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

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: January 31, 2013

RE: Imagineering Enterprises, Inc / 141-32695-00090

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

Notice of Decision – Approval

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 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days from 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-AM.dot12/3/07

IDEM

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January 31, 2013

Ms. Jacinda Edman
Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
1302 West Sample Street
South Bend, IN 46619

Re: 141-32695-00090
Third Administrative Amendment to
F141-25159-00090

Dear Ms. Edman:

Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies was issued a Federally Enforceable State Operating Permit (FESOP) Renewal No. F141-25159-00090 on April 15, 2009 for a stationary plating and polishing source located at 1302 West Sample Street, South Bend, Indiana. On December 27, 2012, the Office of Air Quality (OAQ) received an application from the source requesting that the permit be amended to add an exempted unit and to remove an existing insignificant unit.

Pursuant to 326 IAC 2-8-10(a)(13), this change to the permit is considered an administrative amendment because the permit is amended to add an emissions unit, subject to 326 IAC 2-1.1-3 (Exemptions), at the request of the Permittee.

Pursuant to the provisions of 326 IAC 2-8-10, the permit is hereby administratively amended as follows with the deleted language as ~~strikeouts~~ and new language **bolded**:

SECTION A **SOURCE SUMMARY**

...

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities:

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including:

...

~~(2) One (1) natural gas-fired makeup air unit, identified as M-2, with a maximum capacity of 4.8 million British thermal units per hour, constructed in 1997.~~

(2) One (1) natural gas-fired makeup air unit, identified as M-3, with a maximum capacity of 1.4 million British thermal units per hour, approved for construction in 2013.

...

SECTION D.3 FACILITY OPERATION CONDITIONS

Emissions Unit Description:

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including:

(1) One (1) boiler, identified as B-1, constructed in 1997, fired by natural gas, capacity: 2.07 million British thermal units per hour. [326 IAC 6-2-4]

~~(2) One (1) natural gas-fired makeup air unit, identified as M-2, with a maximum capacity of 4.8 million British thermal units per hour, constructed in 1997.~~

(2) One (1) natural gas-fired makeup air unit, identified as M-3, with a maximum capacity of 1.4 million British thermal units per hour, approved for construction in 2013.

(3) Two (2) space heaters, identified as N-1 and N-2, each with a maximum capacity of 0.175 million British thermal units per hour.

(4) One (1) space heater, identified as BH3-06, with a maximum capacity of 0.225 million British thermal units (MMBTU) per hour, constructed in 2007.

(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 2-8-4(1)]

...

D.3.2 Particulate Matter Emission Limitations [326 IAC 6.5-1-2]

(a) Pursuant to 326 IAC 6.5-1-2(b)(3), the particulate matter emissions from the boiler (B-1) shall not exceed 0.01 grains per dry standard cubic foot.

(b) Pursuant to 326 IAC 6.5-1-2(a), the particulate matter emissions from the makeup air unit, and space heaters (~~M-2~~, **M-3,** N-1, N-2, and BH3-06) shall not exceed 0.03 grains per dry standard cubic foot, each.

See Appendix A for the revised limited PTE of the source after the removal of an Air Make-up Unit, identified as M-2 and replacing it with Air Make-up Unit, identified as M-3.

The PTE of the modification is as follows:

Process/ Emission Unit	PTE of Proposed Modification (tons/year)									
	PM	PM10	PM2.5	SO_2	NOx	VOC	CO	GHGs as CO_2e	Total HAPs	Worst Single HAP
One (1) Air Make-up Unit (M-3)	0.01	0.05	0.05	0.004	0.61	0.03	0.052	740.32	0.012	0.011 (Hexane)
Total PTE of Proposed Modification	**0.01**	**0.05**	**0.05**	**0.004**	**0.61**	**0.03**	**0.52**	**740.32**	**0.012**	**0.011 (Hexane)**

(a) The entire source will continue to limit VOC emissions to less than 80 tons per twelve (12) consecutive month period, single HAP to less than 10 tons per twelve (12) month period and combined HAPs to less than 25 tons per twelve (12) month period, rendering the requirements of 326 IAC 2-7 (Part 70) not applicable (see Appendix A for the calculations.

(b) 326 IAC 6.5-1-2 (Particulate Matter Limitations Except Lake County)
This source is located in St. Joseph County and has actual particulate matter emissions greater than 10 tons per year. Therefore the emission units at this source must comply with the requirements of 326 IAC 6.5 or 326 IAC 6-3-2.

The new Air Make-up Unit, identified as M-3 will comply with the existing 326 IAC 6.5-1-2(a) requirements.

No new state rules are applicable to this source due to the addition of the emission unit.

(c) The existing Air Make-up Unit, identified as M-2 is not subject to any NSPS or NESHAPS; therefore the new Air Make-up Unit, identified as M-3, will not be subject to any NSPS or NESHAPS.

No New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) or National Emission standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 20 and 40 CFR Part 61, 63) included in this administrative amendment.

PTE of the Entire Source After Issuance of the FESOP Administrative Amendment

The table below summarizes the potential to emit of the entire source *(reflecting adjustment of existing limits)*, with updated emissions shown as **bold** values and previous emissions shown as ~~strikethrough~~ values.

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of the FESOP Administrative Amendment (tons/year)									
	PM	PM10*	PM2.5	SO_2	NOx	VOC	CO	GHGs as CO_2e**	Total HAPs	Worst Single HAP
Paint Booth K-1	9.03	9.03	9.03	-	-	<80.0	-	-	<8.0	<20.0
Paint Booth K-2	9.03	9.03	9.03							
Paint Booth K-6	9.03	9.03	9.03							
Paint Booth K-7	9.03	9.03	9.03							
Degreaseres, Tanks, and other sources of VOCs	-	-	-		9.14					
Blasters (B1 through B5 and PB-1	0.44	0.31	0.29	-	-	-	-	-	-	-
Insignificant Activities										
Natural Gas Combustion	~~0.06~~ **0.03**	~~0.25~~ **0.13**	~~0.25*~~ **0.13**	~~0.02~~ **0.01**	~~3.24~~ **1.75**	~~0.18~~ **0.10**	~~2.72~~ **1.47**	~~3,913.11~~ **2,115.19**	~~0.061~~ **0.033**	~~0.058~~ **0.031** (Hexane)
Paved Roads	0.12	0.02	0.00	-	-	-	-	-	-	-
Total PTE of Entire Source	~~36.74~~ **36.72**	~~36.70~~ **36.58**	~~36.70~~ **36.38**	**0.01**	~~12.38~~ **10.89**	~~80.21~~ **80.10**	~~2.72~~ **1.47**	~~3,913.11~~ **2,115.19**	**8.06**	~~20.06~~ **20.03**
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds**	250	250	250	250	250	250	250	100,000	NA	NA
Emission Offset/ Nonattainment NSR Major Source Thresholds	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

negl. = negligible
*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
**The 100,000 CO_2e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

This table was taken from FESOP 141-30937-00090, issued on October 14, 2011.

