructed in 1975, exhausting at stack 586, capacity: 25.20 million British thermal units per hour;

(2) One (1) natural gas-fired boiler, identified as 1513, constructed in 1990, exhausting at stack 1513, capacity: 32.94 million British thermal units per hour;

(3) One (1) natural gas-fired boiler, identified as 1854, constructed in 1993, exhausting at stack 1854, capacity: 2.10 million British thermal units per hour;

(4) One (1) natural gas-fired boiler, identified as 2256, constructed in 1994, exhausting at stack 2256, capacity: 14.70 million British thermal units per hour;

(5) One (1) natural gas-fired boiler, identified as maintenance boiler 3667, constructed in 2002, exhausting at stack maintenance, capacity: 1.5 million British thermal units per hour;

(d) Three (3) Powder Spray Booths:

(1) One (1) powder spray booth, identified as 1599, constructed in April 1991, equipped with an integral cartridge filtration system, exhausting inside, capacity; 2.6 tons of parts coated per hour, and using 13.9 pounds of powder per hour;

(2) One (1) powder spray booth, identified as 4160, constructed in 2005, equipped with an integral cartridge filtration system, exhausting inside, capacity; 2.6 tons of parts coated per hour, and using 13.9 pounds of powder per hour;

(3) One (1) powder spray booth, identified as 4446, equipped with an integral cartridge filtration system, exhausting inside, capacity; 2.6 tons of parts coated per hour, and using 13.9 pounds of powder per hour;

(e) Eleven (11) parts washers, using approximately combined 1700 total gallons of solvent per year, to remove oil and grease from metal parts, using solvent that contains 100% VOC;

(f) Buffing Stations:

(1) Buffing operations, equipped with four (4) air washers, identified as 2125, 2490, 3011, and 3915, and exhausting at stacks 2126, 2491, 3011, and 3915, respectively;

(2) Three (3) two-wheel buffing stations; identified as 1849, 3979, and 3981; constructed in 1993; 2004; and 2004; respectively; each equipped with a fabric filter collector for particulate control; all exhausting internally;

(3) Six (6) additional two-wheel buffing stations; identified as 4011, 4015, 4017, 4019, 4021, 4023; each constructed in 2004; each equipped with a fabric filter collector for particulate control; all exhausting internally;

(4) Five (5) buffing stations in the automatics area; identified as 537, 3759, 3951, 3954, and 3957; constructed in 1974, 2003; 2004; 2004; and 2004; respectively; each equipped with a baghouse for particulate control, all exhausting internally;

(5) Four (4) robot buffing stations; identified as 3213, 3215, 3899, and 3997; constructed in 2000; 2001; 2004; and 2004; respectively; each equipped with a cartridge dust collector for particulate control, all exhausting internally; and each station also connected to an air washer exhausting externally;

(6) Three (3) additional robot buffing stations, identified as 4081, 4082, and 4083; constructed in May 2005, all connected to an air washer exhausting externally;

(g) Brazing operations, identified as 10200, exhausting at stacks 1183, 1873, 1874, 1212 and 1105, capacity: 10.3 pounds per hour of solder, 1,800 pounds per hour of brass or copper parts, and natural gas-fired with a capacity of 5.72 million British thermal units per hour;

(h) Natural Gas Combustion Ovens:

(1) One (1) natural gas-fired fluidized bed burn-off oven, rated at 0.99 million British thermal units per hour (MMBtu/hr), with a maximum capacity of 301 pounds per hour of parts using 1.56 pounds per hour of sand, using a cyclone for particulate control, and exhausting at one (1) stack identified as 2918;

(2) One (1) natural gas-fired curing oven, identified as curing oven 3641, rated at 0.8 MMBtu/hr, curing epoxy coating onto parts at a maximum rate of 2.6 tons per hour, with emissions exhausted through Stack 3641;

(3) One (1) natural gas-fired curing oven, identified as 569, and exhausting at stacks 569 North and 569 South, capacity: 3.6 million British thermal units per hour;

(4) One (1) natural gas-fired curing oven, identified as 4160, constructed in 2005, and exhausting at stack 4160, capacity: 0.8 million British thermal units per hour;

(5) One (1) natural gas-fired dry-off oven, with a heat input capacity of 0.5MMBtu/hr, capable of drying a maximum of 300 pounds of plastic parts per hour, or 1300 pounds of steel rack per hour, and exhausting at one (1) stack identified as 3559;

(6) One (1) natural gas-fired dry-off oven, identified as 4160, constructed in 2005, capacity: 0.5 million British thermal units, and exhausting at stack 4160;

(i) One (1) nickel electroplating bath, identified as T22, equipped with a combination packed bed/chevron blade wet scrubber to minimize nickel emissions from T22, and exhausting at stack 1038Ni;

(j) Plating Tanks:

(2) One (1) copper plating tank, consisting of two tanks plumbed together, identified as T23-26, equipped with a combination packed bed/chevron blade/mesh pad wet scrubber to minimize copper emissions from T23-T26, and exhausting at stack 574;

(3) One (1) formaldehyde electroless copper plating tank, identified as Tank T7/T8, equipped with a packed bed wet scrubber and exhausting at stack 489. This production line also utilizes two (2) aqueous cleaner tanks identified as T1/T2 that exhaust externally and one (1) immersion tin tank identified as T12 that utilizes the 1009 scrubber;

(4) One (1) set of twelve (12) Brite Dip tanks, identified as Brite Dip tanks, equipped with a combination packed bed/chevron blade/mesh pad wet scrubber to minimize any sulfuric/ hydrogen peroxide emissions from this line, and exhausting at stack 1715;

(k) Strip Lines:

(1) One (1) strip line, identified as 255P using sulfuric acid, ammonium bifluoride, equipped with one (1) packed bed wet scrubber, identified as machine number 2986, and exhausting at stack 255P. A used acid tank and an acid/cleaner tank exhaust to another packed bed wet scrubber, identified as machine number 3312, and exhausting at stack the 255R;

(2) One (1) rack strip line, identified as 1038, consisting of (2) rack strip tanks, four (4) rinse tanks and one (1) hot rinse tank, equipped with a combination packed bed/chevron blade/mesh pad wet scrubber to minimize any stripping related emissions, and exhausting to stack 3230, maximum capacity: 2.05 pounds of alkaline cleaner per hour, 0.09 pound of aqua ammonia per hour, 0.06 pound of Acetic Acid per hour, and 0.49 pound of Nitric Acid per hour;

(3) One (1) rack strip line, identified as 4560, constructed in 2007, including two (2) rinse tanks and one (1) strip tank containing 6.3% ammonium nitrate, 2.5% ammonium hydroxide, 2.5% ammonium bromide, and 2.5% acetic acid, exhausting externally;

(l) One (1) maintenance room which includes:

(1) One (1) maintenance welding booth, identified as Booth 11-1, exhausting to stack 11-1, capacity: 0.2 pound of acetylene/oxygen/argon welding wire per hour;

(2) Multiple hand buffing units;

(3) Multiple hand grinding units;

(4) Multiple hand drilling units;

(m) One (1) tool room which includes:

(1) One (1) glass tool room blast cabinets: (1) identified as tool room glass bead blast cabinet utilizing a collector for particulate control, constructed in 1979;

(2) One (1) dust collector servicing miscellaneous grinding stations, exhausting indoors, and using a combination cyclone and baghouse collection system for particulate control;

(n) Glass bead blast Cabinets:

(1) Two (2) glass bead blast cabinets: (1) identified as secondary Unit 747 glass bead blast cabinet utilizing a combination cyclone/fabric filter collector for particulate control, constructed in 1981, and (2) PVD Unit 1065 glass bead blast cabinet utilizing a collector for particulate control, constructed in 1990;

(2) Two (2) additional glass bead blast cabinets: (1) identified as 3700 unit 4118 glass bead blast cabinet utilizing a collector, and (2) Automatics unit 2828 glass bead blast cabinet utilizing a collector for particulate control;

(o) Two (2) lab hoods;

(p) One (1) inductively coupled plasma (ICP) unit;

(q) One (1) passivation process, identified as line 9069, constructed in June 1998, consisting of:

(1) One (1) chromate/nitric acid/water solution tank, identified as Tank #1;

(2) One (1) rinse water tank, identified as Tank #2;

(3) One (1) hot dionized water tank, identified as Tank #3;

(r) One (1) passivation process, identified as line 1009, constructed in October 1985, consisting of:

(1) One (1) cleaner tank, using no HAPs or VOCs, and exhausting externally through the 1009 scrubber;

(2) One (1) chromate tank, controlled by the 1009 scrubber, and exhausting externally;

(3) Multiple rinse tanks, exhausting internally;

(s) Various machining equipment where aqueous cutting coolant continuously floods the machining surface in the automatics area. There are no criteria pollutants being emitted; 326 IAC2-1.1-3 (e)(10)(B);

(t) Ten (10) open tumblers, identified as 283, 961,963,, 2700, 3162, 4040, 4119, 4120, 4121, and 4122, constructed in 1971, 1985, 1985, 1996, 2000, 2004, 2005, 2005, 2005 and 2005, using plastic media to smooth edges of parts;

(u) One (1) dip area, identified as 4406, consisting of a sulfuric acid/water tank equipped with a mist eliminator exhausting externally, one (1) water rinse tank, and one (1) water spray tank, to remove a white ash material contained on racks. There are no criteria pollutants emitted because of dip operation;

(v) Eight (8) plasma welding stations, constructed in 1985, utilized to fuse weld stainless steel ball components together without using filler material, no emissions are generated;

(w) Four (4) R & D hand dipping/manual plating lines;

(x) Four (4) salt spray booths, identified as 2043, 1687, 3660, and 3850, constructed in 1985, 1992, 2002, and 2003 respectively, spraying an aqueous salt solution and no criteria pollutants are generated from this process;

(y) One (1) wastewater treatment area, constructed in 1974, the pH is adjusted utilizing sulfuric acid, consisting of:

(1) Three enclosed pickling liquor reactor tanks which utilizes a scrubber identified as the reactor scrubber;

(2) One bulk waste cleaner tank;

(z) Four (4) physical vacuum deposition (PVD) chambers; identified as 3740, 3787, 3940, and 4063; constructed in 2003, 2003, 2004, and 2004, respectively. PVD process deposits Zirconium material onto various parts. No HAPs are generated;

(aa) Brass Drilling Operation:

(1) One (1) brass drilling operation, identified as 3159, and utilizing a cartridge collector system for particulate control, exhausting inside;

(2) One (1) brass drilling operation, identified as 1378, and utilizing a combination cyclone/bag filter; for particulate control, exhausting inside.

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-1.1-1) shall prevail.

B.2 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, M031-20848-00007, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall

state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

(c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

B.10 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to M031-20848-00007 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(3) deleted.

(b) All previous registrations and permits are superseded by this permit.

B.12 Termination of Right to Operate [326 IAC 2-6.1-7(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least ninety (90) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

B.13 Permit Renewal [326 IAC 2-6.1-7]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) A timely renewal application is one that is:

(1) Submitted at least ninety (90) days prior to the date of the expiration of this permit; and

(2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-6.1 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.14 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.15 Source Modification Requirement

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

B.16 Inspection and Entry
[326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.17 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

(a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

B.18 Annual Fee Payment [326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.

(b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.19 Credible Evidence [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

C.6 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Licensed Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-6.1-5(a)(2)]

C.8 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

C.10 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.12 Instrument Specifications [326 IAC 2-1.1-11]

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps

C.13 Response to Excursions or Exceedances

(a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall maintain the following records:

(1) monitoring data;

(2) monitor performance data, if applicable; and

(3) corrective actions taken.

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

C.15 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.16 General Record Keeping Requirements [326 IAC 2-6.1-5]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or

electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.17 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) One (1) decorative chromium electroplating tank, identified as T27, constructed prior to December 16, 1993, using a hexavalent chromium bath, using a chemical fume suppressant containing a wetting agent for control and exhausting at stack 1038Cr. This tank is also equipped with a three stage mesh-pad scrubber that is not used for compliance to NESHAP. Under 40 CFR 63, Subpart N, this is considered an existing decorative chromium electroplating tank [40CFR 63, Subpart N];

(b) One (1) Multi-Finish electroplating line, identified as 3700, with a capacity of 1,800 pounds of metal and plastic parts per hour, consisting of the following:

(1) Five (5) nickel plating tanks, identified as stations 32 through 35, 39 through 42, 46, and 49 through 52, and 53 through 56, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack;

(2) One (1) copper sulfate plating tank, identified as stations 27 and 28, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack;

(3) One (1) decorative chromium plating tank identified as tank 3700-S6768, with two (2) stations, identified as stations 67 and 68, using a fume suppressant containing a wetting agent as control, and exhausting through the chromium scrubber, which is a three stage mesh-pad scrubber and is not used for compliance, and exhausting through the Multi-Finish Line Chromium Scrubber Stack. Under 40 CFR 63, Subpart N, this is considered an existing decorative chromium electroplating tank [40CFR 63, Subpart N];

(4) One (1) chrome pre-dip tank, identified as station 64, equipped with the chromium scrubber, and exhausting through the Multi-Finish Line Chromium Scrubber Stack;

(5) One (1) rack strip tank, identified as stations 207 through 210, equipped with the rack strip scrubber, and exhausting through the Multi-Finish Line Rack Strip Scrubber Stack;

(6) One (1) rack strip tank, identified as stations 193 through 194, utilizing approximately 13 % ammonium bifluoride, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack;

(7) Two (2) chrome strip tanks, identified as stations 15, 197 and 198, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack;

(8) Rinse tanks, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack; and

(9) Six (6) cleaner tanks, identified as stations 3 through 5, 7 through 8, 11 through 12, 18, 22, and 62 equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements

D.1.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63 the permittee shall comply with the provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1-1 for the decorative chromium electroplating tanks, identified as Tank 27 and Tank 3700-S6768, as specified in Appendix A of 40 CFR Part 63, Subpart N apply to the facilities described in this section except when otherwise specified in 40 CFR 63 Subpart N.

(b) Pursuant to 40 CFR 63.10, the permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

D.1.2 Chromium Electroplating NESHAP [326 IAC 20-8-1] [40 CFR 63.342(c)&(f)] [40 CFR 63.343(a)(1)&(2)]

Pursuant to 40 CFR Part 63, Tank T27, and Tank 3700-S6768, are subject to 40 CFR Part 63, Subpart N, which is incorporated by reference as 326 IAC 20-8-1. The permittee which engages in decorative chromium electroplating operation shall comply with the provisions of 40 CFR Part 63, Subpart N (included as Attachment A of this permit).

The existing electroplating tanks are subject to the following portions of 40 CFR 63, Subpart N. Non applicable portions of the NESHAP will not be included in the permit.

Applicable portions of the NESHAP are the following:

(a) 40 CFR 63.340
(b) 40 CFR 63.341
(c) 40 CFR 63.342(a), (b), (c), (d), (d), (f)
(d) 40 CFR 63.343(a)(1)(3)(4)(5)(6), (b), (c)
(e) 40 CFR 63.344
(f) 40 CFR 63.345
(g) 40 CFR 63.346
(h) 40 CFR 63.347
(i) 40 CFR 63.348

The requirements of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facilities described in this section except when otherwise specified in 40 CFR 63, Subpart N.

Compliance Determination Requirements [326 IAC 2-6.1-5]

D.1.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for tank T27 and tank 3700-S6768.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(c) Natural Gas Combustion Boilers:

(1) One (1) natural gas-fired boiler, identified as 586, constructed in 1975, exhausting at stack 586, capacity: 25.20 million British thermal units per hour;

(2) One (1) natural gas-fired boiler, identified as 1513, constructed in 1990, exhausting at stack 1513, capacity: 32.94 million British thermal units per hour;

(3) One (1) natural gas-fired boiler, identified as 1854, constructed in 1993, exhausting at stack 1854, capacity: 2.10 million British thermal units per hour;

(4) One (1) natural gas-fired boiler, identified as 2256, constructed in 1994, exhausting at stack 2256, capacity: 14.70 million British thermal units per hour;

(5) One (1) natural gas-fired boiler, identified as maintenance boiler 3667, construct in 2002, exhausting at stack maintenance, capacity: 1.5 million British thermal units per hour;

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

D.2.1 Particulate Emission Limitations [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3(e) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1(c)), particulate emissions from all facilities used for indirect heating purposes which have 250 million British thermal units or less heat input or less and began operation after June 8, 1972, shall in no case exceed 0.6 pound of particulate matter per million British thermal units heat input. Therefore, the one (1) boiler, identified as 586, shall not exceed more than 0.6 pound per million British thermal units.

D.2.2 Particulate Emission Limitations [326 IAC 6-2-4]

(a) Pursuant to 326 IAC 6-2-4(a), the PM emissions from the natural gas-fired boiler, identified as 1513, shall not exceed 0.38 pound per million British thermal units.

(b) Pursuant to 326 IAC 6-2-4(a), the PM emissions from the natural gas-fired boiler, identified as 1854, shall not exceed 0.37 pound per million British thermal units.

(c) Pursuant to 326 IAC 6-2-4(a), the PM emissions from the natural gas-fired boiler, identified as 2256, shall not exceed 0.35 pound per million British thermal units.

(d) Pursuant to 326 IAC 6-2-4(a), the PM emissions from the natural gas-fired boiler, identified as 3667, shall not exceed 0.35 pound per million British thermal units.

These limitations were computed using the following equation:

$$Pt = 1.09/Q^{0.26}$$

where:

Pt = Pounds of particulate emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the

maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(d) Three (3) Powder spray Booths:

(1) One (1) powder spray booth, identified as 1599, constructed in April 1991, equipped with an integral cartridge filtration system, exhausting inside, capacity; 2.6 tons of parts coated per hour, and using 13.9 pounds of powder per hour;

(2) One (1) powder spray booth, identified as 4160, constructed in 2005, equipped with an integral cartridge filtration system, exhausting inside, capacity; 2.6 tons of parts coated per hour, and using 13.9 pounds of powder per hour;

(3) One (1) powder spray booth, identified as 4446, equipped with an integral cartridge filtration system, exhausting inside, capacity; 2.6 tons of parts coated per hour, and using 13.9 pounds of powder per hour;

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

D.3.1 Particulate Emission Limitations [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2(e) the particulate emissions from the powder spray booth, identified as 1599, shall be limited to 7.78 pounds per hour when operating at a process weight rate of 2.6 tons per hour.

(b) Pursuant to 326 IAC 6-3-2(e) the particulate emissions from powder spray booth, identified as 4160, shall be limited to 7.78 pounds per hour when operating at a process weight rate of 2.6 tons per hour.

(c) Pursuant to 326 IAC 6-3-2(e) the particulate emissions from the powder spray booth, identified as 4446 shall be limited to 7.78 pounds per hour when operating at a process weight rate of 2.6 tons per hour.

The limitations for powder spray booths, identified as 1599, 4160, and 4446 were calculated using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

D.3.2 Preventive Maintenance Plan [326 IAC 2-6-1.5]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for powder booths, 1599, 4160, and 4446, powder reclaim system for each booth, and its each cartridge filtration system which is considered integral to the system.

Compliance Determination Requirements

D.3.3 Particulate Control

The cartridge filtration system integral to each of the spray booths, shall be in operation at all times when their respective powder spray booths, identified as 1559, 4160 and 4446, are in operation.

D.3.4 Manufacturer's Specifications [326 IAC 2-6-1.5]

The three powder booths, identified as 1599, 4160, and 4446 and their cartridge filtration integral to the system shall each operate per manufacturer's specifications.

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(e) Eleven (11) parts washers, using approximately combined 1700 gallons of solvent per year, to remove oil and grease from metal parts, using solvent that contains 100% VOC;

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

D.4.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2, for each of the parts washers, the owner or operator shall:

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with a facility for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements;

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.4.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

(a) Pursuant 326 IAC 8-3-5(a), the owner or operator shall ensure that the following control equipment requirements are met for each of the eleven (11) parts washers:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));

(B) The solvent is agitated; or

(C) The solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in 326 IAC 8-3-5(b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent is used is insoluble in, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) Pursuant 326 IAC 8-3-5(b), the owner or operator shall ensure that the following operating requirements are met for each of the eleven (11) parts washers:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or unit dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(f) Buffing Stations:

(1) Buffing operations, equipped with four (4) air washers; identified as 2125, 2490, 3011, and 3915; exhausting at stacks 2126, 2491, 3011, and 3915, respectively;

(2) Three (3) two-wheel buffing stations; identified as 1849, 3979, and 3981; constructed in 1993; 2004; and 2004; respectively; each equipped with a fabric filter collector for particulate control, all exhausting internally;

(3) Six (6) additional two-wheel buffing stations; identified as 4011, 4015, 4017, 4019, 4021, 4023; each constructed in 2004; each equipped with a fabric filter collector for particulate control, all exhausting internally;

(4) Five (5) buffing stations in the automatics area; identified as 537, 3759, 3951, 3954, and 3957; constructed in 1974; 2003; 2004; 2004; and 2004, respectively; each equipped with a baghouse for particulate control; all exhausting internally;

(5) Four (4) robot buffing stations;, identified as 3213, 3215, 3899, and 3997; constructed in 2000; 2001; 2004; and 2004; respectively; each equipped with a cartridge dust collector for particulate control, all exhausting internally; and each station also connected to an air washer exhausting externally;

(6) Three (3) additional robot buffing stations, identified as 4081, 4082, and 4083; constructed in 2007, all connected to an air washer exhausting externally;

(g) Brazing operations, identified as 10200, exhausting at stacks 1183, 1873, 1874, 1212 and 1105, capacity: 10.3 pounds per hour of solder, 1,800 pounds per hour of brass or copper parts, and natural gas-fired heating capacity of 5.72 million British thermal units per hour;

(h) Natural Gas Combustion Ovens:

(1) One (1) natural gas-fired fluidized bed burn-off oven, rated at 0.99 million British thermal units per hour (MMBtu/hr), with a maximum capacity of 301 pounds per hour of parts using 1.56 pounds per hour of sand, using a cyclone for particulate control, and exhausting at one (1) stack identified as 2918;

(2) One (1) natural gas-fired curing oven, identified as curing oven 3641, rated at 0.8 MMBtu/hr, curing epoxy coating onto parts at a maximum rate of 2.6 tons per hour, with emissions exhausted through Stack 3641;

(3) One (1) natural gas-fired curing oven, identified as 569, and exhausting at stacks 569 North and 569 South, capacity: 3.6 million British thermal units per hour;

(4) One (1) natural gas-fired curing oven, identified as 4160, constructed in 2005, and exhausting at stack 4160, capacity: 0.8 million British thermal units per hour;

(5) One (1) natural gas-fired dry-off oven, with a heat input capacity of 0.5MMBtu/hr, capable of drying a maximum of 300 pounds of plastic parts per hour, or 1300 pounds of steel rack per hour, and exhausting at one (1) stack identified as 3559;

(6) One (1) natural gas-fired dry-off oven, identified as 4160, constructed in 2005, and exhausting at stack 4160, capacity: 0.5 million British thermal units and exhausting at stack 4160;

(i) One (1) nickel electroplating bath, identified as T22, equipped with a combination packed bed/chevron blade scrubber to minimize nickel emissions from T22, and exhausting at stack 1038Ni;

(j) Plating Tanks:

(1) One (1) copper plating tank, consisting of two tanks plumbed together, identified as T23-26, equipped with a combination packed bed/chevron blade/mesh pad wet scrubber to minimize copper emissions from T23-T26, and exhausting at stack 574;

(2) One (1) formaldehyde electroless copper plating tank, identified as Tank T7/T8, equipped with a packed bed wet scrubber and exhausting at stack 489. This production line also utilizes two (2) aqueous cleaner tanks identified as T1/T2 that exhaust externally and one (1) immersion tin tank identified as T12 that utilizes the 1009 scrubber;

(3) One (1) set of twelve (12) Brite Dip tanks, identified as Brite Dip tanks, equipped with a combination packed bed/chevron blade/mesh pad wet scrubber to minimize any sulfuric/ hydrogen peroxide emissions from this line, and exhausting at stack 1715;

(k) Striplines:

(1) One (1) strip line, identified as 255P using sulfuric acid, ammonium bifluoride, equipped with one (1) packed bed wet scrubber, identified as machine number 2986, and exhausting at stack 255P. A used acid tank and an acid/cleaner tank exhaust to another packed bed wet scrubber, identified as machine number 3312, and exhausting at stack the 255R;

(2) One (1) rack strip line, identified as 1038, consisting of (2) rack strip tanks, four (4) rinse tanks and one (1) hot rinse tank, equipped with a combination packed bed/chevron blade/mesh pad wet scrubber to minimize any stripping related emissions from this line, and exhausting to stack 3230, maximum capacity: 2.05 pounds of alkaline cleaner per hour, 0.09 pound of aqua ammonia per hour, 0.06 pound of Acetic Acid per hour, and 0.49 pound of Nitric Acid per hour;

(3) One (1) rack strip line, identified as 4560, constructed in 2007, including two (2) rinse tanks and one (1) strip tank containing 6.3% ammonium nitrate, 2.5% ammonium hydroxide, 2.5% ammonium bromide, and 2.5% acetic acid, exhausting externally;

(l) One (1) maintenance room which includes:

(1) One (1) maintenance welding booth, identified as Booth 11-1, exhausting to stack 11-1, capacity: 0.2 pound of acetylene/oxygen/argon welding wire per hour;

(2) Multiple hand buffing units;

(3) Multiple hand grinding units;

(4) Multiple hand drilling units;

(m) One (1) tool room which includes:

(1) One (1) glass bead blast cabinets: (1) identified as tool room glass bead blast cabinet utilizing a collector for particulate control, constructed in 1979;

(2) One (1) dust collector servicing miscellaneous grinding stations, exhausting indoors, and using a combination cyclone and baghouse collection system for particulate control;

(n) Glass Bead blast Cabinets;

(1) Two (2) glass bead blast cabinets: (1) identified as secondary Unit 747 glass bead blast cabinet utilizing a combination cyclone/fabric filter collector for particulate control, constructed in 1981, and (2) PVD Unit 1065 glass bead blast cabinet utilizing a collector for particulate control, constructed in 1990;

(2) Two (2) additional glass bead blast cabinets, identified as 3700 unit 4118 glass bead blast cabinets utilizing a collector for particulate control, and Automatics unit 2828 glass bead blast cabinet utilizing a collector for particulate control;

(o) Two (2) lab hoods;

(p) One (1) inductively coupled plasma (ICP) unit;

(q) One (1) passivation process, identified as line 9069, constructed in June 1998, consisting of:

(1) One (1) chromate/nitric acid/water solution tank, identified as Tank #1;

(2) One (1) rinse water tank, identified as Tank #2;

(3) One (1) hot dionized water tank, identified as Tank #3;

(r) One (1) passivation process, identified as line 1009, constructed in October 1985, consisting of:

(1) One (1) cleaner tank, using no HAPs or VOCs, and exhausting externally through the 1009 scrubber;

(2) One (1) chromate tank, controlled by the 1009 scrubber, and exhausting externally;

(3) Multiple rinse tanks, exhausting internally;

(s) Various machining equipment where aqueous cutting coolant continuously floods the machining surface in the automatics area. There are no criteria pollutants being emitted; 326 IAC2-1.1-3 (e)(10)(B);

(t) Ten (10) open tumblers, identified as 283, 961,963, 2700, 3162, 4040, 4119, 4120, 4121, and 4122, constructed in 1971, 1985, 1985, 1996, 2000, 2004, 2005, 2005, 2005 and 2005, using plastic media to smooth edges of parts. There are no criteria pollutants emitted;

(u) One (1) dip area, identified as 4406, consisting of a sulfuric acid/water tank equipped with a mist eliminator exhausting externally, one (1) water rinse tank, and one (1) water spray tank, to remove a white ash material contained on racks. There are no criteria pollutants emitted because of dip operation;

(v) Eight (8) plasma welding stations, constructed in 1985, utilized to fuse weld stainless steel ball components together without using filler material, no emissions are generated from

this process;

(w) Four (4) R & D hand dipping/manual plating lines;

(x) Four (4) salt spray booths, identified as 2043, 1687, 3660, and 3850, constructed in 1985, 1992, 2002, and 2003 respectively, spraying an aqueous salt solution and no criteria pollutants are generated;

(y) One (1) wastewater treatment area, constructed in 1974, the pH is adjusted utilizing sulfuric acid, consisting of:

(1) Three enclosed pickling liquor reactor tanks which utilizes a scrubber identified as the reactor scrubber;

(2) One bulk waste cleaner tank;

(z) Four (4) physical vacuum deposition (PVD) chambers; identified as 3740, 3787, 3940, and 4063; constructed in 2003, 2003, 2004, and 2004, respectively. PVD process deposits Zirconium material onto various parts. No HAPs are generated;

(aa) Brass drilling Operation:

(1) One (1) brass drilling operation, identified as 3159, and utilizing a cartridge collector system for particulate control;

(2) One (1) brass drilling operation, identified as 1378, and utilizing a combination cyclone/bag filter for particulate control.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

D.5.1 Particulate [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (e) the particulate emissions (PM) from the buffing operations four (4) air washers, 2125, 2490, 3011 and 3915 shall combined be limited to less than 15.8 pounds per hour when operating at a combined process weight rate of 15,000 pounds per hour.

