



Mitchell E. Daniels, Jr.  
Governor

Thomas W. Easterly  
Commissioner

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

TO: Interested Parties / Applicant  
DATE: May 7, 2007  
RE: Hard Chrome Company / 163-24095-00152  
FROM: Nisha Sizemore  
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, Room 1049, 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.dot 03/23/06



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100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
(317) 232-8603  
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## Minor Source Operating Permit Renewal OFFICE OF AIR QUALITY

**Hard Chrome Company  
510 Dresden Street  
Evansville, Indiana 47710**

(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.: M163-24095-00152   |  |
| Issued by: <i>Nisha Sizemore</i><br>Nisha Sizemore, Chief<br>Permits Branch<br>Office of Air Quality | Issuance Date: May 7, 2007<br>Expiration Date: May 7, 2012 |

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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) and Evansville EPA (EEPA). 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 hard chromium electroplating.

|                              |  |
|------------------------------|--|
| Source Address:              | 510 Dresden Street, Evansville, Indiana 47710  |
| Mailing Address:             | 510 Dresden Street, Evansville, Indiana 47710  |
| General Source Phone Number: | 812-422-2356   |
| SIC Code:                    | 3471   |
| County Location:             | Vanderburgh  |
| Source Location Status:      | Nonattainment for PM 2.5 standard<br>Attainment for all other criteria pollutants  |
| Source Status:               | Minor Source Operating Permit Program<br>Minor Source, under PSD and Nonattainment NSR<br>Minor Source, Section 112 of the Clean Air Act |

### A.2 Emission Units and Pollution Control Equipment Summary

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

- (a) Ten (10) hard chromium electroplating tanks with a maximum cumulative rectifier capacity of 535,080,000 amp-hours per year, consisting of:
- (1) One (1) hard chromium electroplating tank, identified as Tank 1, constructed in 1980, using a hexavalent chromium bath and having a rectifier, identified as R14, with a rectifier capacity of 2,000 amps, using a Packed Bed Scrubber, identified as PBS-2, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 1 is an open surface hard chrome plating tank.
  - (2) One (1) hard chromium electroplating tank, identified as Tank 2, constructed in 1980, using a hexavalent chromium bath and having a rectifier, identified as R15, with a rectifier capacity of 3,000 amps, using a Packed Bed Scrubber, identified as PBS-2, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 2 is an open surface hard chrome plating tank.
  - (3) One (1) hard chromium electroplating tank, identified as Tank 3, constructed in 1987, using a hexavalent chromium bath and having two (2) rectifiers, identified as R4 and R5, with a rectifier capacity of 8,000 amps and 10,000 amps respectively, using a Packed Bed Scrubber, identified as PBS-1, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 3 is an open surface hard chrome plating tank.
  - (4) One (1) hard chromium electroplating tank, identified as Tank 4, constructed in 1989, using a hexavalent chromium bath and having two (2) rectifiers, identified as R6 and R7, with a rectifier capacity of 10,000 amps and 8,000 amps

respectively, using a Packed Bed Scrubber, identified as PBS-1, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 4 is an open surface hard chrome plating tank.

- (5) One (1) hard chromium electroplating tank, identified as Tank 5, constructed in 1993, using a hexavalent chromium bath and having a rectifier, identified as R8, with a rectifier capacity of 8,000 amps, using a Packed Bed Scrubber, identified as PBS-2, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 5 is an open surface hard chrome plating tank.
  - (6) One (1) hard chromium electroplating tank, identified as Tank 6, constructed in 1993, using a hexavalent chromium bath and having a rectifier, identified as R9, with a rectifier capacity of 10,000 amps, using a Packed Bed Scrubber, identified as PBS-2, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 6 is an open surface hard chrome plating tank.
  - (7) One (1) hard chromium electroplating tank, identified as Tank 7, constructed in 1992 using a hexavalent chromium bath and having a rectifier, identified as R12, with a rectifier capacity of 8,000 amps, using a Packed Bed Scrubber, identified as PBS-2, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 7 is an open surface hard chrome plating tank.
  - (8) One (1) hard chromium electroplating tank, identified as Tank 8, constructed in 1994, using a hexavalent chromium bath and having a rectifier, identified as R13, with a rectifier capacity of 8,000 amps, using a Packed Bed Scrubber, identified as PBS-2, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 8 is an open surface hard chrome plating tank.
  - (9) One (1) hard chromium electroplating tank, identified as Tank 9, constructed in 1994, using a hexavalent chromium bath and having a rectifier, identified as R11, with a rectifier capacity of 8,000 amps, using a Packed Bed Scrubber, identified as PBS-2, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 9 is an open surface hard chrome plating tank.
  - (10) One (1) hard chromium electroplating tank, identified as Tank 10, constructed in 1994, using a hexavalent chromium bath and having a rectifier, identified as R10, with a rectifier capacity of 8,000 amps, using a Packed Bed Scrubber, identified as PBS-2, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 10 is an open surface hard chrome plating tank.
- (b) One (1) natural gas-fired boiler with a rated capacity of 1.56 million British thermal units per hour installed in 2000 to replace an existing boiler and exhausting through its own stack.

## 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, M163-24095-00152, is issued for a fixed term of five (5) 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 and EEPA 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

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

### 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 and EEPA within a reasonable time, any information that IDEM, OAQ and EEPA 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 and EEPA 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**

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- (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)]**

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- (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, Indiana 46204-2251

and

Evansville EPA  
C.K. Newsome Community Center  
100 E. Walnut St., Suite 100  
Evansville, Indiana 47713

- (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 and EEPA on or before the date it is due.

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

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- (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 and EEPA upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ and EEPA. IDEM, OAQ and EEPA 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]**

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- (a) All terms and conditions of permits established prior to M163-24095-00152 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)]**

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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]**

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and EEPA 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

and

Evansville EPA  
C.K. Newsome Community Center  
100 E. Walnut St., Suite 100  
Evansville, Indiana 47713

- (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 and EEPA 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 and EEPA 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 and EEPA 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
- and
- Evansville EPA  
C.K. Newsome Community Center  
100 E. Walnut St., Suite 100  
Evansville, Indiana 47713
- 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, and U.S. EPA, and EEPA 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]**

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- (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

and

Evansville EPA  
C.K. Newsome Community Center  
100 E. Walnut St., Suite 100  
Evansville, Indiana 47713

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]**

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- (a) The Permittee shall pay annual fees to IDEM, OAQ and EEPA 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]**

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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 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 and EEPA, the fact that continuance of this permit is not consistent with purposes of this article.