The table below summarizes the potential to emit of the entire source after issuance of this revision, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this FESOP permit revision, and only to the extent that the effect of the control equipment is made practically enforceable in the permit. (Note: the table below was generated from the above table, with bold text un-bolded and strikethrough text deleted).

Process/ Emission Unit	**Potential To Emit of the Entire Source After Issuance of the FESOP Administrative Amendment (tons/year)**									
	PM	PM10*	PM2.5	SO_2	NOx	VOC	CO	GHGs as CO_2e**	Total HAPs	Worst Single HAP
Paint Booth K-1	9.03	9.03	9.03	-	-	<80.0	-	-	<8.0	<20.0
Paint Booth K-2	9.03	9.03	9.03							
Paint Booth K-6	9.03	9.03	9.03							
Paint Booth K-7	9.03	9.03	9.03							
Degreaseres, Tanks, and other sources of VOCs	-	-	-		9.14					
Blasters (B1 through B5 and PB-1	0.44	0.31	0.29	-	-	-	-	-	-	-
Insignificant Activities										
Natural Gas Combustion	0.03	0.13	0.13	0.01	1.75	0.10	1.47	2,115.19	0.033	0.031 (Hexane)
Paved Roads	0.12	0.02	0.00	-	-	-	-	-	-	-
Total PTE of Entire Source	**36.72**	**36.58**	**36.38**	**0.01**	**10.89**	**80.10**	**1.47**	**2,115.19**	**8.06**	**20.03**
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds**	250	250	250	250	250	250	250	100,000	NA	NA
Emission Offset/ Nonattainment NSR Major Source Thresholds	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

negl. = negligible
*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
**The 100,000 CO_2e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

Additional Changes

IDEM, OAQ has decided to make additional revisions to the permit as described below in order to update the language to match the most current version of the applicable rule, to eliminate redundancy within the permit, and to provide clarification regarding the requirements of these conditions.

Change 1 *On October 27, 2010, the Indiana Air Pollution Control Board issued revisions to 326 IAC 2. These revisions resulted in changes to the rule cites listed in the permit. These changes are not changes to the underlying provisions but only to the citations of these rules.*

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B.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)] ~~[326 IAC 2-8-5(a)(1)]~~

...

SECTION B GENERAL CONDITIONS

B.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]~~[326 IAC 2-8-5(a)(1)]~~

(a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

...

B.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) **and (c)** ~~through (d)~~ without a prior permit revision, if each of the following conditions is met:
...

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15~~(b) through (d)~~ **(b)(1) and (c)**. The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15~~(b)(2), (c)(1), and (d)~~ **(b)(1) and (c)**.

(b) Emission Trades [326 IAC 2-8-15~~(c)~~ **(b)**]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15~~(c)~~ **(b)**.

(c) Alternative Operating Scenarios [326 IAC 2-8-15~~(d)~~**(c)**]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.

...

Change 2 *IDEM has clarified the Permittee's responsibility with regards to record keeping.*

SECTION C SOURCE OPERATION CONDITIONS

...

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.15 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

(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. **Support information includes the following:**

(AA) All calibration and maintenance records.
(BB) All original strip chart recordings for continuous monitoring instrumentation.
(CC) Copies of all reports required by the FESOP.

Records of required monitoring information including the following:

(AA) The date, place, as defined in this permit, and time of sampling or measurements.
(BB) The dates analyses were performed.
(CC) The company or entity that performed the analyses.
(DD) The analytical techniques or methods used.
(EE) The results of such analyses.
(FF) The operating conditions as existing at the time of sampling or measurement.

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.

...

Change 3 *IDEM, OAQ has clarified the interaction of the Quarterly Deviation and Compliance Monitoring Report and the Emergency Provisions.*

C.16 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. **Proper notice submittal under Section B - Emergency Provisions satisfies the reporting requirements of this paragraph.** Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

...

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
Source Address: 1302 West Sample Street, South Bend, Indiana 46619-3895
FESOP Permit No.: F141-25159-00090

Months: _____ to _____ Year: _____

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. **Proper notice submittal under Section B - Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C - General Reporting.** Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

All other conditions of the permit shall remain unchanged and in effect. Attached please find the entire revised permit.

A copy of the permit is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

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 Deborah Cole, of my staff, at 317-234-5377 or 1-800-451-6027, extension 4-5377.

Sincerely,

Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

Attachments: Updated Permit, Calculations and Attachments

IC/dac

cc: File -St. Joseph County
St. Joseph County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch
Billing, Licensing and Training Section

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Federally Enforceable State Operating Permit Renewal
OFFICE OF AIR QUALITY

Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
1302 West Sample Street
South Bend, Indiana 46619-3895

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

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

Operation Permit No.: F141-25159-00090	
Issued by: *Original Signed by:* Alfred C. Dumaual, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: April 15, 2009 Expiration Date: April 15, 2019

First Administrative Amendment No.: 141-30649-00090, issued August 19, 2011
Second Administrative Amendment No.: 141-30937-00090, issued October 14, 2011

Third Administrative Amendment No.: 141-32695-00090	
Issued by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: January 31, 2013 Expiration Date: April 15, 2019

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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 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 2-8-3(b)]

The Permittee owns and operates a stationary plating and polishing source.

Source Address:	1302 West Sample Street, South Bend, Indiana 46619-3895
General Source Phone Number:	1-574-807-8778
SIC Code:	3471, 2899, 3479
County Location:	St. Joseph
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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

(a) Two (2) paint booths, identified as K-1 and K-2, with a maximum capacity of 27.0 pounds of coatings per hour, equipped with air atomization spray applicators, using dry filters for overspray control, constructed in 1977 and 1978, and exhausting to Ducts G and F.

(b) One paint booth, identified as K-6, equipped with electrostatic airless guns, using dry filters for overspray control, constructed in 2002 and exhausting to Duct E.

(c) One (1) paint booth, identified as K-7, equipped with high volume, low pressure (HVLP) spray guns, with a maximum capacity of 200 metal parts per day, using dry filters for overspray control, constructed in 2004, and exhausting to wall vent AB.

(d) One (1) centrifuge dip and spin dry film coating machine, also referred to as bulk dip and spin parts coater, identified as L-2, with a maximum capacity of 5 gallons, constructed in January 1997, and exhausting to Ducts J and E.

(e) One (1) Passivation Line, also described as Conversion Coating Line #3, exhausting to Stacks B and V, consisting of the following:

(1) Seven (7) passivation tanks, identified as C-17 through C-23, with a maximum capacity of 43 gallons each.

(2) One (1) cold cleaner immersion tank, using Isopropyl Alcohol, identified as C-24, with a maximum capacity of 8 gallons, and constructed prior to February 1993. [326 IAC 8-3-2] [326 IAC 8-3-5].