(b) Pursuant to 326 IAC 6-3-2 (e) the particulate emissions (PM) from three (3) two-wheel buffing stations, identified as 1849, 3979, and 3981, and six (6) two-wheel buffing stations and , 4011, 4015, 4017, 4019, 4021, 4023, shall each not exceed 0.551 pounds per hour each when operating at process weight rate of less than 100 pounds per hour each.

(c) Pursuant to 326 IAC 6-3-2 (e) the particulate emissions (PM) from five (5) buffing stations in the automatics area; identified as 537, 3759, 3951, 3954, and 3957 shall each not exceed 0.551 pounds per hour each when operating at process weight rate of less than 100 pounds per hour each.

(d) Pursuant to 326 IAC 6-3-2 (e) the particulate emissions (PM) from four (4) robot buffing stations;, identified as 3213, 3215, 3899, and 3997; shall each not exceed 0.551 pounds per hour each when operating at process weight rate of less than 100 pounds per hour each.

(e) Pursuant to 326 IAC 6-3-2 (e) the particulate emissions (PM) from three (3) additional robot buffing stations, identified as 4081, 4082, and 4083; shall not exceed 0.551 pounds per hour each when operating at process weight rate of less

than 100 pounds per hour each.

(f) Pursuant to 326 IAC 6-3-2 (e) the particulate emissions (PM) from Brazing operations, identified as 10200; shall not exceed 0.551 pounds per hour each when operating at process weight rate of less than 100 pounds per hour each.

(g) Pursuant to 326 IAC 6-3-2 (e) the particulate emissions (PM) from the fluidized bed burn off oven shall be limited to less than 1.15 pounds per hour, when operating at a process weight rate of 303 pounds per hour.

The pounds per hour limitation for (a) through (f) were computed using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

D.5.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

Compliance Determination Requirements [326 IAC 2-1.1-11]

D.5.3 Control

(a) Pursuant to 2-6.1-5, in order to comply with D.5.1(g), the cyclone for PM control shall be in operation at all times when the fluidized bed burn off oven is in operation.

(b) Pursuant to 2-6.1-5 the dust collector shall be in operation at all times when enclosed tool room sand blast unit is in operation.

(c) Pursuant to 2-6.1-5 the cyclone/fabric filters shall be in operation at all times when:

(1) One (1) glass tool room glass bead blast cabinet utilizing a collector for particulate control, two (2) secondary Unit 747 glass bead blast cabinets, and (3) PVD Unit 1065 glass bead blast cabinets are in operation.

(2) One (1) dust collector servicing miscellaneous grinding stations, exhausting indoors, and using a combination cyclone and baghouse collection system for particulate control.

(3) Two (2) additional glass bead blast cabinets: (1) identified as 3700 unit 4118 glass bead blast cabinet utilizing a collector, and (2) Automatics unit 2828 glass bead blast cabinet are in operation.

(4) One (1) brass drilling operation, identified as 3159 is in operation.

(5) One (1) brass drilling operation, identified as 1378 is in operation.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)]

D.5.4 Cyclone Failure Detection

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Response to

Excursions or Exceedances, shall be considered a deviation from this permit.

Compliance with these limits combined with the PM from other emission units shall limit emissions from the entire source to less than two hundred fifty (250) tons per year for PM and render the requirements of 326 IAC 2-2 (PSD) not applicable.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5.5 Record Keeping Requirements

(a) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH

MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	Delta Faucet Company
Address:	1425 West Main Street
City:	Greensburg, Indiana 47240
Phone #:	812-663-4433
MSOP #:	M031-20848-00007

I hereby certify that Delta Faucet Company is : ☐ still in operation.
☐ no longer in operation.

I hereby certify that Delta Faucet Company is : ☐ in compliance with the requirements of MSOP M031-20848-00007.
☐ not in compliance with the requirements of MSOP M031-20848-00007.

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

CHROMIUM ELECTROPLATING NESHAP
ONGOING COMPLIANCE STATUS REPORT

Source Name: Delta Faucet Company
Source Address: 1425 West Main Street, Greensburg, IN 47240
Mailing Address: 1425 West Main Street, Greensburg, IN 47240
MSOP No.: 031-20848-00007

Tank ID #: _ _____
Type of process: *[Hard, Decorative, Anodizing]*
Monitoring Parameter: *[e.g., Surface tension of the electroplating bath]*
Parameter Value: *[e.g., 45 dynes per centimeter]*
Limits: Total chromium concentration may not exceed _____ mg/dscm

This form is to be used to report compliance for the Chromium Electroplating NESHAP only.
The frequency for completing this report may be altered by the IDEM, OAQ, Compliance Branch.

Companies classified as a major source: submit this report no later than 30 days after the end of the reporting period.
Companies classified as an area source: complete this report no later than 30 days after the end of the reporting period, and retain on site unless otherwise notified.

This form consists of 2 pages **Page 1 of 2**

BEGINNING AND ENDING DATES OF THE REPORTING PERIOD:
TOTAL OPERATING TIME OF THE TANK DURING THE REPORTING PERIOD:

MAJOR AND AREA SOURCES: CHECK ONE
NO DEVIATIONS OF THE MONITORING PARAMETER ASSOCIATED WITH THIS TANK FROM THE COMPLIANT VALUE OR RANGE OF VALUES OCCURRED DURING THIS REPORTING PERIOD.
THE MONITORING PARAMETER DEVIATED FROM THE COMPLIANT VALUE OR RANGE OF VALUES DURING THIS REPORTING PERIOD (THUS INDICATING THE EMISSION LIMITATION MAY HAVE BEEN EXCEEDED, WHICH COULD RESULT IN MORE FREQUENT REPORTING).

AREA (I.E., NON-MAJOR) SOURCES OF HAP ONLY:
IF DEVIATIONS OCCURRED, LIST THE AMOUNT OF TANK OPERATING TIME EACH MONTH THAT MONITORING RECORDS SHOW THE MONITORING PARAMETER DEVIATED FROM THE COMPLIANT VALUE OR RANGE OF VALUES.

JAN	APR	JUL	OCT
FEB	MAY	AUG	NOV
MAR	JUN	SEP	DEC

HARD CHROME TANKS / MAXIMUM RECTIFIER CAPACITY LIMITED IN ACCORDANCE WITH 40 CFR 63.342(c)(2) ONLY:
LIST THE ACTUAL AMPERE-HOURS CONSUMED (BASED ON AN AMP-HR METER) BY THE INDIVIDUAL TANK.

JAN	APR	JUL	OCT
FEB	MAY	AUG	NOV
MAR	JUN	SEP	DEC

CHROMIUM ELECTROPLATING NESHAP
ONGOING COMPLIANCE STATUS REPORT

ATTACH A SEPARATE PAGE IF NEEDED **Page 2 of 2**

IF THE OPERATION AND MAINTENANCE PLAN REQUIRED BY 40 CFR 63.342 (f)(3) WAS NOT FOLLOWED, PROVIDE AN EXPLANATION OF THE REASONS FOR NOT FOLLOWING THE PLAN AND DESCRIBE THE ACTIONS TAKEN FOR THAT EVENT:

DESCRIBE ANY CHANGES IN TANKS, RECTIFIERS, CONTROL DEVICES, MONITORING, ETC. SINCE THE LAST STATUS REPORT:

ADDITIONAL COMMENTS:

ALL SOURCES: CHECK ONE

I CERTIFY THAT THE WORK PRACTICE STANDARDS IN 40 CFR 63.342(f) WERE FOLLOWED IN ACCORDANCE WITH THE OPERATION AND MAINTENANCE PLAN ON FILE; AND, THAT THE INFORMATION CONTAINED IN THIS REPORT IS ACCURATE AND TRUE TO THE BEST OF MY KNOWLEDGE.

THE WORK PRACTICE STANDARDS IN 40 CFR 63.342(f) WERE NOT FOLLOWED IN ACCORDANCE WITH THE OPERATION AND MAINTENANCE PLAN ON FILE, AS EXPLAINED ABOVE AND/OR ON ATTACHED.

Submitted by:

Title/Position:

Signature:

Date:

Phone:

Attach a signed certification to complete this report.

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317 233-6865

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100 TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF "MALFUNCTION" AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY:_____PHONE NO. ( )_____
LOCATION: (CITY AND COUNTY)_____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP:_____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON:_____
_____

DATE/TIME MALFUNCTION STARTED: _____/_____/ 20____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE_____/_____/ 20____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER:_____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

_____

MEASURES TAKEN TO MINIMIZE EMISSIONS:_____

_____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES:_____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS:_____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT:_____
INTERIM CONTROL MEASURES: (IF APPLICABLE)_____
_____
_____

MALFUNCTION REPORTED BY:_____TITLE:_____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY:_____DATE:_____TIME:_____
*SEE PAGE 2

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

_____
_____

Attachment A

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

Source: 60 FR 4963, Jan. 25, 1995, unless otherwise noted.

§ 63.340 Applicability and designation of sources.

(a) The affected source to which the provisions of this subpart apply is each chromium electroplating or chromium anodizing tank at facilities performing hard chromium electroplating, decorative chromium electroplating, or chromium anodizing.

(b) Owners or operators of affected sources subject to the provisions of this subpart must also comply with the requirements of subpart A of this part, according to the applicability of subpart A of this part to such sources, as identified in Table 1 of this subpart.

(c) Process tanks associated with a chromium electroplating or chromium anodizing process, but in which neither chromium electroplating nor chromium anodizing is taking place, are not subject to the provisions of this subpart. Examples of such tanks include, but are not limited to, rinse tanks, etching tanks, and cleaning tanks. Likewise, tanks that contain a chromium solution, but in which no electrolytic process occurs, are not subject to this subpart. An example of such a tank is a chrome conversion coating tank where no electrical current is applied.

(d) Affected sources in which research and laboratory operations are performed are exempt from the provisions of this subpart when such operations are taking place.

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

[60 FR 4963, Jan. 25, 1995, as amended at 61 FR 27787, June 3, 1996; 64 FR 69643, Dec. 14, 1999; 70 FR 75345, Dec. 19, 2005]

§ 63.341 Definitions and nomenclature.

(a) *Definitions.* Terms used in this subpart are defined in the Act, in subpart A of this part, or in this section. For the purposes of subpart N of this part, if the same term is defined in subpart A of this part and in this section, it shall have the meaning given in this section.

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

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

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

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

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

Chromic acid means the common name for chromium anhydride (CrO_3).

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

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

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

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

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

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

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

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

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

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

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

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

Hard chromium electroplating or industrial chromium electroplating means a process by which a thick layer of chromium (typically 1.3 to 760 microns) is electrodeposited on a base material to provide a surface with functional properties such as wear resistance, a low coefficient of friction, hardness, and corrosion resistance. In this process, the part serves as the cathode in the electrolytic cell and the solution serves as the electrolyte. Hard chromium electroplating process is performed at current densities typically ranging from 1,600 to 6,500 A/m^2 for total plating times ranging from 20 minutes to 36 hours depending upon the desired plate

thickness.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(b) *Nomenclature.* The nomenclature used in this subpart has the following meaning:

(1) AMR=the allowable mass emission rate from each type of affected source subject to the same emission limitation in milligrams per hour (mg/hr).

(2) AMR_{sys}=the allowable mass emission rate from affected sources controlled by an add-on air pollution control device controlling

emissions from multiple sources in mg/hr.

(3) EL=the applicable emission limitation from §63.342 in milligrams per dry standard cubic meter (mg/dscm).

(4) IA_{total}=the sum of all inlet duct areas from both affected and nonaffected sources in meters squared.

(5) IDA_i=the total inlet area for all ducts associated with affected sources in meters squared.

(6) $IDA_{i,a}$=the total inlet duct area for all ducts conveying chromic acid from each type of affected source performing the same operation, or each type of affected source subject to the same emission limitation in meters squared.

(7) VR=the total of ventilation rates for each type of affected source subject to the same emission limitation in dry standard cubic meters per minute (dscm/min).

(8) VR_{inlet}=the total ventilation rate from all inlet ducts associated with affected sources in dscm/min.

(9) $VR_{inlet,a}$=the total ventilation rate from all inlet ducts conveying chromic acid from each type of affected source performing the same operation, or each type of affected source subject to the same emission limitation in dscm/min.

(10) VR_{tot}=the average total ventilation rate for the three test runs as determined at the outlet by means of the Method 306 in appendix A of this part testing in dscm/min.

[60 FR 4963, Jan. 25, 1995, as amended at 69 FR 42894, July 19, 2004]

§ 63.342 Standards.

(a) Each owner or operator of an affected source subject to the provisions of this subpart shall comply with these requirements on and after the compliance dates specified in §63.343(a). All affected sources are regulated by applying maximum achievable control technology.

(b) *Applicability of emission limitations.* (1) The emission limitations in this section apply during tank operation as defined in §63.341, and during periods of startup and shutdown as these are routine occurrences for affected sources subject to this subpart. The emission limitations do not apply during periods of malfunction, but the work practice standards that address operation and maintenance and that are required by paragraph (f) of this section must be followed during malfunctions.

(2) If an owner or operator is controlling a group of tanks with a common add-on air pollution control device, the emission limitations of paragraphs (c), (d), and (e) of this section apply whenever any one affected source is operated. The emission limitation that applies to the group of affected sources is:

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

(ii) The emission limitation calculated according to §63.344(e)(3) if affected sources are performing the same type of operation, are subject to the same emission limitation, and are controlled with an add-on air pollution control device that is also controlling nonaffected sources; and

(iii) The emission limitation calculated according to §63.344(e)(4) if affected sources are performing different types of operations, or affected sources are performing the same operations but subject to different emission limitations, and are controlled with an add-on air pollution control device that may also be controlling emissions from nonaffected sources.

(c)(1) *Standards for open surface hard chromium electroplating tanks.* During tank operation, each owner or operator of an existing, new, or reconstructed affected source shall control chromium emissions discharged to the atmosphere from that affected source by either:

(i) Not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed 0.015 milligrams of total chromium per dry standard cubic meter (mg/dscm) of ventilation air (6.6×10^{-6} grains per dry standard cubic foot (gr/dscf)) for all open surface hard chromium electroplating tanks that are affected sources other than those that are existing affected sources located at small hard chromium electroplating facilities; or

(ii) Not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed 0.03 mg/dscm (1.3×10^{-5} gr/dscf) if the open surface hard chromium electroplating tank is an existing affected source and is located at a small, hard chromium electroplating facility; or

(iii) If a chemical fume suppressant containing a wetting agent is used, by not allowing the surface tension of the electroplating or anodizing bath contained within the affected tank to exceed 45 dynes per centimeter (dynes/cm) (3.1×10^{-3} pound-force per foot (lb_f/ft)) as measured by a stalagmometer or 35 dynes/cm (2.4×10^{-3} lb_f/ft) as measured by a tensiometer at any time during tank operation.

(2) *Standards for enclosed hard chromium electroplating tanks.* During tank operation, each owner or operator of an existing, new, or reconstructed affected source shall control chromium emissions discharged to the atmosphere from that affected source by either:

(i) Not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed 0.015 mg/dscm (6.6×10^{-6} gr/dscf) for all enclosed hard chromium electroplating tanks that are affected sources other than those that are existing affected sources located at small, hard chromium electroplating facilities; or

(ii) Not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed 0.03 mg/dscm (1.3×10^{-5} gr/dscf) if the enclosed hard chromium electroplating tank is an existing affected source and is located at a small, hard chromium electroplating facility; or

(iii) If a chemical fume suppressant containing a wetting agent is used, by not allowing the surface tension of the electroplating or anodizing bath contained within the affected tank to exceed 45 dynes/cm (3.1×10^{-3} lb_f/ft) as measured by a stalagmometer or 35 dynes/cm (2.4×10^{-3} lb_f/ft) as measured by a tensiometer at any time during tank operation; or

(iv) Not allowing the mass rate of total chromium in the exhaust gas stream discharged to the atmosphere to exceed the maximum allowable mass emission rate determined by using the calculation procedure in §63.344(f)(1)(i) for all enclosed hard chromium electroplating tanks that are affected sources other than those that are existing affected sources located at small, hard chromium electroplating facilities; or

(v) Not allowing the mass rate of total chromium in the exhaust gas stream discharged to the atmosphere to exceed the maximum allowable mass emission rate determined by using the calculation procedure in §63.344(f)(1)(ii) if the enclosed hard chromium electroplating tank is an existing affected source and is located at a small, hard chromium electroplating facility.

(3)(i) An owner or operator may demonstrate the size of a hard chromium electroplating facility through the definitions in §63.341(a). Alternatively, an owner or operator of a facility with a maximum cumulative potential rectifier capacity of 60 million amp-hr/yr or more may be considered small if the actual cumulative rectifier capacity is less than 60 million amp-hr/yr as demonstrated using the following procedures:

(A) If records show that the facility's previous annual actual rectifier capacity was less than 60 million amp-hr/yr, by using nonresettable ampere-hr meters and keeping monthly records of actual ampere-hr usage for each 12-month rolling period following the compliance date in accordance with §63.346(b)(12). The actual cumulative rectifier capacity for the previous 12-month rolling period shall be tabulated monthly by adding the capacity for the current month to the capacities for the previous 11 months; or

(B) By accepting a federally-enforceable limit on the maximum cumulative potential rectifier capacity of a hard chromium electroplating facility and by maintaining monthly records in accordance with §63.346(b)(12) to demonstrate that the limit has not been exceeded. The actual cumulative rectifier capacity for the previous 12-month rolling period shall be tabulated monthly by adding the capacity for the current month to the capacities for the previous 11 months.

(ii) Once the monthly records required to be kept by §63.346(b)(12) and by this paragraph (c)(3)(ii) show that the actual cumulative rectifier capacity over the previous 12-month rolling period corresponds to the large designation, the owner or operator

is subject to the emission limitation identified in paragraph (c)(1)(i), (iii), (c)(2)(i), (iii), or (iv) of this section, in accordance with the compliance schedule of §63.343(a)(5).

(d) *Standards for decorative chromium electroplating tanks using a chromic acid bath and chromium anodizing tanks.* During tank operation, each owner or operator of an existing, new, or reconstructed affected source shall control chromium emissions discharged to the atmosphere from that affected source by either:

(1) Not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed 0.01 mg/dscm (4.4×10^{-6}gr/dscf); or

(2) If a chemical fume suppressant containing a wetting agent is used, by not allowing the surface tension of the electroplating or anodizing bath contained within the affected source to exceed 45 dynes/cm (3.1×10^{-3}lb$_f$/ft) as measured by a stalagmometer or 35 dynes/cm (2.4×10^{-3}lb$_f$/ft) as measured by a tensiometer at any time during operation of the tank.

(e) *Standards for decorative chromium electroplating tanks using a trivalent chromium bath.* (1) Each owner or operator of an existing, new, or reconstructed decorative chromium electroplating tank that uses a trivalent chromium bath that incorporates a wetting agent as a bath ingredient is subject to the recordkeeping and reporting requirements of §§63.346(b)(14) and 63.347(i), but are not subject to the work practice requirements of paragraph (f) of this section, or the continuous compliance monitoring requirements in §63.343(c). The wetting agent must be an ingredient in the trivalent chromium bath components purchased from vendors.

(2) Each owner or operator of an existing, new, or reconstructed decorative chromium electroplating tank that uses a trivalent chromium bath that does not incorporate a wetting agent as a bath ingredient is subject to the standards of paragraph (d) of this section.

(3) Each owner or operator of existing, new, or reconstructed decorative chromium electroplating tank that had been using a trivalent chromium bath that incorporates a wetting agent and ceases using this type of bath must fulfill the reporting requirements of §63.347(i)(3) and comply with the applicable emission limitation within the timeframe specified in §63.343(a)(7).

(f) *Operation and maintenance practices.* All owners or operators subject to the standards in paragraphs (c) and (d) of this section are subject to these operation and maintenance practices.

(1)(i) At all times, including periods of startup, shutdown, and malfunction, owners or operators shall operate and maintain any affected source, including associated air pollution control devices and monitoring equipment, in a manner consistent with good air pollution control practices.

(ii) Malfunctions shall be corrected as soon as practicable after their occurrence.

(iii) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.

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

(ii) Based on the results of a determination made under paragraph (f)(2)(i) of this section, the Administrator may require that an owner or operator of an affected source make changes to the operation and maintenance plan required by paragraph (f)(3) of this section for that source. Revisions may be required if the Administrator finds that the plan:

(A) Does not address a malfunction that has occurred;

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

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

(3) *Operation and maintenance plan.* (i) The owner or operator of an affected source subject to paragraph (f) of this section shall prepare an operation and maintenance plan no later than the compliance date, except for hard chromium electroplaters and the chromium anodizing operations in California which have until January 25, 1998. The plan shall be incorporated by reference into the source's title V permit, if and when a title V permit is required. The plan shall include the following elements:

(A) The plan shall specify the operation and maintenance criteria for the affected source, the add-on air pollution control device (if such a device is used to comply with the emission limits), and the process and control system monitoring equipment, and shall include a standardized checklist to document the operation and maintenance of this equipment;

(B) For sources using an add-on control device or monitoring equipment to comply with this subpart, the plan shall incorporate the operation and maintenance practices for that device or monitoring equipment, as identified in Table 1 of this section, if the specific equipment used is identified in Table 1 of this section;

(C) If the specific equipment used is not identified in Table 1 of this section, the plan shall incorporate proposed operation and maintenance practices. These proposed operation and maintenance practices shall be submitted for approval as part of the submittal required under §63.343(d);

(D) The plan shall specify procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur; and

(E) The plan shall include a systematic procedure for identifying malfunctions of process equipment, add-on air pollution control devices, and process and control system monitoring equipment and for implementing corrective actions to address such malfunctions.

(ii) If the operation and maintenance plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the operation and maintenance plan within 45 days after such an event occurs. The revised plan shall include procedures for operating and maintaining the process equipment, add-on air pollution control device, or monitoring equipment during similar malfunction events, and a program for corrective action for such events.

(iii) Recordkeeping associated with the operation and maintenance plan is identified in §63.346(b). Reporting associated with the operation and maintenance plan is identified in §63.347 (g) and (h) and paragraph (f)(3)(iv) of this section.

(iv) If actions taken by the owner or operator during periods of malfunction are inconsistent with the procedures specified in the operation and maintenance plan required by paragraph (f)(3)(i) of this section, the owner or operator shall record the actions taken for that event and shall report by phone such actions within 2 working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within 7 working days after the end of the event, unless the owner or operator makes alternative reporting arrangements, in advance, with the Administrator.

(v) The owner or operator shall keep the written operation and maintenance plan on record after it is developed to be made available for inspection, upon request, by the Administrator for the life of the affected source or until the source is no longer subject to the provisions of this subpart. In addition, if the operation and maintenance plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the operation and maintenance plan on record to be made available for inspection, upon request, by the Administrator for a period of 5 years after each revision to the plan.

(vi) To satisfy the requirements of paragraph (f)(3) of this section, the owner or operator may use applicable standard operating procedure (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans, provided the alternative plans meet the requirements of this section.

(g) The standards in this section that apply to chromic acid baths shall not be met by using a reducing agent to change the form of chromium from hexavalent to trivalent.

