



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: November 3, 2005
RE: Parker Hannifin Corp. / 033-21568-00073
FROM: Paul Dubenetzky
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 1/10/05



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MINOR SOURCE OPERATING PERMIT RENEWAL OFFICE OF AIR QUALITY

**Parker Hannifin Corp. Cylinder Division
201 Parker Drive
Ashley, Indiana 46705**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the emission units 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.

Operation Permit No.: MSOP 033-21568-00073	
Issued by: Original Signed By: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: November 3, 2005 Expiration Date: November 3, 2010

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SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a stationary large hard chromium electroplating source.

Authorized Individual: Plant Superintendent
Source Address: 201 Parker Drive, Ashley, Indiana 46705
Mailing Address: P.O. Box 368, Ashley, Indiana 46705
General Source Phone: (260) 587-9102
SIC Code: 3471, 3499
County Location: DeKalb
Source Location Status: Attainment for all criteria pollutants
Source Status: Minor Source Operating Permit
Minor Source, under PSD
Minor Source, Section 112 of the Clean Air Act

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

- (a) One (1) hard chromium electroplating operation with a maximum cumulative rectifier capacity of 317,520,000 Ampere-hours per year consisting of:
 - (1) One (1) hard chromium electroplating tank, identified as VP-1, constructed prior to January 25, 1995, equipped with a packed bed scrubber/composite mesh pad system, and exhausting through one (1) stack, identified as VPS.
 - (2) Three (3) hard chromium electroplating tanks, identified as HP-1, HP-2, and HP-3, constructed prior to January 25, 1995, equipped with a packed bed scrubber/composite mesh pad system, and exhausting through one (1) stack, identified as OHPS-1.
 - (3) Three (3) hard chromium electroplating tanks, identified as HP-4, HP-5, and HP-6, constructed in April 1997, equipped with a composite mesh pad scrubber, and exhausting through one (1) stack, identified as NHPS-1.
- (b) One (1) natural gas-fired applied air system, installed in May 1983, with a maximum capacity of 5 million British thermal units per hour.
- (c) Three (3) grinding and polishing lines, including the following:
 - (1) Three (3) centerless grinders, equipped with mist eliminators and a fiberglass filter bag, with a maximum capacity of 6,700 pounds per day.
 - (2) Three (3) polishing machines, equipped with three (3) wet dust collectors, with a maximum capacity of 6,700 pounds per day.

- (3) One (1) buffing machine, with three (3) polishing heads, equipped with a wet dust collecting system, with a maximum capacity of 4,000 pounds per day.

SECTION B GENERAL CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to operate does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

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.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Permit Term and Renewal [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5]

This permit 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 of this permit do not affect the expiration date.

The Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date. If a timely and sufficient permit application for a renewal has been made, this permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

B.5 Modification to Permit [326 IAC 2]

All requirements and conditions of this operating permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.6 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) Annual notification shall be submitted 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) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.
- (c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Branch, Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, IN 46204

- (d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or

before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

B.7 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.8 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) Permit revisions are governed by the requirements of 326 IAC 2-6.1-6.
- (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
Indianapolis, Indiana 46204
- Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1.
- (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)]
- (d) No permit amendment or modification is required for the addition, operation or removal of a non-road engine, as defined in 40 CFR 89.2.

B.9 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] [IC13-17-3-2][IC 13-30-3-1]

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

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
- (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 processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (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.10 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)]:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, shall issue a revised permit.

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

B.11 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.12 Credible Evidence [326 IAC 1-1-6]

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

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

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

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.3 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 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.5 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
Indianapolis, Indiana 46204

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 2-7-1(34).

- (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

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

- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. 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
Indianapolis, Indiana 46204

no later than thirty-five (35) days prior to the intended test date.

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual date.
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ (and local agency) not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, (and local agency), if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.7 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

C.8 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.9 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.10 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.

C.11 Compliance Response Plan - Preparation and Implementation

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. If a Permittee is required to have an Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan) under 40 CFR 60/63 , such plans shall be deemed to satisfy the requirements for a CRP for those compliance monitoring conditions. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
 - (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
 - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan), the Permittee shall amend its Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan) to include such response steps taken.

The OMM Plan (or Parametric Monitoring and SSM Plan) shall be submitted within the time frames specified by the applicable 40 CFR60/63 requirement.

- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
 - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan); or
 - (2) If none of the reasonable response steps listed in the Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan) is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
 - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be ten (10) days or more until the unit or device will be shut down, then the Permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down. The notification shall also include the status of the applicable compliance monitoring parameter with respect to normal, and the results of the response actions taken up to the time of notification.

- (4) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
 - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

Record Keeping and Reporting Requirements

C.12 Malfunctions Report [326 IAC 1-6-2]

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

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.13 General Record Keeping Requirements [326 IAC 2-6.1-5]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The

records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented when operation begins.

C.14 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
Indianapolis, Indiana 46204

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) Unless otherwise specified in this permit, any report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. 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

EMMISSIONS UNITS OPERATION CONDITIONS

Emissions Unit Description: Hard Chromium Electroplating

- (a) One (1) hard chromium electroplating operation with a maximum cumulative rectifier capacity of 317,520,000 Ampere-hours per year consisting of:
- (1) One (1) hard chromium electroplating tank, identified as VP-1, constructed prior to January 25, 1995, equipped with a packed bed scrubber/composite mesh pad system, and exhausting through one (1) stack, identified as VPS.
 - (2) Three (3) hard chromium electroplating tanks, identified as HP-1, HP-2, and HP-3, constructed prior to January 25, 1995, equipped with a packed bed scrubber/composite mesh pad system, and exhausting through one (1) stack, identified as OHPS-1.
 - (3) Three (3) hard chromium electroplating tanks, identified as HP-4, HP-5, and HP-6, constructed in April 1997, equipped with a composite mesh pad scrubber, and exhausting through one (1) stack, identified as NHPS-1.

(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.1.1 General Provisions Relating to HAPs [326 IAC 20-1-1][40 CFR 63, Subpart A]

The provisions of 40 CFR Part 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 Part 63, Subpart N.

D.1.2 Chromium Electroplating and Anodizing NESHAP [326 IAC 20-8-1][40 CFR 63, Subpart N]

The provisions of the previous version of 40 CFR 63, Subpart N – National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks, which are incorporated by reference as 326 IAC 20-8-1, apply to the one (1) hard chromium electroplating operation, tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6. In addition, pursuant to 40 CFR 63, Subpart N, the current version of the rule also applies to this source.

