

Chris Judt
P & J Industries, Inc.
1492 Gerber Street
Ligonier, Indiana 46767

Re: 113-12360
First Minor Permit Revision to
MSOP 113-11696-00056

Dear Chris Judt:

P & J Industries, Inc. was issued a minor source operating permit on May 16, 2000 for a stationary Decorative Hexavalent Chromium Electroplating manufacturing facility. A letter requesting a revision to this permit was received on June 12, 2000. Pursuant to the provisions of 326 IAC 2-6.1-6 a minor permit revision to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of changing descriptive information and permit conditions related to emissions control processes. The permit mentions Foam Blanket Suppressant to control emission. Permittee has requested to change it to Wetting Agent to control Chrome emissions. Permit conditions related to Foam Blanket and Composite Mesh Scrubber are removed and those related to Wetting Agent are added.

Pursuant to 326 IAC 2-6.1-6, the minor source operating permit shall be revised by incorporating the minor permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this permit revision which includes this letter and revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Gurinder Saini, at OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Gurinder Saini or extension 3-0203, or dial (317) 233-0203.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments

GS

cc: File – Noble County
U.S. EPA, Region V
Noble County Health Department
Northern Regional Office
Air Compliance Section Inspector – Doyle Houser
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Bone

MINOR SOURCE OPERATING PERMIT OFFICE OF AIR MANAGEMENT

**P & J Industries, Inc.
1492 Gerber Street
Ligonier, Indiana 46767**

(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 113-11696-00056	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date: May 16, 2000
First Minor Permit Revision 113-12360	Pages affected: 4, 14-21
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

TABLE OF CONTENTS

A SOURCE SUMMARY

- A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]
- A.2 Emission Units and Pollution Control Equipment Summary

B GENERAL CONSTRUCTION CONDITIONS

- B.1 Permit No Defense [IC 13]
- B.2 Definitions
- B.3 Effective Date of the Permit [IC 13-15-5-3]
- B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]
- B.5 Modification to Permit [326 IAC 2]
- B.6 Minor Source Operating Permit [326 IAC 2-6.1]

C SOURCE OPERATION CONDITIONS

- C.1 PSD Minor Source Status [326 IAC 2-2][40 CFR 52.21]
- C.2 Preventive Maintenance Plan [326 IAC 1-6-3]
- C.3 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]
- C.4 Inspection and Entry [326 IAC 2-7-6(2)]
- C.5 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]
- C.6 Permit Revocation [326 IAC 2-1-9]
- C.7 Opacity [326 IAC 5-1]
- C.8 Fugitive Dust Emissions [326 IAC 6-4]
- C.9 Performance Testing [326 IAC 3-6][326 IAC 2-1.1-11]
- C.10 Maintenance of Monitoring Equipment [IC 13-14-1-13]
- C.11 Monitoring Methods [326 IAC 3]

Record Keeping and Reporting Requirements

- C.12 Malfunctions Report [326 IAC 1-6-2]
- C.13 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-3]
- C.14 General Record Keeping Requirements [326 IAC 2-6.1-2]
- C.15 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]
- C.16 Annual Notification [326 IAC 2-6.1-5(a)(5)]

D.1 Emissions unit OPERATION CONDITIONS - Chromium electroplating operation

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

- D.1.1 General Provisions Relating to HAPs [326 IAC 20-1-1][40 CFR Part 63, Subpart A]
- D.1.2 Chromium Electroplating and Anodizing NESHAP [326 IAC 20-8-1] [40 CFR Part 63, Subpart N]
- D.1.3 Chromium Emissions Limitation [40 CFR 63.342(c)] [40 CFR 63.343(a)(1)&(2)]
- D.1.4 Work Practice Standards [40 CFR 63.342(f)]
- D.1.5 Preventive Maintenance Plan [326 IAC 1-6-3]
- D.1.6 Operation and Maintenance Plan [40 CFR 63.342(f)(3)]