Table 1 to §63.342—Summary of Operation and Maintenance Practices

Control technique	Operation and maintenance practices	Frequency

Composite mesh-pad (CMP) system	1. Visually inspect device to ensure there is proper drainage, no chronic acid buildup on the pads, and no evidence of chemical attack on the structural integrity of the device	1. 1/quarter.
	2. Visually inspect back portion of the mesh pad closest to the fan to ensure there is no breakthrough of chromic acid mist	2. 1/quarter.
	3. Visually inspect ductwork from tank to the control device to ensure there are no leaks	3. 1/quarter.
	4. Perform washdown of the composite mesh-pads in accordance with manufacturers recommendations	4. Per manufacturer.
Packed-bed scrubber (PSB)	1. Visually inspect device to ensure there is proper drainage, no chromic acid buildup on the packed beds, and no evidence of chemical attack on the structural integrity of the device	1. 1/quarter.
	2. Visually inspect back portion of the chevron blade mist eliminator to ensure that it is dry and there is no breakthrough of chromic acid mist	2. 1/quarter.
	3. Same as number 3 above	3. 1/quarter.
	4. Add fresh makeup water to the top of the packed bed[a,b]	4. Whenever makeup is added.
PBS/CMP system	1. Same as for CMP system	1. 1/quarter.
	2. Same as for CMP system	2. 1/quarter.
	3. Same as for CMP system	3. 1/quarter.
	4. Same as for CMP system	4. Per manufacturer.
Fiber-bed mist eliminator[c]	1. Visually inspect fiber-bed unit and prefiltering device to ensure there is proper drainage, no chromic acid buildup in the units, and no evidence of chemical attack on the structural integrity of the devices	1. 1/quarter.
	2. Visually inspect ductwork from tank or tanks to the control device to ensure there are no leaks	2. 1/quarter.
	3. Perform washdown of fiber elements in accordance with manufacturers recommendations	3. Per manufacturer.
Air pollution control device (APCD) not listed in rule	To be proposed by the source for approval by the Administrator	To be proposed by the source for approval by the Administrator.

Monitoring Equipment		
Pitot tube	Backflush with water, or remove from the duct and rinse with fresh water. Replace in the duct and rotate 180 degrees to ensure that the same zero reading is obtained. Check pitot tube ends for damage. Replace pitot tube if cracked or fatigued	1/quarter.
Stalagmometer	Follow manufacturers recommendations	

[a]If greater than 50 percent of the scrubber water is drained (e.g., for maintenance purposes), makeup water may be added to the scrubber basin.

[b]For horizontal-flow scrubbers, top is defined as the section of the unit directly above the packing media such that the makeup water would flow perpendicular to the air flow through the packing. For vertical-flow units, the top is defined as the area downstream of the packing material such that the makeup water would flow countercurrent to the air flow through the unit.

[c]Work practice standards for the control device installed upstream of the fiber-bed mist eliminator to prevent plugging do not apply as long as the work practice standards for the fiber-bed unit are followed.

[60 FR 4963, Jan. 25, 1995; 60 FR 33122, June 27, 1995, as amended at 61 FR 27787, June 3, 1996; 62 FR 42920, Aug. 11, 1997; 68 FR 37347, June 23, 2003; 69 FR 42894, July 19, 2004; 71 FR 20456, Apr. 20, 2006]

§ 63.343 Compliance provisions.

(a) *Compliance dates.* (1) The owner or operator of an existing affected source shall comply with the emission limitations in §63.342 as follows:

(i) No later than 1 year after January 25, 1995, if the affected source is a decorative chromium electroplating tank; and

(ii) No later than 2 years after January 25, 1995, if the affected source is a hard chromium electroplating tank or a chromium anodizing tank.

(2) The owner or operator of a new or reconstructed affected source that has an initial startup after January 25, 1995, shall comply immediately upon startup of the source. The owner or operator of a new or reconstructed affected source that has an initial startup after December 16, 1993 but before January 25, 1995, shall follow the compliance schedule of §63.6(b)(1).

(3) The owner or operator of an existing area source that increases actual or potential emissions of hazardous air pollutants such that the area source becomes a major source must comply with the provisions for existing major sources, including the reporting provisions of §63.347(g), immediately upon becoming a major source.

(4) The owner or operator of a new area source (i.e., an area source for which construction or reconstruction was commenced after December 16, 1993) that increases actual or potential emissions of hazardous air pollutants such that the area source becomes a major source must comply with the provisions for new major sources, immediately upon becoming a major source.

(5) An owner or operator of an existing hard chromium electroplating tank or tanks located at a small, hard chromium electroplating facility that increases its maximum cumulative potential rectifier capacity, or its actual cumulative rectifier capacity, such that the facility becomes a large, hard chromium electroplating facility must comply with the requirements of §63.342(c)(1)(i) for all hard chromium electroplating tanks at the facility no later than 1 year after the month in which monthly records required by §§63.342(c)(2) and 63.346(b)(12) show that the large designation is met, or by the compliance date specified in paragraph (a)(1)(ii) of this section, whichever is later.

(6) *Request for an extension of compliance.* An owner or operator of an affected source or sources that requests an extension of

compliance shall do so in accordance with this paragraph and the applicable paragraphs of §63.6(i). When the owner or operator is requesting the extension for more than one affected source located at the facility, then only one request may be submitted for all affected sources at the facility.

(i) The owner or operator of an existing affected source who is unable to comply with a relevant standard under this subpart may request that the Administrator (or a State, when the State has an approved part 70 permit program and the source is required to obtain a part 70 permit under that program, or a State, when the State has been delegated the authority to implement and enforce the emission standard for that source) grant an extension allowing the owner or operator up to 1 additional year to comply with the standard for the affected source. The owner or operator of an affected source who has requested an extension of compliance under this paragraph and is otherwise required to obtain a title V permit for the source shall apply for such permit or apply to have the title V permit revised to incorporate the conditions of the extension of compliance. The conditions of an extension of compliance granted under this paragraph will be incorporated into the owner or operator's title V permit for the affected source(s) according to the provisions of 40 CFR part 70 or 40 CFR part 71, whichever is applicable.

(ii) Any request under this paragraph for an extension of compliance with a relevant standard shall be submitted in writing to the appropriate authority not later than 6 months before the affected source's compliance date as specified in this section.

(7) An owner or operator of a decorative chromium electroplating tank that uses a trivalent chromium bath that incorporates a wetting agent, and that ceases using the trivalent chromium process, must comply with the emission limitation now applicable to the tank within 1 year of switching bath operation.

(b) *Methods to demonstrate initial compliance.* (1) Except as provided in paragraphs (b)(2) and (b)(3) of this section, an owner or operator of an affected source subject to the requirements of this subpart is required to conduct an initial performance test as required under §63.7, except for hard chromium electroplaters and chromium anodizing operations in California which have until January 25, 1998, using the procedures and test methods listed in §§63.7 and 63.344.

(2) If the owner or operator of an affected source meets all of the following criteria, an initial performance test is not required to be conducted under this subpart:

(i) The affected source is a hard chromium electroplating tank, a decorative chromium electroplating tank or a chromium anodizing tank; and

(ii) A wetting agent is used in the plating or anodizing bath to inhibit chromium emissions from the affected source; and

(iii) The owner or operator complies with the applicable surface tension limit of §63.342(c)(1)(iii), (c)(2)(iii), or (d)(2) as demonstrated through the continuous compliance monitoring required by paragraph (c)(5)(ii) of this section.

(3) If the affected source is a decorative chromium electroplating tank using a trivalent chromium bath, and the owner or operator is subject to the provisions of §63.342(e), an initial performance test is not required to be conducted under this subpart.

(c) *Monitoring to demonstrate continuous compliance.* The owner or operator of an affected source subject to the emission limitations of this subpart shall conduct monitoring according to the type of air pollution control technique that is used to comply with the emission limitation. The monitoring required to demonstrate continuous compliance with the emission limitations is identified in this section for the air pollution control techniques expected to be used by the owners or operators of affected sources.

(1) *Composite mesh-pad systems.* (i) During the initial performance test, the owner or operator of an affected source, or a group of affected sources under common control, complying with the emission limitations in §63.342 through the use of a composite mesh-pad system shall determine the outlet chromium concentration using the test methods and procedures in §63.344(c), and shall establish as a site-specific operating parameter the pressure drop across the system, setting the value that corresponds to compliance with the applicable emission limitation, using the procedures in §63.344(d)(5). An owner or operator may conduct multiple performance tests to establish a range of compliant pressure drop values, or may set as the compliant value the average pressure drop measured over the three test runs of one performance test and accept ±2 inches of water column from this value as the compliant range.

(ii) On and after the date on which the initial performance test is required to be completed under §63.7, except for hard chromium electroplaters and chromium anodizing operations in California, which have until January 25, 1998, the owner or operator of an

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

(iii) The owner or operator of an affected source complying with the emission limitations in §63.343 through the use of a composite mesh-pad system may repeat the performance test and establish as a new site-specific operating parameter the pressure drop across the composite mesh-pad system according to the requirements in paragraphs (c)(1)(i) or (ii) of this section. To establish a new site-specific operating parameter for pressure drop, the owner or operator shall satisfy the requirements specified in paragraphs (c)(1)(iii)(A) through (D) of this section.

(A) Determine the outlet chromium concentration using the test methods and procedures in §63.344(c);

(B) Establish the site-specific operating parameter value using the procedures §63.344(d)(5);

(C) Satisfy the recordkeeping requirements in §63.346(b)(6) through (8); and

(D) Satisfy the reporting requirements in §63.347(d) and (f).

(iv) The requirement to operate a composite mesh-pad system within the range of pressure drop values established under paragraphs (c)(1)(i) through (iii) of this section does not apply during automatic washdown cycles of the composite mesh-pad system.

(2) *Packed-bed scrubber systems.* (i) During the initial performance test, the owner or operator of an affected source, or group of affected sources under common control, complying with the emission limitations in §63.342 through the use of a packed-bed scrubber system shall determine the outlet chromium concentration using the procedures in §63.344(c), and shall establish as site-specific operating parameters the pressure drop across the system and the velocity pressure at the common inlet of the control device, setting the value that corresponds to compliance with the applicable emission limitation using the procedures in §63.344(d) (4) and (5). An owner or operator may conduct multiple performance tests to establish a range of compliant operating parameter values. Alternatively, the owner or operator may set as the compliant value the average pressure drop and inlet velocity pressure measured over the three test runs of one performance test, and accept ±1 inch of water column from the pressure drop value and ±10 percent from the velocity pressure value as the compliant range.

(ii) On and after the date on which the initial performance test is required to be completed under §63.7, except for hard chromium electroplaters and chromium anodizing operations in California which have until January 25, 1998, the owner or operator of an affected source, or group of affected sources under common control, shall monitor and record the velocity pressure at the inlet to the packed-bed system and the pressure drop across the scrubber system once each day that any affected source is operating. To be in compliance with the standards, the scrubber system shall be operated within ±10 percent of the velocity pressure value established during the initial performance test, and within ±1 inch of water column of the pressure drop value established during the initial performance test, or within the range of compliant operating parameter values established during multiple performance tests.

(3) *Packed-bed scrubber/composite mesh-pad system.* The owner or operator of an affected source, or group of affected sources under common control, that uses a packed-bed scrubber in conjunction with a composite mesh-pad system to meet the emission limitations of §63.342 shall comply with the monitoring requirements for composite mesh-pad systems as identified in paragraph (c)(1) of this section.

(4) *Fiber-bed mist eliminator.* (i) During the initial performance test, the owner or operator of an affected source, or group of affected sources under common control, complying with the emission limitations in §63.342 through the use of a fiber-bed mist eliminator shall determine the outlet chromium concentration using the procedures in §63.344(c), and shall establish as a site-specific operating parameter the pressure drop across the fiber-bed mist eliminator and the pressure drop across the control device installed upstream of the fiber bed to prevent plugging, setting the value that corresponds to compliance with the applicable emission limitation using the procedures in §63.344(d)(5). An owner or operator may conduct multiple performance tests to establish a range of compliant pressure drop values, or may set as the compliant value the average pressure drop measured over the three test runs of one performance test and accept ±1 inch of water column from this value as the compliant range.

(ii) On and after the date on which the initial performance test is required to be completed under §63.7, except for hard chromium electroplaters and chromium anodizing operations in California which have until January 25, 1998, the owner or operator of an affected source, or group of affected sources under common control, shall monitor and record the pressure drop across the fiber-bed mist eliminator, and the control device installed upstream of the fiber bed to prevent plugging, once each day that any affected source is operating. To be in compliance with the standards, the fiber-bed mist eliminator and the upstream control device shall be operated within ±1 inch of water column of the pressure drop value established during the initial performance test, or shall be operated within the range of compliant values for pressure drop established during multiple performance tests.

(5) *Wetting agent-type or combination wetting agent-type/foam blanket fume suppressants.* (i) During the initial performance test, the owner or operator of an affected source complying with the emission limitations in §63.342 through the use of a wetting agent in the electroplating or anodizing bath shall determine the outlet chromium concentration using the procedures in §63.344(c). The owner or operator shall establish as the site-specific operating parameter the surface tension of the bath using Method 306B, appendix A of this part, setting the maximum value that corresponds to compliance with the applicable emission limitation. In lieu of establishing the maximum surface tension during the performance test, the owner or operator may accept 45 dynes/cm as measured by a stalagmometer or 35 dynes/cm as measured by a tensiometer as the maximum surface tension value that corresponds to compliance with the applicable emission limitation. However, the owner or operator is exempt from conducting a performance test only if the criteria of paragraph (b)(2) of this section are met.

(ii) On and after the date on which the initial performance test is required to be completed under §63.7, except for hard chromium electroplaters and chromium anodizing operations in California, which have until January 25, 1998, the owner or operator of an affected source shall monitor the surface tension of the electroplating or anodizing bath. Operation of the affected source at a surface tension greater than the value established during the performance test, or greater than 45 dynes/cm as measured by a stalagmometer or 35 dynes/cm as measured by a tensiometer if the owner or operator is using this value in accordance with paragraph (c)(5)(i) of this section, shall constitute noncompliance with the standards. The surface tension shall be monitored according to the following schedule:

(A) The surface tension shall be measured once every 4 hours during operation of the tank with a stalagmometer or a tensiometer as specified in Method 306B, appendix A of this part.

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

(C) Once an exceedance occurs as indicated through surface tension monitoring, the original monitoring schedule of once every 4 hours must be resumed. A subsequent decrease in frequency shall follow the schedule laid out in paragraph (c)(5)(ii)(B) of this section. For example, if an owner or operator had been monitoring an affected source once every 40 hours and an exceedance occurs, subsequent monitoring would take place once every 4 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation, monitoring can occur once every 8 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation on this schedule, monitoring can occur once every 40 hours of tank operation.

(iii) Once a bath solution is drained from the affected tank and a new solution added, the original monitoring schedule of once every 4 hours must be resumed, with a decrease in monitoring frequency allowed following the procedures of paragraphs (c)(5)(ii)(B) and (C) of this section.

(6) *Foam blanket-type fume suppressants.* (i) During the initial performance test, the owner or operator of an affected source complying with the emission limitations in §63.342 through the use of a foam blanket in the electroplating or anodizing bath shall determine the outlet chromium concentration using the procedures in §63.344(c), and shall establish as the site-specific operating parameter the thickness of the foam blanket, setting the minimum thickness that corresponds to compliance with the applicable emission limitation. In lieu of establishing the minimum foam blanket thickness during the performance test, the owner or operator may accept 2.54 centimeters (1 inch) as the minimum foam blanket thickness that corresponds to compliance with the applicable emission limitation. All foam blanket measurements must be taken in close proximity to the workpiece or cathode area in the plating tank(s).

(ii) On and after the date on which the initial performance test is required to be completed under §63.7, except for hard chromium electroplaters and chromium anodizing operations in California which have until January 25, 1998, the owner or operator of an

affected source shall monitor the foam blanket thickness of the electroplating or anodizing bath. Operation of the affected source at a foam blanket thickness less than the value established during the performance test, or less than 2.54 cm (1 inch) if the owner or operator is using this value in accordance with paragraph (c)(6)(i) of this section, shall constitute noncompliance with the standards. The foam blanket thickness shall be measured according to the following schedule:

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

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

(C) Once an exceedance occurs as indicated through foam blanket thickness monitoring, the original monitoring schedule of once every hour must be resumed. A subsequent decrease in frequency shall follow the schedule laid out in paragraph (c)(6)(ii)(B) of this section. For example, if an owner or operator had been monitoring an affected source once every 8 hours and an exceedance occurs, subsequent monitoring would take place once every hour of tank operation. Once an exceedance does not occur for 40 hours of tank operation, monitoring can occur once every 4 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation on this schedule, monitoring can occur once every 8 hours of tank operation.

(iii) Once a bath solution is drained from the affected tank and a new solution added, the original monitoring schedule of once every hour must be resumed, with a decrease in monitoring frequency allowed following the procedures of paragraphs (c)(6)(ii)(B) and (C) of this section.

(7) *Fume suppressant/add-on control device.* (i) If the owner or operator of an affected source uses both a fume suppressant and add-on control device and both are needed to comply with the applicable emission limit, monitoring requirements as identified in paragraphs (c) (1) through (6) of this section, and the work practice standards of Table 1 of §63.342, apply for each of the control techniques used.

(ii) If the owner or operator of an affected source uses both a fume suppressant and add-on control device, but only one of these techniques is needed to comply with the applicable emission limit, monitoring requirements as identified in paragraphs (c) (1) through (6) of this section, and work practice standards of Table 1 of §63.342, apply only for the control technique used to achieve compliance.

(8) *Use of an alternative monitoring method.* (i) Requests and approvals of alternative monitoring methods shall be considered in accordance with §63.8(f)(1), (f)(3), (f)(4), and (f)(5).

(ii) After receipt and consideration of an application for an alternative monitoring method, the Administrator may approve alternatives to any monitoring methods or procedures of this subpart including, but not limited to, the following:

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

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

(d) An owner or operator who uses an air pollution control device not listed in this section shall submit a description of the device, test results collected in accordance with §63.344(c) verifying the performance of the device for reducing chromium emissions to the atmosphere to the level required by this subpart, a copy of the operation and maintenance plan referenced in §63.342(f) including operation and maintenance practices, and appropriate operating parameters that will be monitored to establish continuous compliance with the standards. The monitoring plan submitted identifying the continuous compliance monitoring is subject to the Administrator's approval.

[60 FR 4963, Jan. 25, 1995; 60 FR 33122, June 27, 1995, as amended at 62 FR 42920, Aug. 11, 1997; 68 FR 37347, June 23, 2003; 69 FR 42895, July 19, 2004]

§ 63.344 Performance test requirements and test methods.

(a) *Performance test requirements.* Performance tests shall be conducted using the test methods and procedures in this section and §63.7. Performance test results shall be documented in complete test reports that contain the information required by paragraphs (a)(1) through (a)(9) of this section. The test plan to be followed shall be made available to the Administrator prior to the testing, if requested.

(1) A brief process description;

(2) Sampling location description(s);

(3) A description of sampling and analytical procedures and any modifications to standard procedures;

(4) Test results;

(5) Quality assurance procedures and results;

(6) Records of operating conditions during the test, preparation of standards, and calibration procedures;

(7) Raw data sheets for field sampling and field and laboratory analyses;

(8) Documentation of calculations; and

(9) Any other information required by the test method.

(b)(1) If the owner or operator of an affected source conducts performance testing at startup to obtain an operating permit in the State in which the affected source is located, the results of such testing may be used to demonstrate compliance with this subpart if:

(i) The test methods and procedures identified in paragraph (c) of this section were used during the performance test;

(ii) The performance test was conducted under representative operating conditions for the source;

(iii) The performance test report contains the elements required by paragraph (a) of this section; and

(iv) The owner or operator of the affected source for which the performance test was conducted has sufficient data to establish the operating parameter value(s) that correspond to compliance with the standards, as required for continuous compliance monitoring under §63.343(c).

(2) The results of tests conducted prior to December 1991 in which Method 306A, appendix A of this part, was used to demonstrate the performance of a control technique are not acceptable.

(c) *Test methods.* Each owner or operator subject to the provisions of this subpart and required by §63.343(b) to conduct an initial performance test shall use the test methods identified in this section to demonstrate compliance with the standards in §63.342.

(1) Method 306 or Method 306A, “Determination of Chromium Emissions From Decorative and Hard Chromium Electroplating and Anodizing Operations,” appendix A of this part shall be used to determine the chromium concentration from hard or decorative chromium electroplating tanks or chromium anodizing tanks. The sampling time and sample volume for each run of Methods 306 and 306A, appendix A of this part shall be at least 120 minutes and 1.70 dscm (60 dscf), respectively. Methods 306 and 306A, appendix A of this part allow the measurement of either total chromium or hexavalent chromium emissions. For the purposes of this standard, sources using chromic acid baths can demonstrate compliance with the emission limits of §63.342 by measuring either total chromium or hexavalent chromium. Hence, the hexavalent chromium concentration measured by these methods is equal to the total chromium concentration for the affected operations.

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

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

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

(iii) In the case of either paragraph (c)(2) (i) or (ii) of this section, a minimum of 3 separate runs must be conducted. The other requirements of §63.7 that apply to affected sources, as indicated in Table 1 of this subpart, must also be met.

(3) Method 306B, “Surface Tension Measurement and Recordkeeping for Tanks Used at Decorative Chromium Electroplating and Anodizing Facilities,” appendix A of this part shall be used to measure the surface tension of electroplating and anodizing baths.

(4) Alternate test methods may also be used if the method has been validated using Method 301, appendix A of this part and if approved by the Administrator. Procedures for requesting and obtaining approval are contained in §63.7(f).

(d) *Establishing site-specific operating parameter values.* (1) Each owner or operator required to establish site-specific operating parameters shall follow the procedures in this section.

(2) All monitoring equipment shall be installed such that representative measurements of emissions or process parameters from the affected source are obtained. For monitoring equipment purchased from a vendor, verification of the operational status of the monitoring equipment shall include execution of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system.

(i) Specifications for differential pressure measurement devices used to measure velocity pressure shall be in accordance with section 2.2 of Method 2 (40 CFR part 60, appendix A).

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

(3) The surface tension of electroplating and anodizing baths shall be measured using Method 306B, “Surface Tension Measurement and Recordkeeping for Tanks used at Decorative Chromium Electroplating and Anodizing Facilities,” appendix A of this part. This method should also be followed when wetting agent type or combination wetting agent/foam blanket type fume suppressants are used to control chromium emissions from a hard chromium electroplating tank and surface tension measurement is conducted to demonstrate continuous compliance.

(4) The owner or operator of a source required to measure the velocity pressure at the inlet to an add-on air pollution control device in accordance with §63.343(c)(2), shall establish the site-specific velocity pressure as follows:

(i) Locate a velocity traverse port in a section of straight duct that connects the hooding on the plating tank or tanks with the control device. The port shall be located as close to the control system as possible, and shall be placed a minimum of 2 duct diameters downstream and 0.5 diameter upstream of any flow disturbance such as a bend, expansion, or contraction (see Method 1, 40 CFR part 60, appendix A). If 2.5 diameters of straight duct work does not exist, locate the port 0.8 of the duct diameter downstream and 0.2 of the duct diameter upstream from any flow disturbance.

(ii) A 12-point velocity traverse of the duct to the control device shall be conducted along a single axis according to Method 2 (40 CFR part 60, appendix A) using an S-type pitot tube; measurement of the barometric pressure and duct temperature at each traverse point is not required, but is suggested. Mark the S-type pitot tube as specified in Method 1 (40 CFR part 60, appendix A) with 12 points. Measure the velocity pressure (Δp) values for the velocity points and record. Determine the square root of the individual velocity point Δp values and average. The point with the square root value that comes closest to the average square root value is the point of average velocity. The Δp value measured for this point during the performance test will be used as the reference for future monitoring.

(5) The owner or operator of a source required to measure the pressure drop across the add-on air pollution control device in accordance with §63.343(c) (1) through (4) may establish the pressure drop in accordance with the following guidelines:

(i) Pressure taps shall be installed at any of the following locations:

(A) At the inlet and outlet of the control system. The inlet tap should be installed in the ductwork just prior to the control device and the corresponding outlet pressure tap should be installed on the outlet side of the control device prior to the blower or on the downstream side of the blower;

(B) On each side of the packed bed within the control system or on each side of each mesh pad within the control system; or

(C) On the front side of the first mesh pad and back side of the last mesh pad within the control system.

(ii) Pressure taps shall be sited at locations that are:

(A) Free from pluggage as possible and away from any flow disturbances such as cyclonic demisters.

(B) Situated such that no air infiltration at measurement site will occur that could bias the measurement.

(iii) Pressure taps shall be constructed of either polyethylene, polybutylene, or other nonreactive materials.

(iv) Nonreactive plastic tubing shall be used to connect the pressure taps to the device used to measure pressure drop.

(v) Any of the following pressure gauges can be used to monitor pressure drop: a magnehelic gauge, an inclined manometer, or a “U” tube manometer.

(vi) Prior to connecting any pressure lines to the pressure gauge(s), each gauge should be zeroed. No calibration of the pressure gauges is required.

(e) *Special compliance provisions for multiple sources controlled by a common add-on air pollution control device.* (1) This section identifies procedures for measuring the outlet chromium concentration from an add-on air pollution control device that is used to control multiple sources that may or may not include sources not affected by this subpart.

(2) When multiple affected sources performing the same type of operation (e.g., all are performing hard chromium electroplating), and subject to the same emission limitation, are controlled with an add-on air pollution control device that is not controlling emissions from any other type of affected operation or from any nonaffected sources, the applicable emission limitation identified in §63.342 must be met at the outlet of the add-on air pollution control device.

(3) When multiple affected sources performing the same type of operation and subject to the same emission limitation are controlled with a common add-on air pollution control device that is also controlling emissions from sources not affected by these standards, the following procedures should be followed to determine compliance with the applicable emission limitation in §63.342:

(i) Calculate the cross-sectional area of each inlet duct (i.e., uptakes from each hood) including those not affected by the standard.

(ii) Determine the total sample time per test run by dividing the total inlet area from all tanks connected to the control system by the total inlet area for all ducts associated with affected sources, and then multiply this number by 2 hours. The calculated time is the minimum sample time required per test run.

(iii) Perform Method 306 testing and calculate an outlet mass emission rate.

(iv) Determine the total ventilation rate from the affected sources by using equation 1:

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

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

(v) Establish the allowable mass emission rate of the system (AMR_{sys}) in milligrams of total chromium per hour (mg/hr) using equation 2:

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

where $\Sigma\ VR_{inlet}$ is the total ventilation rate in dscm/min from the affected sources, and EL is the applicable emission limitation from §63.342 in mg/dscm. The allowable mass emission rate (AMR_{sys}) calculated from equation 2 should be equal to or more than the outlet three-run average mass emission rate determined from Method 306 testing in order for the source to be in compliance with the standard.

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

(i) Follow the steps outlined in paragraphs (e)(3)(i) through (e)(3)(iii) of this section.

(ii) Determine the total ventilation rate for each type of affected source using equation 3:

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

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

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

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

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

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

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

where “hc” applies to the total of ventilation rates for all hard chromium electroplating tanks subject to the same

emission limitation, “dc” applies to the total of ventilation rates for the decorative chromium electroplating tanks, “ca” applies to the total of ventilation rates for the chromium anodizing tanks, and EL is the applicable emission limitation from §63.342 in mg/dscm. There are two equations for hard chromium electroplating tanks because different emission limitations may apply (e.g., a new tank versus an existing, small tank).