**C.2 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 thirty percent (30%) 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.3 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.4 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.5 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.6 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

and

Evansville EPA  
C.K. Newsome Community Center  
100 E. Walnut St., Suite 100  
Evansville, Indiana 47713

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 Accredited 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 Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

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

#### C.7 Performance Testing [326 IAC 3-6]

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- (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

and

Evansville EPA  
C.K. Newsome Community Center  
100 E. Walnut St., Suite 100  
Evansville, Indiana 47713

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 and EEPA not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ and EEPA if the Permittee submits to IDEM, OAQ and EEPA, 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.8 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.9 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.10 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.11 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.12 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.13 Actions Related to Noncompliance Demonstrated by a Stack Test**

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- (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.14 Malfunctions Report [326 IAC 1-6-2]**

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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.15 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 or EEPA makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or EEPA 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.16 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

and

Evansville EPA  
C.K. Newsome Community Center  
100 E. Walnut St., Suite 100  
Evansville, Indiana 47713

- (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 and EEPA 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) Ten (10) hard chromium electroplating tanks with a maximum cumulative rectifier capacity of 535,080,000 amp-hours per year, consisting of:
- (1) One (1) hard chromium electroplating tank, identified as Tank 1, constructed in 1980, using a hexavalent chromium bath and having a rectifier, identified as R14, with a rectifier capacity of 2,000 amps, using a Packed Bed Scrubber, identified as PBS-2, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 1 is an open surface hard chrome plating tank.
  - (2) One (1) hard chromium electroplating tank, identified as Tank 2, constructed in 1980, using a hexavalent chromium bath and having a rectifier, identified as R15, with a rectifier capacity of 3,000 amps, using a Packed Bed Scrubber, identified as PBS-2, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 2 is an open surface hard chrome plating tank.
  - (3) One (1) hard chromium electroplating tank, identified as Tank 3, constructed in 1987, using a hexavalent chromium bath and having two (2) rectifiers, identified as R4 and R5, with a rectifier capacity of 8,000 amps and 10,000 amps respectively, using a Packed Bed Scrubber, identified as PBS-1, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 3 is an open surface hard chrome plating tank.
  - (4) One (1) hard chromium electroplating tank, identified as Tank 4, constructed in 1989, using a hexavalent chromium bath and having two (2) rectifiers, identified as R6 and R7, with a rectifier capacity of 10,000 amps and 8,000 amps respectively, using a Packed Bed Scrubber, identified as PBS-1, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 4 is an open surface hard chrome plating tank.
  - (5) One (1) hard chromium electroplating tank, identified as Tank 5, constructed in 1993, using a hexavalent chromium bath and having a rectifier, identified as R8, with a rectifier capacity of 8,000 amps, using a Packed Bed Scrubber, identified as PBS-2, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 5 is an open surface hard chrome plating tank.
  - (6) One (1) hard chromium electroplating tank, identified as Tank 6, constructed in 1993, using a hexavalent chromium bath and having a rectifier, identified as R9, with a rectifier capacity of 10,000 amps, using a Packed Bed Scrubber, identified as PBS-2, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 6 is an open surface hard chrome plating tank.

- (7) One (1) hard chromium electroplating tank, identified as Tank 7, constructed in 1992 using a hexavalent chromium bath and having a rectifier, identified as R12, with a rectifier capacity of 8,000 amps, using a Packed Bed Scrubber, identified as PBS-2, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 7 is an open surface hard chrome plating tank.
- (8) One (1) hard chromium electroplating tank, identified as Tank 8, constructed in 1994, using a hexavalent chromium bath and having a rectifier, identified as R13, with a rectifier capacity of 8,000 amps, using a Packed Bed Scrubber, identified as PBS-2, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 8 is an open surface hard chrome plating tank.
- (9) One (1) hard chromium electroplating tank, identified as Tank 9, constructed in 1994, using a hexavalent chromium bath and having a rectifier, identified as R11, with a rectifier capacity of 8,000 amps, using a Packed Bed Scrubber, identified as PBS-2, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 9 is an open surface hard chrome plating tank.
- (10) One (1) hard chromium electroplating tank, identified as Tank 10, constructed in 1994, using a hexavalent chromium bath and having a rectifier, identified as R10, with a rectifier capacity of 8,000 amps, using a Packed Bed Scrubber, identified as PBS-2, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 10 is an open surface hard chrome plating tank.

(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.1.1 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 the hard chromium electroplating tanks, identified as Tank 1, Tank 2, Tank 3, Tank 4, Tank 5, Tank 6, Tank 7, Tank 8, Tank 9, Tank 10, and any control devices.

#### **National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [325 IAC 2-6.1-5]**

##### **D.1.2 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]**

- (a) Pursuant to 40 CFR 63.340, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1 for the hard chromium electroplating tanks, identified as Tank 1, Tank 2, Tank 3, Tank 4, Tank 5, Tank 6, Tank 7, Tank 8, Tank 9, Tank 10, as specified in Appendix A of 40 CFR Part 63, Subpart N in accordance with schedule 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, Indiana 46204-2251

and

Evansville EPA  
C.K. Newsome Community Center  
100 E. Walnut St., Suite 100  
Evansville, Indiana 47713

**D.1.3 National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks Requirements [40 CFR Part 63, Subpart N]**

Pursuant to 40 CFR Part 63, Subpart N, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart N, for the hard chromium electroplating tanks, identified as Tank 1, Tank 2, Tank 3, Tank 4, Tank 5, Tank 6, Tank 7, Tank 8, Tank 9, Tank 10, as specified as follows.

**§ 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.

(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 ( $\text{CrO}_3$ ).

*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 ( $\text{A/m}^2$ ) 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<sup>2</sup> 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 ( $6.6 \times 10^{-6}$  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

(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;

(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 chromic acid buildup on the pads, and no evidence of chemical attack on the structural integrity of the device. | 1. 1/quarter. |
|                                  | 2. Visually inspect back portion of the mesh pad closest to the fan to ensure   | 2. 1/quarter. |

- there is no breakthrough of chromic acid mist.
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 2. 1/quarter.

tanks to the control device to ensure there are no leaks.

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.

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Monitoring Equipment

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|                    |   |            |
|--------------------|---|------------|
| 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.   |            |

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- \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:

(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.

(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.

(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.

(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  $\pm 2$  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  $\pm 2$  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  $\pm 1$  inch of water column from the pressure drop value and  $\pm 10$  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  $\pm 10$  percent of the velocity pressure value established during the initial performance test, and within  $\pm 1$  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.

### **§ 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.

(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 ( $\Delta p$ ) values for the velocity points and record. Determine the square root of the individual velocity point  $\Delta p$  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  $\Delta p$  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.

(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.

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

### **§ 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;

(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.

(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.