D.1.3 Chromium Emissions Limitation [40 CFR 63.342(c)][40 CFR 63.343(a)(1)&(2)][326 IAC 20-8]

- (a) The emission limitations in this condition apply only during tank operation, and also apply during periods of startup and shutdown as these are routine occurrences for tanks subject to 326 IAC 20-8-1. The emission limitations do not apply during periods of malfunction.
- (b) The hard chrome electroplating tanks, identified as VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6 above, are considered a large, existing hard chromium electroplating operation. During tank operation, the Permittee shall control chromium emissions discharged to the atmosphere from the tanks by 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) [6.6×10^{-6} gr/dscf].

D.1.4 Work Practice Standards [40 CFR 63.342(f)][326 IAC 20-8]

The following work practice standards apply to tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6:

- (a) At all times, including periods of startup, shutdown, and malfunction, the Permittee shall operate and maintain tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6, including the two (2) packed bed scrubber/composite mesh pad systems and the one (1) composite mesh pad system, and monitoring equipment, in a manner consistent with good air pollution control practices, consistent with the Operation and Maintenance Plan (OMP) required by Condition D.1.6.
- (b) Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the OMP required by Condition D.1.6.
- (c) These operation and maintenance requirements are enforceable independent of emissions limitations or other requirements in this section.
- (d) Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to IDEM, OAQ, which may include, but is not limited to, monitoring results; review of the OMP; procedures and records; and inspection of the source.
- (e) Based on the results of the determination made under paragraph (d) of this condition, IDEM, OAQ may require that the Permittee make changes to the OMP required by Condition D.1.6. Revisions may be required if IDEM, OAQ finds that the plan:
 - (1) Does not address a malfunction that has occurred;
 - (2) Fails to provide for the operation of tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6, including the two (2) packed bed scrubber/composite mesh pad systems and the one (1) composite mesh pad system, and process monitoring equipment during a malfunction in a manner consistent with good air pollution control practices; or
 - (3) Does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control techniques, or monitoring equipment as quickly as practicable.

D.1.5 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 this facility and any control devices.

D.1.6 Operation and Maintenance Plan (OMP) [40 CFR 63.342(f)(3)][326 IAC 20-8]

- (a) The Permittee shall prepare an Operation and Maintenance Plan (OMP) to be implemented no later than the startup date of tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6. The OMP shall specify the operation and maintenance criteria for the tanks, the two (2) packed bed scrubber/composite mesh pad systems and the one (1) composite mesh pad system, and monitoring equipment, and shall include the following:
 - (1) For the two (2) packed bed scrubber/composite mesh pad systems and the one (1) composite mesh pad system:
 - (A) Quarterly visual inspections of the 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;
 - (B) Quarterly visual inspections of the back portion of the mesh pads closest to the fan to ensure there is no breakthrough of chromic acid mist;
 - (C) Quarterly visual inspections of the duct work from the tanks to the control

devices to ensure there are no leaks;

- (D) Perform washdown of the composite mesh pads in accordance with manufacturer's recommendations.
- (b) The Permittee may use applicable standard operating procedures (SOP) manuals, occupational safety and health administration (OSHA) plans, or other existing plans such as the PMP required in Condition D.1.5, as the OMP provided the alternative plans meet the criteria listed above in Condition D.1.6(a).
- (c) If the OMP fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the Permittee shall revise the OMP within forty-five (45) days after such an event occurs. The revised plan shall include procedures for operating and maintaining tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6, including the two (2) packed bed scrubber/composite mesh pad systems and the one (1) composite mesh pad system, and monitoring equipment, during similar malfunction events, and a program for corrective action for such events.
- (d) If actions taken by the Permittee during period of malfunction are inconsistent with the procedures specified in the OMP, the Permittee shall record the actions taken for that event and shall report by phone such actions within two (2) working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within seven (7) working days after the end of the event, unless the Permittee makes alternative reporting arrangements, in advance, with IDEM, OAQ.
- (e) The Permittee shall keep the written OMP on record after it is developed to be made available, upon request, by IDEM, OAQ for the life of tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6 or until the tanks are no longer subject to the provisions of 40 CFR 63.340. In addition, if the OMP is revised, the Permittee shall keep previous versions of the OMP on record to be made available for inspection, upon request by IDEM, OAQ for a period of five (5) years after each revision to the plan.

Compliance Determination Requirements

D.1.7 Performance Testing [326 IAC 2-1.1-11][40 CFR 63.343][40 CFR 63.7][40 CFR 63.344]

- (a) A performance test demonstrating initial compliance for tank VP-1 was performed on October 9, 1996. A subsequent performance test was performed on June 24, 1998.
- During the performance test conducted on October 9, 1996, it was determined that the average pressure drop across the composite mesh pad system was 1.5 inches of water and the average outlet chromium concentration is 0.00512 mg/dscm. During the performance test conducted on June 24, 1998, it was determined that the average pressure drop across the composite mesh pad system was 1.7 inches of water and the average outlet chromium concentration is 0.01195 mg/dscm.
- (b) A performance test demonstrating initial compliance for tanks HP-1, HP-2, and HP-3 was performed on October 10, 1996. A subsequent performance test was performed on June 24, 1998.
- During the performance test conducted on October 10, 1996, it was determined that the average pressure drop across the composite mesh pad system was 2.2 inches of water and the average outlet chromium concentration is 0.00600 mg/dscm. During the performance test conducted on June 24, 1998, it was determined that the average pressure drop across the composite mesh pad system was 1.2 inches of water and the average outlet chromium concentration is 0.00710 mg/dscm.

- (c) A performance test demonstrating initial compliance for tanks HP-4, HP-5, and HP-6 was performed on April 14, 1998.

During the performance test it was determined that the average pressure drop across the composite mesh pad system was 4.8 inches of water and the average outlet chromium concentration is 0.0098 mg/dscm.

- (d) A performance test demonstrating initial compliance for tanks HP-4, HP-5, and HP-6 was performed on September 7, 2001.

During the performance test it was determined that the average pressure drop across the composite mesh pad system was 2.9 inches of water and the average outlet chromium concentration is 0.0098 mg/dscm.