(iv) Establish the allowable mass emission rate (AMR) in mg/hr for the system using equation 8, including each type of affected source as appropriate:

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

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

(5) Each owner or operator that uses the special compliance provisions of this paragraph to demonstrate compliance with the emission limitations of §63.342 shall submit the measurements and calculations to support these compliance methods with the notification of compliance status required by §63.347(e).

(6) Each owner or operator that uses the special compliance provisions of this section to demonstrate compliance with the emission limitations of §63.342 shall repeat these procedures if a tank is added or removed from the control system regardless of whether that tank is a nonaffected source. If the new nonaffected tank replaces an existing nonaffected tank of the same size and is connected to the control system through the same size inlet duct then this procedure does not have to be repeated.

(f) *Compliance provisions for the mass rate emission standard for enclosed hard chromium electroplating tanks.* (1) This section identifies procedures for calculating the maximum allowable mass emission rate for owners or operators of affected sources who choose to meet the mass emission rate standard in §63.342(c)(2)(iv) or (v).

(i)(A) The owner or operator of an enclosed hard chromium electroplating tank that is an affected source other than an existing affected source located at a small hard chromium electroplating facility who chooses to meet the mass emission rate standard in §63.342(c)(2)(iv) shall determine compliance by not allowing the mass rate of total chromium in the exhaust gas stream discharged to the atmosphere to exceed the maximum allowable mass emission rate calculated using equation 9:

$MAMER = ETSA \times K \times 0.015$ mg/dscm (9)

Where:

MAMER = the alternative emission rate for enclosed hard chromium electroplating tanks in mg/hr.

ETSA = the hard chromium electroplating tank surface area in square feet(ft^2).

K = a conversion factor, 425 dscm/($ft^2 \times hr$).

(B) Compliance with the alternative mass emission limit is demonstrated if the three-run average mass emission rate determined from Method 306 testing is less than or equal to the maximum allowable mass emission rate calculated from equation 9.

(ii)(A) The owner or operator of an enclosed hard chromium electroplating tank that is an existing affected source located at a small hard chromium electroplating facility who chooses to meet the mass emission rate standard in §63.342(c)(2)(v) shall determine compliance by not allowing the mass rate of total chromium in the exhaust gas stream discharged to the atmosphere to exceed the maximum allowable mass emission rate calculated using equation 10:

$MAMER = ETSA \times K \times 0.03$ mg/dscm. (10)

(B) Compliance with the alternative mass emission limit is demonstrated if the three-run average mass emission rate determined from testing using Method 306 of appendix A to part 63 is less than or equal to the maximum allowable mass emission rate calculated from equation 10.

[60 FR 4963, Jan. 25, 1995, as amended at 61 FR 27787, June 3, 1996; 69 FR 42896, July 19, 2004]

§ 63.345 Provisions for new and reconstructed sources.

(a) This section identifies the preconstruction review requirements for new and reconstructed affected sources that are subject to, or become subject to, this subpart.

(b) *New or reconstructed affected sources.* The owner or operator of a new or reconstructed affected source is subject to §63.5(a), (b)(1), (b)(5), (b)(6), and (f)(1), as well as the provisions of this paragraph.

(1) After January 25, 1995, whether or not an approved permit program is effective in the State in which an affected source is (or would be) located, no person may construct a new affected source or reconstruct an affected source subject to this subpart, or reconstruct a source such that it becomes an affected source subject to this subpart, without submitting a notification of construction or reconstruction to the Administrator. The notification shall contain the information identified in paragraphs (b) (2) and (3) of this section, as appropriate.

(2) The notification of construction or reconstruction required under paragraph (b)(1) of this section shall include:

(i) The owner or operator's name, title, and address;

(ii) The address (i.e., physical location) or proposed address of the affected source if different from the owner's or operator's;

(iii) A notification of intention to construct a new affected source or make any physical or operational changes to an affected source that may meet or has been determined to meet the criteria for a reconstruction as defined in §63.2;

(iv) An identification of subpart N of this part as the basis for the notification;

(v) The expected commencement and completion dates of the construction or reconstruction;

(vi) The anticipated date of (initial) startup of the affected source;

(vii) The type of process operation to be performed (hard or decorative chromium electroplating, or chromium anodizing);

(viii) A description of the air pollution control technique to be used to control emissions from the affected source, such as preliminary design drawings and design capacity if an add-on air pollution control device is used; and

(ix) An estimate of emissions from the source based on engineering calculations and vendor information on control device efficiency, expressed in units consistent with the emission limits of this subpart. Calculations of emission estimates should be in sufficient detail to permit assessment of the validity of the calculations.

(3) If a reconstruction is to occur, the notification required under paragraph (b)(1) of this section shall include the following in addition to the information required in paragraph (b)(2) of this section:

(i) A brief description of the affected source and the components to be replaced;

(ii) A brief description of the present and proposed emission control technique, including the information required by paragraphs (b)(2) (viii) and (ix) of this section;

(iii) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new source;

(iv) The estimated life of the affected source after the replacements; and

(v) A discussion of any economic or technical limitations the source may have in complying with relevant standards or other requirements after the proposed replacements. The discussion shall be sufficiently detailed to demonstrate to the Administrator's

satisfaction that the technical or economic limitations affect the source's ability to comply with the relevant standard and how they do so.

(vi) If in the notification of reconstruction, the owner or operator designates the affected source as a reconstructed source and declares that there are no economic or technical limitations to prevent the source from complying with all relevant standards or requirements, the owner or operator need not submit the information required in paragraphs (b)(3) (iii) through (v) of this section.

(4) The owner or operator of a new or reconstructed affected source that submits a notification in accordance with paragraphs (b)(1) through (3) of this section is not subject to approval by the Administrator. Construction or reconstruction is subject only to notification and can begin upon submission of a complete notification.

(5) *Submittal timeframes.* After January 25, 1995, whether or not an approved permit program is effective in the State in which an affected source is (or would be) located, an owner or operator of a new or reconstructed affected source shall submit the notification of construction or reconstruction required by paragraph (b)(1) of this section according to the following schedule:

(i) If construction or reconstruction commences after January 25, 1995, the notification shall be submitted as soon as practicable before the construction or reconstruction is planned to commence.

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

§ 63.346 Recordkeeping requirements.

(a) The owner or operator of each affected source subject to these standards shall fulfill all recordkeeping requirements outlined in this section and in the General Provisions to 40 CFR part 63, according to the applicability of subpart A of this part as identified in Table 1 of this subpart.

(b) The owner or operator of an affected source subject to the provisions of this subpart shall maintain the following records for such source:

(1) Inspection records for the add-on air pollution control device, if such a device is used, and monitoring equipment, to document that the inspection and maintenance required by the work practice standards of §63.342(f) and Table 1 of §63.342 have taken place. The record can take the form of a checklist and should identify the device inspected, the date of inspection, a brief description of the working condition of the device during the inspection, and any actions taken to correct deficiencies found during the inspection.

(2) Records of all maintenance performed on the affected source, the add-on air pollution control device, and monitoring equipment;

(3) Records of the occurrence, duration, and cause (if known) of each malfunction of process, add-on air pollution control, and monitoring equipment;

(4) Records of actions taken during periods of malfunction when such actions are inconsistent with the operation and maintenance plan;

(5) Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the operation and maintenance plan required by §63.342(f)(3);

(6) Test reports documenting results of all performance tests;

(7) All measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance with the special compliance procedures of §63.344(e);

(8) Records of monitoring data required by §63.343(c) that are used to demonstrate compliance with the standard including the date and time the data are collected;

(9) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during malfunction of the process, add-on air pollution control, or monitoring equipment;

(10) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during periods other than malfunction of the process, add-on air pollution control, or monitoring equipment;

(11) The total process operating time of the affected source during the reporting period;

(12) Records of the actual cumulative rectifier capacity of hard chromium electroplating tanks at a facility expended during each month of the reporting period, and the total capacity expended to date for a reporting period, if the owner or operator is using the actual cumulative rectifier capacity to determine facility size in accordance with §63.342(c)(2);

(13) For sources using fume suppressants to comply with the standards, records of the date and time that fume suppressants are added to the electroplating or anodizing bath;

(14) For sources complying with §63.342(e), records of the bath components purchased, with the wetting agent clearly identified as a bath constituent contained in one of the components;

(15) Any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements, if the source has been granted a waiver under §63.10(f); and

(16) All documentation supporting the notifications and reports required by §63.9, §63.10, and §63.347.

(c) All records shall be maintained for a period of 5 years in accordance with §63.10(b)(1).

§ 63.347 Reporting requirements.

(a) The owner or operator of each affected source subject to these standards shall fulfill all reporting requirements outlined in this section and in the General Provisions to 40 CFR part 63, according to the applicability of subpart A as identified in Table 1 of this subpart. These reports shall be made to the Administrator at the appropriate address as identified in §63.13 or to the delegated State authority.

(1) Reports required by subpart A of this part and this section may be sent by U.S. mail, fax, or by another courier.

(i) Submittals sent by U.S. mail shall be postmarked on or before the specified date.

(ii) Submittals sent by other methods shall be received by the Administrator on or before the specified date.

(2) If acceptable to both the Administrator and the owner or operator of an affected source, reports may be submitted on electronic media.

(b) The reporting requirements of this section apply to the owner or operator of an affected source when such source becomes subject to the provisions of this subpart.

(c) *Initial notifications.* (1) The owner or operator of an affected source that has an initial startup before January 25, 1995, shall notify the Administrator in writing that the source is subject to this subpart. The notification shall be submitted no later than 180 calendar days after January 25, 1995, and shall contain the following information:

(i) The name, title, and address of the owner or operator;

(ii) The address (i.e., physical location) of each affected source;

(iii) A statement that subpart N of this part is the basis for this notification;

(iv) Identification of the applicable emission limitation and compliance date for each affected source;

(v) A brief description of each affected source, including the type of process operation performed;

(vi) For sources performing hard chromium electroplating, the maximum potential cumulative potential rectifier capacity;

(vii) For sources performing hard chromium electroplating, a statement of whether the affected source(s) is located at a small or a large, hard chromium electroplating facility and whether this will be demonstrated through actual or maximum potential cumulative rectifier capacity;

(viii) For sources performing hard chromium electroplating, a statement of whether the owner or operator of an affected source(s) will limit the maximum potential cumulative rectifier capacity in accordance with §63.342(c)(2) such that the hard chromium electroplating facility is considered small; and

(ix) A statement of whether the affected source is located at a major source or an area source as defined in §63.2.

(2) The owner or operator of a new or reconstructed affected source that has an initial startup after January 25, 1995 shall submit an initial notification (in addition to the notification of construction or reconstruction required by §63.345(b) as follows:

(i) A notification of the date when construction or reconstruction was commenced, shall be submitted simultaneously with the notification of construction or reconstruction, if construction or reconstruction was commenced before January 25, 1995;

(ii) A notification of the date when construction or reconstruction was commenced, shall be submitted no later than 30 calendar days after such date, if construction or reconstruction was commenced after January 25, 1995; and

(iii) A notification of the actual date of startup of the source shall be submitted within 30 calendar days after such date.

(d) *Notification of performance test.* (1) The owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the test is scheduled to begin to allow the Administrator to have an observer present during the test. Observation of the performance test by the Administrator is optional.

(2) In the event the owner or operator is unable to conduct the performance test as scheduled, the provisions of §63.7(b)(2) apply.

(e) *Notification of compliance status.* (1) A notification of compliance status is required each time that an affected source becomes subject to the requirements of this subpart.

(2) If the State in which the source is located has not been delegated the authority to implement the rule, each time a notification of compliance status is required under this part, the owner or operator of an affected source shall submit to the Administrator a notification of compliance status, signed by the responsible official (as defined in §63.2) who shall certify its accuracy, attesting to whether the affected source has complied with this subpart. If the State has been delegated the authority, the notification of compliance status shall be submitted to the appropriate authority. The notification shall list for each affected source:

(i) The applicable emission limitation and the methods that were used to determine compliance with this limitation;

(ii) If a performance test is required by this subpart, the test report documenting the results of the performance test, which contains the elements required by §63.344(a), including measurements and calculations to support the special compliance provisions of §63.344(e) if these are being followed;

(iii) The type and quantity of hazardous air pollutants emitted by the source reported in mg/dscm or mg/hr if the source is using the special provisions of §63.344(e) to comply with the standards. (If the owner or operator is subject to the construction and reconstruction provisions of §63.345 and had previously submitted emission estimates, the owner or operator shall state that this report corrects or verifies the previous estimate.) For sources not required to conduct a performance test in accordance with §63.343(b), the surface tension measurement may fulfill this requirement;

(iv) For each monitored parameter for which a compliant value is to be established under §63.343(c), the specific operating

parameter value, or range of values, that corresponds to compliance with the applicable emission limit;

(v) The methods that will be used to determine continuous compliance, including a description of monitoring and reporting requirements, if methods differ from those identified in this subpart;

(vi) A description of the air pollution control technique for each emission point;

(vii) A statement that the owner or operator has completed and has on file the operation and maintenance plan as required by the work practice standards in §63.342(f);

(viii) If the owner or operator is determining facility size based on actual cumulative rectifier capacity in accordance with §63.342(c)(2), records to support that the facility is small. For existing sources, records from any 12-month period preceding the compliance date shall be used or a description of how operations will change to meet a small designation shall be provided. For new sources, records of projected rectifier capacity for the first 12-month period of tank operation shall be used;

(ix) A statement by the owner or operator of the affected source as to whether the source has complied with the provisions of this subpart.

(3) For sources required to conduct a performance test by §63.343(b), the notification of compliance status shall be submitted to the Administrator no later than 90 calendar days following completion of the compliance demonstration required by §63.7 and §63.343(b).

(4) For sources that are not required to complete a performance test in accordance with §63.343(b), the notification of compliance status shall be submitted to the Administrator no later than 30 days after the compliance date specified in §63.343(a), except the date on which sources in California shall monitor the surface tension of the anodizing bath is extended to January 25, 1998.

(f) *Reports of performance test results.* (1) If the State in which the source is located has not been delegated the authority to implement the rule, the owner or operator of an affected source shall report to the Administrator the results of any performance test conducted as required by §63.7 or §63.343(b). If the State has been delegated the authority, the owner or operator of an affected source should report performance test results to the appropriate authority.

(2) Reports of performance test results shall be submitted no later than 90 days following the completion of the performance test, and shall be submitted as part of the notification of compliance status required by paragraph (e) of this section.

(g) *Ongoing compliance status reports for major sources.* (1) The owner or operator of an affected source that is located at a major source site shall submit a summary report to the Administrator to document the ongoing compliance status of the affected source. The report shall contain the information identified in paragraph (g)(3) of this section, and shall be submitted semiannually except when:

(i) The Administrator determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source; or

(ii) The monitoring data collected by the owner or operator of the affected source in accordance with §63.343(c) show that the emission limit has been exceeded, in which case quarterly reports shall be submitted. Once an owner or operator of an affected source reports an exceedance, ongoing compliance status reports shall be submitted quarterly until a request to reduce reporting frequency under paragraph (g)(2) of this section is approved.

(2) *Request to reduce frequency of ongoing compliance status reports.* (i) An owner or operator who is required to submit ongoing compliance status reports on a quarterly (or more frequent basis) may reduce the frequency of reporting to semiannual if all of the following conditions are met:

(A) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods), the ongoing compliance status reports demonstrate that the affected source is in compliance with the relevant emission limit;

(B) The owner or operator continues to comply with all applicable recordkeeping and monitoring requirements of subpart A of this part and this subpart; and

(C) The Administrator does not object to a reduced reporting frequency for the affected source, as provided in paragraphs (g)(2)(ii) and (iii) of this section.

(ii) The frequency of submitting ongoing compliance status reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change, and the Administrator does not object to the intended change. In deciding whether to approve a reduced reporting frequency, the Administrator may review information concerning the source's entire previous performance history during the 5-year recordkeeping period prior to the intended change, or the recordkeeping period since the source's compliance date, whichever is shorter. Records subject to review may include performance test results, monitoring data, and evaluations of an owner or operator's conformance with emission limitations and work practice standards. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce reporting frequency, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(iii) As soon as the monitoring data required by §63.343(c) show that the source is not in compliance with the relevant emission limit, the frequency of reporting shall revert to quarterly, and the owner shall state this exceedance in the ongoing compliance status report for the next reporting period. After demonstrating ongoing compliance with the relevant emission limit for another full year, the owner or operator may again request approval from the Administrator to reduce the reporting frequency as allowed by paragraph (g)(2) of this section.

(3) *Contents of ongoing compliance status reports.* The owner or operator of an affected source for which compliance monitoring is required in accordance with §63.343(c) shall prepare a summary report to document the ongoing compliance status of the source. The report must contain the following information:

(i) The company name and address of the affected source;

(ii) An identification of the operating parameter that is monitored for compliance determination, as required by §63.343(c);

(iii) The relevant emission limitation for the affected source, and the operating parameter value, or range of values, that correspond to compliance with this emission limitation as specified in the notification of compliance status required by paragraph (e) of this section;

(iv) The beginning and ending dates of the reporting period;

(v) A description of the type of process performed in the affected source;

(vi) The total operating time of the affected source during the reporting period;

(vii) If the affected source is a hard chromium electroplating tank and the owner or operator is limiting the maximum cumulative rectifier capacity in accordance with §63.342(c)(2), the actual cumulative rectifier capacity expended during the reporting period, on a month-by-month basis;

(viii) A summary of operating parameter values, including the total duration of excess emissions during the reporting period as indicated by those values, the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to process upsets, control equipment malfunctions, other known causes, and unknown causes;

(ix) A certification by a responsible official, as defined in §63.2, that the work practice standards in §63.342(f) were followed in accordance with the operation and maintenance plan for the source;

(x) If the operation and maintenance plan required by §63.342(f)(3) was not followed, an explanation of the reasons for not following the provisions, an assessment of whether any excess emission and/or parameter monitoring exceedances are believed to have occurred, and a copy of the report(s) required by §63.342(f)(3)(iv) documenting that the operation and maintenance plan was not followed;

(xi) A description of any changes in monitoring, processes, or controls since the last reporting period;

(xii) The name, title, and signature of the responsible official who is certifying the accuracy of the report; and

(xiii) The date of the report.

(4) When more than one monitoring device is used to comply with the continuous compliance monitoring required by §63.343(c), the owner or operator shall report the results as required for each monitoring device. However, when one monitoring device is used as a backup for the primary monitoring device, the owner or operator shall only report the results from the monitoring device used to meet the monitoring requirements of this subpart. If both devices are used to meet these requirements, then the owner or operator shall report the results from each monitoring device for the relevant compliance period.

(h) *Ongoing compliance status reports for area sources.* The requirements of this paragraph do not alleviate affected area sources from complying with the requirements of State or Federal operating permit programs under 40 CFR part 71.

(1) The owner or operator of an affected source that is located at an area source site shall prepare a summary report to document the ongoing compliance status of the affected source. The report shall contain the information identified in paragraph (g)(3) of this section, shall be completed annually and retained on site, and made available to the Administrator upon request. The report shall be completed annually except as provided in paragraph (h)(2) of this section.

(2) *Reports of exceedances.* (i) If both of the following conditions are met, semiannual reports shall be prepared and submitted to the Administrator:

(A) The total duration of excess emissions (as indicated by the monitoring data collected by the owner or operator of the affected source in accordance with §63.343(c)) is 1 percent or greater of the total operating time for the reporting period; and

(B) The total duration of malfunctions of the add-on air pollution control device and monitoring equipment is 5 percent or greater of the total operating time.

(ii) Once an owner or operator of an affected source reports an exceedance as defined in paragraph (h)(2)(i) of this section, ongoing compliance status reports shall be submitted semiannually until a request to reduce reporting frequency under paragraph (h)(3) of this section is approved.

(iii) The Administrator may determine on a case-by-case basis that the summary report shall be completed more frequently and submitted, or that the annual report shall be submitted instead of being retained on site, if these measures are necessary to accurately assess the compliance status of the source.

(3) *Request to reduce frequency of ongoing compliance status reports.* (i) An owner or operator who is required to submit ongoing compliance status reports on a semiannual (or more frequent) basis, or is required to submit its annual report instead of retaining it on site, may reduce the frequency of reporting to annual and/or be allowed to maintain the annual report onsite if all of the following conditions are met:

(A) For 1 full year (e.g., 2 semiannual or 4 quarterly reporting periods), the ongoing compliance status reports demonstrate that the affected source is in compliance with the relevant emission limit;

(B) The owner or operator continues to comply with all applicable recordkeeping and monitoring requirements of subpart A of this part and this subpart; and

(C) The Administrator does not object to a reduced reporting frequency for the affected source, as provided in paragraphs (h)(3)(ii) and (iii) of this section.

(ii) The frequency of submitting ongoing compliance status reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change, and the Administrator does not object to the intended change. In deciding whether to approve a reduced reporting frequency, the Administrator may review information concerning the source's previous performance history during the 5-year recordkeeping period prior to the intended change, or the recordkeeping period since the source's compliance date, whichever is shorter. Records subject to review may include performance test results,

monitoring data, and evaluations of an owner or operator's conformance with emission limitations and work practice standards. Such information may be used by the Administrator to make a judgement about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce reporting frequency, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(iii) As soon as the monitoring data required by §63.343(c) show that the source is not in compliance with the relevant emission limit, the frequency of reporting shall revert to semiannual, and the owner shall state this exceedance in the ongoing compliance status report for the next reporting period. After demonstrating ongoing compliance with the relevant emission limit for another full year, the owner or operator may again request approval from the Administrator to reduce the reporting frequency as allowed by paragraph (h)(3) of this section.

(i) *Reports associated with trivalent chromium baths.* The requirements of this paragraph do not alleviate affected sources from complying with the requirements of State or Federal operating permit programs under title V. Owners or operators complying with the provisions of §63.342(e) are not subject to paragraphs (a) through (h) of this section, but must instead submit the following reports:

(1) Within 180 days after January 25, 1995, submit an initial notification that includes:

(i) The same information as is required by paragraphs (c)(1) (i) through (v) of this section; and

(ii) A statement that a trivalent chromium process that incorporates a wetting agent will be used to comply with §63.342(e); and

(iii) The list of bath components that comprise the trivalent chromium bath, with the wetting agent clearly identified; and

(2) Within 30 days of the compliance date specified in §63.343(a), a notification of compliance status that contains an update of the information submitted in accordance with paragraph (i)(1) of this section or a statement that the information is still accurate; and

(3) Within 30 days of a change to the trivalent chromium electroplating process, a report that includes:

(i) A description of the manner in which the process has been changed and the emission limitation, if any, now applicable to the affected source;

(ii) If a different emission limitation applies, the applicable information required by paragraph (c)(1) of this section; and

(iii) The notification and reporting requirements of paragraphs (d), (e), (f), (g), and (h) of this section, which shall be submitted in accordance with the schedules identified in those paragraphs.

[60 FR 4963, Jan. 25, 1995, as amended at 61 FR 27787, June 3, 1996; 62 FR 4465, Jan. 30, 1997, 62 FR 42921, Aug. 11, 1997; 69 FR 42897, July 19, 2004]

§ 63.348 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

(c) The authorities that cannot be delegated to State, local, or Tribal agencies are as specified in paragraphs (c)(1) through (4) of

this section.

(1) Approval of alternatives to the requirements in §§63.340, 63.342(a) through (e) and (g), and 63.343(a).

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[68 FR 37347, June 23, 2003]

Table 1 to Subpart N of Part 63—General Provisions Applicability to Subpart N

General provisions reference	Applies to subpart N	Comment
63.1(a)(1)	Yes	Additional terms defined in §63.341; when overlap between subparts A and N occurs, subpart N takes precedence.
63.1(a)(2)	Yes	
63.1(a)(3)	Yes	
63.1(a)(4)	Yes	Subpart N clarifies the applicability of each paragraph in subpart A to sources subject to subpart N.
63.1(a)(6)	Yes	
63.1(a)(7)	Yes	
63.1(a)(8)	Yes	
63.1(a)(10)	Yes	
63.1(a)(11)	Yes	§63.347(a) of subpart N also allows report submissions via fax and on electronic media.
63.1(a)(12)–(14)	Yes	
63.1(b)(1)	No	§63.340 of subpart N specifies applicability.
63.1(b)(2)	Yes	
63.1(b)(3)	No	This provision in subpart A is being deleted. Also, all affected area and major sources are subject to subpart N; there are no exemptions.
63.1(c)(1)	Yes	Subpart N clarifies the applicability of each paragraph in subpart A to sources subject to subpart N.