(3) Two (2) passivation tanks, identified as C-27 and C-28, with a maximum capacity of 34 gallons.

(4) One (1) cold cleaner tank, using isopropyl alcohol, identified as C-29, with a maximum capacity of 8 gallons, constructed in 2000, and operating in series with C-24. [326 IAC 8-3-2] [326 IAC 8-3-5].

(5) One (1) non-air sparged nitric and hydrofluoric acid tank, identified as C-35, constructed in 2011, with a maximum capacity of 42 gallons.

(f) Conversion Coating Line #1, which is a phosphate coating line and a manual etch line with six (6) tanks, identified as C-12, C-13, C-14, C-15, C-16 and C-31, modified in 2007, and exhausting to Stack W.

(g) Conversion Coating Line #2, which is a phosphate coating line with eleven (11) tanks, identified as C-2 through C-8, C-25, C-32, C-33 and C-34, modified in 2007, and exhausting to Ducts T, U and V.

(h) Conversion Coating Line #4, which is a phosphate coating line with nine (9) tanks, identified as F-1 through F-9, exhausting to Stack A, and with two (2) tanks, identified as F-11 and F-12, modified in 2007, and exhausting to Stacks Z and AA.

(i) Plating Line #1, for electroless nickel plating, with two (2) prep tank, identified as E-1 and F-10, modified in 2007, and exhausting to Stack A, with nine (9) plating tanks, identified as E-2 through E-8 and E-29, exhausting to Stack D, one (1) plating tank, identified as E-21, exhausting to Stacks Z and AA.

(j) Plating Line #2, for electroless nickel plating, with twenty-one (21) tanks, identified as E-9 through E-13, E-15 through E-20, E-22 through E-27, E-28, E-30, E-31, and E-32, modified in 2007, exhausting to Stack C.

(k) One (1) non-destructive testing area, consisting of eight (8) penetrant tanks, identified as J-1 through J-7 and J-14, one (1) ZL-4C penetrant tank, identified as J-11, and one (1) nitric-hydrofluoric tank, identified as J-13.

(l) Six (6) portable cold cleaner degreasers, using methyl ethyl ketone (MEK), identified as I-3 through I-8, with a maximum capacity of 13 gallons each, and constructed prior to March 1993.

(m) One (1) immersion solvent cleaning tank, using methyl ethyl ketone (MEK), identified as I-13, with a maximum capacity of 8 gallons, and constructed in 2001.

(n) One (1) portable immersion cold cleaner tank, using isopropyl alcohol, identified as I-14, with a maximum capacity of 6 gallons, and constructed in 2000. [326 IAC 8-3-2] [326 IAC 8-3-5].

(o) One (1) small cabinet blaster, identified as blaster 4 (B4), with a maximum abrasive usage capacity of 0.5 pounds per hour, using glass, plastic bead or aluminum oxide or an equivalent media, equipped with a small baghouse dust collector and exhausting indoors.

(p) One (1) large dual cabinet blaster, identified as blaster 2 (B2), with a maximum abrasive usage capacity of 0.67 pounds per hour, using aluminum oxide or an equivalent media, equipped with a small baghouse dust collector and exhausting indoors.

(q) One (1) small cabinet blaster, identified as blaster 5 (B5), with a maximum abrasive usage capacity of 0.5 pounds per hour, using glass, plastic bead or aluminum oxide or an

equivalent media, equipped with a small baghouse dust collector and exhausting indoors.

(r) One (1) wet blaster, identified as blaster 3 (B3), with a maximum abrasive usage capacity of 0.0625 pounds per hour, using vermiculite or an equivalent media, and exhausting indoors.

(s) One (1) tumble blaster, identified as blaster 1 (B1), with a maximum abrasive usage capacity of 0.25 pounds per hour, using aluminum oxide or an equivalent media, equipped with a small baghouse dust collector and exhausting indoors.

(t) One (1) pencil blaster, identified as PB-1, with a maximum abrasive usage capacity of 0.5 pounds per hour, using aluminum oxide or an equivalent media, exhausting indoors.

(u) One (1) electric vapor degreaser, identified as VD1, using LEKSOL AL cleaning solution, consisting of two (2) chambers, a boil sump chamber, with a maximum capacity of 38.6 gallons, and a ultrasonic sump chamber, with a maximum capacity of 35.3 gallons, constructed in 2006.

Under 40 CFR 63, Subpart WWWWWW, emission units (e)(1), (e)(3), (f) through (j) listed above are considered affected facilities. [40 CFR 63, Subpart WWWWWW]

Under 40 CFR 63, Subpart HHHHHH emission units (a), (b), and (c) listed above are considered affected facilities. [40 CFR 63, Subpart HHHHHH]

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities:

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including:

(1) One (1) natural gas-fired boiler, identified as B-1, with a maximum capacity of 2.07 million British thermal units per hour, constructed in 1997. [326 IAC 6-2-4]

(2) One (1) natural gas-fired makeup air unit, identified as M-3, with a maximum capacity of 1.4 million British thermal units per hour, approved for construction in 2013.

(3) Two (2) space heaters, identified as N-1 and N-2, each with a maximum capacity of 0.175 million British thermal units per hour.

(4) One (1) space heater, identified as BH3-06, with a maximum capacity of 0.225 million British thermal units (MMBTU) per hour, constructed in 2007.

(b) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 British thermal units per hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 British thermal units per hour, including one (1) emergency heating unit operating on liquid propane with a maximum capacity of 0.15 million British thermal units per hour.

(c) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons. Inorganic baths used for make-ups and temporary storage to facilitate changes and material handling.

(d) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.

(e) Closed loop heating and cooling systems.

(f) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1 percent by volume.

(g) Any operation using aqueous solutions containing less than 1 percent by weight of VOCs excluding HAPs.

(h) Paved roads and parking lots with public access. [326 IAC 6-4]

(i) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(j) Filter or coalescer media changeout.

(k) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(l) One (1) electric furnace, identified as K-5, with a maximum capacity of 0.5 cubic feet.

(m) One (1) ultrasonic cleaner, identified as I-1.

(n) One (1) electric spin dryer, identified as I-12.

(o) One (1) dip coating tank in the parts cleaning area, identified as J-12, used for applying oil to parts, with a maximum capacity of 68 gallons and 0.555 pounds of mineral spirits and oil per hour.

(p) Two (2) dip coating tanks at Conversion Coating Line #2, identified as C-9 and C-26, used for applying oil to parts, with maximum capacities of 5 and 7 gallons.

(q) Four (4) electric ovens, identified as H-1, I-9, I-10 and J-8, and three (3) air friction ovens, identified as I-11, K-4 and K-8.

(r) One (1) automated etch machine, identified as C-30, expected to be in operation by January 2003, including one (1) sulfuric acid tank, two (2) rinse/neutralization tanks, one (1) rust inhibitor tank, and one (1) alkaline tank.