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

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

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

D.1.8 Monitoring to Demonstrate Continuous Compliance [326 IAC 2-6.1-5(a)(2)] [40 CFR 63.343(c)]

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

D.1.9 Record Keeping Requirements [40 CFR 63.346]

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

D.2 Emissions unit OPERATION CONDITIONS - 2.65 MMBtu Natural Gas Fired Boiler

Emission Limitations and Standards

D.2.1 Particulate Matter Limitation (PM) [326 IAC 6-2-4]

D.2.2 Natural Gas Fuel

Annual Notification

Malfunction Report

Ongoing Compliance Status Report

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 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 Decorative Hexavalent Chromium Electroplating manufacturing facility.

Authorized Individual: Chris Judt
Source Address: 1492 Gerber Street, Ligonier, Indiana 46767
Mailing Address: 1492 Gerber Street, Ligonier, Indiana 46767
Phone Number: (219) 894-7143
SIC Code: 3471
County Location: Noble
County Status: Attainment for all criteria pollutants
Source Status: Minor Source Operating Permit
Minor Source, under PSD or Emission Offset Rules;
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:

One (1) Decorative Chromium Electroplating Operation consisting of:

- (a) Two (2) decorative chromium electroplating tanks, identified as DC-1 and DC-2, using a hexavalent chromium bath, using wetting agent to control chrome emission by increasing surface tension, and exhausting to one (1) stack, identified as SC-1 equipped with Composite Mesh Scrubber;
- (b) One (1) natural gas fired boiler identified as Boiler 1, with a maximum heat input rate of 2.65 million (MM) British thermal units (Btu) per hour, and exhausting through stack B-1;
- (c) One (1) natural gas fired Air Makeup Unit identified as AMU-1, with a maximum heat input rate of 4 MMBtu per hour;
- (d) One (1) natural gas fired Sludge Dryer identified as SD-1, with a maximum heat input rate of 0.45 MMBtu per hour, and exhausting through stack SD-1; and
- (e) Four (4) natural gas fired Space Heaters identified as SH-1, SH-2, SH-3 and SH-4, each with a maximum heat input rate of 0.085 MMBtu per hour, and exhausting through stacks SH-1, SH-2, SH-3 and SH-4, respectively.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

One (1) Decorative Chromium Electroplating Operation consisting of:

- (a) Two (2) decorative chromium electroplating tanks, identified as DC-1 and DC-2, using a hexavalent chromium bath, using wetting agent to control chrome emission by increasing surface tension, and exhausting to one (1) stack, identified as SC-1 equipped with Composite Mesh Scrubber.

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

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

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

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference 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 Part 63, Subpart N]

The provisions 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 tanks DC-1 and DC-2. A copy of this rule is attached.

D.1.3 Chromium Emissions Limitation [40 CFR 63.342(c)] [40 CFR 63.343(a)(1)&(2)]

- (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) During tank operation, the Permittee shall control chromium emissions discharged to the atmosphere from tanks DC-1 and DC-2 by:
 - (1) Not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed one-hundredth milligrams of total chromium per dry standard cubic meter of ventilation air (0.01 mg/dscm) [equivalent to four and four-tenths times ten raised to the power of negative six grains of total chromium per dry standard cubic foot of ventilation air (4.4×10^{-6} gr/dscf)]; or
 - (2) Not allowing the surface tension of the electroplating bath contained within the tank to exceed forty-five dynes per centimeter (45 dynes/cm) [equivalent to three and one-tenth times ten raised to the power of negative three pound-force per foot (3.1×10^{-3} lb_f/ft)] at any time during operation of tanks DC-1 and DC-2 when a chemical fume suppressant containing a wetting agent is used.