- (e) Pursuant to 40 CFR 63.343(c)(1)(iii), the Permittee may repeat the performance test and establish as a new site-specific pressure drop across the composite mesh pad systems for compliance with 40 CFR 63.343, but not 326 IAC 20-8, according to the requirements of 40 CFR 63.343(c)(1)(i) or (ii). To establish a new site-specific parameter, the Permittee shall:

- (1) Determine an outlet chromium concentration using the test methods and procedures in 40 CFR 63.344(c);
- (2) Establish the site-specific operating parameter value using the procedures in 40 CFR 63.344(d)(5);
- (3) Satisfy the record keeping requirements in 40 CFR 63.346(b)(6) through (8); and
- (4) Satisfy the reporting requirements in 40 CFR 63.347(d) and (f).

- (f) Any change, modification, or reconstruction of tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6, the composite mesh pad systems or monitoring equipment may require additional performance testing conducted in accordance with 40 CFR 63.344 and Section C – Performance Testing.

Compliance Monitoring Requirements

D.1.8 Monitoring to Demonstrate Continuous Compliance [326 IAC 2-6.1-5(a)(2)] [40 CFR 63.343(c)(1)(ii) and (c)(3)][326 IAC 20-8]

-
- (a) Pursuant to 326 IAC 20-8 and 40 CFR 63.343(c)(1)(ii), when using a composite mesh pad system to comply with the limits specified under “Chromium Emissions Limitations” and pursuant to 40 CFR 63.343(c)(3) and 40 CFR 63.343(c)(1)(ii), when using a packed bed scrubber in conjunction with a composite mesh pad system to comply with the limits specified under “Chromium Emissions Limitations”, the Permittee shall monitor and record the pressure drop across the composite mesh pad system during tank operation once each day that the hard chromium electroplating tank is operating. To be in compliance with the standards, the composite mesh pad system shall be operated within 1.7 ±1 inches of water column for tank VP-1; 2.2 ±1 inches of water column for tanks HP-1, HP-2, and HP-3; and 2.9 to 4.8 inches of water column for tanks HP-4, HP-5, and HP-6, or within a range of ±1 inches of water column of the pressure drop value established during the initial performance test, or within the range of compliant values for pressure drop established during multiple performance tests.
- (b) Tank operation or operating time is defined as that time when a part is in the tanks and the rectifier is turned on. If the amount of time that no part is in the tanks and is fifteen minutes or longer, that time is not considered operation time. Likewise, if the amount of

time between placing parts in the tank (i.e. when no part is in the tank) is less than fifteen minutes, that time between plating the two parts may be considered operating time.

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.9 Record Keeping Requirements [40 CFR 63.346][326 IAC 20-8]

The Permittee shall maintain records to document compliance with Conditions D.1.3, D.1.4, and D.1.6, using the forms provided with this permit. These records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit, and include a minimum of the following:

- (a) Inspection records for the two (2) packed bed scrubber/composite mesh pad systems and the one (1) composite mesh pad system, and monitoring equipment to document that the inspection and maintenance required by Conditions D.1.6 and D.1.8 have taken place. The record can take the form of a checklist and should identify the following:
 - (1) The device inspected;
 - (2) The date of inspection;
 - (3) A brief description of the working condition of the device during the inspection, including any deficiencies found; and
 - (4) Any actions taken to correct deficiencies found during the inspection, including the date(s) such actions were taken.
- (b) Records of all maintenance performed on tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6, the two (2) packed bed scrubber/composite mesh pad systems and one (1) composite mesh pad system, and monitoring equipment.
- (c) Records of the occurrence, duration, and cause (if known) of each malfunction and/or period of excess emissions of tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6, two (2) packed bed scrubber/composite mesh pad systems and one (1) composite mesh pad system, and monitoring equipment.
- (d) Records of actions taken during periods of malfunction when such actions are inconsistent with the OMP.
- (e) Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the OMP.
- (f) Test reports documenting results of all performance tests.
- (g) All measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance.
- (h) Records of monitoring data required by 40 CFR 63.343(c) that are used to demonstrate compliance with the standard including the date and time the data are collected.
- (i) The total process operating times, as defined by Condition D.1.8(b), of each tank VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6, during the reporting period.
- (j) Records of the actual cumulative rectifier capacity of each hard chromium electroplating tank expended during each month of the reporting period, and the total capacity expended to date for a reporting period, if the owner or operator is using the actual cumulative rectifier capacity to determine facility size in accordance with 40 CFR 63.342(c).
- (k) All documentation supporting the notifications and reports required by 40 CFR 63.9 and

63.10 (Subpart A, General Provisions).

- (l) The Permittee shall maintain a log of any additional inspections prescribed by the Preventive Maintenance Plan.
- (m) All records shall be maintained in accordance with Section C – General Record Keeping Requirements, of this permit.

D.1.10 Reporting Requirements [326 IAC 3-6-4(b)][40 CFR 63.344(a), 63.345 & 63.347][326 IAC 20-8]

These notifications and reports required in this section shall be submitted to IDEM, OAQ using the address specified in Section C – General Reporting Requirements.

(a) Notifications:

- (1) A Notification of Compliance Status (NCS) is required each time that the facility becomes subject to the requirements of 40 CFR Part 63, Subpart N.
 - (A) The NCS shall be submitted to IDEM, OAQ, and shall list, for each tank, the information identified in 40 CFR 63.347(e)(2).
 - (B) The NCS for tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6 was submitted to IDEM, OAQ on October 18, 2000.
- (2) Notification of Construction or Reconstruction
Pursuant to 40 CFR 63.345(b)(1), the Permittee may not construct a new tank subject to 40 CFR 63, Subpart N (including non-affected tanks defined in 40 CFR 63.344(e)) without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAQ. In addition, the Permittee may not change, modify, or reconstruct tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6 without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAQ.
 - (A) The NCR shall contain the information identified in 40 CFR 63.345(b)(2) and (3).
 - (B) A change, modification, or reconstruction of this facility includes any change in the air pollution control techniques, the addition of add-on control devices, or the construction of duct work for the purpose of controlling both existing tanks and non-affected facilities by a common control technique or device [i.e. the addition of duct work to the composite mesh pad system (if a composite mesh pad system is used to demonstrate compliance with the chromium emission limitations)].
 - (C) A complete application to construct new chromium electroplating or chromium anodizing tanks serves as this notification. Likewise, the complete application to modify or reconstruct tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6 serves as this notification.
 - (D) Pursuant to 326 IAC 2-1.1-2(a), permission must be received from IDEM, OAQ before construction, modification, or reconstruction may commence.

(b) Performance Test Results

The Permittee shall document results from any future performance tests in a complete test report that contains the information required in 40 CFR 63.344(a).

The Permittee shall submit reports of performance test results as part of the Notification of Compliance Status, described in 40 CFR 63.347(e), no later than ninety (90) days following the completion of the performance test.