(s) One (1) electric oven, identified as J-10, and (one) electric oven with inert atmosphere, identified as DO-07, constructed in 2007.

(t) Two (2) electric drying ovens, identified as DO-08 and DO-09, constructed in 2004 and 2006.

(u) One (1) wet scrubber, identified as SC-1, constructed in 2011, exhausting to stack SC-1.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, F141-25159-00090, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

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

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

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

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

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

B.4 Enforceability [326 IAC 2-8-6] [IC 13-17-12]

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

B.5 Severability [326 IAC 2-8-4(4)]

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

B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

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

B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

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

B.8 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

(a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:

(1) it contains a certification by an "authorized individual", as defined by 326 IAC 2-1.1-1(1), and

(2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

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

B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 of each year to:

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

(b) The annual compliance certification report 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) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]

(a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

(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.

The Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, 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.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

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

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

The Permittee shall implement the PMPs.

(c) 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. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) 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.12 Emergency Provisions [326 IAC 2-8-12]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, or Northern Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Northern Regional Office phone: (574) 245-4870; fax: (574) 245-4877.

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

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

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to F141-25159-00090 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(3) deleted.

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

B.14 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.16 Permit Renewal [326 IAC 2-8-3(h)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue

MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

(1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

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

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

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

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) and (c) without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any approval required by 326 IAC 2-8-11.1 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b)(1) and (c). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15(b)(1) and (c).

(b) Emission Trades [326 IAC 2-8-15(b)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(b).

(c) Alternative Operating Scenarios [326 IAC 2-8-15(c)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.

(d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.19 Source Modification Requirement [326 IAC 2-8-11.1]

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

B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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

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

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

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

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

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

B.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

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

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.22 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ no later than thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Failure to pay may result in administrative enforcement action or revocation of this permit.

(c) 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.23 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM) and greenhouse gases (GHGs), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(4) The potential to emit greenhouse gases (GHGs) from the entire source shall be limited to less than one hundred thousand (100,000) tons of CO_2 equivalent emissions (CO_2e) per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Opacity [326 IAC 5-1]

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

(a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

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

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

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

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

C.6 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

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

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

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

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

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

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

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

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

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality

100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

(g) Indiana Licensed Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

Testing Requirements [326 IAC 2-8-4(3)]

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

(a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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

Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

C.10 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or of initial start-up, whichever is later, to begin such monitoring. If due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance or the date of initial startup, whichever is later, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.11 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

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

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

Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

C.12 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.13 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

(a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;

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

(3) any necessary follow-up actions to return operation to normal or usual manner of operation.

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

(1) monitoring results;

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

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

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

(e) The Permittee shall record the reasonable response steps taken.

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.

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

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.15 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

(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. Support information includes the following:

(AA) All calibration and maintenance records.
(BB) All original strip chart recordings for continuous monitoring instrumentation.
(CC) Copies of all reports required by the FESOP.

Records of required monitoring information including the following:

(AA) The date, place, as defined in this permit, and time of sampling or measurements.
(BB) The dates analyses were performed.
(CC) The company or entity that performed the analyses.
(DD) The analytical techniques or methods used.
(EE) The results of such analyses.
(FF) The operating conditions as existing at the time of sampling or measurement.

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, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.16 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B - Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(b) The address for report submittal is:

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

(c) 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.

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

Stratospheric Ozone Protection

C.17 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with applicable standards for recycling and emissions reduction.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) Two (2) paint booths, identified as K-1 and K-2, with a maximum capacity of 27.0 pounds of coatings per hour, equipped with air atomization spray applicators, using dry filters for overspray control, constructed in 1977 and 1978, and exhausting to Ducts G and F.

(b) One paint booth, identified as K-6, equipped with electrostatic airless guns, using dry filters for overspray control, constructed in 2002 and exhausting to Duct E.

(c) One (1) paint booth, identified as K-7, equipped with high volume, low pressure (HVLP) spray guns, with a maximum capacity of 200 metal parts per day, using dry filters for overspray control, constructed in 2004, and exhausting to wall vent AB.

(d) One (1) centrifuge dip and spin dry film coating machine, also referred to as bulk dip and spin parts coater, identified as L-2, with a maximum capacity of 5 gallons, constructed in January 1997, and exhausting to Ducts J and E.

(e) One (1) Passivation Line, also described as Conversion Coating Line #3, exhausting to Stacks B and V, consisting of the following:

(1) Seven (7) passivation tanks, identified as C-17 through C-23, with a maximum capacity of 43 gallons each.

(2) One (1) cold cleaner immersion tank, using Isopropyl Alcohol, identified as C-24, with a maximum capacity of 8 gallons, and constructed prior to February 1993. [326 IAC 8-3-2] [326 IAC 8-3-5].

(3) Two (2) passivation tanks, identified as C-27 and C-28, with a maximum capacity of 34 gallons.

(4) One (1) cold cleaner tank, using isopropyl alcohol, identified as C-29, with a maximum capacity of 8 gallons, constructed in 2000, and operating in series with C-24. [326 IAC 8-3-2] [326 IAC 8-3-5].

(5) One (1) non-air sparged nitric and hydrofluoric acid tank, identified as C-35, constructed in 2011, with a maximum capacity of 42 gallons.

(l) Six (6) portable cold cleaner degreasers, using methyl ethyl ketone (MEK), identified as I-3 through I-8, with a maximum capacity of 13 gallons each, and constructed prior to March 1993.

(m) One (1) immersion solvent cleaning tank, using methyl ethyl ketone (MEK), identified as I-13, with a maximum capacity of 8 gallons, and constructed in 2001.

(n) One (1) portable immersion cold cleaner tank, using isopropyl alcohol, identified as I-14, with a maximum capacity of 6 gallons, and constructed in 2000. [326 IAC 8-3-2] [326 IAC 8-3-5].

(p) One (1) electric vapor degreaser, identified as VD1, using LEKSOL AL cleaning solution, consisting of two (2) chambers, a boil sump chamber, with a maximum capacity of 38.6 gallons, and a ultrasonic sump chamber, with a maximum capacity of 35.3 gallons, constructed in 2006.

Insignificant Activities

(o) One (1) dip coating tank in the parts cleaning area, identified as J-12, used for applying oil to parts, capacity: 68 gallons, using no more than 0.555 pounds of mineral spirits and oil per hour.

(p) Two (2) dip coating tanks at Conversion Coating Line #2, identified as C-9 and C-26, used for applying oil to parts, capacity: 5 and 7 gallons.