D.1.4 Work Practice Standards [40 CFR 63.342(f)]

The following work practice standards apply to tanks DC-1 and DC-2:

- (a) At all times, including periods of startup, shutdown, malfunction and excess emissions, the Permittee shall operate and maintain tanks DC-1 and DC-2, including the wetting agent 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 and excess emissions 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, OAM, 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 a determination made under paragraph (d) of this condition, IDEM, OAM may require that the Permittee make changes to the OMP required by Condition D.1.6. Revisions may be required if IDEM, OAM finds that the plan:
 - (1) Does not address a malfunction or period of excess emissions that has occurred;
 - (2) Fails to provide for the operation of tanks DC-1 and DC-2, the wetting agent and process monitoring equipment during a malfunction or period of excess emissions in a manner consistent with good air pollution control practices; or
 - (3) Does not provide adequate procedures for correcting malfunctioning process equipment, wetting agent, monitoring equipment or other causes of excess emissions as quickly as practicable.

D.1.5 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan (PMP), in accordance with Section B-Preventive Maintenance Plan, of this permit, is required for tanks DC-1 and DC-2.

D.1.6 Operation and Maintenance Plan [40 CFR 63.342(f)(3)]

- (a) The Permittee shall prepare an Operation and Maintenance Plan (OMP) to be implemented no later than the startup date of tanks DC-1 and DC-2. The OMP shall specify the operation and maintenance criteria for tanks DC-1 and DC-2, the wetting agent and monitoring equipment and shall include the following elements:
 - (1) Manufacturers recommendations for maintenance of the monitoring equipment used to measure surface tension;
 - (2) A standardized checklist to document the operation and maintenance criteria for tanks DC-1 and DC-2, the wetting agent and the monitoring equipment.

- (3) Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions or periods of excess emissions as indicated by monitoring data do not occur.
- (4) A systematic procedure for identifying malfunctions and periods of excess emissions of tanks DC-1 and DC-2, the wetting agent and monitoring equipment; and for implementing corrective actions to address such malfunctions and periods of excess emissions.
- (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 above listed criteria 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 or period of excess emissions 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 DC-1 and DC-2, the wetting agent and the monitoring equipment, during similar malfunction or period of excess emissions events, and a program for corrective action for such events.
- (d) If actions taken by the Permittee during periods of malfunction or period of excess emissions 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, OAM.
- (e) The Permittee shall keep the written OMP on record after it is developed to be made available, upon request, by IDEM, OAM for the life of tanks DC-1 and DC-2 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 OMPs on record to be made available for inspection, upon request by IDEM, OAM for a period of five (5) years after each revision to the plan.

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

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

- (a) A performance test demonstrating initial compliance for tank DC-1 was performed on July 1, 1997 and a performance test demonstrating initial compliance for tank DC-2 was performed on February 1, 1998.

During the initial performance test, it was determined that the surface tension of the bath, using Method 306B, Appendix A of 40 CFR 63, was 45 dynes/cm (for tanks DC-1 and DC-2).

- (b) The Permittee is not required to further test tanks DC-1 and DC-2 by this permit. However, the IDEM may require testing when necessary to determine if the tanks DC-1 and DC-2 are in compliance. If testing is required by IDEM, compliance with the limits specified in Condition D.1.3 shall be determined by a performance test conducted in accordance with 40 CFR 63.344 and Section C - Performance Testing.
- (c) Any change, modification, or reconstruction of tanks DC-1 and DC-2, the wetting agent or monitoring equipment may require additional performance testing conducted in accordance with 40 CFR 63.344 and Section C - Performance Testing.

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

D.1.8 Monitoring to Demonstrate Continuous Compliance [326 IAC 2-6.1-5(a)(2)]