(c) Ongoing Compliance Status Report

The Permittee shall prepare summary reports to document the ongoing compliance status of tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6 using the Ongoing Compliance Status Report form provided with this permit. This report shall contain the information specified in 40 CFR 63.347(g)(3).

Because tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6 are located at a site that is an area source of hazardous air pollutants (HAPs), the Ongoing Compliance Status shall be retained on site and made available to IDEM, OAQ upon request.

- (1) The Ongoing Compliance Status Report shall be completed according to the following schedule except as provided in paragraphs (c)(2).
 - (A) The first report shall cover the period from the startup date of the emission units to December 31 of the year in which the emission units begin operation.
 - (B) Following the first year of reporting, the report shall be completed on a calendar year basis with the reporting period covering from January 1 to December 31.
- (2) If either of the following conditions is met, semiannual reports shall be prepared and submitted to IDEM, OAQ:
 - (A) The total duration of excess emissions (as indicated by the monitoring data collected by the Permittee in accordance with 40 CFR 63.343(c)) is one percent (1%) or greater of the total operating time as defined in Condition D.1.8(b) for the reporting period; or
 - (B) The total duration of malfunctions of the add-on air pollution control device and monitoring equipment is five percent (5%) or greater of the total operating time as defined in Condition D.1.8(b).

Once the Permittee reports an exceedance as defined above, Ongoing Compliance Status Reports shall be submitted semiannual until a request to reduce reporting frequency in accordance with 40 CFR 63.347(g)(2) is approved.

- (3) IDEM, OAQ 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.
- (d) Pursuant to 40 CFR 63.340(e)(2), a source subject to Subpart N is also subject to the Title V permitting requirements. IDEM, OAQ, has granted a deferral under this rule until December 9, 2004, for sources that are not located at a major and are not otherwise required to obtain a Title V permit. Therefore, the Permittee must submit a Title V permit application by December 9, 2005. On March 25, 2005, the U.S. EPA proposed to exempt all sources that are subject to a NESHAP, but are not major sources from Title V permitting requirements. If that rule becomes final, the Permittee will not be required to submit a Title V permit application.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Particulate Emission Units

- (b) Three (3) grinding and polishing lines, including the following:
- (1) Three (3) centerless grinders, equipped with mist eliminators and a fiberglass filter bag, with a maximum capacity of 6,700 pounds per day.
 - (2) Three (3) polishing machines, equipped with three (3) wet dust collectors, with a maximum capacity of 6,700 pounds per day.
 - (3) One (1) buffing machine, with three (3) polishing heads, equipped with a wet dust collecting system, with a maximum capacity of 4,000 pounds per day.

(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 6-3-2]

- (a) Pursuant to 326 IAC 6-3-2, the particulate from the three (3) centerless grinders shall not exceed 1.44 pounds per hour, total, when operating at a combined process weight rate of 419 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2, the particulate from the three (3) polishing machines shall not exceed 1.44 pounds per hour, total, when operating at a combined process weight rate of 419 pounds per hour.
- (c) Pursuant to 326 IAC 6-3-2, the particulate from the one (1) buffing machine shall not exceed 1.02 pounds per hour, when operating at a process weight rate of 250 pounds per hour.

The pound per hour limitations were calculated with the following equation:

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

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

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

**MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION**

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

Company Name: Parker Hannifin Corp. Cylinder Division
Address: 201 Parker Drive
City: Ashley, Indiana
Phone #: (260) 587-9102
MSOP #: M 033-21568-00073

I hereby certify that Parker Hannifin Corp. Cylinder Division is still in operation.
 no longer in operation.

I hereby certify that Parker Hannifin Corp. Cylinder Division is in compliance with the requirements of MSOP 033-21568-00073.
 not in compliance with the requirements of MSOP 033-21568-00073

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

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

Noncompliance:

MALFUNCTION REPORT

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317 233-5967**

**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 ?_____, 100TONS/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: ____/____/19____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/19____ 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

PAGE 1 OF 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:

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

**PART 70 OPERATING PERMIT
 CHROMIUM ELECTROPLATING AND ANODIZING NESHAP
 ONGOING COMPLIANCE STATUS REPORT**

Source Name: Parker Hannifin Corp. Cylinder Division
 Source Address: 201 Parker Drive, Ashley, Indiana 46705
 Mailing Address: P.O. Box 368, Ashley, Indiana 46705
 Minor Source Operating Permit No.: M033-21568-00073

Tank ID #: _____
 Type of process: Hard
 Monitoring Parameter: Pressure drop across the composite mesh pad system
 Parameter Value: ± 1 inch of water column of the pressure drop value established during the initial performance test, or within a range of compliant values for pressure drop established during multiple performance tests.
 Limits: Total chromium concentration may not exceed 0.015 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:

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

AREA (I.E., NON-MAJOR) SOURCES OF HAP ONLY: IF DEVIATIONS OCCURRED, LIST THE AMOUNT OF TANK OPERATING TIME EACH MONTH THAT MONITORING RECORDS SHOW THE MONITORING PARAMETER DEVIATED FROM THE COMPLIANT VALUE OR RANGE OF VALUES.			
JAN	APR	JUL	OCT
FEB	MAY	AUG	NOV
MAR	JUN	SEP	DEC

HARD CHROME TANKS / MAXIMUM RECTIFIER CAPACITY LIMITED IN ACCORDANCE WITH 40 CFR 63.342(c)(2) ONLY: LIST THE ACTUAL AMPERE-HOURS CONSUMED (BASED ON AN AMP-HR METER) BY THE INDIVIDUAL TANK.			
JAN	APR	JUL	OCT
FEB	MAY	AUG	NOV
MAR	JUN	SEP	DEC

CHROMIUM ELECTROPLATING 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

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

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

Submitted by:

Title/Position:

Signature:

Date:

Phone: _____

Attach a signed certification to complete this report.