[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]

**D.1.4 State Only National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks Requirements [326 IAC 20-8]**

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Pursuant to 326 IAC 20-8, the Permittee shall comply with the provisions of the July 1, 2005 version of 40 CFR Part 63, Subpart N, which are incorporated by reference as 326 IAC 20-8, for the hard chromium electroplating tanks, identified as Tank 1, Tank 2, Tank 3, Tank 4, Tank 5, Tank 6, Tank 7, Tank 8, Tank 9, Tank 10. The Permittee shall comply with the provisions of 40 CFR Part 63, Subpart N, as listed in condition D.1.3, except the Permittee shall follow the more stringent requirements of the July 1, 2005 version, as incorporated into 326 IAC 20-8, as specified as follows.

- (1) 40 CFR 63.342 (f)(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, consistent with the operation and maintenance plan required by paragraph (f)(3) of this section.
- (2) 40 CFR 63.342 (f)(1)(ii) Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the operation and maintenance plan required by paragraph (f)(3) of this section.
- (3) 40 CFR 63.342 (f)(3)(i) The owner or operator of an affected source subject to paragraph (f) of this section shall prepare an operation and maintenance plan to be implemented 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:

**SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS**

**Emissions Unit Description:**

(b) One (1) natural gas-fired boiler with a rated capacity of 1.56 million British thermal units per hour installed in 2000 to replace an existing boiler exhausting through its own stack.

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

**Emission Limitations and Standards**

**D.2.1 Particulate [326 IAC 6-2-4]**

Pursuant to 326 IAC 6-2-4 (Emission limitations for facilities specified in 326 IAC 6-2-1(d)) the PM emissions from the 1.56 mmBtu per hour heat input boiler shall be limited to 0.6 pounds per mmBtu heat input.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY**

**And**

**Evansville EPA**

**MINOR SOURCE OPERATING PERMIT (MSOP)  
CERTIFICATION**

Source Name: Hard Chrome Company  
Source Address: 510 Dresden Street, Evansville, Indiana 47710  
Mailing Address: 510 Dresden Street, Evansville, Indiana 47710  
MSOP No.: M163-24095-00152

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.**

Please check what document is being certified:

- Annual Compliance Notification
- Test Result (specify) \_\_\_\_\_
- Report (specify) \_\_\_\_\_
- Notification (specify) \_\_\_\_\_
- Affidavit (specify) \_\_\_\_\_
- Other (specify) \_\_\_\_\_

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

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH  
and EEPA**

**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).

|                      |                           |
|----------------------|---------------------------|
| <b>Company Name:</b> | Hard Chrome Company       |
| <b>Address:</b>      | 510 Dresden Street        |
| <b>City:</b>         | Evansville, Indiana 47710 |
| <b>Phone #:</b>      | 812-422-2356              |
| <b>MSOP #:</b>       | M163-24095-00152          |

I hereby certify that Hard Chrome Company is :

still in operation.

I hereby certify that Hard Chrome Company is :

no longer in operation.

in compliance with the requirements of MSOP M163-24095-00152.

not in compliance with the requirements of MSOP M163-24095-00152.

|                                       |
|---------------------------------------|
| <b>Authorized Individual (typed):</b> |
| <b>Title:</b>                         |
| <b>Signature:</b>                     |
| <b>Date:</b>                          |

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.

|                       |
|-----------------------|
| <b>Noncompliance:</b> |
|                       |
|                       |
|                       |
|                       |

**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 PERM 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:

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

**MINOR SOURCE OPERATING PERMIT  
 CHROMIUM ELECTROPLATING AND ANODIZING NESHAP  
 ONGOING COMPLIANCE STATUS REPORT  
 (Complete this form for each affected tank)**

Source Name: Hard Chrome Company  
 Source Address: 510 Dresden Street, Evansville, IN 47710  
 Mailing Address: 510 Dresden Street, Evansville, IN 47710  
 Permit No.: M163-24095-00152  
 Tank ID #: Tank 1, Tank 2, Tank 3, Tank 4, Tank 5, Tank 6, Tank 7, Tank 8, Tank 9, and Tank 10  
 Type of process: hard chromium electroplating  
 Monitoring Parameter: pressure drop across the pack bed scrubber system and inlet velocity  
 Parameter Value: pressure drop across pack bed scrubber system 1 (PBS-1) 1.73 inches of water column and for pack bed scrubber system 2 (PBS-2) 1.7 inches of water column and inlet velocity of 710 ± 71 Feet per Minute (fpm) and 800±80 fpm respectively  
 Limits: Total chromium concentration may not exceed 0.0015 mg/dscm  
 This form is to be used to report compliance for the Chromium Electroplating and Anodizing NESHAP only.  
 The frequency for completing this report may be altered by 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: |

|   |
|---|
| <b>MAJOR AND AREA SOURCES: CHECK ONE</b>  |
| 9 NO DEVIATIONS OF THE MONITORING PARAMETER ASSOCIATED WITH THIS TANK FROM THE COMPLIANT VALUE OR RANGE OF VALUES OCCURRED DURING THIS REPORTING PERIOD.  |
| 9 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). |

|   |     |     |     |
|---|-----|-----|-----|
| <b>AREA (I.E., NON-MAJOR) SOURCES OF HAP ONLY:</b><br>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 |

|  |     |     |     |
|--|-----|-----|-----|
| <b>HARD CHROME TANKS / MAXIMUM RECTIFIER CAPACITY LIMITED IN ACCORDANCE WITH 40 CFR 63.342(c)(2) ONLY:</b><br>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 AND ANODIZING 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**

- 9 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.
- 9 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.

**Indiana Department of Environmental Management  
Office of Air Quality**

**Addendum to the  
Technical Support Document (TSD) for a Minor Source Operating Permit (MSOP)  
Renewal**

**Source Background and Description**

|  |   |
|--|---|
| <b>Source Name:</b>                    | <b>Hard Chrome Company</b>                      |
| <b>Source Location:</b>                | <b>510 Dresden Street, Evansville, IN 47710</b> |
| <b>County:</b>                         | <b>Vanderburgh</b>                              |
| <b>SIC Code:</b>                       | <b>3471</b>                                     |
| <b>Operation Permit Issuance Date:</b> | <b>March 15, 2002</b>                           |
| <b>Permit Renewal No.:</b>             | <b>M163-24095-00152</b>                         |
| <b>Permit Reviewer:</b>                | <b>Jeff W. Scull</b>                            |

On March 14, 2007, the Office of Air Quality (OAQ) had a notice published in the Evansville Courier, Evansville, IN, stating that Hard Chrome Company had applied for the renewal of the MSOP permit at this stationary hard chrome electroplating facility. The notice also stated that OAQ proposed to issue a permit 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.