- (a) Pursuant to 40 CFR 63.343(c)(5)(ii) and (iii), when using a wetting agent in the electroplating bath to comply with the limits specified in Condition D.1.3, the Permittee shall monitor the surface tension of the electroplating baths. Operation of tanks DC-1 and DC-2 at a surface tension greater than the 45 dynes per centimeter shall constitute noncompliance with the standards.
 - (1) The Permittee shall monitor the surface tension of the electroplating bath during tank operation according to the following schedule:
 - (A) The surface tension shall be measured once every 4 hours during operation of the tank with a stalagmometer or a tensiometer as specified in Method 306B, appendix A of this part.
 - (B) The time between monitoring can be increased if there have been no exceedances. The surface tension shall be measured once every 4 hours of tank operation for the first 40 hours of tank operation after the compliance date. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 8 hours of tank operation. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 40 hours of tank operation on an ongoing basis, until an exceedance occurs. The minimum frequency of monitoring allowed by this subpart is once every 40 hours of tank operation.
 - (C) Once an exceedance occurs as indicated through surface tension monitoring, the original monitoring schedule of once every 4 hours must be resumed. A subsequent decrease in frequency shall follow the schedule laid out in paragraph (B) above. For example, if a Permittee had been monitoring a tank once every 40 hours and an exceedance occurs, subsequent monitoring would take place once every 4 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation, monitoring can occur once every 8 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation on this schedule, monitoring can occur once every 40 hours of tank operation.

- (2) Once a bath solution is drained from tanks DC-1 and DC-2 and a new solution added, the original monitoring schedule of once every 4 hours must be resumed, with a decrease in monitoring frequency allowed following the procedures in paragraphs (B) and (C) above.
- (b) Tank operation or operating time is defined as that time when a part is in the tank and there is a current running through the tank. If the amount of time that no part is in the tank is fifteen minutes or longer, that time is not considered operating 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 is 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

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 wetting agent and monitoring equipment to document that the inspection and maintenance required by Conditions D.1.7 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 DC-1 and DC-2, the wetting agent and monitoring equipment.
- (c) Records of the occurrence, duration, and cause (if known) of each malfunction of tanks DC-1 and DC-2, the wetting agent and monitoring equipment.
- (d) Records of the occurrence, duration, and cause (if known) of each period of excess emissions of tanks DC-1 and DC-2, the wetting agent and monitoring equipment as indicated by monitoring data collected in accordance with this condition.
- (e) Records of actions taken during periods of malfunction or excess emissions when such actions are inconsistent with the OMP.
- (f) Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the OMP.
- (g) Test reports documenting results of all performance tests.

- (h) All measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance.
- (i) 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.
- (j) The total process operating time, as defined in Condition D.1.8(b), of each tank, during the reporting period.
- (k) Records of the date and time that fume suppressants were added to the electroplating bath, and the amount and type of fume suppressant added.
- (l) All documentation supporting the notifications and reports required by 40 CFR 63.9 and 63.10 (Subpart A, General Provisions) and by Condition D.1.10.

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

The notifications and reports required in this section shall be submitted to IDEM, OAM using the address specified in Section C - General Reporting Requirements.

(a) Notifications:

- (1) Initial Notifications
The Permittee shall notify IDEM, OAM in writing that the source is subject to 40 CFR Part 63, Subpart N. The notification shall be submitted no later than one hundred eighty (180) days after the compliance date and shall contain the information listed in 40 CFR 63.347(c)(1).
- (2) 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, OAM, and shall list, for each tank, the information identified in 40 CFR 63.347(e)(2).
 - (B) The NCS for tanks DC-1 and DC-2 shall be submitted to IDEM, OAM no later than forty-five (45) days following completion of the compliance demonstration pursuant to Section C - Performance Testing.
- (3) 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, OAM. In addition, the Permittee may not change, modify, or reconstruct tanks DC-1 and DC-2 without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAM.
 - (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 CMP system (if a CMP system is used to demonstrate compliance with the chromium emission limitation)].
 - (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 DC-1 and DC-2 serves as this notification.
 - (D) Pursuant to 326 IAC 2-1.1-2(a), permission must be received from IDEM, OAM before construction, modification, or reconstruction may commence.
- (b) Ongoing Compliance Status Report
The Permittee shall prepare summary reports to document the ongoing compliance status of tanks DC-1 and DC-2 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 DC-1 and DC-2 are located at site that is an area source of hazardous air pollutants (HAPs), the Ongoing Compliance Status Report shall be retained on site and made available to IDEM, OAM upon request.
- (1) The Ongoing Compliance Status Report shall be complete according to the following schedule except as provided in paragraphs (c)(2).
 - (A) The first report shall cover the period from the start-up date of the emissions units to December 31 of the year in which the emissions 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 are met, semiannual reports shall be prepared and submitted to IDEM, OAM:
 - (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 semiannually until a request to reduce reporting frequency in accordance with 40 CFR 63.347(g)(2) is approved.