**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

Source Name:	Parker Hannifin Corp. Cylinder Division
Source Location:	201 Parker Drive, Ashley, Indiana 46705
County:	DeKalb
SIC Code:	3471, 3499
Operation Permit No.:	M 033-11701-00073
Operation Permit Issuance Date:	September 12, 2000
Permit Renewal No.:	M 033-21568-00073
Permit Reviewer:	Amy Cook

The Office of Air Quality (OAQ) has reviewed an application from Parker Hannifin Corp. Cylinder Division relating to the operation of a large 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) One (1) hard chromium electroplating operation with a maximum cumulative rectifier capacity of 317,520,000 Ampere-hours per year consisting of:
 - (1) One (1) hard chromium electroplating tank, identified as VP-1, constructed prior to January 25, 1995, equipped with a packed bed scrubber/composite mesh pad system, and exhausting through one (1) stack, identified as VPS.
 - (2) Three (3) hard chromium electroplating tanks, identified as HP-1, HP-2, and HP-3, constructed prior to January 25, 1995, equipped with a packed bed scrubber/composite mesh pad system, and exhausting through one (1) stack, identified as OHPS-1.
 - (3) Three (3) hard chromium electroplating tanks, identified as HP-4, HP-5, and HP-6, constructed in April 1997, equipped with a composite mesh pad scrubber, and exhausting through one (1) stack, identified as NHPS-1.
- (b) One (1) natural gas-fired applied air system, installed in May 1983, with a maximum capacity of 5 million British thermal units per hour.
- (c) Three (3) grinding and polishing lines, including the following:
 - (1) Three (3) centerless grinders, equipped with mist eliminators and a fiberglass filter bag, with a maximum capacity of 6,700 pounds per day.
 - (2) Three (3) polishing machines, equipped with three (3) wet dust collectors, with a maximum capacity of 6,700 pounds per day.

- (3) One (1) buffing machine, with three (3) polishing heads, equipped with a wet dust collecting system, with a maximum capacity of 4,000 pounds per day.

Existing Approvals

The source has been operating under previous approvals including, but no limited to, the following:

- (a) MSOP 033-11701-00073, issued on September 12, 2000; and
(b) NOC 033-13550-00073, issued on December 21, 2000.

All conditions from previous approvals were incorporated into this permit.

Enforcement Issue

IDEM is aware that the source did not apply for a Minor Source Operating Permit (MSOP) renewal in a timely manner. IDEM is reviewing this matter and will take appropriate action.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (°F)
VPS	One (1) Plating Tank (VP-1)	34.5	2.5	7,344	72
OHPS-1	Three (3) Plating Tanks (HP-1, HP-2, and HP-3)	33.5	2.5	19,286	68
NHPS-1	Three (3) Plating Tanks (HP-4, HP-5, and HP-6)	33.5	2.5	17,000	70

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 July 27, 2005.

Emission Calculations

Chromium emissions (Single HAP) from the biggest chromium electroplating source in Indiana are less than ten (10) tons per year and Franke Plating Works, Incorporated is a much smaller source in comparison. Therefore, no emission calculations were necessary for the hard and decorative chromium electroplating because the chromium emissions from the source will be less than ten (10) tons per year.

The particulate from the hard chromium electroplating tanks VP-1, and HP-1 through HP-6, are calculated as follows (based on AP-42, Table 12.20-1):

Potential PM/PM10 emissions (lbs/hr) = 0.25 gr/A-hr x 317,520,000 A-hr/yr x 1 lb/7,000 gr x 1 ton/2000 lbs = 5.67 ton/yr

See Appendix A of this document for detailed combustion emission calculations (pages 1 through 3).

Potential to Emit of the Source 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	Potential to Emit (tons/yr)
PM	6.22
PM-10	6.35
SO ₂	0.013
VOC	0.120
CO	1.84
NO _x	2.19

HAPs	Potential to Emit (tons/yr)
Chromium	Less than 10
Hexane	0.04
Total	Less than 10

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. An MSOP will be issued.
- (b) 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 DeKalb County.

Pollutant	Status
PM-2.5	Attainment
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
1-hour Ozone	Attainment
8-hour Ozone	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. DeKalb County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (b) DeKalb County has been classified as unclassifiable or attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. See the State Rule Applicability for the source section.
- (c) DeKalb County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

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	Emissions (tons/yr)
PM	6.22
PM-10	6.35
SO ₂	0.013
VOC	0.120
CO	1.84
NO _x	2.19
Single HAP	Less than 10
Combination HAPs	Less than 25

- (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 and it is not in one of the 28 listed source categories.
- (b) These emissions were based on the MSOP application submitted by the company.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit M 033-21568-00073, is still 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. This status has been verified by the OAQ inspector assigned 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) 40 CFR 63, Subpart N – National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks. This rule applies to the one (1) hard chromium electroplating operation, tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6.

The hard chromium electroplating tanks, identified as VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6, are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAPs), (40 CFR 63, Subpart N). This subpart was revised on July 19, 2004. 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, 2002, which had been most recently amended on December 14, 1999. Therefore, the July 19, 2004, amendments to the federal rule are not approved into the SIP, and the chromium electroplating facilities at this source are subject to both versions of the rule. The rule requirements for the previous version of the rule are specified under “326 IAC 20-8 (Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks)” in the “State Rule Applicability – Individual Facilities” section of this document. When the revised rule is incorporated into the SIP, 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 the sections of the federal rule that are applicable to this source are the same as the requirements listed under “326 IAC 20-8” except for the following:

- (1) 40 CFR 63.342(f)(2)(ii)(B) now indicates that IDEM, OAQ, may require that the Permittee make changes to the Operation and Maintenance Plan if IDEM, OAQ, finds that the plan fails to provide for the proper operations of tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6, the air pollution control techniques, or the packed bed/composite mesh pad systems and process monitoring equipment during a malfunction in a manner consistent with good engineering practices. In the previous version of the rule, that section indicated that IDEM, OAQ, may require that the Permittee make changes to the Operation and Maintenance Plan if the plan fails to provide for the operation of tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6, the air pollution control techniques, or the packed bed/composite mesh pad systems and process monitoring equipment during a malfunction in a manner consistent with good engineering practices. Both requirements will be included in the permit.
- (2) Paragraph (iii) has been added to 40 CFR 63.343(c)(1). That paragraph indicates that the Permittee may repeat the performance test and establish as a new site-specific pressure drop across the composite mesh pad system for compliance with 40 CFR 63.343, according to the requirements of 40 CFR 63.343(c)(1)(i) or (ii). This will be included in the permit.
- (3) 40 CFR 63.343(c) has also been revised to increase the compliant pressure drop range to ± 2 inch of water column. Compliance with 326 IAC 20-8 (± 1 inch of water column) will ensure compliance with the pressure drop requirement in 40 CFR 63.343(c).

State Rule Applicability – Entire Source

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

The potential to emit (PTE) of all criteria pollutants is less than two hundred fifty (250) tons per year. Therefore, this source is a minor source and 326 IAC 2-2 (PSD) does not apply.