On March 9, 2006, Dona J. Bergman, Director of Evansville Environmental Protection Agency (EEPA) submitted comments on the proposed MSOP renewal. The summary of the comments and corresponding responses are as follows (**bolded** language has been added and language ~~with a line through it~~ has been deleted), the Table of Contents has been updated:

**Comment 1**

The page numbers are incorrect for Conditions A, B and C.

**Response 1**

The EEPA reviewed a March 8, 2007 pdf file. That file had been corrupted while being converted from the Word file and listed the page number as 2 for the A,B, and C sections in the Table of Contents. This file was corrected prior to public notice. Therefore, no change has been made to the permit.

**Comment 2**

Please note that the maximum cumulative rectifier capacity is incorrectly listed in A.2 at 288,120,000 amp-hours per year. The correct capacity is 535,080,000 based on the definition listed under 40 CFR 63.341.

**Response 2**

OAQ agrees. This changes the potential to emit (PTE) of PM from 5.15 tons/year to 9.56 tons/year. The controlled PM emissions change from 1.38E-04 tons/year to 2.56E-04 tons/year. The uncontrolled chromium emissions change from 2.47 tons/year to 4.59 tons/year. The controlled

chromium emissions change from 6.59E-05 tons/year to 1.22E-04 tons/year. The PTE corrections in emissions have no impact on the source status or Part 70 Permit Determination.

Conditions A.2 (a) and D.1 (a) have been revised to reflect the correct amp-hours as follows:

- (a) Ten (10) hard chromium electroplating tanks with a maximum cumulative rectifier capacity of ~~288,120,000~~ **535,080,000** amp-hours per year, consisting of:

### Comment 3

Please include the EEPA on Conditions B.4 (a) and (b), B.16, C.14, and C.15.

Please include the EEPA and this agency's mailing address as provided above in Conditions B.9 (b), B.13 (a), C.7, C.16, D.1.2 (b)

Please change Condition B.18 so that the annual fees are payable to EEPA. We propose the following wording:

The permittee shall pay annual fees to the Evansville Environmental Protection Agency by the date specified on the invoice.

The permittee may call the Evansville EPA at 812/435-6145 to determine the appropriate permit fee.

### Response 3

Upon further review, OAQ has decided to make the following change to the permit:

The Evansville EPA, EEPA, Evansville EPA address and telephone number has been added to the permit since the source is under the jurisdiction of the Evansville EPA.

#### Evansville EPA

#### EEPA

**Evansville Environmental Protection Agency**  
**C.K. Newsome Community Center**  
**100 E. Walnut St., Suite 100**  
**Evansville, Indiana 47713**

**Evansville EPA Telephone Number: 812-435-6145**

**Evansville EPA Facsimile Number: 812-435-6155**

The following A, B, and C conditions have been updated as a result of this revision:

| SECTION A                | SOURCE SUMMARY                               |
|--------------------------|--|
| B.2 (b)                  | Permit Term                                  |
| B.4 (a) & (b)            | Enforceability                               |
| B.7 (a)                  | Duty to Provide Information                  |
| B.9 (b) (c)              | Annual Notification                          |
| B.10 (b)                 | Preventive Maintenance Plan                  |
| B.13 (a), (b) (2), & (c) | Permit Renewal                               |
| B.14 (b)                 | Permit Amendment or Revision                 |
| B.16                     | Inspection and Entry                         |
| B.17 (b)                 | Transfer of Ownership or Operational Control |
| B.18 (a)                 | Annual Fee Payment                           |

- C.1 (e) Permit Revocation
- C.6 (d) Asbestos Abatement Projects
- C.7 (a) & (c) Performance Testing
- C.15 (a) General Record Keeping Requirements
- C.16 (a) & (b) General Reporting Requirements
- D.1.2 (b) General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63

MINOR SOURCE OPERATING PERMIT (MSOP) CERTIFICATION  
MINOR SOURCE OPERATING PERMIT ANNUAL NOTIFICATION

The following B and C conditions have not been updated as a result of this revision:

- B.18 Proposed wording.
- C.14 The EEPA was not included.

#### Comment 4

In Condition D.1.3: Hard Chrome does not use a Fiber-bed mist eliminator, pitot tube, Stalagmometer, or APCD. Please delete these requirements from the permit.

#### Response 4

These items are incorporated by reference as part of Table 1 to §63.342—Summary of Operation and Maintenance Practices. The entire table will be left in the permit.

#### Comment 5

40 CFR 63.343(a) (5) in Condition D.1.3 should be deleted. Hard Chrome is an existing Large Hard Chromium electroplating facility. Therefore this condition does not apply.

#### Response 5

OAQ agrees. Condition D.1.3 has been revised as follows:

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(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

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#### Comment 6

40 CFR 63.343(c) (3) & (4) in condition D.1.3 should be deleted because they are inapplicable to Hard Chrome.

## Response 6

OAQ believes 40 CFR 63.343 (c) (3) is an applicable requirement; therefore, it has not been removed from the permit. OAQ agrees that 40 CFR 63.343 (c) (4) is not an applicable requirement; therefore, it has been removed from the permit.

Condition D.1.3 has been revised as follows:

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(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  $\pm 1$  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  $\pm 1$  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.

[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]

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## Comment 7

40 CFR 63.347(c) (1) in Condition D.1.3 is unnecessary because Hard Chrome Company has already submitted their Initial Notification.

## Response 7

Applicable requirements are included in the permit. The Initial Notification requirements in 40 CFR 63.347 (c) (1) is still an applicable requirement, even though the Permittee may have submitted an initial notification pursuant to the NESHAP. Therefore, no change has been made to the permit.

## Comment 8

40 CFR 63.347(g) (1) & (2) in Condition D.1.3 are inapplicable because Hard Chrome is not a major source.

## Response 8

OAQ agrees. 40 CFR 63.347(g) (1) & (2) in Condition D.1.3 has been deleted. Condition D.1.3 has been revised as follows:

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(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(e) 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.

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### OAQ Changes

OAQ has made the following changes to the permit to add the mail code information to the address, as follows:

100 North Senate Avenue  
**MC 61-53 IGCN 1003**  
Indianapolis, Indiana 46204-2251  
(317) 232-8603  
(800) 451-6027  
[www.IN.gov/idem](http://www.IN.gov/idem)

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

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

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

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

**Indiana Department of Environmental Management  
Office of Air Quality**

Technical Support Document (TSD) for a Minor Source Operating Permit (MSOP)  
Renewal

**Source Background and Description**

|  |   |
|--|---|
| <b>Source Name:</b>                    | <b>Hard Chrome Company</b>                      |
| <b>Source Location:</b>                | <b>510 Dresden Street, Evansville, IN 47710</b> |
| <b>County:</b>                         | <b>Vanderburgh</b>                              |
| <b>SIC Code:</b>                       | <b>3471</b>                                     |
| <b>Operation Permit No.:</b>           | <b>M163-11753-00152</b>                         |
| <b>Operation Permit Issuance Date:</b> | <b>March 15, 2002</b>                           |
| <b>Permit Renewal No.:</b>             | <b>M163-24095-00152</b>                         |
| <b>Permit Reviewer:</b>                | <b>Jeff W. Scull</b>                            |

The Office of Air Quality (OAQ) has reviewed an application from Hard Chrome Company relating to the operation of a hard chromium electroplating source.

**Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) Ten (10) hard chromium electroplating tanks with a maximum cumulative rectifier capacity of 288,120,000 amp-hours per year, consisting of:
  - (1) One (1) hard chromium electroplating tank, identified as Tank 1, constructed in 1980, using a hexavalent chromium bath and having a rectifier, identified as R14, with a rectifier capacity of 2,000 amps, using a Packed Bed Scrubber, identified as PBS-2, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 1 is an open surface hard chrome plating tank.
  - (2) One (1) hard chromium electroplating tank, identified as Tank 2, constructed in 1980, using a hexavalent chromium bath and having a rectifier, identified as R15, with a rectifier capacity of 3,000 amps, using a Packed Bed Scrubber, identified as PBS-2, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 2 is an open surface hard chrome plating tank.
  - (3) One (1) hard chromium electroplating tank, identified as Tank 3, constructed in 1987, using a hexavalent chromium bath and having two (2) rectifiers, identified as R4 and R5, with a rectifier capacity of 8,000 amps and 10,000 amps respectively, using a Packed Bed Scrubber, identified as PBS-1, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 3 is an open surface hard chrome plating tank.

- (4) One (1) hard chromium electroplating tank, identified as Tank 4, constructed in 1989, using a hexavalent chromium bath and having two (2) rectifiers, identified as R6 and R7, with a rectifier capacity of 10,000 amps and 8,000 amps respectively, using a Packed Bed Scrubber, identified as PBS-1, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 4 is an open surface hard chrome plating tank.
  - (5) One (1) hard chromium electroplating tank, identified as Tank 5, constructed in 1993, using a hexavalent chromium bath and having a rectifier, identified as R8, with a rectifier capacity of 8,000 amps, using a Packed Bed Scrubber, identified as PBS-2, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 5 is an open surface hard chrome plating tank.
  - (6) One (1) hard chromium electroplating tank, identified as Tank 6, constructed in 1993, using a hexavalent chromium bath and having a rectifier, identified as R9, with a rectifier capacity of 10,000 amps, using a Packed Bed Scrubber, identified as PBS-2, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 6 is an open surface hard chrome plating tank.
  - (7) One (1) hard chromium electroplating tank, identified as Tank 7, constructed in 1992 using a hexavalent chromium bath and having a rectifier, identified as R12, with a rectifier capacity of 8,000 amps, using a Packed Bed Scrubber, identified as PBS-2, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 7 is an open surface hard chrome plating tank.
  - (8) One (1) hard chromium electroplating tank, identified as Tank 8, constructed in 1994, using a hexavalent chromium bath and having a rectifier, identified as R13, with a rectifier capacity of 8,000 amps, using a Packed Bed Scrubber, identified as PBS-2, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 8 is an open surface hard chrome plating tank.
  - (9) One (1) hard chromium electroplating tank, identified as Tank 9, constructed in 1994, using a hexavalent chromium bath and having a rectifier, identified as R11, with a rectifier capacity of 8,000 amps, using a Packed Bed Scrubber, identified as PBS-2, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 9 is an open surface hard chrome plating tank.
  - (10) One (1) hard chromium electroplating tank, identified as Tank 10, constructed in 1994, using a hexavalent chromium bath and having a rectifier, identified as R10, with a rectifier capacity of 8,000 amps, using a Packed Bed Scrubber, identified as PBS-2, and a Composite Mesh Pad, identified as CMP-1, as control, and exhausting to Stack #1. Under NESHAP Subpart N, Tank 10 is an open surface hard chrome plating tank.
- (b) One (1) natural gas-fired boiler with a rated capacity of 1.56 million British thermal units per hour installed in 2000 to replace an existing boiler and exhausting through its own stack.

**Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted emission units operating at this source during this review process.

**Existing Approvals**

The source has been operating under previous approvals including, but not limited to, the following:

MSOP 163-11753-00152 issued on March 15, 2002.

All conditions from previous approvals were incorporated into this permit.

**Enforcement Issue**

There are no enforcement actions pending.

**Stack Summary**

| Stack ID | Operation  | Height (ft)        | Diameter (ft) | Flow Rate (acfm) | Temperature (°F)     |
|----------|------------|--------------------|---------------|------------------|----------------------|
| Stack #1 | Tanks 1-10 | 32                 | 2.125         | 3800             | 90                   |
| Boiler   | Boiler     | 24 (4' above roof) | 1             | 0 (not in use)   | ambient (not in use) |

**Emission Calculations**

See Appendix A, pages 1 and 2, of this document for detailed emissions calculations.

**Potential to Emit (of the Source or Revision) Before Controls**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency.”

| Pollutant       | Chromium Electroplating<br>Uncontrolled<br>Potential to Emit (tons/yr) | Combustion Sources<br>Uncontrolled<br>Potential to Emit (tons/yr) | Source Total<br>Uncontrolled<br>Potential to Emit (tons/yr) |
|-----------------|--|---|---|
| PM              | 5.15   | 0.01  | 5.16  |
| PM-10           | 5.15   | 0.05  | 5.20  |
| SO <sub>2</sub> | 0.00   | 0.00  | 0.00  |
| NO <sub>x</sub> | 0.00   | 0.68  | 0.68  |
| VOC             | 0.00   | 0.04  | 0.04  |
| CO              | 0.00   | 0.57  | 0.57  |

| HAPs            | Chromium Electroplating Uncontrolled Potential to Emit (tons/yr) | Combustion Sources Uncontrolled Potential to Emit (tons/yr) | Source Total Uncontrolled Potential to Emit (tons/yr) |
|-----------------|--|---|---|
| Benzene         | 0.00   | 1.435E-05   | 1.435E-05   |
| Dichlorobenzene | 0.00   | 8.199E-06   | 8.199E-06   |
| Formaldehyde    | 0.00   | 5.125E-04   | 5.125E-04   |
| Hexane          | 0.00   | 1.230E-02   | 1.230E-02   |
| Toluene         | 0.00   | 2.323E-05   | 2.323E-05   |
| Lead            | 0.00   | 3.416E06  | 3.416E06  |
| Cadmium         | 0.00   | 7.516E-06   | 7.516E-06   |
| Manganese       | 0.00   | 2.596E-06   | 2.596E-06   |
| Nickel          | 0.00   | 1.435E-05   | 1.435E-05   |
| Chromium        | 2.47   | 9.566E-06   | 2.47  |
| Total           | 2.47   | 1.289E-02   | 2.48  |