- (3) IDEM, OAM 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.

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

**Technical Support Document (TSD) for a Minor Permit Revision to a
Minor Source Operating Permit**

Source Background and Description

Source Name:	P&J Industries, Inc.
Source Location:	1492 Gerber Street, Ligonier, Indiana 46767
County:	Noble
SIC Code:	3471
Operation Permit No.:	MSOP 113-11696-00056
Operation Permit Issuance Date:	May 16, 2000
Minor Permit Revision No.:	MSOP 113-12360-00056
Permit Reviewer:	Gurinder Saini

The Office of Air Management (OAM) has reviewed a revision application from P&J Industries, Inc. relating to the operation of stationary Decorative Hexavalent Chromium Electroplating manufacturing facility.

History

On June 12, 2000, P&J Industries, Inc. submitted an application to the OAM requesting to modify permit language in the permit issued to their existing plant. The modification consists of changing descriptive information and permit conditions related to emissions control processes. The permit mentions Foam Blanket Suppressant to control emission. Permittee has requested to change it to Wetting Agent to control Chrome emissions. Permit conditions related to Foam Blanket and Composite Mesh Scrubber are removed and those related to Wetting Agent are added.

Existing Approvals

The source was issued a Minor Source Operating Permit MSOP 113-11696-00056 on May 16, 2000. There are no amendments / revisions carried out on this permit. This is the first minor permit revision in this permit.

Enforcement Issue

There are no enforcement actions pending.

Justification for Modification

This Minor Source Operating Permit is being modified through a MSOP Minor Permit Revision. This revision is being performed pursuant to 326 IAC 2-6.1-6(g) “..Modification involving a pollution control project or pollution prevention project ..that do not increase the potential to emit of

any regulated pollutant.. but requires a significant change in the method or methods to demonstrate or monitor compliance”.

Recommendation

The staff recommends to the Commissioner that the Minor Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on June 12, 2000.

Permit Changes

The Permittee has requested changing descriptive information and permit conditions related to emissions control processes. The permit mentions Foam Blanket Suppressant to control emission. Permittee has requested to change it to Wetting Agent to control Chrome emissions. Permit conditions related to Foam Blanket and Composite Mesh Scrubber are removed and those related to Wetting Agent are added. These revisions are performed as follows (with language added shown in **bold** and deleted in ~~strikeout~~):

Section A.2 (a) is revised as follows:

- (a) Two (2) decorative chromium electroplating tanks, identified as DC-1 and DC-2, using a hexavalent chromium bath, ~~equipped with a foam blanket suppressant~~ **using wetting agent to control chrome emission by increasing surface tension**, and exhausting to one (1) stack, identified as SC-1 **equipped with Composite Mesh Scrubber**;

Section D.1 is revised as follows:

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:
One (1) Decorative Chromium Electroplating Operation consisting of:
(a) Two (2) decorative chromium electroplating tanks, identified as DC-1 and DC-2, using a hexavalent chromium bath, ~~equipped with a foam blanket suppressant~~ **using wetting agent to control chrome emission by increasing surface tension**, and exhausting to one (1) stack, identified as SC-1 **equipped with Composite Mesh Scrubber**.
(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

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

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

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference 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 Part 63, Subpart N]

The provisions 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 tanks DC-1 and DC-2. A copy of this rule is attached.