326 IAC 2-4.1 (Major Source of Hazardous Air Pollutants (HAPs))

The hard chromium electroplating operations will emit less than ten (10) tons per year of a single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 (Major Source of HAPs) does not apply.

326 IAC 2-6 (Emission Reporting)

Revisions to 326 IAC 2-6 (Emission Reporting) became effective March 27, 2004. The Permittee is no longer required to submit an emission statement; therefore, the emission statement will be removed from the permit.

326 IAC 5-1 (Opacity Limitations)

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

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-4 (Fugitive Dust Emissions)

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).

State Rule Applicability – Individual Facilities

326 IAC 8-1-6 (New Facilities: General Source Reduction Requirements (BACT))

This source was constructed after January 1, 1980. However, none of the emission units at this source have potential emissions of twenty-five (25) tons or more per year. Therefore, 326 IAC 8-1-6 (BACT) is not applicable to this source.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-1(c)(6), the hard chromium electroplating tanks, identified as VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6, are exempt from the requirements of 326 IAC 6-3 because they have particulate matter limitations established under 326 IAC 20-8 (Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks). Therefore, this rule does not apply.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

- (a) Pursuant to 326 IAC 6-3-2, the particulate from the three (3) centerless grinders shall not exceed 1.44 pounds per hour, total, when operating at a combined process weight rate of 419 pounds per hour.

The PM emissions from the three (3) centerless grinders before controls are 0.005 pounds per hour which is less than the allowable PM emission rate of 1.44 pounds per hour. Therefore, the three (3) centerless grinders are in compliance with this rule.

- (b) Pursuant to 326 IAC 6-3-2, the particulate from the three (3) polishing machines shall not exceed 1.44 pounds per hour, total, when operating at a combined process weight rate of 419 pounds per hour.

The PM emissions from the three (3) polishing machines before controls are 0.079 pounds per hour which is less than the allowable PM emission rate of 1.44 pounds per hour. Therefore, the three (3) polishing machines are in compliance with this rule.

- (c) Pursuant to 326 IAC 6-3-2, the particulate from the one (1) buffing machine shall not exceed 1.02 pounds per hour, when operating at a process weight rate of 250 pounds per hour.

The PM emissions from the one (1) buffing machine before controls are 0.032 pounds per hour which is less than the allowable PM emission rate of 1.02 pounds per hour. Therefore, the one (1) buffing machine is in compliance with this rule.

The pound per hour limitations were calculated with the following equation:

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

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

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

- (a) The provisions of 40 CFR Part 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 Part 63, Subpart N.
- (b) The provisions of the previous version of 40 CFR 63, Subpart N – National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks, which are incorporated by reference as 326 IAC 20-8-1, apply to the one (1) hard chromium electroplating operation, tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6. In addition, pursuant to 40 CFR 63, Subpart N, the current version of the rule also applies to this source.

Chromium Emissions Limitations

- (a) The emission limitations in this condition apply only during tank operation, and also apply during periods of startup and shutdown as these are routine occurrences for tanks subject to 326 IAC 20-8-1. The emission limitations do not apply during periods of malfunction.
- (b) The hard chrome electroplating tanks, identified as VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6 above, are considered a large, existing hard chromium electroplating operation. During tank operation, the Permittee shall control chromium emissions discharged to the atmosphere from the tanks by 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) [6.6 x 10⁻⁶ gr/dscf].

Work Practice Standards

The work practice standards, pursuant to 40 CFR 63.342(f)(1) and (2), apply to tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6, at all times, including periods of startup, shutdown, and malfunction, the Permittee shall operate and maintain tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6, including the two (2) packed bed scrubber/composite mesh pad systems and one (1) composite mesh pad system, and monitoring equipment, in a manner consistent with good air pollution control practices, consistent with the Operation and Maintenance Plan (OMP).

Operation and Maintenance Plan (OMP)

The Permittee shall prepare an Operation and Maintenance Plan (OMP) pursuant to 40 CFR 63.342(f)(3) for tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6.

Performance Testing

- (a) A performance test demonstrating initial compliance for tank VP-1 was performed on October 9, 1996. A subsequent performance test was performed on June 24, 1998.

During the performance test conducted on October 9, 1996, it was determined that the average pressure drop across the composite mesh pad system was 1.5 inches of water and the average outlet chromium concentration is 0.00512 mg/dscm. During the performance test conducted on June 24, 1998, it was determined that the average pressure drop across the composite mesh pad system was 1.7 inches of water and the average outlet chromium concentration is 0.01195 mg/dscm.

- (b) A performance test demonstrating initial compliance for tanks HP-1, HP-2, and HP-3 was performed on October 10, 1996. A subsequent performance test was performed on June 24, 1998.

During the performance test conducted on October 10, 1996, it was determined that the average pressure drop across the composite mesh pad system was 2.2 inches of water and the average outlet chromium concentration is 0.00600 mg/dscm. During the performance test conducted on June 24, 1998, it was determined that the average pressure drop across the composite mesh pad system was 1.2 inches of water and the average outlet chromium concentration is 0.00710 mg/dscm.

- (c) A performance test demonstrating initial compliance for tanks HP-4, HP-5, and HP-6 was performed on April 14, 1998.

During the performance test it was determined that the average pressure drop across the composite mesh pad system was 4.8 inches of water and the average outlet chromium concentration is 0.0098 mg/dscm.

- (d) A performance test demonstrating initial compliance for tanks HP-4, HP-5, and HP-6 was performed on September 7, 2001.

During the performance test it was determined that the average pressure drop across the composite mesh pad system was 2.9 inches of water and the average outlet chromium concentration is 0.0098 mg/dscm.

- (e) Pursuant to 40 CFR 63.343(c)(1)(iii), the Permittee may repeat the performance test and establish as a new site-specific pressure drop across the composite mesh pad systems for compliance with 40 CFR 63.343, but not 326 IAC 20-8, according to the requirements of 40 CFR 63.343(c)(1)(i) or (ii). To establish a new site-specific parameter, the Permittee shall:

- (1) Determine an outlet chromium concentration using the test methods and procedures in 40 CFR 63.344(c);
- (2) Establish the site-specific operating parameter value using the procedures in 40 CFR 63.344(d)(5);
- (3) Satisfy the record keeping requirements in 40 CFR 63.346(b)(6) through (8); and

- (4) Satisfy the reporting requirements in 40 CFR 63.347(d) and (f).
- (f) Any change, modification, or reconstruction of tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6, the composite mesh pad systems or monitoring equipment may require additional performance testing conducted in accordance with 40 CFR 63.344 and Section C – Performance Testing.