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of each criteria pollutant is less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7, Part 70.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is 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. Therefore, the source is not subject to the provisions of 326 IAC 2-7, Part 70.
- (c) This source consists of hard chromium electroplating tanks and is subject to 326 IAC 20-8, but not 326 IAC 2-5.5-1(b)(2), Registration, because the source is not a decorative chromium electroplating plant. This source is a hard chromium electroplating source and the source emits less than major source thresholds (see (a) and (b) above). Therefore, the source is subject to the provisions of 326 IAC 2-6.1-3(a).
- (d) Fugitive Emissions  
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

**County Attainment Status**

The source is located in Vanderburgh County.

| Pollutant       | Status                 |
|-----------------|------------------------|
| PM-2.5          | Nonattainment          |
| PM-10           | Attainment             |
| SO <sub>2</sub> | Attainment             |
| NO <sub>2</sub> | Attainment             |
| 8-hour Ozone    | Maintenance Attainment |
| CO              | Attainment             |
| Lead            | Attainment             |

- (a) 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 the ozone standards. Vanderburgh County has been designated as attainment or unclassifiable for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Vanderburgh County as nonattainment for PM 2.5. On March 7, 2005 the Indiana Attorney Generals Office, on behalf of IDEM, filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's guidance to regulate PM10 emissions as a surrogate for PM2.5 emissions pursuant to the requirements for nonattainment new source review 326 IAC 2-1.1.
- (c) Vanderburgh County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

**Source Status**

Existing Source PSD, Part 70, or FESOP Definition (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

| Pollutant       | Chromium Electroplating<br>Controlled<br>Potential to Emit (tons/yr) | Combustion Sources<br>Controlled<br>Potential to Emit (tons/yr) | Source Total<br>Controlled<br>Potential to Emit (tons/yr) |
|-----------------|--|---|---|
| PM              | 0.00   | 0.01  | 0.01  |
| PM-10           | 0.00   | 0.05  | 0.05  |
| SO <sub>2</sub> | 0.00   | 0.00  | 0.00  |
| NO <sub>x</sub> | 0.00   | 0.68  | 0.68  |
| VOC             | 0.00   | 0.04  | 0.04  |
| CO              | 0.00   | 0.57  | 0.57  |

| HAPs            | Chromium<br>Electroplating<br>Controlled<br>Potential to Emit<br>(tons/yr) | Combustion<br>Sources<br>Controlled<br>Potential to Emit<br>(tons/yr) | Source<br>Total<br>Controlled<br>Potential to Emit<br>(tons/yr) |
|-----------------|--|---|---|
| Benzene         | 0.00   | 1.435E-05   | 1.435E-05   |
| Dichlorobenzene | 0.00   | 8.199E-06   | 8.199E-06   |
| Formaldehyde    | 0.00   | 5.125E-04   | 5.125E-04   |
| Hexane          | 0.00   | 1.230E-02   | 1.230E-02   |
| Toluene         | 0.00   | 2.323E-05   | 2.323E-05   |
| Lead            | 0.00   | 3.416E06  | 3.416E06  |
| Cadmium         | 0.00   | 7.516E-06   | 7.516E-06   |
| Manganese       | 0.00   | 2.596E-06   | 2.596E-06   |
| Nickel          | 0.00   | 1.435E-05   | 1.435E-05   |
| Chromium        | 6.59E-05   | 9.566E-06   | 7.546E-05   |
| Total           | 6.59E-05   | 1.289E-02   | 1.296E-02   |

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater, no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or greater, and it is not in one of the 28 listed source categories.
- (b) These emissions were based on the emission calculations in Appendix A to this document.

#### Part 70 Permit Determination

##### 326 IAC 2-7 (Part 70 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.

This status is based on all the air approvals issued to the source.

### Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this permit.
- (b) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart DDDDD are not included in this permit, due to the source being an area source of HAPs.
- (c) This source is subject to the National Emission Standards for Hazardous Air Pollutants, 326 IAC 20-8, (40 CFR 63.340, Subpart N).

The hard chromium electroplating tanks, identified as Tank 1, Tank 2, Tank 3, Tank 4, Tank 5, Tank 6, Tank 7, Tank 8, Tank 9, and Tank 10 are subject to the National Emission Standards for Hazardous Air Pollutants, 326 IAC 20-8, (40 CFR 63.340, Subpart N).

The hard chromium electroplating tanks, identified as Tank 1, Tank 2, Tank 3, Tank 4, Tank 5, Tank 6, Tank 7, Tank 8, Tank 9, and Tank 10, are open surface hard chromium electroplating tanks, located at a hard chromium electroplating facility. The Permittee uses two packed bed scrubbers and a composite mesh pad for emission control. The Permittee tested the Stack #1 emissions using method 306A on June 16, 1997 and compliance was demonstrated. The acceptable overall pressure drop for the composite mesh pad system was established at  $1 \pm 1$  inch of water column and the average outlet chromium concentration is 0.0031 mg/dscm. Also during that test, it was determined that the average pressure drop across the packed bed scrubber system 1 (PBS-1) was 1.73 inches of water column and for the packed bed scrubber system 2 (PBS-2) was 1.7 inches of water column with a total chromium concentration not exceeding 0.015 mg/dscm. The inlet velocity is  $710 \pm 71$  Feet per Minute (fpm) and  $800 \pm 80$  fpm respectively.

Pursuant to 40 CFR 63.340(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.

Non applicable portions of the NESHAP will not be included in the permit. The hard chromium electroplating tanks, identified as Tank 1, Tank 2, Tank 3, Tank 4, Tank 5, Tank 6, Tank 7, Tank 8, Tank 9, and Tank 10, are subject to the following portions of Subpart N.

- (1) 40 CFR 63.340(a);(b); and(e).
- (2) 40 CFR 63.341.
- (3) 40 CFR 63.342(a);(b)(1);(b)(2);(c)(1)(i);(f)(1);(f)(2);(f)(3)(i)(A);(f)(3)(i)(B);(f)(3)(i)(D);(f)(3)(i)(E);(f)(3)(ii) through (vi).
- (4) 40 CFR 63.342 (g).
- (5) Table 1 Summary of Operation and Maintenance Practices for Composite mesh-pad (CMP) system, Packed-bed scrubber (PSB), PBS/CMP system, Fiber-bed mist eliminator, and Pitot tube.
- (6) 40 CFR 63.343(a)(1)(ii);(a)(2) through (6);(b)(1);(c)(5).
- (7) 40 CFR 63.344(a),(b),(c),(d)(1),(d)(2),(d)(4),(d)(5).
- (8) 40 CFR 63.346(a);(b)(1) through (b)(11);(b)(16);(c).
- (9) 40 CFR 63.347(a) through (f);(g)(1);(g)(2);(g)(30)(i) through (vi);(g)(viii) through (xiii);(g)(4);(h).