D.1.3 Chromium Emissions Limitation [40 CFR 63.342(c)] [40 CFR 63.343(a)(1)&(2)]

- (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) During tank operation, the Permittee shall control chromium emissions discharged to the atmosphere from tanks DC-1 and DC-2 by:
- (1) Not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed one-hundredth milligrams of total chromium per dry standard cubic meter of ventilation air (0.01 mg/dscm) [equivalent to four and four-tenths times ten raised to the power of negative six grains of total chromium per dry standard cubic foot of ventilation air (4.4×10^{-6} gr/dscf)]; or
 - (2) ~~Not allowing the foam blanket thickness of the anodizing bath contained within the tank to be less than two and fifty-four hundredths centimeters (2.54 cm) [equivalent to one inch (1 in)] at any time during operation of tanks DC-1 and DC-2 when a foam blanket is used.~~ **Not allowing the surface tension of the electroplating bath contained within the tank to exceed forty-five dynes per centimeter (45 dynes/cm) [equivalent to three and one-tenth times ten raised to the power of negative three pound-force per foot (3.1×10^{-3} lb_f/ft)] at any time during operation of tanks DC-1 and DC-2 when a chemical fume suppressant containing a wetting agent is used.**

D.1.4 Work Practice Standards [40 CFR 63.342(f)]

The following work practice standards apply to tanks DC-1 and DC-2:

- (a) At all times, including periods of startup, shutdown, malfunction and excess emissions, the Permittee shall operate and maintain tanks DC-1 and DC-2, including the ~~foam blanket suppressant~~ **wetting agent**, the ~~composite mesh scrubber~~ 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 and excess emissions 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, OAM, 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 a determination made under paragraph (d) of this condition, IDEM, OAM may require that the Permittee make changes to the OMP required by Condition D.1.6. Revisions may be required if IDEM, OAM finds that the plan:
- (1) Does not address a malfunction or period of excess emissions that has occurred;
 - (2) Fails to provide for the operation of tanks DC-1 and DC-2, the ~~foam blanket suppressant~~ **wetting agent**, or the ~~composite mesh scrubber~~ and process monitoring equipment during a malfunction or period of excess emissions in a manner consistent with good air pollution control practices; or
 - (3) Does not provide adequate procedures for correcting malfunctioning process equipment, ~~foam blanket suppressant~~ **wetting agent**, monitoring equipment or other causes of excess emissions as quickly as practicable.

D.1.5 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan (PMP), in accordance with Section B-Preventive Maintenance Plan, of this permit, is required for tanks DC-1 and DC-2 ~~and the composite mesh scrubber~~.

D.1.6 Operation and Maintenance Plan [40 CFR 63.342(f)(3)]

- (a) The Permittee shall prepare an Operation and Maintenance Plan (OMP) to be implemented no later than the startup date of tanks DC-1 and DC-2. The OMP shall specify the operation and maintenance criteria for tanks DC-1 and DC-2, the ~~foam blanket suppressant~~ **wetting agent**, the ~~composite mesh scrubber~~ and monitoring equipment and shall include the following elements:
- (1) Manufacturers recommendations for maintenance of the monitoring equipment used to measure surface tension;
 - (2) A standardized checklist to document the operation and maintenance criteria for tanks DC-1 and DC-2, the ~~foam blanket suppressant~~ **wetting agent**, the ~~composite mesh scrubber~~ and the monitoring equipment.
 - (3) Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions or periods of excess emissions as indicated by monitoring data do not occur.
 - (4) A systematic procedure for identifying malfunctions and periods of excess emissions of tanks DC-1 and DC-2, the ~~foam blanket suppressant~~ **wetting agent**, the ~~composite mesh scrubber~~ and monitoring equipment; and for implementing corrective actions to address such malfunctions and periods of excess emissions.
- (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 above listed criteria 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 or period of excess emissions 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 DC-1 and DC-2, the ~~foam blanket suppressant~~ **wetting agent**, the ~~composite mesh scrubber~~ and the monitoring equipment, during similar malfunction or period of excess emissions events, and a program for corrective action for such events.
- (d) If actions taken by the Permittee during periods of malfunction or period of excess emissions 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, OAM.
- (e) The Permittee shall keep the written OMP on record after it is developed to be made available, upon request, by IDEM, OAM for the life of tanks DC-1 and DC-2 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 OMPs on record to be made available for inspection, upon request by IDEM, OAM for a period of five (5) years after each revision to the plan.