Monitoring to Demonstrate Continuous Compliance

- (a) Pursuant to 326 IAC 20-8 and 40 CFR 63.343(c)(1)(ii), when using a composite mesh pad system to comply with the limits specified under “Chromium Emissions Limitations” and pursuant to 40 CFR 63.343(c)(3) and 40 CFR 63.343(c)(1)(ii), when using a packed bed scrubber in conjunction with a composite mesh pad system to comply with the limits specified under “Chromium Emissions Limitations”, the Permittee shall monitor and record the pressure drop across the composite mesh pad system during tank operation once each day that the hard chromium electroplating tank is operating. To be in compliance with the standards, the composite mesh pad system shall be operated within 1.7 ± 1 inches of water column for tank VP-1; 2.2 ± 1 inches of water column for tanks HP-1, HP-2, and HP-3; and 2.9 to 4.8 inches of water column for tanks HP-4, HP-5, and HP-6, or within a range of ± 1 inches of water column of the pressure drop value established during the initial performance test, or within the range of compliant values for pressure drop established during multiple performance tests.
- (b) Tank operation or operating time is defined as that time when a part is in the tanks and the rectifier is turned on. If the amount of time that no part is in the tanks and is fifteen minutes or longer, that time is not considered operation time. Likewise, if the amount of time between placing parts in the tank (i.e. when no part is in the tank) is less than fifteen minutes, that time between plating the two parts may be considered operating time.

Record Keeping Requirements

- (a) Inspection records for the two (2) packed bed scrubber/composite mesh pad systems and the one (1) composite mesh pad system, and monitoring equipment to document that the inspection and maintenance required have taken place. The record can take the form of a checklist and should identify the following:
 - (1) The device inspected;
 - (2) The date of inspection;
 - (3) A brief description of the working condition of the device during the inspection, including any deficiencies found; and
 - (4) Any actions taken to correct deficiencies found during the inspection, including the date(s) such actions were taken.
- (b) Records of all maintenance performed on tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6, the two (2) packed bed scrubber/composite mesh pad systems and one (1) composite mesh pad system, and monitoring equipment.
- (c) Records of the occurrence, duration, and cause (if known) of each malfunction and/or period of excess emissions of tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6, two (2) packed bed scrubber/composite mesh pad systems and one (1) composite mesh pad system, and monitoring equipment.
- (d) Records of actions taken during periods of malfunction when such actions are inconsistent with the OMP.

- (e) Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the OMP.
- (f) Test reports documenting results of all performance tests.
- (g) All measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance.
- (h) Records of monitoring data required by 40 CFR 63.343(c) that are used to demonstrate compliance with the standard including the date and time the data are collected.
- (i) The total process operating times, of each tank VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6, during the reporting period.
- (j) Records of the actual cumulative rectifier capacity of each hard chromium electroplating tank expended during each month of the reporting period, and the total capacity expended to date for a reporting period, if the owner or operator is using the actual cumulative rectifier capacity to determine facility size in accordance with 40 CFR 63.342(c).
- (k) All documentation supporting the notifications and reports required by 40 CFR 63.9 and 63.10 (Subpart A, General Provisions).

Reporting Requirements

- (a) Notifications:
 - (1) A Notification of Compliance Status (NCS) is required each time that the facility becomes subject to the requirements of 40 CFR Part 63, Subpart N.
 - (A) The NCS shall be submitted to IDEM, OAQ, and shall list, for each tank, the information identified in 40 CFR 63.347(e)(2).
 - (B) The NCS for tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6 was submitted to IDEM, OAQ on October 18, 2000.
 - (2) Notification of Construction or Reconstruction
Pursuant to 40 CFR 63.345(b)(1), the Permittee may not construct a new tank subject to 40 CFR 63, Subpart N (including non-affected tanks defined in 40 CFR 63.344(e)) without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAQ. In addition, the Permittee may not change, modify, or reconstruct tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6 without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAQ.
 - (A) The NCR shall contain the information identified in 40 CFR 63.345(b)(2) and (3).
 - (B) A change, modification, or reconstruction of this facility includes any change in the air pollution control techniques, the addition of add-on control devices, or the construction of duct work for the purpose of controlling both existing tanks and non-affected facilities by a common control technique or device [i.e. the addition of duct work to the composite mesh pad system (if a composite mesh pad system is used to demonstrate compliance with the chromium emission limitations)].
 - (C) A complete application to construct new chromium electroplating or chromium anodizing tanks serves as this notification. Likewise, the complete

application to modify or reconstruct tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6 serves as this notification.

- (D) Pursuant to 326 IAC 2-1.1-2(a), permission must be received from IDEM, OAQ before construction, modification, or reconstruction may commence.

(b) Performance Test Results

The Permittee shall document results from any future performance tests in a complete test report that contains the information required in 40 CFR 63.344(a).

The Permittee shall submit reports of performance test results as part of the Notification of Compliance Status, described in 40 CFR 63.347(e), no later than ninety (90) days following the completion of the performance test.

(c) Ongoing Compliance Status Report

The Permittee shall prepare summary reports to document the ongoing compliance status of tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6 using the Ongoing Compliance Status Report form provided with this permit. This report shall contain the information specified in 40 CFR 63.347(g)(3).

Because tanks VP-1, HP-1, HP-2, HP-3, HP-4, HP-5, and HP-6 are located at a site that is an area source of hazardous air pollutants (HAPs), the Ongoing Compliance Status shall be retained on site and made available to IDEM, OAQ upon request.

- (1) The Ongoing Compliance Status Report shall be completed according to the following schedule except as provided in paragraphs (c)(2).
- (A) The first report shall cover the period from the startup date of the emission units to December 31 of the year in which the emission units begin operation.
- (B) Following the first year of reporting, the report shall be completed on a calendar year basis with the reporting period covering from January 1 to December 31.
- (2) If either of the following conditions is met, semiannual reports shall be prepared and submitted to IDEM, OAQ:
- (A) The total duration of excess emissions (as indicated by the monitoring data collected by the Permittee in accordance with 40 CFR 63.343(c)) is one percent (1%) or greater of the total operating time for the reporting period; or
- (B) The total duration of malfunctions of the add-on air pollution control device and monitoring equipment is five percent (5%) or greater of the total operating time.