63.1(c)(2)	Yes	§63.340(e) of Subpart N exempts area sources from the obligation to obtain Title V operating permits.
63.1(c)(4)	Yes	
63.1(c)(5)	No	Subpart N clarifies that an area source that becomes a major source is subject to the requirements for major sources.
63.1(e)	Yes	
63.2	Yes	Additional terms defined in §63.341; when overlap between subparts A and N occurs, subpart N takes precedence.
63.3	Yes	Other units used in subpart N are defined in that subpart.
63.4	Yes	
63.5(a)	Yes	Except replace the term “source” and “stationary source” in §63.5(a) (1) and (2) of subpart A with “affected sources.”
63.5(b)(1)	Yes	
63.5(b)(3)	Yes	Applies only to major affected sources.
63.5(b)(4)	No	Subpart N (§63.345) specifies requirements for the notification of construction or reconstruction for affected sources that are not major.
63.5(b)(5)	Yes	
63.5(b)(6)	Yes	
63.5(d)(1)(i)	No	§63.345(c)(5) of subpart N specifies when the application or notification shall be submitted.
63.5(d)(1)(ii)	Yes	Applies to major affected sources that are new or reconstructed.
63.5(d)(1)(iii)	Yes	Except information should be submitted with the Notification of Compliance Status required by §63.347(e) of subpart N.
63.5(d)(2)	Yes	Applies to major affected sources that are new or reconstructed except: (1) replace “source” in §63.5(d)(2) of subpart A with “affected source”; and (2) actual control efficiencies are submitted with the Notification of Compliance Status required by §63.347(e).
63.5(d)(3)–(4)	Yes	Applies to major affected sources that are new or reconstructed.
63.5(e)	Yes	Applies to major affected sources that are new or reconstructed.
63.5(f)(1)	Yes	Except replace “source” in §63.5(f)(1) of subpart A with “affected source.”
63.5(f)(2)	No	New or reconstructed affected sources shall submit the request for approval of construction or reconstruction under §63.5(f) of subpart A by the

		deadline specified in §63.345(c)(5) of subpart N.
63.6(a)	Yes	
63.6(b)(1)–(2)	Yes	Except replace “source” in §63.6(b)(1)–(2) of part A with “affected source.”
63.6(b)(3)–(4)	Yes	
63.6(b)(5)	Yes	Except replace “source” in §63.6(b)(5) of subpart A with “affected source.”
63.6(b)(7)	No	Provisions for new area sources that become major sources are contained in §63.343(a)(4) of subpart N.
63.6(c)(1)–(2)	Yes	Except replace “source” in §63.6(c)(1)–(2) of subpart A with “affected source.”
63.6(c)(5)	No	Compliance provisions for existing area sources that become major sources are contained in §63.343(a)(3) of subpart N.
63.6(e)	No	§63.342(f) of subpart N contains work practice standards (operation and maintenance requirements) that override these provisions.
63.6(f)(1)	No	§63.342(b) of subpart N specifies when the standards apply.
63.6(f)(2)(i)–(ii)	Yes	
63.6(f)(2)(iii)	No	§63.344(b) of subpart N specifies instances in which previous performance test results for existing sources are acceptable.
63.6(f)(2)(iv)	Yes	
63.6(f)(2)(v)	Yes	
63.6(f)(3)	Yes	
63.6(g)	Yes	
63.6(h)	No	Subpart N does not contain any opacity or visible emission standards.
63.6(i)(1)	Yes	
63.6(i)(2)	Yes	Except replace “source” in §63.6(i)(2)(i) and (ii) of subpart A with “affected source.”
63.6(i)(3)	Yes	
63.6(i)(4)(i)	No	§63.343(a)(6) of subpart N specifies the procedures for obtaining an extension of compliance and the date by which such requests must be submitted.
63.6(i)(4)(ii)	Yes	

63.6(i)(5)	Yes	
63.6(i)(6)(i)	Yes	This paragraph only references “paragraph (i)(4) of this section” for compliance extension provisions. But, §63.343(a)(6) of subpart N also contains provisions for requesting a compliance extension.
63.6(i)(6)(ii)	Yes	
63.6(i)(7)	Yes	
63.6(i)(8)	Yes	This paragraph only references “paragraphs (i)(4) through (i)(6) of this section” for compliance extension provisions. But, §63.343(a)(6) of subpart N also contains provisions for requesting a compliance extension.
63.6(i)(9)	Yes	This paragraph only references “paragraphs (i)(4) through (i)(6) of this section” and “paragraphs (i)(4) and (i)(5) of this section” for compliance extension provisions. But, §63.343(a)(6) of subpart N also contains provisions for requesting a compliance extension.
63.6(i)(10)(i)–(iv)	Yes	
63.6(i)(10)(v)(A)	Yes	This paragraph only references “paragraph (i)(4)” for compliance extension provisions. But, §63.343(a)(6) of subpart N also contains provisions for requesting a compliance extension.
63.6(i)(10)(v)(B)	Yes	
63.6(i)(11)	Yes	
63.6(i)(12)(i)	Yes	This paragraph only references “paragraph (i)(4)(i) or (i)(5) of this section” for compliance extension provisions. But, §63.343(a)(6) of subpart N also contains provisions for requesting a compliance extension.
63.6(i)(12)(ii)–(iii)	Yes	
63.6(i)(13)	Yes	
63.6(i)(14)	Yes	
63.6(i)(16)	Yes	
63.6(j)	Yes	
63.7(a)(1)	Yes	
63.7(a)(2)(i)–(vi)	Yes	
63.7(a)(2)(ix)	Yes	
63.7(a)(3)	Yes	

63.7(b)(1)	No	§63.347(d) of subpart N requires notification prior to the performance test. §63.344(a) of subpart N requires submission of a site-specific test plan upon request.
63.7(b)(2)	Yes	
63.7(c)	No	§63.344(a) of subpart N specifies what the test plan should contain, but does not require test plan approval or performance audit samples.
63.7(d)	Yes	Except replace “source” in the first sentence of §63.7(d) of subpart A with “affected source.”
63.7(e)	Yes	Subpart N also contains test methods specific to affected sources covered by that subpart.
63.7(f)	Yes	§63.344(c)(2) of subpart N identifies CARB Method 425 as acceptable under certain conditions.
63.7(g)(1)	No	Subpart N identifies the items to be reported in the compliance test [§63.344(a)] and the timeframe for submitting the results [§63.347(f)].
63.7(g)(3)	Yes	
63.7(h)(1)–(2)	Yes	
63.7(h)(3)(i)	Yes	This paragraph only references “§63.6(i)” for compliance extension provisions. But, §63.343(a)(6) of subpart N also contains provisions for requesting a compliance extension.
63.7(h)(3)(ii)–(iii)	Yes	
63.7(h)(4)–(5)	Yes	
63.8(a)(1)	Yes	
63.8(a)(2)	No	Work practice standards are contained in §63.342(f) of subpart N.
63.8(a)(4)	No	
63.8(b)(1)	Yes	
63.8(b)(2)	No	§63.344(d) of subpart N specifies the monitoring location when there are multiple sources.
63.8(b)(3)	No	§63.347(g)(4) of subpart N identifies reporting requirements when multiple monitors are used.
63.8(c)(1)(i)	No	Subpart N requires proper maintenance of monitoring devices expected to be used by sources subject to subpart N.
63.8(c)(1)(ii)	No	§63.342(f)(3)(iv) of subpart N specifies reporting when the O&M plan is

		not followed.
63.8(c)(1)(iii)	No	§63.343(f)(2) identifies the criteria for whether O&M procedures are acceptable.
63.8(c)(2)–(3)	No	§63.344(d)(2) requires appropriate use of monitoring devices.
63.8(c)(4)–(7)	No	
63.8(d)	No	Maintenance of monitoring devices is required by §§63.342(f) and 63.344(d)(2) of subpart N.
63.8(e)	No	There are no performance evaluation procedures for the monitoring devices expected to be used to comply with subpart N.
63.8(f)(1)	Yes	
63.8(f)(2)	No	Instances in which the Administrator may approve alternatives to the monitoring methods and procedures of subpart N are contained in §63.343(c)(8) of subpart N.
63.8(f)(3)	Yes	
63.8(f)(4)	Yes	
63.8(f)(5)	Yes	
63.8(f)(6)	No	Subpart N does not require the use of CEM's.
63.8(g)	No	Monitoring data does not need to be reduced for reporting purposes because subpart N requires measurement once/day.
63.9(a)	Yes	
63.9(b)(1)(i)–(ii)	No	§63.343(a)(3) of subpart N requires area sources to comply with major source provisions if an increase in HAP emissions causes them to become major sources.
63.9(b)(1)(iii)	No	§63.347(c)(2) of subpart N specifies initial notification requirements for new or reconstructed affected sources.
63.9(b)(2)	No	§63.347(c)(1) of subpart N specifies the information to be contained in the initial notification.
63.9(b)(3)	No	§63.347(c)(2) of subpart N specifies notification requirements for new or reconstructed sources that are not major affected sources.
63.9(b)(4)	No	
63.9(b)(5)	No	
63.9(c)	Yes	This paragraph only references “§63.6(i)(4) through §63.6(i)(6)” for

		compliance extension provisions. But, §63.343(a)(6) of subpart N also contains provisions for requesting a compliance extension. Subpart N provides a different timeframe for submitting the request than §63.6(i)(4).
63.9(d)	Yes	This paragraph only references “the notification dates established in paragraph (g) of this section.” But, §63.347 of subpart N also contains notification dates.
63.9(e)	No	Notification of performance test is required by §63.347(d) of subpart N.
63.9(f)	No	
63.9(g)	No	Subpart N does not require a performance evaluation or relative accuracy test for monitoring devices.
63.9(h)(1)–(3)	No	§63.347(e) of subpart N specifies information to be contained in the notification of compliance status and the timeframe for submitting this information.
63.9(h)(5)	No	Similar language has been incorporated into §63.347(e)(2)(iii) of subpart N.
63.9(h)(6)	Yes	
63.9(i)	Yes	
63.9(j)	Yes	
63.10(a)	Yes	
63.10(b)(1)	Yes	
63.10(b)(2)	No	§63.346(b) of subpart N specifies the records that must be maintained.
63.10(b)(3)	No	Subpart N applies to major and area sources.
63.10(c)	No	Applicable requirements of §63.10(c) have been incorporated into §63.346(b) of subpart N.
63.10(d)(1)	Yes	
63.10(d)(2)	No	§63.347(f) of subpart N specifies the timeframe for reporting performance test results.
63.10(d)(3)	No	Subpart N does not contain opacity or visible emissions standards.
63.10(d)(4)	Yes	
63.10(d)(5)	No	§63.342(f)(3)(iv) and §63.347(g)(3) of subpart N specify reporting associated with malfunctions.
63.10(e)	No	§63.347(g) and (h) of subpart N specify the frequency of periodic reports of

		monitoring data used to establish compliance. Applicable requirements of §63.10(e) have been incorporated into §63.347(g) and (h).
63.10(f)	Yes	
63.11	No	Flares will not be used to comply with the emission limits.
63.12–63.15	Yes	

[60 FR 4963, Jan. 25, 1995, as amended at 61 FR 27787, June 3, 1996; 70 FR 75345, Dec. 19, 2005]

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document (TSD) for a
Minor Source Operating Permit
Renewal (MSOP)

Source Background and Description

Source Name:	Delta Faucet Company
Source Location:	1425 W. Main Street, Greensburg, Indiana, 47240
County:	Decatur
SIC Code:	3432
Permit Renewal No.:	031-20848-00007
Permit Reviewer:	Swarna Prabha

On July 21, 2008, the Office of Air Quality (OAQ) had a notice published in Greensburg Daily News, Greensburg, Indiana, stating that Delta Faucet Company had applied for a renewal to their Minor Source Operating Permit (MSOP) to continue to operate stationary chrome faucet electroplating source. The notice also stated that the OAQ proposed to issue a MSOP for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments and Responses

NOTE: The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes. IDEM, OAQ does not make any changes to the original TSD, but the Permit will have the updated changes.

On August 19, 2008, Russell Parks, of Delta Faucet Company submitted comments to IDEM, OAQ on the draft MSOP renewal. The comments and revised permit language are provided below with deleted language as ~~strikeouts~~ and new language **bolded**.

Comment 1:

The source requests that the facility description in Sections A.2 and D.5 subsection (m)(1) be removed. There is no sand blast unit in the tool room.

Response to Comment 1:

As requested by the Permittee, the facility description in Sections A.2 and D.5 subsection (m)(1) of the permit has been removed as follows:

(m) One (1) tool room which includes:

~~(1) One (1) enclosed sand blast unit, exhausting indoors, using a dust~~ collector

(~~2~~**1**) One (1) glass tool room blast cabinets: (1) identified as tool room glass bead blast cabinet utilizing a collector for particulate control, constructed in 1979;

(~~3~~**2**) One (1) dust collector servicing miscellaneous grinding stations, exhausting indoors, and using a combination cyclone and baghouse collection system for particulate control;

Comment 1:

The source requests that the Appendix A, emission calculations, page 1 of 10 of emission

summary, in both controlled and uncontrolled Sections, copper should be deleted from the HAPs list. Copper is not considered a HAP.

Response to Comment 1:

IDEM, OAQ agrees that Copper is not considered a HAP. Copper listed under Hazardous Air Pollutants on summary page has been removed. Appendix A, emission summary page 1 of 10 has been revised.

There is no change in the rule applicability due to the removal of Copper.

IDEM Contact

Question regarding this permit can be directed to Ms. Swarna Prabha the Indiana Department of Environmental Management, Office of Air Quality, 100 North Senate Avenue, MC 6153 IGCN 1003, Indianapolis, In 46204-2251 or by telephone at 317-234-5376 or toll free at 1-800-452-6027 extension
4-5376.

Revised Appendix A: Emission Calculations

Emission Summary

Company Name: Delta Faucet Company
Address City IN Zip: 1425 West Main Street, Greensburg, Indiana 47240
MSOP Permit NO.: 031-20848-00007
Reviewer: Swarna Prabha

Uncontrolled Potential Emissions (tons/year)

				Emission Generating Activities							
		Powder Spray	Natural gas	Plater ID	Plater ID	Plater ID	Formaldehyde	Buffing	Air Washers		
		Booths (3)	boiler/ovens	3700	574	255	Electroless	Stations	&	Welding	
Category	Pollutant						T7/T8		Parts Washers		TOTAL
Criteria	PM	2.09	0.74	0.83	0.54	17.80	0.22	18.81	0.13	0.01	41.17
Pollutants	PM10	2.09	2.96	0.83	0.54	17.80	0.22	18.81	0.13	0.01	43.39
	SO2		0.23				0.090				0.32
	NOx		39.00				0.75				39.76
	VOC		2.15	0.46			0.65		5.85		9.10
	CO		32.76								32.76
Hazardous	DCB		4.68E-04								4.68E-04
Air	Cadmium		4.29E-04								4.29E-04
Pollutants	Toluene		1.33E-03								1.33E-03
	Benzene		8.19E-04								8.19E-04
	Formaldehyde		0.03				0.54				0.57
	Lead		1.95E-04	1.81E-05							2.1E-04
	Nickel		8.19E-04	0.19		3.59					3.79
	Chromium		5.46E-04	0.17		0.32					0.49
	Hexane		0.70								0.70
	Totals		0.74	0.37		3.91	5.39E-01				5.55

Controlled Potential Emissions (tons/year)

				Emissions Generating Activity							
		Powder Spray	Natural gas	Plater ID	Plater ID	Plater ID	Formaldehyde	Buffing	Air Washers	Welding	
		Booths (3)	boiler/ovens	3700	574	255	Electroless	Stations	&		
Category	Pollutant						T7/T8		Parts Washer		TOTAL
Criteria	PM	2.09	0.74	0.023	0.03	17.17	0.02	18.81	0.13	0.01	39.02
Pollutants	PM10	2.09	2.96	0.023	0.03	17.17	0.02	18.81	0.13	0.01	41.25
	SO2		0.23				0.09				0.32
	NOx		39.00				0.75				39.76
	VOC		2.15	0.46			0.65		5.85		9.10
Category	CO		32.76								32.76
Hazardous	DCB		4.68E-04								4.68E-04
Air	Cadmium		4.29E-04								4.29E-04
Pollutants	Toluene		1.33E-03								1.33E-03
	Benzene		8.19E-04								8.19E-04
	Formaldehyde		0.03				0.0054				0.03
	Lead		1.95E-04	3.63E-09							1.95E-04
	Nickel		8.19E-04	0.010		3.59					3.60
	Chromium		5.46E-04	3.47E-05		0.32					0.32
	Hexane		0.70								0.70
	Totals		0.74	0.01		3.91	5.39E-03				4.66

Total emissions based on rated capacity at 8,760 hours/year.
Emissions from the emission units listed on page 11-12 of TSD are not accounted for in this permit

Revised Appendix A: Emission Calculation
Powder Spray Booths

Company Name: Delta Faucet Company
Address City IN Zip: 1425 West Main Street, Greensburg, Indiana 47240
MSOP Permit NO.: 031-20848-00007
Reviewer: Swarna Prabha

Emission Unit	Maximum Powder Use (lbs/hr)	Maximum Powder Use (tons/yr)	Transfer Efficiency (%)	Cartridge filter Efficiency	PTE before cartridge filters PM/PM_{10} (lbs/hr)	PTE before cartridge filter PM/PM_{10} (tons/yr)	PTE before Cartridge filter PM/PM_{10} (lbs/hr)	PTE after Cartridge filter PM/PM_{10} (tons/yr)
Powder Spray Booth-1421	13.923	60.983	70.0%	95.0%	4.18	18.3	0.209	0.91
Powder Spray Booth-1599	3.978	17.424	70.0%	95.0%	1.19	5.2	0.060	0.26
Powder Spray Booth-4160	13.923	60.983	70.0%	95.0%	4.18	18.3	0.209	0.91
			Total		**9.55**	**41.8**	**0.477**	**2.09**

The transfer efficiency is based on electrostatic-airless gun for table leg type coated surfaces

Methodology

Potential Emissions (lbs/hr) = Powder usage rate * (1- transfer efficiency)
Emissions (tons/yr) = Emissions (lbs/hr) * 8760 hrs/yr / 2000 lbs/ton
PM10 emissions are assumed to equal PM.

Revised Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: Delta Faucet Company
Address City IN Zip: 1425 West Main Street, Greensburg, Indiana 47240
MSOP Permit NO.: 031-20848-00007
Reviewer: Swarna Prabha

Pollutant	PM*	PM10*	SO2	NOx**	VOC	CO	Benzene	DCB	Formaldehyde	Hexane	Toluene	Pb	Cd	Cr	Mn	Ni
Emission Factor (lb/MMCF)	1.9	7.6	0.6	100	5.5	84.0	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03

Emission Unit	Number of Units	Unit Heat Input Capacity MMBtu/hr	Combined Total Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Potential Emission tons/yr													
					PM*	PM10*	SO2	NOx**	VOC	CO	Benzene	DCB	Formaldehyde	Hexane	Toluene	Pb	Cd	Cr	Mn	Ni
Boiler 586	1	25.200	25.200	220.75	0.21	0.8	0.1	11.0	0.6	9.3	2.3E-04	1.3E-04	8.3E-03	2.0E-01	3.8E-04	5.5E-05	1.2E-04	1.5E-04	4.2E-05	2.3E-04
Boiler 1513	1	32.640	32.640	285.93	0.27	1.1	0.1	14.3	0.8	12.0	3.0E-04	1.7E-04	1.1E-02	2.6E-01	4.9E-04	7.1E-05	1.6E-04	2.0E-04	5.4E-05	3.0E-04
Boiler 1854	1	2.100	2.100	18.40	0.017	0.07	0.006	0.9	0.051	0.8	1.9E-05	1.1E-05	6.9E-04	1.7E-02	3.1E-05	4.6E-06	1.0E-05	1.3E-05	3.5E-06	1.9E-05
Boiler 2256	1	14.700	14.700	128.77	0.122	0.49	0.039	6.4	0.354	5.4	1.4E-04	7.7E-05	4.8E-03	1.2E-01	2.2E-04	3.2E-05	7.1E-05	9.0E-05	2.4E-05	1.4E-04
Boiler 3667	1	1.500	1.500	13.14	0.012	0.05	0.004	0.7	0.036	0.6	1.4E-05	7.9E-06	4.9E-04	1.2E-02	2.2E-05	3.3E-06	7.2E-06	9.2E-06	2.5E-06	1.4E-05
Dry-off Oven 3559	1	0.500	0.500	4.38	0.004	0.02	0.001	0.2	0.012	0.2	4.6E-06	2.6E-06	1.6E-04	3.9E-03	7.4E-06	1.1E-06	2.4E-06	3.1E-06	8.3E-07	4.6E-06
Dry-off Oven 4160	1	0.500	0.500	4.38	0.004	0.02	0.001	0.2	0.012	0.2	4.6E-06	2.6E-06	1.6E-04	3.9E-03	7.4E-06	1.1E-06	2.4E-06	3.1E-06	8.3E-07	4.6E-06
Fluidized bed burn-off oven	1	0.990	0.990	8.67	0.008	0.03	0.003	0.4	0.024	0.4	9.1E-06	5.2E-06	3.3E-04	7.8E-03	1.5E-05	2.2E-06	4.8E-06	6.1E-06	1.6E-06	9.1E-06
Brazing 10200	1	5.720	5.720	50.11	4.8E-02	1.9E-01	1.5E-02	2.5E+00	1.4E-01	2.1E+00	5.3E-05	3.0E-05	1.9E-03	4.5E-02	8.5E-05	1.3E-05	2.8E-05	3.5E-05	9.5E-06	5.3E-05
Curing Oven 3641	1	0.800	0.800	7.01	0.007	0.03	0.002	0.4	0.019	0.3	7.4E-06	4.2E-06	2.6E-04	6.3E-03	1.2E-05	1.8E-06	3.9E-06	4.9E-06	1.3E-06	7.4E-06
Curing Oven 569	1	3.600	3.600	31.54	0.030	0.12	0.009	1.6	0.087	1.3	3.3E-05	1.9E-05	1.2E-03	2.8E-02	5.4E-05	7.9E-06	1.7E-05	2.2E-05	6.0E-06	3.3E-05
Curing Oven 4160	1	0.800	0.800	7.01	0.007	0.03	0.002	0.4	0.019	0.3	7.4E-06	4.2E-06	2.6E-04	6.3E-03	1.2E-05	1.8E-06	3.9E-06	4.9E-06	1.3E-06	7.4E-06
Totals	**12**		**89.05**		**0.74**	**2.96**	**0.23**	**39.00**	**2.15**	**32.76**	**8.19E-04**	**4.68E-04**	**2.9E-02**	**7.0E-01**	**1.3E-03**	**2.0E-04**	**4.3E-04**	**5.5E-04**	**1.5E-04**	**8.2E-04**

Emission Unit	Number of Units	Unit Heat Input Capacity MMBtu/hr	Combined Total Heat Input Capacity MMBtu/hr	Allowable PM MMBtu/hr	Potential PM MMBtu/hr
Boiler 586-constructed 1975	1	25.200	25.200	0.6	0.0019
Boiler 1308- constructed in 1987	1	0.750	0.750	removed-2002	
Boiler 1307-constructed in 1987	1	0.750	0.750	removed-2002	
Boiler 1513-constructed in 1990	1	32.640	59.640	0.38	0.0019
Boiler 1854- constructed in 1993	1	2.100	61.740	0.37	0.0019
Boiler 2256- Constructed in 1994	1	14.700	76.440	0.350	0.0019
Boiler 3667- constructed in 2002	1	1.500	76.440	0.350	0.0019

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32
The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Methodology
Potential Throughput (MMCF) = Combined Total Heat Input Capacity (MMBtu/hr) * 8,760 hrs/yr * 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) * Emission Factor (lb/MMCF) / 2,000 lb/ton
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu, MMCF = 1,000,000 Cubic Feet of Gas

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
SO2 = Sulfur Dioxide
NOx = Nitrous Oxides
VOC - Volatile Organic Compounds
CO = Carbon Monoxide
DCB = Dichlorobenzene
Pb = Lead
Cd = Cadmium
Cr = Chromium
Mn = Manganese
Ni = Nickel

Revised Appendix A: Emission Calculations
Electroplating Plater ID 3700

Company Name: Delta Faucet Company
Address City IN Zip: 1425 West Main Street, Greensburg, Indiana 47240
MSOP Permit NO.: 031-20848-00007
Reviewer: Swarna Prabha

	Emission Factor (gr/dscf)	Total Flow Rate (cfm)	PTE before Control (lbs/hr)	PTE before Control (tons/yr)	Control Efficiency	PTE after Control (lbs/hr)	PTE after Control (tons/yr)	Weight % Lead	PTE Lead before controls (tons/yr)	PTE Lead after controls (tons/yr)
Chromium Electroplating										
PM	0.00069	14000	0.0828	0.363	99.98%	1.66E-05	7.25E-05	0.00005	1.81E-05	3.63E-09
Chromium	0.00033	14000	0.0396	0.173	99.98%	7.92E-06	3.47E-05			
Nickel Electroplating										
PM	0.0000067	38690	0.0444	0.195	95.00%	2.22E-03	9.73E-03			
Nickel	0.0000067	38690	0.0444	0.195	95.00%	2.22E-03	9.73E-03			
Copper Sulfate Electroplating										
PM	0.000081	4420	0.0614	0.269	95.00%	3.07E-03	1.34E-02			
Copper	0.000081	4420	0.0614	0.269	95.00%	3.07E-03	1.34E-02			
Total PM				**0.826**		5.31E-03	**0.023**			

Each Tank for decorative chromium electroplating is open and equipped with separate scrubber as an add-on device
Source compliance to the NESHAP is via surface tension (35 dynes/cm) The scrubber is not required for compliance to the NESHAP 40 CFR 63, Subpart N
Emissions from Tank T27 and T22 are included in Line 1038 on page 7.

Methodology

Chromium Electroplating

Emission factor for decorative chromium electroplating (SCC 3-09-1010-28) using a fume suppressant from AP-42, Table 12.20-1
PTE before Control (lbs/hr) = Emission factor (gr/dscf) x Total flow rate (cfm) x (60 min/hr / 7,000 gr/lb)
PTE Lead before Control (lbs/hr) = PTE PM before Control (lbs/hr) x Weight % Lead
PTE after Control (lbs/hr) = PTE before Control (lbs/hr) x (1-Control Efficiency)
PTE (tons/yr) = PTE (lbs/hr) x 8,760 hrs/yr / 2,000 lbs/ton

Nickel and Copper Sulfate Electroplating

Emission factors for Nickel electroplating (SCC 3-09-010-68) using a wet scrubber and Copper Sulfate Electroplating using a wet scrubber (SCC 3-09-010-45) from AP-42, Table 12.20-4
PTE after Control (lbs/hr) = Emission factor (gr/dscf) x Total flow rate (cfm) x (60 min/hr / 7,000 gr/lb)
PTE before Control (lbs/hr) = PTE after Control (lbs/hr) / (1-Control Efficiency)
PTE (tons/yr) = PTE (lbs/hr) x 8,760 hrs/yr / 2,000 lbs/ton

Material	Density (lbs/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Percentage of Material (/shift)	Tank Capacity (gallons)	Number of Shifts per day	Potential VOC (tons/yr)
Fume Suppressant	8.76	12.00%	0.0%	12.0%	0.0%	0.05%	1603	3.00	0.461

A negligible amount of glycol ethers may be emitted from the UDYPREP 340 Acid Salt.

Methodology

PTE VOC (tons/yr) = Density (lbs/gal) x Weight % Organics x Percentage of Material (/shift) x Tank Capacity (gallons) x Number of Shifts per Day x 365 Days/yr / 2,000 lbs/ton

Totals	PTE before Control (lbs/hr)	PTE before Control (tons/yr)	PTE after Control (lbs/hr)	PTE after Control (tons/yr)
PM	0.189	0.826	0.005	0.023
VOC		0.461		0.461
Chromium	3.96E-02	1.7E-01	7.92E-06	3.47E-05
Nickel	0.044	0.195	0.002	0.010
Lead		1.8E-05		3.63E-09
Total HAPs		0.368		0.010

Revised Appendix A: Emission Calculations
Electroplating Plater T23-26(Plater 574)

Company Name: Delta Faucet Company
Address City IN Zip: 1425 West Main Street, Greensburg, Indiana 47240
MSOP Permit NO.: 031-20848-00007
Reviewer: Swarna Prabha

Description	Emission Factor (grains per dscfm)	control efficiency	airflow (scfm)	PTE of Copper emissions (tons per year)	PTE of PM/PM10 emissions (lbs/hr)	PTE of PM/PM10 emissions (tons per year)	PTE of PM /PM_{10} emissions after control (tons per year)
Copper Tank	8.10E-05	95	8898	0.54	0.124	0.54	0.03

Methodology
Emission Calculations are based on AP-42 - Page 12.20 (Supplement B 7/96)
PM10 emissions are assumed to equal PM.
Potential emissions (tons/year) = emission factor * airflow / (1- control efficiency) *60 minutes/hr * 8760 hrs/yr * 1 ton / 2000 lbs * 1 lb / 7000 grains.