Under 40 CFR 63, Subpart WWWWWW, emission units (e)(1), (e)(3), (f) through (j) listed above are considered affected facilities. [40 CFR 63, Subpart WWWWWW]

Under 40 CFR 63, Subpart HHHHHH emission units (a), (b), and (c) listed above are considered affected facilities. [40 CFR 63, Subpart HHHHHH]

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

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 2-8-4] [326 IAC 8-6-2] [326 IAC 8-2]

The amount of VOC delivered to the applicators at the total of the four (4) paint booths (K-1, K-2, K-6 and K-7) and used at the one (1) centrifuge dip and spin dry film coating machine (L-2), one (1) cold cleaner immersion tank (C-24), six (6) portable cold cleaner degreasers (I-3 through I-8), one (1) cold cleaner tank (C-29), one (1) immersion solvent cleaning tank (I-13), one (1) portable immersion cold cleaner tank (I-14), three (3) insignificant dip coating tanks (J-12, C-9 and C-26), and one (1) vapor degreaser (VD1) shall be less than 80.0 tons per twelve (12) consecutive month period, total, with compliance determined at the end of each month. The amount of VOC in waste shipped offsite may be deducted from the reported monthly VOC input. Compliance with this limit will limit the source-wide potential to emit VOC to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-7 do not apply. Compliance with this limit will also satisfy the requirements of 326 IAC 8-6, Organic Solvent Emission Limitations.

D.1.2 Hazardous Air Pollutants (HAPs) [326 IAC 2-8-4]

(a) The amount of any single HAP delivered to the coating applicators at the four (4) paint booths (K-1, K-2, K-6 and K-7) and used at the one (1) centrifuge dip and spin dry film coating machine (L-2), one (1) cold cleaner immersion tank (C-24), one (1) cold cleaner tank (C-29), one (1) portable immersion cold cleaner tank (I-14), three (3) insignificant dip coating tanks (J-12, C-9 and C-26), and one (1) vapor degreaser (VD1) shall be less than 8.0 tons per twelve (12) consecutive month period, total, with compliance determined at the end of each month. Compliance with this limit will limit the source-wide single HAP emisisons to less than 10 tons per year and render the requirements of 326 IAC 2-7 not applicable.

(b) The amount of total HAPs delivered to the coating applicators in the four (4) paint booths (K-1, K-2, K-6 and K-7) and used at the one (1) centrifuge dip and spin dry film coating machine (L-2), one (1) cold cleaner immersion tank (C-24), one (1) cold cleaner tank (C-29), one (1) immersion solvent cleaning tank (I-13), three (3) insignificant dip coating tanks (J-12, C-9 and C-26), and one (1) vapor degreaser (VD1) shall be less than 20.0 tons per twelve (12) consecutive month period, total, with compliance determined at the end of each month. Compliance with this limit will limit the source-wide combined HAP emisisons to less than 25 tons per year and render the requirements of 326 IAC 2-7 not applicable.

D.1.3 Volatile Organic Compounds (VOC) Limitations [326 IAC 8-2-9]

(a) The VOC delivered to the applicators at each of the four (4) paint booths, identified as K-1, K-2, K-6 and K-7, shall be less than 15 pounds per day for each booth.

(b) The VOC used at the one (1) centrifuge dip and spin dry film coating machine, identified as L-2, shall be less than 15 pounds per day.

Compliance with these limits renders the requirements of 326 IAC 8-2-9 (Miscellaneous metal coating operations) not applicable for these facilities.

D.1.4 Volatile Organic Compound (VOC) [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9, the Permittee shall not allow the discharge into the atmosphere VOC in excess of three (3.0) pounds of VOC per gallon of coating, excluding water, delivered to the dip coating tanks, identified as J-12, C-9 and C-26.

D.1.5 Volatile Organic Compounds (VOC) [326 IAC 8-3-2][326 IAC 8-3-5]

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of the one (1) cold cleaner immersion tank (C-24), six (6) portable cold cleaner degreasers (I-3 through I-8), one (1) cold cleaner tank (C-29), one (1) immersion solvent cleaning tank (I-13), and one (1) portable immersion cold cleaner tank (I-14) in St. Joseph County shall:

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

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

(B) The solvent is agitated; or

(C) The solvent is heated.

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

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

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

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

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

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

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

(b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of the one (1) cold cleaner immersion tank (C-24), six (6) portable cold cleaner degreasers (I-3 through I-8), one (1) cold cleaner tank (C-29), one (1) immersion solvent cleaning tanks (I-13), and one (1) portable immersion cold cleaner tank (I-14) shall:

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

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

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

(c) The owner or operator of the one (1) cold cleaner immersion tank (C-24), six (6) portable cold cleaner degreasers (I-3 through I-8), one (1) cold cleaner tank (C-29), one (1) immersion solvent cleaning tank (I-13), and one (1) portable immersion cold cleaner tank (I-14) shall also comply with 326 IAC 8-3-2. Compliance with 326 IAC 8-3-5 shall also ensure compliance with 326 IAC 8-3-2.

D.1.6 Particulate Matter Emission Limitations [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a), the particulate matter emissions from the paint booths (K-1, K-2, K-6 and K-7) shall not exceed 0.03 grains per dry standard cubic foot, each.

Particulate from the four (4) paint booths, identified as K-1, K-2, K-6 and K-7, shall be controlled by the dry filters, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

D.1.7 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for four (4) paint booths (K-1, K-2, K-6 and K-7), one (1) centrifuge dip and spin dry film coating machine (L-2), one (1) cold cleaner immersion tank (C-24), six (6) portable cold cleaner degreasers (I-3 through I-8), one (1) cold cleaner tank (C-29), one (1) immersion solvent cleaning tank (I-13), one (1) portable immersion cold cleaner tank (I-14), one (1) vapor degreaser (VD1) and any control devices. Section B – Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.1.8 Volatile Organic Compounds (VOC)

(a) Compliance with the VOC usage limitations contained in Conditions D.1.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method

24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

(b) If the amount of VOC in the waste shipped offsite for recycling or disposal is deducted from the monthly VOC input reported, the Permittee shall determine the VOC content of the waste shipped offsite using one or a combination of the following methods:

(1) On-Site Sampling

(A) VOC content shall be determined pursuant to 326 IAC 8-1-4(a)(3) by EPA Reference Method 24 and the sampling procedures in 326 IAC 8-1-4 or other methods as approved by the Commissioner.

(B) A representative sample of the VOC containing waste to be shipped offsite shall be analyzed within 90 days of the issuance of this permit 141-25159-00090.

(C) If multiple cleanup solvent waste streams are collected and drummed separately, a sample shall be collected and analyzed from each solvent waste stream.

(D) A new representative sample shall be collected and analyzed whenever a change or changes occur(s) that could result in a cumulative 10% or more decrease in the VOC content of the VOC containing waste. Such change could include, but is not limited to, the following:

(i) A change in coating selection or formulation, as supplied or as applied, or a change in solvent selection or formulation, or

(ii) An operational change in the coating application or cleanup operations.

The new VOC content shall be used in calculating the amount of VOC shipped offsite, starting with the date that the change occurred. The sample shall be collected and analyzed within 30 days of the change.