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

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

- (a) A performance test demonstrating initial compliance for tank DC-1 was performed on July 1, 1997 and a performance test demonstrating initial compliance for tank DC-2 was performed on February 1, 1998.

During the initial performance test, it was determined that the surface tension of the bath, using Method 306B, Appendix A of 40 CFR 63, was 45 dynes/cm (for tanks DC-1 and DC-2).
- (b) The Permittee is not required to further test tanks DC-1 and DC-2 by this permit. However, the IDEM may require testing when necessary to determine if the tanks DC-1 and DC-2 are in compliance. If testing is required by IDEM, compliance with the limits specified in Condition D.1.3 shall be determined by a performance test conducted in accordance with 40 CFR 63.344 and Section C - Performance Testing.
- (c) Any change, modification, or reconstruction of tanks DC-1 and DC-2, the ~~foam blanket suppressant~~, the ~~composite mesh pad scrubber~~ **wetting agent** or monitoring equipment may require additional performance testing conducted in accordance with 40 CFR 63.344 and Section C - Performance Testing.

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

D.1.8 Monitoring to Demonstrate Continuous Compliance [326 IAC 2-6.1-5(a)(2)]

~~(a) Pursuant to 40 CFR 63.343(c)(6)(ii) and (iii), when using a foam blanket in the electroplating bath to comply with the limits specified in Condition D.1.3, the Permittee shall monitor the foam blanket thickness of the electroplating bath. Operation of tanks DC-1 and DC-2 at a foam blanket thickness less than the value established during the performance test shall constitute noncompliance with the standards.~~

~~(1) The Permittee shall monitor the foam blanket thickness of the electroplating bath during tank operation according to the following schedule:~~

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

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

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

~~(2) Once a bath solution is drained from tanks DC-1 and DC-2 and a new solution added, the original monitoring schedule of once every hour must be resumed, with a decrease in monitoring frequency allowed following the procedures in paragraphs (B) and (C) above.~~

(a) Pursuant to 40 CFR 63.343(c)(5)(ii) and (iii), when using a wetting agent in the electroplating bath to comply with the limits specified in Condition D.1.3, the Permittee shall monitor the surface tension of the electroplating baths. Operation of tanks DC-1 and DC-2 at a surface tension greater than 45 dynes per centimeter shall constitute noncompliance with the standards.

- (1) **The Permittee shall monitor the surface tension of the electroplating bath during tank operation according to the following schedule:**
 - (A) **The surface tension shall be measured once every 4 hours during operation of the tank with a stalagmometer or a tensiometer as specified in Method 306B, appendix A of this part.**
 - (B) **The time between monitoring can be increased if there have been no exceedances. The surface tension shall be measured once every 4 hours of tank operation for the first 40 hours of tank operation after the compliance date. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 8 hours of tank operation. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 40 hours of tank operation on an ongoing basis, until an exceedance occurs. The minimum frequency of monitoring allowed by this subpart is once every 40 hours of tank operation.**
 - (C) **Once an exceedance occurs as indicated through surface tension monitoring, the original monitoring schedule of once every 4 hours must be resumed. A subsequent decrease in frequency shall follow the schedule laid out in paragraph (B) above. For example, if a Permittee had been monitoring a tank once every 40 hours and an exceedance occurs, subsequent monitoring would take place once every 4 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation, monitoring can occur once every 8 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation on this schedule, monitoring can occur once every 40 hours of tank operation.**
 - (2) **Once a bath solution is drained from tanks DC-1 and DC-2 and a new solution added, the original monitoring schedule of once every 4 hours must be resumed, with a decrease in monitoring frequency allowed following the procedures in paragraphs (B) and (C) above.**
- (b) Tank operation or operating time is defined as that time when a part is in the tank and there is a current running through the tank. If the amount of time that no part is in the tank is fifteen minutes or longer, that time is not considered operating 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 is 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