Revised Appendix A: Emission Calculations
Formaldehyde electroless T7/T8

Company Name: Delta Faucet Company
Address City IN Zip: 1425 West Main Street, Greensburg, Indiana 47240
MSOP Permit Number: 031-20848-00007
Reviewer: Swarna Prabha

VOC and HAP emissions

Unit ID	Pollutant	Usage (lbs/hr)	Potential Emissions before Controls (lbs/hr)	PTE before Controls (tons/yr)	Control Efficiency (%)	PTE after Controls (lbs/hr)	PTE after Controls (tons/yr)
EC Tank 1715	Formaldehyde	0.123	0.123	0.539	99.0%	0.001	0.005
* Brite Dip tankT14	Methanol	0.148	0.148	0.648	90.0%	0.015	0.065
	**NO_x			0.75			0.75
	**SO_2			0.086			0.086
EC Tank 1715	PM	0.05	0.05	0.219	90.00%	0.005	0.0219

**Small amounts of SO2 and NOx can result from those operations.

NOx emissions supplied by the applicant are 0.754 tons per year, and SOx emissions supplied by the applicant are 0.086 tons per year.

*Emissions from the Brite dip tank are methanol emissions only

Revised Appendix A: Emission Calculations
Rack Strip and Plater Line 1038 and Rack Strip Line 255P

Company Name: Delta Faucet Company
Address City IN Zip: 1425 West Main Street, Greensburg, Indiana 47240
MSOP Permit Number: 031-20848-00007
Reviewer: Swarna Prabha

	Emission Factor Pounds per hour of Chromium	Emission Factor Pounds per hour of Nickel	Emission Factor Pounds per hour of PM	PTE Chromium (tons per year)	PTE Ni (tons per year)	PTE PM (tons per year)
**Line 1038	0.072	0.82	2.912	0.315	3.592	12.755
Line 255	-	-	1	-	-	4.380
Total				0.315	3.592	17.135

Rack Strip Line 1038

Material	Normal Usage (lbs/hr)	Maximum Usage (lbs/hr)	Maximum Usage (tons/yr)	Control Efficiency (%)	controlled PTE of PM (tons/yr)
T34					
Alkaline Cleaner	1.09	2.05	8.98	95.0%	0.449
T37					
Aqua Ammonia	0.05	0.09	0.41	95.0%	0.021
Acetic Acid	0.03	0.06	0.25	95.0%	0.012
Total PM			0.66		0.033

**Source submitted the emission factors based on scrubber loading for Platter 1038CR -T27 & T22.

Methodology

Potential Emissions = Emission Factor * 8760 hours/year * 1 / 2000 lbs/tons

PM10 emissions are assumed to be equal to PM.

Revised Appendix A: Emission Calculations
Process Operations- buffing

Company Name: Delta Faucet Company
Address City IN Zip: 1425 West Main Street, Greensburg, Indiana 47240
MSOP Permit Number: 031-20848-00007
Reviewer: Swarna Prabha

Emission Unit	Flow Rate (acfm)	Inlet Grain Loading (gr/acfm)	Potential PM Emissions (lbs/hr)	Potential PM Emissions (tons/yr)
Two wheel Buffing #1849	4800	0.01	0.41	1.80
Two wheel Buffing #3979	2100	0.01	0.18	0.79
Two wheel Buffing #3981	1200	0.01	0.10	0.45
*Six (6) Two wheel Buffing	2700	0.01	0.23	6.08
(Automatics) Buffing #537	2100	0.01	0.18	0.79
(Automatics)Buffing #3759	1500	0.001	0.01	0.06
(Automatics) Buffing #3951	1500	0.001	0.01	0.06
(Automatics) Buffing #3954	1500	0.001	0.01	0.06
(Automatics) Buffing #3957	1500	0.001	0.01	0.06
Robot Buffing Station #3213	3300	0.01	0.28	1.24
Robot Buffing Station #3215	3300	0.01	0.28	1.24
Robot Buffing Station #3899	3300	0.01	0.28	1.24
Robot Buffing Station #3997	3300	0.01	0.28	1.24
Robot Buffing Station #4081	3300	0.01	0.28	1.24
Robot Buffing Station #4082	3300	0.01	0.28	1.24
Robot Buffing Station #4083	3300	0.01	0.28	1.24
Total				**18.809**

*Two wheel buffing stations has six operations. Potential emissions are multiplied by six.

Methodology

Potential Emissions (lbs/hr) = Flow Rate * Inlet Grain Loading * 60 min/hr / (7000 grains/lb)

Potential Emissions (tons/year) = Flow Rate * Inlet Grain Loading * 60 min/hr * 8760 hr/yr / (7000 grains/lb * 2000 lbs/ton

PM10 emissions are assumed to equal PM.

Revised Appendix A: Emission Calculations
Process Operations- (4) Air Washers, (11) parts washers

Company Name: Delta Faucet Company
Address City IN Zip: 1425 West Main Street, Greensburg, Indiana 47240
MSOP Permit Number: 031-20848-00007
Reviewer: Swarna Prabha

Air Washers

Emission Unit	Stack	Flow Rate (acfm)	Outlet Grain Loading (gr/acfm)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)	Control Efficiency	PTE PM (lbs/hr)	PTE PM (tons/yr)	Process Weight Rate (lbs/hr)	Allowable Emissions PM (lbs/hr)
Buffing Air Washer	2126	42961	9.40E-07	3.46E-04	1.52E-03	95.0%	6.92E-03	3.03E-02		
Buffing Air Washer	2491	27752	9.81E-07	2.33E-04	1.02E-03	95.0%	4.67E-03	2.04E-02		
Buffing Air Washer	3011	48000	1.01E-06	4.16E-04	1.82E-03	95.0%	8.31E-03	3.64E-02		
Buffing Air Washer	3915	60000	1.01E-06	5.19E-04	2.28E-03	95.0%	1.04E-02	4.55E-02		
									less than	
			Total	1.51E-03	6.63E-03		3.03E-02	1.33E-01	100	0.551

Methodology

Controlled Emissions (lbs/hr) = gr/acfm x acfm x 60 minutes/hr / 7000 gr/lb

Uncontrolled Emissions (lbs/hr) = Controlled Emissions (lbs/hr) / (1 - Control Efficiency)

Emissions (tons/yr) = Emissions (lbs/hr) * 8760 hrs/yr / 2000 lbs/ton

Allowable Emissions (lbs/hr) = 4.10 x (Process weight (lbs/hr) / 2000 lbs/ton)^0.67 [326 IAC 6-3-2]

(11) Parts Washers PTE VOC

Parts Washer	VOC %	VOC PTE tons/yr
gal/yr		
1700.00	100%	5.85

Methodology

Density of Water = 8.34 lbs/gal
Specific Gravity for Hydrotreated distillate CAS#64742-47-8 = 0.825

Solvent VOC content = 100%

VOC Emissions (tons/yr) = Solvent (gallon/yr) * Solvent Specific Gravity (.825)* Density of water(8.34) *(100/100) VOC / 2000 lbs/ton

Revised Appendix A: Welding and Thermal Cutting

Company Name: Delta Faucet Company
Address City IN Zip: 1425 West Main Street, Greensburg, Indiana 47240
MSOP: 031-20848-00007
Reviewer: Swarna Prabha

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)		EMISSION FACTORS * (lb pollutant / lb electrode)				EMISSIONS (lb/hr)				TOTAL HAPS (lb/hr)
WELDING				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Submerged Arc	0	0		0.036	0	0	0	0.000	0	0.000	0	0.000
Metal Inert Gas (MIG)(ER5154)	0	0		0.0241	3E-05		1E-05	0.000	0	0.000	0	0.000
Stick (E7018 electrode)	0	0		0.0211	0	0	0	0.000	0	0.000	0	0.000
Tungsten Inert Gas (TIG)(carbon steel)	0	0		0.0055	0	0	0	0.000	0	0.000	0	0.000
Oxyacetylene(carbon steel)	2	0.2		0.0055	0	0	0	0.002	0	0.000	0	0.000

	Number of Stations	Max. Metal Thickness Cut	Max. Metal Cutting Rate	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)				EMISSIONS (lbs/hr)				TOTAL HAPS (lb/hr)
FLAME CUTTING		(in.)	(in./minute)	PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Oxyacetylene	0	0	0	0.1622	5E-04	1E-04	0.0003	0.000	0.000	0.000	0.000	0.000
Oxymethane	0	0	0	0.0815	2E-04	0	0.0002	0.000	0.000	0.000	0.000	0.000
Plasma	0	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000

EMISSION TOTALS								PM = PM10	Mn	Ni	Cr	Total HAPs
Potential Emissions lbs/hr								0.002	0.00	0.00	0.00	0.00
Potential Emissions lbs/day								0.053	0.00	0.00	0.00	0.00
Potential Emissions tons/year								0.010	0.000	0.000	0.000	0.000

METHODOLOGY

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column. Consult AP-42 or other reference for different electrode types.
Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)
Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day
Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/day x 1 ton/2,000 lbs.
Plasma cutting emission factors are from the American Welding Society study published in Sweden (March 1994).
Welding and other flame cutting emission factors are from an internal training session document.
See AP-42, Chapter 12.19 for additional emission factors for welding.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Minor Source Operating Permit Renewal

Source Background and Description

Source Name:	**Delta Faucet Company**
Source Location:	**1425 W. Main Street, Greensburg, Indiana, 47240**
County:	**Decatur**
SIC Code:	**3432**
Permit Renewal No.:	**031-20848-00007**
Permit Reviewer:	**Swarna Prabha**

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Delta Faucet Company relating to the operation of a stationary chrome faucet electroplating source.

History

On February 28, 2005, Delta Faucet Company submitted an application to the OAQ requesting to renew its operating permit. Delta Faucet Company was issued a MSOP on May 25, 2000.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

(a) One (1) decorative chromium electroplating tank, identified as T27, constructed prior to December 16, 1993, using a hexavalent chromium bath, using a chemical fume suppressant containing a wetting agent for control and exhausting at stack 1038Cr. This tank is also equipped with a three stage mesh-pad scrubber that is not used for compliance to NESHAP. Under 40 CFR 63, Subpart N, this is considered an existing decorative chromium electroplating tank [40CFR 63, Subpart N];

(b) One (1) multi-finish electroplating line, identified as 3700, with a capacity of 1,800 pounds of metal and plastic parts per hour, consisting of the following:

(1) Five (5) nickel plating tanks, identified as stations 32 through 35, 39 through 42, 46, and 49 through 52, and 53 through 56, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack;

(2) One (1) copper sulfate plating tank, identified as stations 27 and 28, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack;

(3) One (1) decorative chromium plating tank identified as tank 3700-S6768, with two (2) stations, identified as stations 67 and 68, using a fume suppressant containing a wetting agent as control, and exhausting through the chromium scrubber, which is a three stage mesh-pad scrubber and is not used for compliance to NESHAP, and exhausting through the Multi-Finish Line Chromium Scrubber Stack. Under 40 CFR 63, Subpart N, this is considered an existing decorative chromium electroplating tank [40CFR 63, Subpart N];

(4) One (1) chrome pre-dip tank, identified as station 64, equipped with the chromium scrubber, and exhausting through the Multi-Finish Line Chromium Scrubber Stack;

(5) One (1) rack strip tank, identified as stations 207 through 210, equipped with the rack strip scrubber, and exhausting through the Multi-Finish Line Rack Strip Scrubber Stack;

(6) One (1) rack strip tank, identified as stations 193 through 194, utilizing approximately 13 % ammonium bifluoride, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack;

(7) Two (2) chrome strip tanks, identified as stations 15, 197 and 198, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack;

(8) Rinse tanks, equipped with the same nickel/cleaner scrubber as in unit (7), and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack;

(9) Six (6) cleaner tanks, identified as stations 3 through 5, 7 through 8, 11 through 12, 18, 22, and 62 equipped with the same Nickel/Cleaner Scrubber as in 6 through 8, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack;

(c) One (1) nickel electroplating bath, identified as T22, equipped with a combination packed bed/chevron blade wet scrubber to minimize nickel emissions from T22, and exhausting at stack 1038Ni;

(d) One (1) copper plating tank, consisting of two tanks plumbed together, identified as T23-26, equipped with a combination packed bed/chevron blade/mesh pad wet scrubber to minimize copper emissions from T23-T26, and exhausting at stack 574,

(e) One (1) formaldehyde electroless copper plating tank, identified as Tank T7/T8, equipped with a packed bed wet scrubber and exhausting at stack 489. This production line also utilizes two (2) aqueous cleaner tanks identified as T1/T2 that exhaust externally and one (1) immersion tin tank identified as T12 that utilizes the 1009 scrubber;

(f) One (1) set of twelve (12) Brite Dip tanks, identified as Brite Dip tanks, equipped with a combination packed bed/chevron blade/mesh pad wet scrubber to minimize any sulfuric/ hydrogen peroxide emissions from this line, and exhausting at stack 1715;

(g) One (1) strip line, identified as 255P using sulfuric acid, ammonium bifluoride, equipped with one (1) packed bed wet scrubber, identified as machine number 2986, and exhausting at stack 255P. A used acid tank and an acid/cleaner tank exhaust to the same scrubber, identified as machine number 3312, and exhausting at stack 255R;

(h) One (1) rack strip line, identified as 1038, consisting of (2) rack strip tanks, four (4) rinse tanks and one (1) hot rinse tank, equipped with a combination packed bed/chevron blade/mesh pad wet scrubber to minimize any stripping related emissions, and exhausting to stack 3230, maximum capacity: 2.05 pounds of alkaline cleaner per hour, 0.09 pound of aqua ammonia per hour, 0.06 pound of Acetic Acid per hour, and 0.49 pound of Nitric Acid per hour;

(i) Buffing operations, equipped with four (4) air washers, identified as 2125, 2490, 3011, and 3915, and exhausting at stacks 2126, 2491, 3011, and 3915, respectively;

(j) Brazing operations, identified as 10200, exhausting at stacks 1183, 1873, 1874, 1212 and 1105, capacity: 10.3 pounds per hour of solder, 1,800 pounds per hour of brass or copper parts, and natural gas-fired capacity of 5.72 million British thermal units per hour;

NOTE: See summary table below for the control stack/s and the related plating emission units:

Emission Units and Control Stack:

Control - Stack	**Operations**
chemical fume suppressant containing a wetting agent for control - stack 1038Cr	One (1) decorative chromium electroplating tank; T27
Nickel/Cleaner Scrubber - Multi Finish Line Nickel/Cleaner Scrubber Stack	Five (5) nickel plating tanks One (1) copper sulfate plating tank Two (2) chrome strip tanks Rinse tanks Six (6) cleaner tanks One (1) rack strip tank(not controlled by the scrubber but exhaust to the same stack) One (1) rack strip tank stations; 193 through 194
Chromium Scrubber - Multi Finish Line Chromium Scrubber Stack	One (1) decorative chromium plating tank One (1) chrome pre-dip tank
rack strip scrubber - Multi Finish Line Rack Strip Scrubber Stack	One (1) rack strip tank stations; 207 through 210
packed bed\ chevron blade wet scrubber - 1038Ni	One (1) nickel electroplating bath
packed bed\ chevron blade\mesh pad wet scrubber-stack 574	One (1) copper plating tank
packed bed\ chevron blade\mesh pad wet scrubber-stack 1715	One (1) set of twelve (12) Brite Dip Tanks
packed bed\ chevron blade\mesh pad wet scrubber-stack 3230	One (1) rack strip line; 1038
packed bed wet scrubber- stack 255	One (1) strip line 255P
packed bed wet scrubber- stack 489	One (1) formaldehyde electroless copper plating
1009 scrubber-stack 489	two (2) aqueous cleaner tanks; T1/T2, and one (1) immersion tin tank; T12

(k) Three (3) Powder spray booths:

(1) One (1) powder spray booth, identified as 1599, constructed in April 1991, equipped with an integral cartridge filtration system, exhausting inside, capacity; 2.6 tons of parts coated per hour, and using 13.9 pounds of powder per hour;

(2) One (1) powder spray booth, identified as 4160, constructed in 2005, equipped with an integral cartridge filtration system, exhausting inside, capacity; 2.6 tons of parts coated per hour, and using 13.9 pounds of powder per hour;

(3) One (1) powder spray booth, identified as 4446, equipped with an integral cartridge filtration system, exhausting inside, capacity; 2.6 tons of parts coated per hour, and using 13.9 pounds of powder per hour;

NOTE: See page 10 of this TSD for details regarding the integral evaluation of the filters.

(l) Natural Gas Combustion Boilers:

(1) One (1) natural gas-fired boiler, identified as 586, constructed in 1975, exhausting at stack 586, capacity: 25.20 million British thermal units per hour;

(2) One (1) natural gas-fired boiler, identified as 1513, constructed in 1990, exhausting at stack 1513, capacity: 32.94 million British thermal units per hour;

(3) One (1) natural gas-fired boiler, identified as 1854, constructed in 1993, and exhausting at stack 1854, capacity: 2.10 million British thermal units per hour;

(4) One (1) natural gas-fired boiler, identified as 2256, constructed in 1994, exhausting at stack 2256, capacity: 14.70 million British thermal units per hour;

(5) One (1) natural gas-fired boiler, identified as maintenance boiler 3667, constructed in 2002, exhausting at stack maintenance, capacity: 1.5 million British thermal units per hour;

(m) Natural Gas Combustion Ovens:

(1) One (1) natural gas-fired fluidized bed burn-off oven, rated at 0.99 million British thermal units per hour (MMBtu/hr), with a maximum capacity of 301 pounds per hour of parts using 1.56 pounds per hour of sand, using a cyclone for particulate control, and exhausting at one (1) stack identified as 2918;

(2) One (1) natural gas-fired curing oven, identified as curing oven 3641, rated at 0.8 MMBtu/hr, curing epoxy coating onto parts at a maximum rate of 2.6 tons per hour, with emissions exhausted through Stack 3641;

(3) One (1) natural gas-fired curing oven, identified as 569, and exhausting at stacks 569 North and 569 South, capacity: 3.6 million British thermal units per hour;

(4) One (1) natural gas-fired curing oven, identified as 4160, constructed in 2005, and exhausting at stack 4160, capacity: 0.8 million British thermal units per hour;

(5) One (1) natural gas-fired dry-off oven, with a heat input capacity of 0.5MMBtu/hr, capable of drying a maximum of 300 pounds of plastic parts per hour, or 1300 pounds of steel rack per hour, and exhausting at one (1) stack identified as 3559;

(6) One (1) natural gas-fired dry-off oven, identified as 4160, constructed in 2005, capacity: 0.5 million British thermal units per hour; and exhausting at stack 4160;

(n) One (1) maintenance room which includes:

(1) One (1) maintenance welding booth, identified as Booth 11-1, exhausting to stack 11-1, capacity: 0.2 pound of acetylene/oxygen/argon welding wire per hour;

(2) Multiple hand buffing units;

(3) Multiple hand grinding units;

(4) Multiple hand drilling units;

(o) One (1) tool room which includes:

(a) One (1) enclosed sand blast unit, exhausting indoors, using a dust collector for particulate control;

(b) One (1) dust collector servicing miscellaneous grinding stations, exhausting indoors, and using a combination cyclone and baghouse collection system for particulate control;

(p) Two (2) lab hoods; and

(q) One (1) inductively coupled plasma (ICP) unit.

Emission Units and Pollution Control Equipment constructed and operated without a Permit

Permittee has identified following existing emission units that have been incorporated to the renewal.

(r) Eleven (11) parts washers, constructed before 1990, using approximately combined 1700 gallons of solvent per year, to remove oil and grease from metal parts, using solvent that contains 100% VOC;

(s) Buffing Stations:

(1) Three (3) two-wheel buffing stations; identified as 1849, 3979, and 3981; constructed in 1993; 2004; and 2004; respectively; each equipped with a fabric filter collector for particulate control, all exhausting internally;

(2) Six (6) additional two-wheel buffing stations; identified as 4011, 4015, 4017, 4019, 4021, 4023; each constructed in 2004; respectively; each equipped with a fabric filter collector for particulate control; all exhausting internally;

(3) Five (5) buffing stations in the automatics area; identified as 537, 3759, 3951, 3954, and 3957; constructed in 1974; 2003; 2004; 2004; and 2004; respectively; each equipped with a baghouse for particulate control, all exhausting internally;

(4) Four (4) robot buffing stations;, identified as 3213, 3215, 3899, and 3997; constructed in 2000; 2001; 2004; and 2004; respectively; each equipped with a cartridge dust collector for particulate control exhausting internally; and with each station also connected to an air washer exhausting externally;

(5) Three (3) additional robot buffing stations, identified as 4081, 4082, and 4083; constructed in May 2005, all connected to an air washer exhausting externally;

Buffing Stations and Inlet Grain Loading:

Emission Unit	Flow Rate (acfm)	Inlet Grain Loading (gr/acfm)
Two-wheel Buffing #1849	4800	0.01
Two-wheel Buffing #3979	2100	0.01
Two-wheel Buffing #3981	1200	0.01
Six (6) Two-wheel Buffing- 4011, 4015, 4017, 4019, 4021, 4023	2700	0.01
(Automatics) Buffing #537	2100	0.01
(Automatics)Buffing #3759	1500	0.001
(Automatics) Buffing #3951	1500	0.001
(Automatics) Buffing #3954	1500	0.001
(Automatics) Buffing #3957	1500	0.001
Robot Buffing Station #3213	3300	0.01
Robot Buffing Station #3215	3300	0.01
Robot Buffing Station #3899	3300	0.01
Robot Buffing Station #3997	3300	0.01
Robot Buffing Station #4081	3300	0.01
Robot Buffing Station #4082	3300	0.01
Robot Buffing Station #4083	3300	0.01

(t) One (1) passivation process, identified as line 9069, constructed in 1998, consisting of:

(1) One (1) chromate/nitric acid/water solution tank, identified as Tank #1;

(2) One (1) rinse water tank, identified as Tank #2;

(3) One (1) hot dionized water tank, identified as Tank #3;

NOTE: The source provided that there are no criteria pollutants emitted from the passive process.

(u) One (1) passivation process, identified as line 1009, constructed in October 1985, consisting of:

(1) One (1) cleaner tank, using no HAPs or VOCs, and exhausting externally through the 1009 scrubber.

(2) One (1) chromate tank, controlled by the 1009 scrubber, and exhausting externally.

(3) Multiple rinse tanks, exhausting internally.

NOTE: The source provided that the chromate tank applies chrome to various parts through a passive process, which does not emit any chromate particulate.

(v) Glass Bead blast Cabinets:

(1) Three (3) glass bead blast cabinets; (1) identified as tool room glass bead blast cabinet, utilizing a collector, constructed in 1979, (2) secondary Unit 747 glass bead blast cabinet utilizing a combination cyclone/fabric filter collector for particulate control, constructed in June 1981, (3) and PVD unit 1065 glass bead blast cabinet utilizing a collector for particulate control, constructed in October 1990;

(2) Two (2) additional glass bead blast cabinets; (1) identified as 3700 Unit 4118 glass bead blast cabinet utilizing a collector, and (2) Automatics unit 2828 glass bead blast cabinet utilizing a collector for particulate control;

(w) Various machining equipment where aqueous cutting coolant continuously floods the machining surface in the automatics area. There are no criteria pollutants being emitted;

(x) Ten (10) open tumblers, identified as 283, 961,963,, 2700, 3162, 4040, 4119, 4120, 4121, and 4122, constructed in 1971, 1985, 1985, 1996, 2000, 2004, 2005, 2005, 2005 and 2005, using plastic media to smooth edges of parts;

(y) One (1) dip area, identified as 4406, consisting of a sulfuric acid/water tank equipped with a mist eliminator exhausting externally, one (1) water rinse tank, and one (1) water spray tank, to remove a white ash material contained on racks. There are no criteria pollutants emitted because of dip operation.

(z) Eight (8) plasma welding stations, constructed in 1985, utilized to fuse weld stainless steel ball components together without using filler material, no emissions are generated from this process.

(aa) Four (4) R & D hand dipping/manual plating lines;

(bb) Four (4) salt spray booths, identified as 2043, 1687, 3660, and 3850, constructed in 1985, 1992, 2002, and 2003 respectively, spraying an aqueous salt solution and no criteria pollutants are generated;

(cc) One (1) wastewater treatment area, constructed in 1974, the pH is adjusted utilizing sulfuric acid, consisting of:

(1) Filter press to remove water from waste water treatment area;

(2) Three enclosed pickling liquor reactor tanks which utilizes a scrubber identified as the reactor scrubber;

(3) One bulk waste cleaner

(dd) Four (4) physical vacuum deposition (PVD) chambers; identified as 3740, 3787, 3940, and 4063; constructed in 2003, 2003, 2004, and 2004, respectively. PVD process deposits Zirconium material onto various parts. All deposition is ceased prior to the opening of the chamber. No HAPs are generated;

(ee) Brass Drilling Operation:

(1) One (1) brass drilling operation, identified as 3159, constructed in 2000, and utilizing a cartridge collector system for particulate control, exhausting inside;

(2) One (1) brass drilling operation, identified as 1378, constructed in 1989, and utilizing a combination cyclone/bag filters for particulate control, exhausting inside;

(ff) One (1) rack strip line, identified as 4560, constructed in 2007, including two (2) rinse tanks and one (1) strip tank containing 6.3 % ammonium nitrate, 2.5 % ammonium hydroxide, 2.5 % ammonium bromide, and 2.5% acetic acid, exhausting externally;

Emission Units and Pollution Control Equipment Removed From the Source

The following units and associated applicable requirements have been permanently removed:

(a) One (1) decorative chromium electroplating tank, identified as T23, constructed prior to December 16, 1993, using a hexavalent chromium bath, using a chemical fume suppressant containing a wetting agent for control and exhausting at stack 281Cr. This tank was equipped with a packed-bed scrubber that was not used for compliance.