(2) Certified Waste Report: The VOC reported by analysis of an offsite waste processor may be used, provided the report certifies the amount of VOC in the waste.

(3) Minimum Assumed VOC content: The VOC content of the waste shipped offsite may be assumed to be equal to the VOC content of the material with the lowest VOC content that could be present in the waste, as determined using the as supplied" and "as applied" VOC data sheets, for each month.

(c) IDEM reserves the right to request a representative sample of the VOC containing waste stream and conduct an analysis for VOC content.

(d) Compliance with the VOC input limitations contained in Condition D.1.1 shall be demonstrated within 30 days of the end of each month. This shall be based on the total volatile organic compound input for the previous month, minus the amount VOC in the waste shipped out for recycling or disposal, and adding it to previous 11 months total VOC input, minus the amount VOC in the waste shipped out for recycling or disposal, so as to arrive at VOC input for the most recent twelve (12) consecutive month period.

(e) The VOC input for a month shall be calculated using the following equation:

$$\text{VOC}\,input = \text{SCL} - \text{SR}$$

Where:

SCL = The total amount of VOC, in tons, delivered to the coating applicators, including coatings, dilution solvents, and cleaning solvents, at the coating booths; and

SR = The total amount of VOC, in tons, shipped out for either recycling or disposal, including coatings, dilution solvents, and cleaning solvents, from the coating booths.

D.1.9 Volatile Organic Compounds and Hazardous Air Pollutant [326 IAC 8-1-2] [326 IAC 8-1-4]

Compliance with the HAP limitations contained in D.1.2 and compliance with the VOC content and usage limitations contained in Condition D.1.3 and D.1.4 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

D.1.10 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the dry filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the four paint booth stacks (Ducts G, F, E and AB) while one or more of the booths are in operation. If a condition exists which should result in a response step, the Permittee shall take reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stacks (Ducts G, F, E and AB) and the presence of overspray on the nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.1.11 Record Keeping Requirement

(a) To document the compliance status with Condition D.1.1 the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.1, and to document the quantity of any VOC shipped offsite and deducted from total reported VOC usage. Records necessary to demonstrate compliance shall be available no later than 30 days of the end of each compliance period.

(1) The VOC content of each coating material and solvent used.

(2) The amount of coating material and solvent used on a monthly basis.

(A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.

(3) If the amount of VOC in waste material is being deducted from the VOC input as allowed in paragraph (b) of Condition D.1.8, then the following records shall be maintained:

(A) The amount of VOC containing waste shipped out to be recycled or disposed each month. If multiple cleanup solvent waste streams are collected and drummed separately, the amount shipped out shall be recorded separately for each used solvent stream.

(B) The VOC content of the waste and all records necessary to verify the amount and VOC content of the VOC containing waste shipped out for recycling or disposal.

(C) The weight of VOC input, minus the weight of VOC shipped out to be recycled or disposed, for each compliance period.

(4) The total VOC usage for each month; and

(5) The total VOC usage for each compliance period.

(b) To document the compliance status with Conditions D.1.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the HAP content and usage limits established in Conditions D.1.2

(1) The HAP content of each coating material and solvent used.

(2) The amount of coating material and solvent used on monthly basis.

(A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.

(3) The cleanup solvent usage for each month.

(4) The total single and combined HAP usage for each month.

(5) The total single and combined HAP usage for each compliance period.

(c) To document the compliance status with Condition D.1.3, the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limits established in Condition D.1.3.

(1) The VOC content of each coating material and solvent used less water.

(2) The amount of coating material and solvent used on a daily basis.

(A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(3) The total VOC usage for each day.

(d) To document the compliance status with Condition D.1.4, the Permittee shall maintain records of the VOC content of each coating material and solvent used less water. Records shall include “as supplied” and “as applied” VOC data sheets and/or material safety data sheets (MSDS) necessary to verify the type of material used and VOC content. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

(e) To document the compliance status with Condition D.1.10, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections.

(f) Section C - General Record Keeping Requirements contains the Permittee’s obligations with regard to the records required by this condition.

D.1.12 Reporting Requirements

A quarterly summary of the information to document the compliance status with Conditions D.1.1, D.1.2, D.1.3 and D.1.4 shall be submitted using the reporting forms located at the end of this permit, or their equivalent, no later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee’s obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 FACILITY OPERATION CONDITIONS

Emissions Unit Description:

(o) One (1) small cabinet blaster, identified as blaster 4 (B4), with a maximum abrasive usage capacity of 0.5 pounds per hour, using glass, plastic bead or aluminum oxide or an equivalent media, equipped with a small baghouse dust collector and exhausting indoors.

(p) One (1) large dual cabinet blaster, identified as blaster 2 (B2), with a maximum abrasive usage capacity of 0.67 pounds per hour, using aluminum oxide or an equivalent media, equipped with a small baghouse dust collector and exhausting indoors.

(q) One (1) small cabinet blaster, identified as blaster 5 (B5), with a maximum abrasive usage capacity of 0.5 pounds per hour, using glass, plastic bead or aluminum oxide or an equivalent media, equipped with a small baghouse dust collector and exhausting indoors.

(r) One (1) wet blaster, identified as blaster 3 (B3), with a maximum abrasive usage capacity of 0.0625 pounds per hour, using vermiculite or an equivalent media, and exhausting indoors.

(s) One (1) tumble blaster, identified as blaster 1 (B1), with a maximum abrasive usage capacity of 0.25 pounds per hour, using aluminum oxide or an equivalent media, equipped with a small baghouse dust collector and exhausting indoors.

(t) One (1) pencil blaster, identified as PB-1, constructed in 2011, with a maximum abrasive usage capacity of 0.5 pounds per hour, using aluminum oxide or an equivalent media, exhausting indoors.

(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 2-8-4(1)]

D.2.1 Particulate Matter Emission Limitations [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a), the particulate matter emissions from the blasters (B1 through B5 and PB-1) shall not exceed 0.03 grains per dry standard cubic foot, each.

SECTION D.3 FACILITY OPERATION CONDITIONS

Emissions Unit Description:

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including:

(1) One (1) boiler, identified as B-1, constructed in 1997, fired by natural gas, capacity: 2.07 million British thermal units per hour. [326 IAC 6-2-4]

(2) One (1) natural gas-fired makeup air unit, identified as M-3, with a maximum capacity of 1.4 million British thermal units per hour, approved for construction in 2013.

(3) Two (2) space heaters, identified as N-1 and N-2, each with a maximum capacity of 0.175 million British thermal units per hour.

(4) One (1) space heater, identified as BH3-06, with a maximum capacity of 0.225 million British thermal units (MMBTU) per hour, constructed in 2007.