Once the Permittee reports an exceedance as defined above, Ongoing Compliance Status Reports shall be submitted semiannual until a request to reduce reporting frequency in accordance with 40 CFR 63.347(g)(2) is approved.

- (3) IDEM, OAQ 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.

- (d) Pursuant to 40 CFR 63.340(e)(2), a source subject to Subpart N is also subject to the Title V permitting requirements. IDEM, OAQ, has granted a deferral under this rule until December 9, 2004, for sources that are not located at a major and are not otherwise required to obtain a Title V permit. Therefore, the Permittee must submit a Title V permit application by December 9, 2005. On March 25, 2005, the U.S. EPA proposed to exempt

all sources that are subject to a NESHAP, but are not major sources from Title V permitting requirements. If that rule becomes final, the Permittee will not be required to submit a Title V permit application.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

Conclusion

The operation of this large chromium electroplating source shall be subject to the conditions of the Minor Source Operating Permit (MSOP) 033-21568-00073.

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

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

**Parker Hannifin Corp. Cylinder Division
201 Parker Drive
Ashley, Indiana 46705**

M 033-21568-00073

On September 24, 2005, the Office of Air Quality (OAQ) had a notice published in the Kendallville Public Library, Kendallville, Indiana, stating that Parker Hannifin Corp. Cylinder Division had applied for a Minor Source Operating Permit (MSOP) Renewal to operate a large hard chromium electroplating source. 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.

Upon further review, the IDEM, OAQ has decided to make the following revisions to the permit (bold language has been added, the language with a line through it has been deleted). The Table of Contents has been modified to reflect these changes.

NOTE: The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes. IDEM, OAQ does not make any changes to the original TSD but the Permit will have the updated changes.

1. Condition B.7 – Preventive Maintenance Plan – IDEM has determined that the Permittee is not required to keep records of all preventive maintenance. However, where the Permittee seeks to demonstrate that an emergency has occurred, the Permittee must provide, upon request, records of preventive maintenance in order to establish that the lack of proper maintenance did not cause or contribute to the deviation. Therefore, IDEM has deleted paragraph (b) of Section B – Preventive Maintenance.

B.7 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- ~~(b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.~~
- (e) (b)** A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs ~~does~~ not require the certification by an “authorized

individual" as defined by 326 IAC 2-1.1-1(1).

- (d) (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.

2. Condition C.10- Pressure Gauge and Other Instrument Specifications – IDEM realizes that these specifications can only be practically applied to analog units, and has therefore clarified the condition to the state that the condition only applies to analog units. Upon further review, IDEM has also determined that the accuracy of the instruments is not nearly as important as whether the instrument has a range that is appropriate for the normal expected reading of the parameter. Therefore, the accuracy requirements have been removed from the condition.

C.10 ~~Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11]~~

- (a) ~~Whenever a condition in this permit requires the measurement of total static pressure drop across any part of the unit or its control device, the gauge employed~~ **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 normal maximum reading for the normal range shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (± 2%) of full scale reading.**
- (b) ~~Whenever a condition in this permit requires the measurement of a (temperature or flow rate), the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (± 2%) of full scale reading.~~
- (c) ~~The Preventive Maintenance Plan for the pH meter shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one pH point.~~
- (d) (b) The Permittee may request **that** the IDEM, OAQ approve the use of a ~~pressure gauge or other~~ **an** instrument that does not meet the above specifications provided the Permittee can demonstrate **that** an alternative ~~pressure gauge or other~~ instrument specification will adequately ensure compliance with permit conditions requiring the measurement of ~~pressure drop or other~~ **the** parameters.

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

Company Name: Parker Hannifin Corp. Cylinder Division
Address City IN Zip: 201 Parker Drive, Ashley, Indiana 46705
Permit Number: M 033-21568-00073
Pit ID: 033-00073
Reviewer: Amy Cook
Date: August 19, 2005

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

5.0

43.8

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.042	0.166	0.013	2.19	0.120	1.84

*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
 HAPs Emissions**

Company Name: Parker Hannifin Corp. Cylinder Division
Address City IN Zip: 201 Parker Drive, Ashley, Indiana 46705
Permit Number: M 033-21568-00073
Plt ID: 033-00073
Reviewer: Amy Cook
Date: August 19, 2005

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	4.599E-05	2.628E-05	1.643E-03	3.942E-02	7.446E-05

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	1.095E-05	2.409E-05	3.066E-05	8.322E-06	4.599E-05

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.

**Appendix A: Emission Calculations
Grinding, Polishing and Buffing Operations**

Company Name: Parker Hannifin Corp, Cylinder Division
Address City IN Zip: 201 Parker Drive, Ashley, IN 46705
MSOP: M 033-21568-00073
Plt ID: 033-00073
Reviewer: Amy Cook
Date: August 19, 2005

Process	Particulate Collected (lbs)	Operating Time Resulting in Amount Collected (hours)	Rate Particulate Collected (lbs/hr)	Control Efficiency	Potential PM Emissions before Controls (lbs/hr)	Potential PM Emissions before Controls (tons/yr)	Potential PM Emissions after Controls (lbs/hr)	Potential PM Emissions after Controls (tons/yr)
Centerless Grinding	5.00	960	0.005	95.0%	0.005	0.024	0.0003	0.001
Polishing/Buffing	1.25	16	0.078	98.4%	0.079	0.348	0.0013	0.006
Stand alone Buffing	0.50	16	0.031	98.0%	0.032	0.140	0.0006	0.003

Methodology

Rate Particulate Collected (lbs/hr) = Particulate Collected (lbs) / Operating Time Resulting in Amount Collected (hrs)

Potential PM Emissions before Controls (lbs/hr) = Rate Particulate Collected (lbs/hr) / Control Efficiency

Potential PM Emissions before Controls (tons/yr) = Potential PM Emissions before Controls (lbs/hr) * 8760 hours/year / 2000 lbs/ton

Potential PM Emissions after Controls (lbs/hr) = Potential PM Emissions before Controls (lbs/hr) * (1 - Control Efficiency)

Potential PM Emissions after Controls (tons/yr) = Potential PM Emissions after Controls (lbs/hr) * 8760 hours/year / 2000 lbs/ton

PM-10 is assumed equal to PM for these emission units

Allowable Rate of Emissions

Process Rate (lbs/hr)	Process Weight Rate (tons/hr)	Allowable Emissions (lbs/hr)
419	0.21	1.44
419	0.21	1.44
250	0.13	1.02

Methodology

Allowable Emissions = 4.10(Process Weight Rate)^{0.67}