(b) One (1) electroplating line, identified as Plater 3466, constructed on May 17, 2001, consisting of the following:

(1) Three (3) copper plating tanks, two (2) of which are controlled independently by two (2) scrubbers, one (1) of which is uncontrolled, and all exhausting internally;

(2) One (1) acid tank, controlled by a scrubber, and exhausting externally;

(3) Two (2) caustic tanks, controlled by a scrubber, and exhausting externally;

(4) Rinse tanks, exhausting internally; and

(5) Two (2) cleaner tanks, controlled by a scrubber, and exhausting externally.

(c) One (1) electric cure oven for the luxury line;

(d) One (1) cyanide plating tank, identified as T18, equipped with a wet scrubber and exhausting at stack 574;

(e) One (1) WWT sludge dryer, identified as 2209, equipped with a wet scrubber;

(f) One (1) tool room welding booth;

(g) One (1) electroplating line #253 consisting of:

(1) One (1) decorative chromium electroplating tank, identified as T21, using a hexavalent chromium bath, using a chemical fume suppressant containing a wetting agent for control and exhausting at stack 253Cr. This tank was also equipped with a composite mesh pad scrubber that was not used for compliance;

(2) One (1) nickel plating tank, identified as T17, uncontrolled and exhausting inside the building;

(h) One (1) adhesive application area, identified as the luxury line, for applying adhesives that contain no HAPs or VOCs.

(i) One (1) hard coat spray gun, exhausting to stack 1799, utilizing a cyclone and baghouse to control particulate emissions;

(j) The cyclone associated with the filter press;

(k) One (1) Strip Line 255R, using nitric acid.

Revised Emission Units and Pollution Control Equipment

The following changes have been made to the existing facility descriptions. The changes are already incorporated above.

(a) The multi-finish line has been identified as 3700. The decorative chromium tank has been renamed 3700-S6768. The stations at 3700-S6768 have been renamed 67 and 68. The rack strip tanks 207 and 208 are actually one tank identified as stations 207 through 210. The ten (10) cleaner tanks are only six (6), with ten (10) stations; so four (4) of the ten (10) cleaner tanks have been removed from the source;

(b) Unit T18 has been renamed T22. The associated stack id has changed to 1038Ni;

(c) Unit 574 has been renamed T23-26. The tank has been identified as two tanks plumbed together. The associated stack id has changed to 574;

(d) Tank T12/T13 has been renamed T7/T8, equipped with a packed bed wet scrubber and exhausting at stack 489. The Permittee has asked that the aqueous tanks T1/T2 be listed, along with the immersion tin tank identified as T12;

(e) Unit T14 has been renamed Brite Dip. The description has been revised to indicate that this process consists of twelve (12) tanks;

(f) The Buffing operations have a fourth air washer identified as 3915 and exhausting to stack 3915;

(g) The maximum parts throughput of the powder spray booth, identified as 4446, has been increased to 2.6 tons per hour. This change arises form the Permittee coating heavier and denser parts. This change does not effect emissions since they are based on the amount of epoxy powder used. The booth is located on Coating Line 569;

(h) The maximum parts throughput of the powder spray booth, identified as 1599, has been increased to 2.6 tons per hour. This change arises from the Permittee coating heavier and denser parts. This change does not effect emissions since they are based on the amount of epoxy powder used. The booth is located on Coating Line 1000;

(i) Boilers 1307 and 1308 were replaced with one (1) boiler, identified as maintenance boiler 3667, constructed in 2002, fired by natural gas and exhausting at stack maintenance, capacity: 1.5 million British thermal units per hour;

(j) The description of the maintenance room has been revised to include hand held units; and

(k) The maximum parts throughput of curing oven 3641 has been increased to 2.6 tons per hour. This change arises from the Permittee coating heavier and denser parts. This change does not effect emissions since they are based on the amount of natural gas usage.

Existing Approvals

Since the issuance of the MSOP (031-11706-00007) on May 25, 2000, the source has constructed or has been operating under the following approvals as well:

(a) First Minor Permit Revision 031-12463-00007, issued December 19, 2000;

(b) First Notice-only Change 031-15232-00007, issued January 25, 2002;

(c) Second Notice-only Change 031-16811-00007, issued February 3, 2003;

(d) Second Minor Permit Revision 031-17357-00007, issued May 21, 2003;

(e) Third Notice-only Change 031-18239-00007, issued December 15, 2003;

(f) Third Minor Permit Revision 031-18647-00007, issued March 15, 2004;

(g) Fourth Notice-only Change 031-21444-00007, issued March 15, 2006; and

(h) Fifth Notice-Only change 031-24039-00007, issued February 1, 2007.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

Enforcement Issue

There are no enforcement actions pending.

Air Pollution Control Justification as an Integral Part of the Process

The applicant has submitted the following justification such that the cartridge filters installed in the powder spary booth be considered as an integral part of the powder coating process:

(a) The spray guns that are used to disperse the powder coating are interlocked with the powder reclaim system. The spray applicators will not operate if the powder reclaim system is inoperative. If the filtration system is not operating, no powder can be applied.

(b) The powder coating booth or room does not have any exhaust stacks or vents. It is also under negative pressure so no air can escape the room.

(c) The powder coating system employs an internal system (powder reclaim system) that is used to collect any unused powder during the coating process. A powder coating system is unique in that it does not have a paint overspray system (i.e., wet or dry collection devices) used on a typical paint spray booth. The powder coating reclaim capture system is 100% efficient at capturing unused powder.

IDEM, OAQ has evaluated the justifications and agreed that the cartridge filteration systems be considered as an integral part of the powder coating process. The powder coating booths will cease operation if cartridge filteration system is not in operation. Also, the powder spray booth will be under neagative pressure, so no air can escape the booth. All three of the powder booths are interlocked with their respective powder booth filtration system. Therefore, the permitting level will be determined using the potential to emit after the cartridge filters. Operating conditions in the proposed permit will specify that cartridge filters shall operate at all times when the powder coating is in operation. This determination is based on the data provided by the source during the renewal application submission.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Decatur County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.
[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM2.5.	

(a) Ozone Standards

(1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

(2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, St. Joseph as attainment for the 8-hour ozone standard.

(3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.

(4) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Decatur County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) Decatur County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions.

(c) Other Criteria Pollutants
Decatur County has been classified as attainment or unclassifiable in Indiana for other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(d) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

Unrestricted Potential Emissions

Appendix A of this TSD reflects the unrestricted potential emissions of the source.

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants is still less than 100 tons per year but greater than 25 tons per year. The source is not subject to the provisions of 326 IAC 2-7. Therefore, the source will be issued an MSOP Renewal.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is still less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year.

Potential to Emit After Issuance

(a) This existing stationary source is not major for PSD because the emissions for particulate are less than two hundred fifty (<250) tons per year, and it is not one of the twenty-eight (28) listed source categories.

(b) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

(c) Emissions from the following emission units are not accounted for in this permit:

(1) One (1) Multi-Finish electroplating line, identified as 3700, with a capacity of 1,800 pounds of metal and plastic parts per hour, consisting of the following:

(a) Five (5) nickel plating tanks, identified as stations 32 through 35, 39 through 42, 46, and 49 through 52, and 53 through 56, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack;

(b) One (1) copper sulfate plating tank, identified as stations 27 and 28, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack;

(c) One (1) rack strip tank, identified as stations 207 through 210, equipped with the rack strip scrubber, and exhausting through the Multi-Finish Line Rack Strip Scrubber Stack;

(d) One (1) rack strip tank, identified as stations 193 through 194, utilizing approximately 13 % ammonium bifluoride, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack;

(e) Two (2) chrome strip tanks, identified as stations 15, 197 and 198, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack;

(f) Rinse tanks, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack;

(g) Six (6) cleaner tanks, identified as stations 3 through 5, 7 through 8, 11 through 12, 18, 22, and 62 equipped with the nickel/cleaner scrubber as in 6 through 8, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack;

(2) One (1) rack strip line, identified as 4560, constructed in 2007, including two (2) rinse tanks and one (1) strip tank containing 6.3% ammonium nitrate, 2.5% ammonium hydroxide, 2.5% ammonium bromide, and 2.5% acetic acid, exhausting externally;

(3) One (1) tool room which includes:

(a) One (1) enclosed sand blast unit, exhausting indoors, using a dust collector for particulate control;

(b) One (1) glass tool room blast cabinet: (1) identified as tool room glass bead blast cabinet utilizing a collector for particulate control, constructed in 1979;

(c) One (1) dust collector servicing miscellaneous grinding stations, exhausting indoors, and using a combination cyclone and baghouse collection system for particulate control;

(4) Two (2) glass blast cabinets, (1) secondary Unit 747 glass bead blast cabinet utilizing a combination cyclone/fabric filter collector for particulate control, constructed in 1981, and (2) PVD Unit 1065 glass bead blast cabinet utilizing a collector for particulate control, constructed in 1990;

(5) Two (2) additional glass bead blast cabinets: (1) identified as 3700 unit 4118 glass bead blast cabinet utilizing a collector, and (2) Automatics unit 2828 glass bead blast cabinet utilizing a collector for particulate control;

(6) Brass Drilling Operation:

(a) One (1) brass drilling operation, identified as 3159, and utilizing a cartridge collector system for particulate control, exhausting inside;

(b) One (1) brass drilling operation, identified as 1378, and utilizing a combination cyclone/bag filter; for particulate control, exhausting inside.

Following are the emissions as listed in Appendix A of TSD

Pollutant	Potential to Emit (tons/yr)
PM	41.17
PM-10	43.39
SO_2	0.32
VOC	9.10
CO	32.76
NO_x	32.76

HAPs	Potential to Emit (tons/yr)
Chromium	0.49
Nickel	3.79
Lead	2.1E-04
Cadmium	4.29E-04
Benzene	8.19E-04
Formaldehyde	0.57
Hexane	0.70
Toluene	1.33E-03
Total	5.55

Federal Rule Applicability

New Source Performance Standards (NSPS)

(a) The one (1) natural gas-fired process boiler, known as 586, installed in 1975, rated at 25.20 million British thermal units per hour is not subject to the New Source Performance Standards, 326 IAC 12, 40 CFR 60.40, 40 CFR 60.40a, 40 CFR 60.40b and 40 CFR 60.40c, Subparts D, Da, Db and Dc because it was installed prior to September 18, 1978 and has a capacity less than 250 million British thermal units per hour.

(b) The one (1) natural gas-fired process boiler, known as 1513, installed in 1990, rated at 32.94 million British thermal units per hour is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c, Subpart Dc because it was installed after the June 9, 1989 applicability date and is rated between 10 and 100 million British thermal units per hour. Since the boiler only operates on natural gas, there are no applicable standards under 40 CFR 60.42c. Since the boiler was installed before February 28, 2005 and only operates on natural gas, there are no applicable standards under 40 CFR 60.43c.

(c) The one (1) natural gas-fired process boiler, known as 2256, installed in1994, rated at 14.70 million British thermal units per hour is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c, Subpart Dc because it is was installed after the June 9, 1989 applicability date and is rated between 10 and 100 million British thermal units per hour. Since the boiler only operates on natural gas, there are no applicable standards under 40 CFR 60.42c. Since the boiler was installed before February 28, 2005 and only operates on natural gas, there are no applicable standards under 40 CFR 60.43c.

(d) The one (1) natural gas-fired process boiler, known as 1854, installed in 1993, rated at 2.10 million British thermal units per hour, and the one (1) boiler, known as 3667, installed in 2002, rated at 1.5 million British thermal units per hour are not subject to the New Source Performance Standards, 326 IAC 12, 40 CFR 60.40, 40 CFR 60.40a, 40 CFR 60.40b and 40 CFR 60.40c, Subparts D, Da, Db and Dc because they each have a capacity less than 10 million British thermal units per hour.

(e) The burnoff oven does not burn solid waste, as defined in 40 CFR 60, Subpart E. Therefore, the requirements of the New Source Performance Standards for Incinerators, 40 CFR 60, Subpart E, are not included in this permit.

(f) The burnoff oven does not burn municipal waste, as defined in 40 CFR 60, Subpart Ea. The dried paint comes from a manufacturing process. Therefore, the requirements of the New Source Performance Standards for Municipal Waste Combustors for Which Construction is Commenced After December 20, 1989 and on or Before September 20, 1994, 40 CFR 60, Subpart Ea, are not included in this permit.

(g) The burnoff oven does not burn municipal waste, as defined in 40 CFR 60, Subpart Eb. The dried paint comes from a manufacturing process. Therefore, the requirements of the New Source Performance Standards for Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996, 40 CFR 60, Subpart Eb, are not included in this permit.

(h) The burnoff oven does not burn hospital/medical/infectious waste, as defined in 40 CFR 60, Subpart Ec. Therefore, the requirements of the New Source Performance Standards for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996, 40 CFR 60, Subpart Ec, are not included in this permit.

(i) The burnoff oven does not burn municipal waste, as defined in 40 CFR 60, Subpart AAAA. The dried paint comes from a manufacturing process. Therefore, the requirements of the New Source Performance Standards for Small Municipal Waste Combustion Units for Which Construction is

Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001, 40 CFR 60, Subpart AAAA, are not included in this permit.

(j) The burnoff oven does not burn solid waste, as defined in 40 CFR 60, Subpart CCCC. Therefore, the requirements of the New Source Performance Standards for Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001, 40 CFR 60, Subpart CCCC, are not included in this permit.

(k) The burnoff oven is not a small municipal waste combustion unit or institutional waste incineration unit, as defined in 40 CFR 60, Subpart EEEE. Therefore, the requirements of the New Source Performance for Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006, 40 CFR 60, Subpart EEEE, are not included in this permit.

(l) There are no other New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

(m) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 63, Subpart MMMM (Surface Coating of Miscellaneous Metal Parts and Products) are not included in this permit because this is an area source of HAPs and not a major source.

(n) The requirements of the National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors, 40 CFR 63, Subpart EEE, are not included in this permit because this is an area source of HAPs and not a major source.

(o) The chromium electroplating operations are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAPs), 326 IAC 14, (40 CFR 63, Subpart N, and 326 IAC 20-1-1). Pursuant to 40 CFR 63, Subpart N (Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks), and 326 IAC 20-1-1, the chromium electroplating operations are subject to the following conditions: The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63 Subpart N. In addition, tank T27 and tank 3700-S6768 were constructed before January 25, 1995, therefore, the electroplating tanks at this source are considered existing affected units located at a decorative chromium electroplating facility under this subpart. Pursuant to 40 CFR 63.343(a)(1), the permittee shall be in compliance with the requirements in this NESHAP on and after January 25, 1997.

The existing electroplating tanks are subject to the following portions of 40 CFR 63, Subpart N. Non applicable portions of the NESHAP will not be included in the permit.

Applicable portions of the NESHAP are the following:

(a) 40 CFR 63.340
(b) 40 CFR 63.341
(c) 40 CFR 63.342(a), (b), (c), (d), (d), (f)
(d) 40 CFR 63.343(a)(1)(3)(4)(5)(6), (b), (c)
(e) 40 CFR 63.344
(f) 40 CFR 63.345
(g) 40 CFR 63.346
(h) 40 CFR 63.347
(i) 40 CFR 63.348

The requirements of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63, Subpart N.

(p) If the permittee is an owner or operator of an area source subject to this 40 CFR 63 Subpart N, the source is exempt from the obligation to obtain a permit under 40 CFR part 70 or 71.

(q) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in this permit renewal.

Compliance Assurance Monitoring (CAM)

(r) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the potential to emit of the source is limited to less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)
The total source potential emissions of PM, PM-10, SO_2, VOC, NO_x, and CO, are less than 250 tons per year and of Lead is less than 25 tons per year. The source is not one of the 28 listed source categories. There are no applicable New Source Performance Standards that were in effect on August 7, 1980. The source has not conducted any modifications to trigger PSD and is currently considered a minor PSD source. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) do not apply.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The potential to emit each individual hazardous air pollutant (HAP) is less than 10 tons per year and the potential to emit any combination of HAPs is less than 25 tons per year. Therefore, this source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments, and the requirements of 326 IAC 2-4.1-1, New Source Toxics Control, are not applicable.

326 IAC 2-6.1 (Minor Source Operating Permit Program)
This existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,

(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and

(c) any combination of HAPs is less than 25 tons per year.

The PTE of criteria pollunants are greater than registation levels. Therefore, pursuant to 326 IAC 2-5.1-3(a)(2)(A), the Permittee is subject to 326 IAC 2-6.1 (Minor Source Operating Permit Program).

326 IAC 5-1 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in the permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 2-6 (Emission Reporting)
This source is located in Decatur County and the potential to emit of each criteria pollutant is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

State Rule Applicability

Decorative Chromium Electroplating Tanks:

326 IAC 20-8-1 (National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks)

The chromium electroplating tanks (tank T27, and tank 3700-S6768) are subject to 326 IAC 20-8 (National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks). 326 IAC 20-8 incorporates by reference 40 CFR 63, Subpart N. The Permittee shall comply with the provisions of 40 CFR 63, Subpart N, as detailed in the Federal Rule Applicability Determination section.

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)

The chromium electroplating tanks (tank T27, and tank 3700-S6768) at this source are subject to 40 CFR 63, Subpart N, and 326 IAC 20-8. In addition, the emission limits contained in 40 CFR 63, Subpart N, are more stringent than the particulate limitations established in 326 IAC 6-3. Therefore, the particulate emissions from the chromium electroplating tanks are exempt from the requirements in 326 IAC 6-3, pursuant to 326 IAC 6-3-1(c)(6).

Copper plating Tank;

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-1(b)(14), the Copper plating tank is exempt from the requirements of 326 IAC 6-3-2(e), because the potential PM emissions from the Copper plating tank are 0.124 lbs/hr which is less than 0.551 pound per hour.

Powder Spray Booths 4446, 1599 and 4160:

326 IAC 6-3-2 (e) (Particulate Emission Limitations for Manufacturing Processes)

The particulate matter (PM) from each of the powder spray booths, identified as 1421, 1599, and 4160 shall each be limited to less 7.78 pounds per hour, when operating at a process weight rate of 2.6 tons per hour.

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

OAQ has determined the cartridge filtration system is integral to each of the powder spray booths, 1421,1599 and 4160. The respective cartridge filtration system, must be in operation at all times when the powder spray booth is in operation in order to comply with this limit. The Permittee shall operate the control device in accordance with manufacturer's specifications.

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)

The source is not subject to the requirments of 326 IAC 8-1-6, since each of these facilities emits less than 25 tons per year of VOC.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

The powder coating booths are not subject to 326 IAC 8-2-9 since the powder coating booths have no potential to emit VOC. No other article 8 rules apply.

Boiler 586 constructed in 1975:

326 IAC 6-2-3 (Particulate Emissions Limitations for Facilities Constructed prior to September 21, 1983)

The boiler, identified as 586, constructed in 1975, with a total heat input capacity of 25.20 million British thermal units per hour, must comply with the PM emission limitation of 326 IAC 6-2-3. This limit is based on the following equation is given in 326 IAC 6-2-3(a):

$$Pt = C \times a \times h / 76.5 \times Q^{0.75} \times N^{0.25}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input
Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facilities permit application, except when some lower capacity is contained in the facilities operation permit; in which case, the capacity specified in the operation permit shall be used.
C = Maximum ground level concentration with respect to distance from the point source at the critical wind speed for level terrain. This shall equal 50 micrograms per cubic meter for a period not to exceed a sixty (60) minute time period.
N = Number of stacks in fuel burning operation.
a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 mmBtu/hr heat input. The value 0.8 shall be used for Q greater than 1,000 mmBtu/hr heat input.
h = Stack height in feet.

$Pt = 50 \times 0.67 \times 32.7 / 76.5 \times (25.20)^{0.75} \times 1^{0.25} = 1.27$ lb/MMBtu

However, pursuant to 326 IAC 6-2-3(e), where Q is less than 250 million British thermal units per hour, Pt shall not exceed 0.6 pound per million British thermal units. Therefore, the boiler 586 is limited to emissions of 0.6 pound per million British thermal units.

Based on Appendix A, the potential to emit PM emissions from the boiler 586 which is < 0.6 is 0.0019 pounds per million British thermal units.

Therefore the boiler, identified as 586 will be able to comply with this rule.

Four (4) Boilers 1513, 1854, 2256 and 3667 constructed after September 21, 1983:

326 IAC 6-2-4 (Particulate Emissions Limitations for Facilities Constructed after September 21, 1983)

The four (4) boilers, identified as 1513, 1854, 2256, and 3667, all constructed after September 21, 1983, must comply with the requirements of 326 IAC 6-2-4. The emission limitations are based on the following equation is given in 326 IAC 6-2-4(a):

$$Pt = 1.09/Q^{0.26}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input
Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facilities permit application, except when some lower capacity is contained in the facilities operation permit; in which case, the capacity specified in the operation permit shall be used.

NOTE: Please refer to the table " Boiler Heating Capacity and Allowable PM/PM10 emissions" for boiler capacity and allowable emissions for each boiler.

One (1) boiler, 1513, constructed in 1990:

The heat input capacity of the boiler 1513, constructed in 1990, is 32.94 million British thermal units per hour. The two boilers 1307 and 1308, constructed in 1987, rated at 0.75 MMBtu per hour, each, were in operation when boiler 1513 was constructed. Therefore, the total heat input capacity of the source prior to the construction of this boiler (1518) was 26.7 million British thermal units per hour. Boilers 1307 and 1308 were removed from the source in 2002.

$Pt = 1.09/(59.64)^{0.26} = 0.38$ lb/MMBtu heat input

Based on Appendix A, the potential PM emission rate is 0.0019 pounds per million British thermal units.

Since 0.00019 is less than the limit of 0.38 lb/MMBtu, the boiler 1513, constructed in 1990, will be able to comply with 326 IAC 6-2-4(a).

One (1) boiler, 1854, constructed in 1993:

The heat input capacity of the boiler 1854 is 2.10 million British thermal units per hour. The total heat input capacity of the source prior to the construction of this boiler was 59.64 million British thermal units per hour.

$Pt = 1.09/(61.74)^{0.26} = 0.37$ lb/MMBtu heat input

Based on Appendix A, the potential PM emission rate is 0.0019 pounds per million British thermal units.

Since 0.00019 is less than the limit of 0.37 lb/MMBtu, the boiler 1513, constructed in 1990, will be able to comply with 326 IAC 6-2-4(a).

One (1) boiler, 2256, constructed in 1994

The heat input capacity of the boiler is 14.70 million British thermal units per hour. The total heat input capacity of the source prior to the construction of this boiler was 61.74 million British thermal units per hour.

$Pt = 1.09/(76.44)^{0.26} = 0.35$ lb/MMBtu heat input

Based on Appendix A, the potential PM emission rate is 0.0019 pounds per million British thermal units.

Since 0.00019 is less than the limit of 0.35 lb/MMBtu, the boiler 1513, constructed in 1990, will be able to comply with 326 IAC 6-2-4(a).

One (1) boiler, 3667, constructed in 2002

The heat input capacity of the boiler is 1.5 million British thermal units per hour. Boilers 1307 and 1308 constructed in 1987 and were replaced by boiler 3667 in 2002. The total heat input capacity of the source prior to the construction of this boiler was 76.44 million British thermal units per hour.

$Pt = 1.09/(76.44)^{0.26} = 0.35$ lb/MMBtu heat input

Based on Appendix A, the potential PM emission rate is 0.0019 pounds per million British thermal units.

Since 0.00019 is less than the limit of 0.35 lb/MMBtu, the boiler, 3667, constructed in 2002, will be able to comply with 326 IAC 6-2-4(a).

Boiler Heating Capacity and Allowable PM/PM10 emissions:

Emission Unit	Heat input capacity (MMBtu/hr)	Combined Heat input Capacity(Q) (MMBtu/hr)	Allowable PM tons/yr	Potential PM/PM10 tons/yr
Boiller 586- constructed 1975	25.2	25.2	0.6	0.0019
Boiler 1307 -Constructed 1987	0.75	25.75	removed -2002	-
Boiler 1308 -Constructed 1987	0.75	26.50	removed-2002	-
Boiler 1513 -Constructed 1990	32.64	59.64	0.38	0.0019
Boiler 1854 -Constructed 1993	2.10	61.74	0.37	0.0019
Boiler 2256 -Constructed 1993	14.7	76.44	0.35	0.0019
Boiler 3667 -Constructed 2002-replaced 1307&1308	1.5	76.44	0.35	0.0019

326 IAC 7 (Sulfur Dioxide Emission Limitations)

No units at the source have potential SOx emissions greater than twenty-five tons per year or actual emissions of ten pounds per hour. Therefore, none of the combustion units are subject to this rule.

Fluidized Bed Burn Off Oven:

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

The particulate (PM) from the fluidized bed burn off oven shall be limited to less than 1.15 pounds per hour, when operating at a process weight rate of 303 pounds per hour. Since the potential to emit after control by the cyclone is 0.076 pounds per hour, the fluidized bed burn off oven will comply with this rule.

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and

P = process weight rate in tons per hour

The cyclone shall be in operation at all times the fluidized bed burn off oven is in operation in order to comply with this limit.

Brazing Operation, Wheel Buffing Operation:

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

(a) The particulate (PM) from the one (1) maintenance welding booth and the one (1) tool room welding booth shall each be limited to 0.551 pounds per hour when operating at a process weight rate of less than 100 pounds per hour each. Since the potential to emit PM from each of the welding booth is 0.001 pounds per hour, the welding booths will comply with this rule.

(b) The particulate (PM) from the air washer buffing operations, identified as 2125, 2490, 3011 and 3915 shall be limited to no more than 15.8 pounds per hour, when operating at a combined process weight rate of 15,000 pounds per hour. Since the potential to emit PM from the buffing operations are 0.013 pounds per hour, the buffing operations will comply with this rule.

This limitation for (a) and (b) was determined by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and

P = process weight rate in tons per hour

Miscellaneous Operations:

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

(a) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from nickel plating tank, copper sulfate plating tank, each of the rack strip tank, each of the chrome strip tanks, rinse tank, each of the cleaner tanks, and rack strip line shall not exceed 0.551 pound per hour each when operating at a process weight rate of less than 100 pounds per hour each.

(b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from tool room sand blast unit, each of the glass bead blast cabinets, each of the brass drilling operations, and miscellaneous grinding stations, shall not exceed 0.551 pound per hour each when operating at a process weight rate of less than 100 pounds per hour each.

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation for (a) and (b):

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

The individual control devices shall be in operation at all times when the respective processes are in operation in order to comply with this limit.