(10) 40 CFR 63.348

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.

**State Rule Applicability – Entire Source**

**326 IAC 1-5-2 (Emergency Reduction Plans)**

The source is not required to submit an Emergency Reduction Plan.

**326 IAC 1-6-3 (Preventive Maintenance Plan)**

(a) If required by specific condition(s) in Section D of the 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 PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

**326 IAC 1-7-3 (Actual Stack Height Provisions)**

The current stacks at the source are not subject to the provisions of 326 IAC 1-7-3, since the source has less than twenty-five (25) tons per year of potential emissions of PM and SO<sub>2</sub>.

**326 IAC 2-2 (Prevention of Significant Deterioration)**

The total source potential emissions of PM, PM-10, SO<sub>2</sub>, NO<sub>x</sub>, and CO are less than 250 tons per year. The source is not one of the 28 listed sources. The source has not conducted any modifications to trigger PSD and is currently considered a minor PSD source. Therefore, this source is a minor source pursuant to 326 IAC 2-2, PSD.

**326 IAC 2-3 (Emission Offset)**

The unrestricted potential VOC and NO<sub>x</sub> emissions are each less than 25 tons per year, the unrestricted potential PM<sub>10</sub>, (PM<sub>10</sub> is as a surrogate for PM<sub>2.5</sub> emissions) are less than 100 tons per year. The source is not one of the 28 listed sources. The source has not conducted any modifications to trigger Emission Offset. Therefore, this source is a minor source pursuant to 326 IAC 2-3, Emission Offset.

**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 is a minor source of HAP. Therefore, this source is not subject to the requirements of 326 IAC 2-4.1-1, New Source Toxics Control.

**326 IAC 2-6 (Emission Reporting)**

This source is located in Vanderburgh County, the potential to emit of VOC and NOx is less than 25 tons per year, and this source is not required to have a Part 70 Permit. Therefore, this source is not subject to requirements of 326 IAC 2-6.

**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 source consists of hard chromium electroplating tanks. 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)**

The source is located in Vanderburgh County, the area included in the City of Evansville and Pigeon Township. 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 thirty percent (30%) 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 non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**State Rule Applicability – Individual Facilities**

**326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)**

Pursuant to 326 IAC 6-2-4 (Emission limitations for facilities specified in 326 IAC 6-2-1(d)) the PM emissions from the 1.56 mmBtu per hour heat input boiler shall be limited to 0.6 pounds per mmBtu heat input.

- (a) Particulate emissions from indirect heating facilities constructed after September 21, 1983 shall be limited by the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where: Pt = Pounds of particulate matter emitted per mmBtu heat input (lb/mmBtu).  
Q = Total source maximum operating capacity rating in million Btu 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 operation 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. For Q less than 10 mmBtu/hr, Pt shall not exceed 0.6. For Q greater than or equal to 10,000 mmBtu/hr, Pt shall not exceed 0.1. Figure 2 may be used to estimate allowable emissions.

(b) As each new indirect heating facility is added to a plant Q will increase. As a result, the emission limitation for each progressively newer facility will be more stringent until the total plant capacity reaches 10,000 mmBtu/hr after which the emission limit for each newer facility will be 0.1 lb/mmBtu heat input. The rated capacities for facilities regulated by 326 IAC 12, New Source Performance Standards, shall be included when calculating Q for subsequent facilities.

**326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)**

The limits in 326 IAC 20-8 for the hard chromium electroplating tanks, identified as Tank 1, Tank 2, Tank 3, Tank 4, Tank 5, Tank 6, Tank 7, Tank 8, Tank 9, and Tank 10, are more stringent than the limits in 326 IAC 6-3. Therefore, the hard chrome electroplating tanks, identified as Tank 1, Tank 2, Tank 3, Tank 4, Tank 5, Tank 6, Tank 7, Tank 8, Tank 9, and Tank 10, are not subject to the requirements of 326 IAC 6-3.

**326 IAC 6.5 (Particulate Matter Limitations Except Lake County)**

Vanderburgh County is listed in 326 IAC 6.5-1-1 (a). However, neither the source nor the facilities are specifically listed in 326 IAC 6.5-8. The source does not have the potential to emit one hundred (100) tons or more nor have actual emissions of ten (10) tons or more of particulate matter per year. Therefore, the hard chromium electroplating tanks, identified as Tank 1, Tank 2, Tank 3, Tank 4, Tank 5, Tank 6, Tank 7, Tank 8, Tank 9, and Tank 10, are not subject to 326 IAC 6.5.

**326 IAC 20-8-1 (Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks)**

The hard chromium electroplating tanks, identified as Tank 1, Tank 2, Tank 3, Tank 4, Tank 5, Tank 6, Tank 7, Tank 8, Tank 9, and Tank 10, are subject to 326 IAC 20-8-1 (Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks). 326 IAC 20-8 incorporates by reference 40 CFR 63 Subpart N. The Permittee will comply with the provisions of 40 CFR 63, Subpart N as detailed in the Federal Rule Applicability section above.

40 CFR 63.342, Subpart N was amended in Federal Register 71FR20456 on April 20, 2006. However, pursuant to 326 IAC 1-1-3, the version of the rule referenced by 326 IAC 20-8 was the version in existence on July 1, 2005, which had been most recently amended in Federal Register 69 FR 42894, on July 19, 2004. Therefore, the April 20, 2006, amendments to the federal rule are not incorporated into the 326 IAC, and the chromium electroplating facilities at this source are subject to both versions of the rule. When the revised rule is incorporated into 326 IAC, the Permittee may apply for a revision to the permit to remove any requirements from the previous version of the rule that are not present in the updated version of the rule. All of the requirements of 326 IAC 20-8 rule that are applicable to this source are the same as the requirements listed under Federal Rule Applicability except for the following:

- (1) 40 CFR 63.342 (f)(1)(i).
- (2) 40 CFR 63.342 (f)(1)(ii).
- (3) 40 CFR 63.342 (f)(3)(i).

**Testing Requirements**

The Permittee has conducted testing as required by 40 CFR 63, Subpart N. The Permittee will not be required to retest by this permit.

### **Recommendation**

The staff recommends to the Commissioner that the operation 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.

A complete application for the purposes of this review was received on December 20, 2006.

### **Conclusion**

The operation of this hard chromium electroplating source shall be subject to the conditions of the Minor Source Operating Permit M163-24095-00152.