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 ~~foam blanket suppressant, the composite mesh scrubber system~~ **wetting agent** and monitoring equipment to document that the inspection and maintenance required by Conditions D.1.7 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 DC-1 and DC-2, the ~~composite mesh scrubber~~ **wetting agent** and monitoring equipment.
- (c) Records of the occurrence, duration, and cause (if known) of each malfunction of tanks DC-1 and DC-2, the ~~composite mesh scrubber~~ **wetting agent** and monitoring equipment.
- (d) Records of the occurrence, duration, and cause (if known) of each period of excess emissions of tanks DC-1 and DC-2, the ~~composite mesh scrubber~~ **wetting agent** and monitoring equipment as indicated by monitoring data collected in accordance with this condition.
- (e) Records of actions taken during periods of malfunction or excess emissions when such actions are inconsistent with the OMP.
- (f) Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the OMP.
- (g) Test reports documenting results of all performance tests.
- (h) All measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance.
- (i) 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.
- (j) The total process operating time, as defined in Condition D.1.8(b), of each tank, during the reporting period.

- (k) Records of the date and time that fume suppressants were added to the electroplating bath, and the amount and type of fume suppressant added.
- (l) All documentation supporting the notifications and reports required by 40 CFR 63.9 and 63.10 (Subpart A, General Provisions) and by Condition D.1.10.

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

The notifications and reports required in this section shall be submitted to IDEM, OAM using the address specified in Section C - General Reporting Requirements.

- (a) Notifications:
 - (1) Initial Notifications
The Permittee shall notify IDEM, OAM in writing that the source is subject to 40 CFR Part 63, Subpart N. The notification shall be submitted no later than one hundred eighty (180) days after the compliance date and shall contain the information listed in 40 CFR 63.347(c)(1).
 - (2) 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, OAM, and shall list, for each tank, the information identified in 40 CFR 63.347(e)(2).
 - (B) The NCS for tanks DC-1 and DC-2 shall be submitted to IDEM, OAM no later than forty-five (45) days following completion of the compliance demonstration pursuant to Section C - Performance Testing.
 - (3) 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, OAM. In addition, the Permittee may not change, modify, or reconstruct tanks DC-1 and DC-2 without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAM.
 - (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 CMP system (if a CMP system is used to demonstrate compliance with the chromium emission limitation)].
- (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 DC-1 and DC-2 serves as this notification.
- (D) Pursuant to 326 IAC 2-1.1-2(a), permission must be received from IDEM, OAM before construction, modification, or reconstruction may commence.

(b) Ongoing Compliance Status Report

The Permittee shall prepare summary reports to document the ongoing compliance status of tanks DC-1 and DC-2 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 DC-1 and DC-2 are located at site that is an area source of hazardous air pollutants (HAPs), the Ongoing Compliance Status Report shall be retained on site and made available to IDEM, OAM upon request.

- (1) The Ongoing Compliance Status Report shall be complete according to the following schedule except as provided in paragraphs (c)(2).
 - (A) The first report shall cover the period from the start-up date of the emissions units to December 31 of the year in which the emissions 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 are met, semiannual reports shall be prepared and submitted to IDEM, OAM:
 - (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 semiannually until a request to reduce reporting frequency in accordance with 40 CFR 63.347(g)(2) is approved.

- (3) IDEM, OAM 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.

Conclusion

The operation of this stationary Decorative Hexavalent Chromium Electroplating manufacturing facility shall be subject to the conditions of the attached Minor Permit Revision to MSOP Permit No. MSOP113-12360-00056.