Eleven (11) Parts Washers:

(a) Parts washers are not subject to the requirements of the 326 IAC 20-6-1, since the degreasing operations do not use a solvent that contains any of the halogenated compounds listed in 326 IAC 20-6-1(a).

(b) Volatile Organic Compounds (VOC) [326 IAC 8-1-1]
Pursuant to 326 IAC 8-3-1 (Organic Solvent Degreasing Operations), the eleven (11) parts washers are each subject to the requirements of 326 IAC 8-3-2 (Cold Cleaner Operations), since each of the units meet the definition of a cold cleaner degreaser under 326 IAC 1-2-18.5, utilize a organic solvent containing volatile organic compounds (VOCs) (as defined by 326 IAC 1-2-90), were constructed after the January 1, 1980, and do not have remote solvent reservoirs.

Pursuant to 326 IAC 8-3-2, for each of the force parts washers, the owner or operator shall:

(1) Equip the cleaner with a cover;

(2) Equip the cleaner with a facility for draining cleaned parts;

(3) Close the degreaser cover whenever parts are not being handled in the cleaner;

(4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(5) Provide a permanent, conspicuous label summarizing the operation requirements;

(6) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

(c) Volatile Organic Compounds (VOC) [326 IAC 8-3-5]
Pursuant 326 IAC 8-3-5(a), the owner or operator shall ensure that the following control equipment requirements are met for each of the eleven (11) parts washers:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));

(B) The solvent is agitated; or

(C) The solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are

enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in 326 IAC 8-3-5(b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent is used is insoluble in, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(d) Pursuant 326 IAC 8-3-5(b), the owner or operator shall ensure that the following operating requirements are met for each of the eleven (11) parts washers:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or unit dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

Recommendation

The staff recommends to the Commissioner that the MSOP Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on February 25, 2005. Additional information was received on May 16, 2005 through July 2006, March 26, 2008, May 6, 2008 through June 6, 2008, July 7, 2008 and July 15, 2008.

Conclusion

The operation of this Delta Faucet Company shall be subject to the conditions of the attached MSOP Renewal No. 031-20848-00007.

Appendix A: Emission Calculations
Emission Summary

Company Name: Delta Faucet Company
Address City IN Zip: 1425 West Main Street, Greensburg, Indiana 47240
MSOP Permit NO.: 031-20848-00007
Reviewer: Swarna Prabha

		Uncontrolled Potential Emissions (tons/year)									
				Emission Generating Activities							
		Powder Spray	Natural gas	Plater ID	Plater ID	Plater ID	Formaldehyde	Buffing	Air Washers		
		Booths (3)	boiler/ovens	3700	574	255	Electroless	Stations	&	Welding	
Category	Pollutant						T7/T8		Parts Washers		TOTAL
Criteria	PM	2.09	0.74	0.83	0.54	17.80	0.22	18.81	0.13	0.01	41.17
Pollutants	PM10	2.09	2.96	0.83	0.54	17.80	0.22	18.81	0.13	0.01	43.39
	SO2		0.23				0.090				0.32
	NOx		39.00				0.75				39.76
	VOC		2.15	0.46			0.65		5.85		9.10
	CO		32.76								32.76
Hazardous	DCB		4.68E-04								4.68E-04
Air Pollutant	Cadmium		4.29E-04								4.29E-04
	Toluene		1.33E-03								1.33E-03
	Benzene		8.19E-04								8.19E-04
	Formaldehyde		0.03				0.54				0.57
	Lead		1.95E-04	1.81E-05							2.1E-04
	Nickel		8.19E-04	0.19		3.59					3.79
	Chromium		5.46E-04	0.17		0.32					0.49
	Copper				0.54						0.54
	Hexane		0.70								0.70
	Totals		0.74	0.37	0.54	3.91	5.39E-01				6.09

		Controlled Potential Emissions (tons/year)									
				Emissions Generating Activity							
		Powder Spray	Natural gas	Plater ID	Plater ID	Plater ID	Formaldehyde	Buffing	Air Washers	Welding	
		Booths (3)	boiler/ovens	3700	574	255	Electroless	Stations	&		
Category	Pollutant						T7/T8		Parts Washer		TOTAL
Criteria	PM	2.09	0.74	0.023	0.03	17.17	0.02	18.81	0.13	0.01	39.02
Pollutants	PM10	2.09	2.96	0.023	0.03	17.17	0.02	18.81	0.13	0.01	41.25
	SO2		0.23				0.09				0.32
	NOx		39.00				0.75				39.76
	VOC		2.15	0.46			0.65		5.85		9.10
Category	CO		32.76								32.76
Hazardous	DCB		4.68E-04								4.68E-04
Air	Cadmium		4.29E-04								4.29E-04
Pollutants	Toluene		1.33E-03								1.33E-03
	Benzene		8.19E-04								8.19E-04
	Formaldehyde		0.03				0.0054				0.03
	Lead		1.95E-04	3.63E-09							1.95E-04
	Nickel		8.19E-04	0.010		3.59					3.60
	Chromium		5.46E-04	3.47E-05		0.32					0.32
	Copper				0.54						0.54
	Hexane		0.70								0.70
	Totals		0.74	0.01	0.54	3.91	5.39E-03				5.20

Total emissions based on rated capacity at 8,760 hours/year.
Emissions from the emission units listed on page 11-12 of TSD are not accounted for in this permit

Appendix A: Emission Calcul
Powder Spray Booths

Company Name: Delta Faucet Company
Address City IN Zip: 1425 West Main Street, Greensburg, Indiana 47240
MSOP Permit NO.: 031-20848-00007
Reviewer: Swarna Prabha

Emission Unit	Maximum Powder Use (lbs/hr)	Maximum Powder Use (tons/yr)	Transfer Efficiency (%)	Cartridge filter Efficiency	PTE before cartridge filters PM/PM_{10} (lbs/hr)	PTE before cartridge filter PM/PM_{10} (tons/yr)	PTE before Cartridge filter PM/PM_{10} (lbs/hr)	PTE after Cartridge filter PM/PM_{10} (tons/yr)
Powder Spray Booth-1421	13.923	60.983	70.0%	95.0%	4.18	18.3	0.209	0.91
Powder Spray Booth-1599	3.978	17.424	70.0%	95.0%	1.19	5.2	0.060	0.26
Powder Spray Booth-4160	13.923	60.983	70.0%	95.0%	4.18	18.3	0.209	0.91
			Total		**9.55**	**41.8**	**0.477**	**2.09**

The transfer efficiency is based on electrostatic-airless gun for table leg type coated surfaces

Methodology

Potential Emissions (lbs/hr) = Powder usage rate * (1- transfer efficiency)
Emissions (tons/yr) = Emissions (lbs/hr) * 8760 hrs/yr / 2000 lbs/ton
PM10 emissions are assumed to equal PM.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: Delta Faucet Company
Address City IN Zip: 1425 West Main Street, Greensburg, Indiana 47240
MSOP Permit NO.: 031-20848-00007
Reviewer: Swarna Prabha

Pollutant	PM*	PM10*	SO2	NOx**	VOC	CO	Benzene	DCB	Formaldehyde	Hexane	Toluene	Pb	Cd	Cr	Mn	Ni
Emission Factor (lb/MMCF)	1.9	7.6	0.6	100	5.5	84.0	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03

Emission Unit	Number of Units	Unit Heat Input Capacity MMBtu/hr	Combined Total Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Potential Emission tons/yr													
					PM*	PM10*	SO2	NOx**	VOC	CO	Benzene	DCB	Formaldehyde	Hexane	Toluene	Pb	Cd	Cr	Mn	Ni
Boiler 586	1	25.200	25.200	220.75	0.21	0.8	0.1	11.0	0.6	9.3	2.3E-04	1.3E-04	8.3E-03	2.0E-01	3.8E-04	5.5E-05	1.2E-04	1.5E-04	4.2E-05	2.3E-04
Boiler 1513	1	32.640	32.640	285.93	0.27	1.1	0.1	14.3	0.8	12.0	3.0E-04	1.7E-04	1.1E-02	2.6E-01	4.9E-04	7.1E-05	1.6E-04	2.0E-04	5.4E-05	3.0E-04
Boiler 1854	1	2.100	2.100	18.40	0.017	0.07	0.006	0.9	0.051	0.8	1.9E-05	1.1E-05	6.9E-04	1.7E-02	3.1E-05	4.6E-06	1.0E-05	1.3E-05	3.5E-06	1.9E-05
Boiler 2256	1	14.700	14.700	128.77	0.122	0.49	0.039	6.4	0.354	5.4	1.4E-04	7.7E-05	4.8E-03	1.2E-01	2.2E-04	3.2E-05	7.1E-05	9.0E-05	2.4E-05	1.4E-04
Boiler 3667	1	1.500	1.500	13.14	0.012	0.05	0.004	0.7	0.036	0.6	1.4E-05	7.9E-06	4.9E-04	1.2E-02	2.2E-05	3.3E-06	7.2E-06	9.2E-06	2.5E-06	1.4E-05
Dry-off Oven 3559	1	0.500	0.500	4.38	0.004	0.02	0.001	0.2	0.012	0.2	4.6E-06	2.6E-06	1.6E-04	3.9E-03	7.4E-06	1.1E-06	2.4E-06	3.1E-06	8.3E-07	4.6E-06
Dry-off Oven 4160	1	0.500	0.500	4.38	0.004	0.02	0.001	0.2	0.012	0.2	4.6E-06	2.6E-06	1.6E-04	3.9E-03	7.4E-06	1.1E-06	2.4E-06	3.1E-06	8.3E-07	4.6E-06
Fluidized bed burn-off oven	1	0.990	0.990	8.67	0.008	0.03	0.003	0.4	0.024	0.4	9.1E-06	5.2E-06	3.3E-04	7.8E-03	1.5E-05	2.2E-06	4.8E-06	6.1E-06	1.6E-06	9.1E-06
Brazing 10200	1	5.720	5.720	50.11	4.8E-02	1.9E-01	1.5E-02	2.5E+00	1.4E-01	2.1E+00	5.3E-05	3.0E-05	1.9E-03	4.5E-02	8.5E-05	1.3E-05	2.8E-05	3.5E-05	9.5E-06	5.3E-05
Curing Oven 3641	1	0.800	0.800	7.01	0.007	0.03	0.002	0.4	0.019	0.3	7.4E-06	4.2E-06	2.6E-04	6.3E-03	1.2E-05	1.8E-06	3.9E-06	4.9E-06	1.3E-06	7.4E-06
Curing Oven 569	1	3.600	3.600	31.54	0.030	0.12	0.009	1.6	0.087	1.3	3.3E-05	1.9E-05	1.2E-03	2.8E-02	5.4E-05	7.9E-06	1.7E-05	2.2E-05	6.0E-06	3.3E-05
Curing Oven 4160	1	0.800	0.800	7.01	0.007	0.03	0.002	0.4	0.019	0.3	7.4E-06	4.2E-06	2.6E-04	6.3E-03	1.2E-05	1.8E-06	3.9E-06	4.9E-06	1.3E-06	7.4E-06
Totals	**12**		**89.05**		**0.74**	**2.96**	**0.23**	**39.00**	**2.15**	**32.76**	**8.19E-04**	**4.68E-04**	**2.9E-02**	**7.0E-01**	**1.3E-03**	**2.0E-04**	**4.3E-04**	**5.5E-04**	**1.5E-04**	**8.2E-04**

Emission Unit	Number of Units	Unit Heat Input Capacity MMBtu/hr	Combined Total Heat Input Capacity MMBtu/hr	Allowable PM MMBtu/hr	Potential PM MMBtu/hr
Boiler 586-constructed 1975	1	25.200	25.200	0.6	0.0019
Boiler 1308- constructed in 1987	1	0.750	0.750	removed-2002	
Boiler 1307-constructed in 1987	1	0.750	0.750	removed-2002	
Boiler 1513-constructed in 1990	1	32.640	59.640	0.38	0.0019
Boiler 1854- constructed in 1993	1	2.100	61.740	0.37	0.0019
Boiler 2256- Constructed in 1994	1	14.700	76.440	0.350	0.0019
Boiler 3667- constructed in 2002	1	1.500	76.440	0.350	0.0019

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32
The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Methodology
Potential Throughput (MMCF) = Combined Total Heat Input Capacity (MMBtu/hr) * 8,760 hrs/yr * 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) * Emission Factor (lb/MMCF) / 2,000 lb/ton
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu, MMCF = 1,000,000 Cubic Feet of Gas

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
SO2 = Sulfur Dioxide
NOx = Nitrous Oxides
VOC - Volatile Organic Compounds
CO = Carbon Monoxide
DCB = Dichlorobenzene
Pb = Lead
Cd = Cadmium
Cr = Chromium
Mn = Manganese
Ni = Nickel

Appendix A: Emission Calculations
Electroplating Plater ID 3700

Company Name: Delta Faucet Company
Address City IN Zip: 1425 West Main Street, Greensburg, Indiana 47240
MSOP Permit NO.: 031-20848-00007
Reviewer: Swarna Prabha

	Emission Factor (gr/dscf)	Total Flow Rate (cfm)	PTE before Control (lbs/hr)	PTE before Control (tons/yr)	Control Efficiency	PTE after Control (lbs/hr)	PTE after Control (tons/yr)	Weight % Lead	PTE Lead before controls (tons/yr)	PTE Lead after controls (tons/yr)
Chromium Electroplating										
PM	0.00069	14000	0.0828	0.363	99.98%	1.66E-05	7.25E-05	0.00005	1.81E-05	3.63E-09
Chromium	0.00033	14000	0.0396	0.173	99.98%	7.92E-06	3.47E-05			
Nickel Electroplating										
PM	0.0000067	38690	0.0444	0.195	95.00%	2.22E-03	9.73E-03			
Nickel	0.0000067	38690	0.0444	0.195	95.00%	2.22E-03	9.73E-03			
Copper Sulfate Electroplating										
PM	0.000081	4420	0.0614	0.269	95.00%	3.07E-03	1.34E-02			
Copper	0.000081	4420	0.0614	0.269	95.00%	3.07E-03	1.34E-02			
Total PM				**0.826**		5.31E-03	**0.023**			

Each Tank for decorative chromium electroplating is open and equipped with separate scrubber as an add-on device
Source compliance to the NESHAP is via surface tension (35 dynes/cm) The scrubber is not required for compliance to the NESHAP 40 CFR 63, Subpart N
Emissions from Tank T27 and T22 are included in Line 1038 on page 7.

Methodology

Chromium Electroplating

Emission factor for decorative chromium electroplating (SCC 3-09-1010-28) using a fume suppressant from AP-42, Table 12.20-1
PTE before Control (lbs/hr) = Emission factor (gr/dscf) x Total flow rate (cfm) x (60 min/hr / 7,000 gr/lb)
PTE Lead before Control (lbs/hr) = PTE PM before Control (lbs/hr) x Weight % Lead
PTE after Control (lbs/hr) = PTE before Control (lbs/hr) x (1-Control Efficiency)
PTE (tons/yr) = PTE (lbs/hr) x 8,760 hrs/yr / 2,000 lbs/ton

Nickel and Copper Sulfate Electroplating

Emission factors for Nickel electroplating (SCC 3-09-010-68) using a wet scrubber and Copper Sulfate Electroplating using a wet scrubber (SCC 3-09-010-45) from AP-42, Table 12.20-4
PTE after Control (lbs/hr) = Emission factor (gr/dscf) x Total flow rate (cfm) x (60 min/hr / 7,000 gr/lb)
PTE before Control (lbs/hr) = PTE after Control (lbs/hr) / (1-Control Efficiency)
PTE (tons/yr) = PTE (lbs/hr) x 8,760 hrs/yr / 2,000 lbs/ton

Material	Density (lbs/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Percentage of Material (/shift)	Tank Capacity (gallons)	Number of Shifts per day	Potential VOC (tons/yr)
Fume Suppressant	8.76	12.00%	0.0%	12.0%	0.0%	0.05%	1603	3.00	0.461

A negligible amount of glycol ethers may be emitted from the UDYPREP 340 Acid Salt.

Methodology

PTE VOC (tons/yr) = Density (lbs/gal) x Weight % Organics x Percentage of Material (/shift) x Tank Capacity (gallons) x Number of Shifts per Day x 365 Days/yr / 2,000 lbs/ton

Totals	PTE before Control (lbs/hr)	PTE before Control (tons/yr)	PTE after Control (lbs/hr)	PTE after Control (tons/yr)
PM	0.189	0.826	0.005	0.023
VOC		0.461		0.461
Chromium	3.96E-02	1.7E-01	7.92E-06	3.47E-05
Nickel	0.044	0.195	0.002	0.010
Lead		1.8E-05		3.63E-09
Total HAPs		0.368		0.010

Appendix A: Emission Calculations
Electroplating Plater T23-26(Plater 574)

Company Name: Delta Faucet Company
Address City IN Zip: 1425 West Main Street, Greensburg, Indiana 47240
MSOP Permit NO.: 031-20848-00007
Reviewer: Swarna Prabha

Description	Emission Factor (grains per dscfm)	control efficiency	airflow (scfm)	PTE of Copper emissions (tons per year)	PTE of PM/PM10 emissions (lbs/hr)	PTE of PM/PM10 emissions (tons per year)	PTE of PM /PM_{10} emissions after control (tons per year)
Copper Tank	8.10E-05	95	8898	0.54	0.124	0.54	0.03

Methodology
Emission Calculations are based on AP-42 - Page 12.20 (Supplement B 7/96)
PM10 emissions are assumed to equal PM.
Potential emissions (tons/year) = emission factor * airflow / (1- control efficiency) *60 minutes/hr * 8760 hrs/yr * 1 ton / 2000 lbs * 1 lb / 7000 grains.

Appendix A: Emission Calculations
Formaldehyde electroless T7/T8

Company Name: Delta Faucet Company
Address City IN Zip: 1425 West Main Street, Greensburg, Indiana 47240
MSOP Permit Number: 031-20848-00007
Reviewer: Swarna Prabha

VOC and HAP emissions

Unit ID	Pollutant	Usage (lbs/hr)	Potential Emissions before Controls (lbs/hr)	PTE before Controls (tons/yr)	Control Efficiency (%)	PTE after Controls (lbs/hr)	PTE after Controls (tons/yr)
EC Tank 1715	Formaldehyde	0.123	0.123	0.539	99.0%	0.001	0.005
* Brite Dip tankT14	Methanol	0.148	0.148	0.648	90.0%	0.015	0.065
	**NO_x			0.75			0.75
	**SO_2			0.086			0.086
EC Tank 1715	PM	0.05	0.05	0.219	90.00%	0.005	0.0219

**Small amounts of SO2 and NOx can result from those operations.

NOx emissions supplied by the applicant are 0.754 tons per year, and SOx emissions supplied by the applicant are 0.086 tons per year.

*Emissions from the Brite dip tank are methanol emissions only

Appendix A: Emission Calculations
Rack Strip and Plater Line 1038 and Rack Strip Line 255P

Company Name: Delta Faucet Company
Address City IN Zip: 1425 West Main Street, Greensburg, Indiana 47240
MSOP Permit Number: 031-20848-00007
Reviewer: Swarna Prabha

	Emission Factor Pounds per hour of Chromium	Emission Factor Pounds per hour of Nickel	Emission Factor Pounds per hour of PM	PTE Chromium (tons per year)	PTE Ni (tons per year)	PTE PM (tons per year)
**Line 1038	0.072	0.82	2.912	0.315	3.592	12.755
Line 255	-	-	1	-	-	4.380
Total				0.315	3.592	17.135

Rack Strip Line 1038

Material	Normal Usage (lbs/hr)	Maximum Usage (lbs/hr)	Maximum Usage (tons/yr)	Control Efficiency (%)	controlled PTE of PM (tons/yr)
T34					
Alkaline Cleaner	1.09	2.05	8.98	95.0%	0.449
T37					
Aqua Ammonia	0.05	0.09	0.41	95.0%	0.021
Acetic Acid	0.03	0.06	0.25	95.0%	0.012
Total PM			0.66		0.033

**Source submitted the emission factors based on scrubber loading for Platter 1038CR -T27 & T22.

Methodology

Potential Emissions = Emission Factor * 8760 hours/year * 1 / 2000 lbs/tons

PM10 emissions are assumed to be equal to PM.

Appendix A: Revised Emission Calculations
Process Operations- buffing

Company Name: Delta Faucet Company
Address City IN Zip: 1425 West Main Street, Greensburg, Indiana 47240
MSOP Permit Number: 031-20848-00007
Reviewer: Swarna Prabha

Emission Unit	Flow Rate (acfm)	Inlet Grain Loading (gr/acfm)	Potential PM Emissions (lbs/hr)	Potential PM Emissions (tons/yr)
Two wheel Buffing #1849	4800	0.01	0.41	1.80
Two wheel Buffing #3979	2100	0.01	0.18	0.79
Two wheel Buffing #3981	1200	0.01	0.10	0.45
*Six (6) Two wheel Buffing	2700	0.01	0.23	6.08
(Automatics) Buffing #537	2100	0.01	0.18	0.79
(Automatics)Buffing #3759	1500	0.001	0.01	0.06
(Automatics) Buffing #3951	1500	0.001	0.01	0.06
(Automatics) Buffing #3954	1500	0.001	0.01	0.06
(Automatics) Buffing #3957	1500	0.001	0.01	0.06
Robot Buffing Station #3213	3300	0.01	0.28	1.24
Robot Buffing Station #3215	3300	0.01	0.28	1.24
Robot Buffing Station #3899	3300	0.01	0.28	1.24
Robot Buffing Station #3997	3300	0.01	0.28	1.24
Robot Buffing Station #4081	3300	0.01	0.28	1.24
Robot Buffing Station #4082	3300	0.01	0.28	1.24
Robot Buffing Station #4083	3300	0.01	0.28	1.24
Total				**18.809**

*Two wheel buffing stations has six operations. Potential emissions are multiplied by six.

Methodology

Potential Emissions (lbs/hr) = Flow Rate * Inlet Grain Loading * 60 min/hr / (7000 grains/lb)

Potential Emissions (tons/year) = Flow Rate * Inlet Grain Loading * 60 min/hr * 8760 hr/yr / (7000 grains/lb * 2000 lbs/ton

PM10 emissions are assumed to equal PM.

Appendix A: Emission Calculations
Process Operations- (4) Air Washers, (11) parts washers

Company Name: Delta Faucet Company
Address City IN Zip: 1425 West Main Street, Greensburg, Indiana 47240
MSOP Permit Number: 031-20848-00007
Reviewer: Swarna Prabha

Air Washers

Emission Unit	Stack	Flow Rate (acfm)	Outlet Grain Loading (gr/acfm)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)	Control Efficiency	PTE PM (lbs/hr)	PTE PM (tons/yr)	Process Weight Rate (lbs/hr)	Allowable Emissions PM (lbs/hr)
Buffing Air Washer	2126	42961	9.40E-07	3.46E-04	1.52E-03	95.0%	6.92E-03	3.03E-02		
Buffing Air Washer	2491	27752	9.81E-07	2.33E-04	1.02E-03	95.0%	4.67E-03	2.04E-02		
Buffing Air Washer	3011	48000	1.01E-06	4.16E-04	1.82E-03	95.0%	8.31E-03	3.64E-02		
Buffing Air Washer	3915	60000	1.01E-06	5.19E-04	2.28E-03	95.0%	1.04E-02	4.55E-02		
									less than	
			Total	1.51E-03	6.63E-03		3.03E-02	1.33E-01	100	0.551

Methodology

Controlled Emissions (lbs/hr) = gr/acfm x acfm x 60 minutes/hr / 7000 gr/lb

Uncontrolled Emissions (lbs/hr) = Controlled Emissions (lbs/hr) / (1 - Control Efficiency)

Emissions (tons/yr) = Emissions (lbs/hr) * 8760 hrs/yr / 2000 lbs/ton

Allowable Emissions (lbs/hr) = 4.10 x (Process weight (lbs/hr) / 2000 lbs/ton)^0.67 [326 IAC 6-3-2]

(11) Parts Washers PTE VOC

Parts Washer	VOC %	VOC PTE tons/yr
gal/yr		
1700.00	100%	5.85

Methodology

Density of Water = 8.34 lbs/gal
Specific Gravity for Hydrotreated distillate CAS#64742-47-8 = 0.825

Solvent VOC content = 100%

VOC Emissions (tons/yr) = Solvent (gallon/yr) * Solvent Specific Gravity (.825)* Density of water(8.34) *(100/100) VOC / 2000 lbs/ton

Appendix A: Welding and Thermal Cutting

Company Name: Delta Faucet Company
Address City IN Zip: 1425 West Main Street, Greensburg, Indiana 47240
MSOP: 031-20848-00007
Reviewer: Swarna Prabha

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)		EMISSION FACTORS * (lb pollutant / lb electrode)				EMISSIONS (lb/hr)				TOTAL HAPS (lb/hr)
WELDING				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Submerged Arc	0	0		0.036	0	0	0	0.000	0	0.000	0	0.000
Metal Inert Gas (MIG)(ER5154)	0	0		0.0241	3E-05		1E-05	0.000	0	0.000	0	0.000
Stick (E7018 electrode)	0	0		0.0211	0	0	0	0.000	0	0.000	0	0.000
Tungsten Inert Gas (TIG)(carbon steel)	0	0		0.0055	0	0	0	0.000	0	0.000	0	0.000
Oxyacetylene(carbon steel)	2	0.2		0.0055	0	0	0	0.002	0	0.000	0	0.000

	Number of Stations	Max. Metal Thickness Cut	Max. Metal Cutting Rate	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)				EMISSIONS (lbs/hr)				TOTAL HAPS (lb/hr)
FLAME CUTTING		(in.)	(in./minute)	PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Oxyacetylene	0	0	0	0.1622	5E-04	1E-04	0.0003	0.000	0.000	0.000	0.000	0.000
Oxymethane	0	0	0	0.0815	2E-04	0	0.0002	0.000	0.000	0.000	0.000	0.000
Plasma	0	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000

EMISSION TOTALS								PM = PM10	Mn	Ni	Cr	Total HAPs
Potential Emissions lbs/hr								0.002	0.00	0.00	0.00	0.00
Potential Emissions lbs/day								0.053	0.00	0.00	0.00	0.00
Potential Emissions tons/year								0.010	0.000	0.000	0.000	0.000

METHODOLOGY

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column. Consult AP-42 or other reference for different electrode types.
Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)
Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day
Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/day x 1 ton/2,000 lbs.
Plasma cutting emission factors are from the American Welding Society study published in Sweden (March 1994).
Welding and other flame cutting emission factors are from an internal training session document.
See AP-42, Chapter 12.19 for additional emission factors for welding.