(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 2-8-4(1)]

D.3.1 Particulate [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4(a) (Particulate Emission Limitations for Sources of Indirect Heating), the particulate emissions from the boiler, identified as B-1, shall be limited to 0.6 pounds per million British thermal unit heat input.

D.3.2 Particulate Matter Emission Limitations [326 IAC 6.5-1-2]

(a) Pursuant to 326 IAC 6.5-1-2(b)(3), the particulate matter emissions from the boiler (B-1) shall not exceed 0.01 grains per dry standard cubic foot.

(b) Pursuant to 326 IAC 6.5-1-2(a), the particulate matter emissions from the makeup air unit, and space heaters (M-3, N-1, N-2, and BH3-06) shall not exceed 0.03 grains per dry standard cubic foot, each.

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(e) One (1) Passivation Line, also described as Conversion Coating Line #3, exhausting to Stacks B and V, consisting of the following:

(1) Seven (7) passivation tanks, identified as C-17 through C-23, with a maximum capacity of 43 gallons each.

(2) One (1) cold cleaner immersion tank, using Isopropyl Alcohol, identified as C-24, with a maximum capacity of 8 gallons, and constructed prior to February 1993. [326 IAC 8-3-2] [326 IAC 8-3-5].

(3) Two (2) passivation tanks, identified as C-27 and C-28, with a maximum capacity of 34 gallons.

(4) One (1) cold cleaner tank, using isopropyl alcohol, identified as C-29, with a maximum capacity of 8 gallons, constructed in 2000, and operating in series with C-24. [326 IAC 8-3-2] [326 IAC 8-3-5].

(5) One (1) non-air sparged nitric and hydrofluoric acid tank, identified as C-35, constructed in 2011, with a maximum capacity of 42 gallons.

(f) Conversion Coating Line #1, which is a phosphate coating line and a manual etch line with six (6) tanks, identified as C-12, C-13, C-14, C-15, C-16 and C-31, modified in 2007, and exhausting to Stack W.

(g) Conversion Coating Line #2, which is a phosphate coating line with eleven (11) tanks, identified as C-2 through C-8, C-25, C-32, C-33 and C-34, modified in 2007, and exhausting to Ducts T, U and V.

(h) Conversion Coating Line #4, which is a phosphate coating line with nine (9) tanks, identified as F-1 through F-9, exhausting to Stack A, and with two (2) tanks, identified as F-11 and F-12, modified in 2007, and exhausting to Stacks Z and AA.

(i) Plating Line #1, for electroless nickel plating, with two (2) prep tank, identified as E-1 and F-10, modified in 2007, and exhausting to Stack A, with nine (9) plating tanks, identified as E-2 through E-8 and E-29, exhausting to Stack D, one (1) plating tank, identified as E-21, exhausting to Stacks Z and AA.

(j) Plating Line #2, for electroless nickel plating, with twenty-one (21) tanks, identified as E-9 through E-13, E-15 through E-20, E-22 through E-27, E-28, E-30, E-31, and E-32, modified in 2007, exhausting to Stack C.

Under 40 CFR 63, Subpart WWWWWW, emission units (e)(1), (e)(3), (f) through (j) listed above are considered affected facilities. [40 CFR 63, Subpart WWWWWW]

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [40 CFR 63]

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

Pursuant to 40 CFR 63.460(b), the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, Appendix C of 40 CFR Part 63, Subpart WWWWWW in accordance with the schedule in 40 CFR 63 Subpart WWWWWW.

E.1.2 NESHAP Subpart WWWWWW Requirements [40 CFR Part 63, Subpart WWWWWW]

The Permittee which operates a stationary plating and polishing source shall comply with the following provisions of 40 CFR Part 63, Subpart WWWWWW (included as Attachment A of this permit):

(1) 40 CFR 63.11504(a)(1)(ii)
(2) 40 CFR 63.11504(a)(1)(iii)
(3) 40 CFR 63.11504(a)(2)
(4) 40 CFR 63.11504(a)(3)
(5) 40 CFR 63.11505(a)(1)
(6) 40 CFR 63.11505(b)
(7) 40 CFR 63.11506(a)
(8) 40 CFR 63.11507(b)
(9) 40 CFR 63.11507(g)
(10) 40 CFR 63.11508(a)
(11) 40 CFR 63.11508(b)
(12) 40 CFR 63.11508(c)(5)
(13) 40 CFR 63.11508(c)(6)
(14) 40 CFR 63.11508(d)(1)
(15) 40 CFR 63.11508(d)(2)
(16) 40 CFR 63.11508(d)(5)
(17) 40 CFR 63.11508(g)
(18) 40 CFR 63.11509(a)(1)
(19) 40 CFR 63.11509(a)(2)
(20) 40 CFR 63.11509(a)(3)
(21) 40 CFR 63.11509(b)
(22) 40 CFR 63.11509(c)(3)
(23) 40 CFR 63.11509(c)(6)
(24) 40 CFR 63.11509(c)(7)
(25) 40 CFR 63.11509(d)
(26) 40 CFR 63.11509(e)
(27) 40 CFR 63.11509(f)
(28) 40 CFR 63.11510
(29) 40 CFR 63.11511
(30) 40 CFR 63.11512

SECTION E.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) Two (2) paint booths, identified as K-1 and K-2, with a maximum capacity of 27.0 pounds of coatings per hour, equipped with air atomization spray applicators, using dry filters for overspray control, constructed in 1977 and 1978, and exhausting to Ducts G and F.

(b) One paint booth, identified as K-6, equipped with electrostatic airless guns, using dry filters for overspray control, constructed in 2002 and exhausting to Duct E.

(c) One (1) paint booth, identified as K-7, equipped with high volume, low pressure (HVLP) spray guns, with a maximum capacity of 200 metal parts per day, using dry filters for overspray control, constructed in 2004, and exhausting to wall vent AB.

Under 40 CFR 63, Subpart HHHHHH emission units (a), (b), and (c) listed above are considered affected facilities. [40 CFR 63, Subpart HHHHHH]

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [40 CFR 63]

E.2.1 General Provisions Relating to NESHAP Subpart HHHHHH [326 IAC 20-1] [40 CFR Part 63, Subpart A]

Pursuant to 40 CFR 63.460(b), the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, Appendix C of 40 CFR Part 63, Subpart HHHHHH in accordance with the schedule in 40 CFR 63 Subpart HHHHHH.