**Appendix A: Emission Calculations****Company Name:** Hard Chrome Company**Address:** 510 Dresden Street, Evansville, IN 47710**Permit No.** M163-24095-00152**Pit ID:** 163-00152**Reviewer:** Jeff Scull**Date:** 02/26/07**Uncontrolled Potential to Emit (tons/year)**

## Emissions Generating Activity

| Pollutant             | Chromium Electroplating Operation | Combustion Sources | Total |
|-----------------------|-----------------------------------|--------------------|-------|
| PM                    | 5.15                              | 0.01               | 5.16  |
| PM-10                 | 5.15                              | 0.05               | 5.20  |
| SO2                   | 0.00                              | 0.00               | 0.00  |
| NOx                   | 0.00                              | 0.68               | 0.68  |
| VOC                   | 0.00                              | 0.04               | 0.04  |
| CO                    | 0.00                              | 0.57               | 0.57  |
| total HAPs            | 2.47                              | 0.01               | 2.48  |
| worst case single HAP | 2.47                              | 0.01               |       |
|                       | Chromium                          | Hexane             |       |

Total emissions based on rated capacity at 8,760 hours/year.

**Controlled/Limited Potential to Emit (tons/year)**

## Emissions Generating Activity

| Pollutant             | Chromium Electroplating Operation | Combustion Sources | Total |
|-----------------------|-----------------------------------|--------------------|-------|
| PM                    | 0.00                              | 0.01               | 0.01  |
| PM-10                 | 0.00                              | 0.05               | 0.05  |
| SO2                   | 0.00                              | 0.00               | 0.00  |
| NOx                   | 0.00                              | 0.68               | 0.68  |
| VOC                   | 0.00                              | 0.04               | 0.04  |
| CO                    | 0.00                              | 0.57               | 0.57  |
| total HAPs            | 0.00                              | 0.01               | 0.01  |
| worst case single HAP | 0.00                              | 0.01               |       |
|                       | Chromium                          | Hexane             |       |

Total emissions based on rated capacity at 8,760 hours/year.

Appendix A: Emission Calculations  
 Hard Chromium Electroplating Tanks #1, #2, #3, #4, #5, #6, #7, #8, #9 and #10

Company Name: Hard Chrome Company  
 Address: 510 Dresden Street, Evansville, IN 47710  
 Permit No. M163-24095-00152  
 Pit ID: 163-00152  
 Reviewer: Jeff Scull  
 Date: 02/26/07

(1) Uncontrolled PM Emissions = 5.15E+00 tons/yr

Where:  
 EF = 0.25 Uncontrolled EF for PM, grains/A-hr  
 Maximum Capacity = 288,120,000 A-hrs/yr

(2) Controlled PM Emissions = 1.38E-04 tons/yr

Where:  
 EF = 6.70E-08 EF for PM with a CMP and PBS, grains/dscf  
 EF = 6.70E-06 EF for PM with a CMP and PBS, grains/A-hr  
 Maximum Capacity = 288,120,000 A-hrs/yr

(3) Uncontrolled Chromium Emissions = 2.47E+00 tons/yr

Where:  
 EF = 0.12 Uncontrolled EF for chromium, grains/A-hr  
 Maximum Capacity = 288,120,000 A-hrs/yr

(4) Controlled Chromium Emissions = 6.59E-05 tons/yr

Where:  
 EF = 3.20E-08 EF for chromium with a CMP and PBS, grains/dscf  
 EF = 3.20E-06 EF for chromium with a CMP and PBS, grains/A-hr  
 Maximum Capacity = 288,120,000 A-hrs/yr

**Methodology**

Uncontrolled Emissions = EF (grains/A-hr) \* Capacity \* lbs/7000 grains \* ton/2000 lbs  
 Controlled Emissions = Controlled EF (grains/A-hr) \* Capacity \* lbs/7000 grains \* ton/2000 lbs  
 Emission Calculations are based on AP-42 -Table 12.20-1 (Supplement B 7/96)

**Appendix A: Emissions Calculations**  
**Natural Gas Combustion Only**  
**MM BTU/HR <100**  
**Small Industrial Boiler**

**Company Name:** Hard Chrome Company  
**Address City IN Zip:** 510 Dresden, Evansville, Indiana 47710  
**Permit Number:** M163-24095-00152  
**Pit ID:** 163-00152  
**Reviewer:** Jeff Scull  
**Date:** 12/20/2006

Heat Input Capacity  
 MMBtu/hr

Potential Throughput  
 MMCF/yr

13.7

| Emission Factor in lb/MMCF    | Pollutant |       |      |      |      |
|-------------------------------|-----------|-------|------|------|------|
|                               | PM*       | PM10* | SO2  | NOx  | CO   |
| 1.9                           | 7.6       | 0.6   | 1000 | 5.5  | 84.0 |
| Potential Emission in tons/yr | 0.01      | 0.05  | 0.00 | 0.68 | 0.57 |

\*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

**Methodology**

All emission factors are based on normal firing.  
 MMBtu = 1,000,000 Btu  
 MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu  
 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)  
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton  
 See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations**  
**Natural Gas Combustion Only**  
**MM BTU/HR <100**  
**Small Industrial Boiler**  
**HAPs Emissions**

**Company Name:** Hard Chrome Company  
**Address City IN Zip:** 510 Dresden, Evansville, Indiana 47710  
**Permit Number:** M163-24095-00152  
**Pit ID:** 163-00152  
**Reviewer:** Jeff Scull  
**Date:** 12/21/2006

|                               |                    | HAPs - Organics            |                         |                   |                    |
|-------------------------------|--------------------|----------------------------|-------------------------|-------------------|--------------------|
| Emission Factor in lb/MMcf    | Benzene<br>2.1E-03 | Dichlorobenzene<br>1.2E-03 | Formaldehyde<br>7.5E-02 | Hexane<br>1.8E+00 | Toluene<br>3.4E-03 |
| Potential Emission in tons/yr | 1.435E-05          | 8.199E-06                  | 5.125E-04               | 1.230E-02         | 2.323E-05          |

|                               |                 | HAPs - Metals      |                     |                      |                   |
|-------------------------------|-----------------|--------------------|---------------------|----------------------|-------------------|
| Emission Factor in lb/MMcf    | Lead<br>5.0E-04 | Cadmium<br>1.1E-03 | Chromium<br>1.4E-03 | Manganese<br>3.8E-04 | Nickel<br>2.1E-03 |
| Potential Emission in tons/yr | 3.416E-06       | 7.516E-06          | 9.566E-06           | 2.596E-06            | 1.435E-05         |

**Total HAPs Emissions: 1.289E-02**

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.