E.2.2 NESHAP Subpart HHHHHH Requirements [40 CFR Part 63, Subpart HHHHHH]

The Permittee which operates miscellaneous surface coating operations shall comply with the following provisions of 40 CFR Part 63, Subpart HHHHHH (included as Attachment B of this permit):

(1) 40 CFR 63.11169(c)
(2) 40 CFR 63.11170(a)(3)
(3) 40 CFR 63.11170(b)
(4) 40 CFR 63.11171(a)
(5) 40 CFR 63.11171(b)
(6) 40 CFR 63.11171(e)
(7) 40 CFR 63.11172(b)
(8) 40 CFR 63.11173(e)
(9) 40 CFR 63.11173(f)
(10) 40 CFR 63.11173(g)(2)
(11) 40 CFR 63.11173(g)(3)
(12) 40 CFR 63.11174
(13) 40 CFR 63.11175(a) (1-7)
(14) 40 CFR 63.11175(b)(1-3)
(15) 40 CFR 63.11176(a)
(16) 40 CFR 63.11177(a)
(17) 40 CFR 63.11177(b)
(18) 40 CFR 63.11177(c)
(19) 40 CFR 63.11177(d)

(20) 40 CFR 63.11177(g)
(21) 40 CFR 63.11177(h)
(22) 40 CFR 63.11178
(23) 40 CFR 63.11179
(24) 40 CFR 63.11180

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
Source Address: 1302 West Sample Street, South Bend, Indiana 46619-3895
FESOP Permit No.: F141-25159-00090

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

Please check what document is being certified:

- ☐ Annual Compliance Certification Letter
- ☐ Test Result (specify)_____
- ☐ Report (specify)_____
- ☐ Notification (specify)_____
- ☐ Affidavit (specify)_____
- ☐ Other (specify)_____

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

Signature:
Printed Name:
Title/Position:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: (317) 233-0178
Fax: (317) 233-6865

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) EMERGENCY OCCURRENCE REPORT

Source Name: Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
Source Address: 1302 West Sample Street, South Bend, Indiana 46619-3895
FESOP Permit No.: F141-25159-00090

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

☐ This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by:_____

Title / Position:_____

Date:_____

Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FESOP Monthly Report

Source Name: Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
Source Address: 1302 West Sample Street, South Bend, Indiana 46619-3895
FESOP Permit No.: F141-25159-00090
Facility: One (1) paint booth, identified as K-1
Parameter: VOC usage
Limit: Less than 15 pounds per day

Months: _____ Year: _____

Day	VOC usage (lbs)	Day	VOC usage (lbs)
1		17	
2		18	
3		19	
4		20	
5		21	
6		22	
7		23	
8		24	
9		25	
10		26	
11		27	
12		28	
13		29	
14		30	
15		31	
16		No. of deviations	

☐ No deviation occurred in this month.

☐ Deviation/s occurred in this month.
Deviation has been reported on_____

Submitted by: _____
Title / Position: _____
Signature:_____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FESOP Monthly Report

Source Name: Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
Source Address: 1302 West Sample Street, South Bend, Indiana 46619-3895
FESOP Permit No.: F141-25159-00090
Facility: One (1) paint booth, identified as K-2
Parameter: VOC usage
Limit: Less than 15 pounds per day

Months: _____ Year: _____

Day	VOC usage (lbs)	Day	VOC usage (lbs)
1		17	
2		18	
3		19	
4		20	
5		21	
6		22	
7		23	
8		24	
9		25	
10		26	
11		27	
12		28	
13		29	
14		30	
15		31	
16		No. of deviations	

☐ No deviation occurred in this month.

☐ Deviation/s occurred in this month.
Deviation has been reported on_____

Submitted by: _____
Title / Position: _____
Signature:_____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FESOP Monthly Report

Source Name: Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
Source Address: 1302 West Sample Street, South Bend, Indiana 46619-3895
FESOP Permit No.: F141-25159-00090
Facility: One (1) paint booth, identified as K-6
Parameter: VOC usage
Limit: Less than 15 pounds per day

Months: _____ Year: _____

Day	VOC usage (lbs)	Day	VOC usage (lbs)
1		17	
2		18	
3		19	
4		20	
5		21	
6		22	
7		23	
8		24	
9		25	
10		26	
11		27	
12		28	
13		29	
14		30	
15		31	
16		No. of deviations	

☐ No deviation occurred in this month.

☐ Deviation/s occurred in this month.
Deviation has been reported on_____

Submitted by: _____
Title / Position: _____
Signature:_____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FESOP Monthly Report

Source Name: Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
Source Address: 1302 West Sample Street, South Bend, Indiana 46619-3895
FESOP Permit No.: F141-25159-00090
Facility: One (1) paint booth, identified as K-7
Parameter: VOC usage
Limit: Less than 15 pounds per day

Months: _____ Year: _____

Day	VOC usage (lbs)	Day	VOC usage (lbs)
1		17	
2		18	
3		19	
4		20	
5		21	
6		22	
7		23	
8		24	
9		25	
10		26	
11		27	
12		28	
13		29	
14		30	
15		31	
16		No. of deviations	

☐ No deviation occurred in this month.

☐ Deviation/s occurred in this month.
Deviation has been reported on_____

Submitted by: _____
Title / Position: _____
Signature:_____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FESOP Monthly Report

Source Name: Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
Source Address: 1302 West Sample Street, South Bend, Indiana 46619-3895
FESOP Permit No.: F141-25159-00090
Facility: One (1) centrifuge dip and spin dry film coating machine, identified as L-2
Parameter: VOC usage
Limit: Less than 15 pounds per day

Months: _____ Year: _____

Day	VOC usage (lbs)	Day	VOC usage (lbs)
1		17	
2		18	
3		19	
4		20	
5		21	
6		22	
7		23	
8		24	
9		25	
10		26	
11		27	
12		28	
13		29	
14		30	
15		31	
16		No. of deviations	

☐ No deviation occurred in this month.

☐ Deviation/s occurred in this month.
Deviation has been reported on_____

Submitted by: _____
Title / Position: _____
Signature:_____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FESOP Quarterly Report

Source Name:	Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
Source Address:	1302 West Sample Street, South Bend, Indiana 46619-3895
FESOP Permit No.:	F141-25159-00090
Facility:	Four (4) paint booths (K-1, K-2, K-6 and K-7), one (1) centrifuge dip and spin dry film coating machine (L-2), one (1) cold cleaner immersion tank (C-24), six (6) portable cold cleaner degreasers (I-3 through I-8), one (1) cold cleaner tank (C-29), one (1) immersion solvent cleaning tank (I-13), one (1) portable immersion cold cleaner tank (I-14), three (3) insignificant dip coating tanks (J-12, C-9 and C-26) and one (1) vapor degreaser (VD1).
Parameter:	VOC delivered to the applicators at the four (4) paint booths (K-1, K-2, K-6 and K-7) plus VOC usage at the other facilities
Limit:	Less than 80.0 tons per twelve (12) consecutive month period, total, with compliance determined at the end of each month

YEAR:_____

Month	VOC Usage (tons)	VOC Usage (tons)	VOC Usage (tons)
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:_____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FESOP Quarterly Report

Source Name:	Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
Source Address:	1302 West Sample Street, South Bend, Indiana 46619-3895
FESOP Permit No.:	F141-25159-00090
Facility:	Four (4) paint booths (K-1, K-2, K-6 and K-7), one (1) centrifuge dip and spin dry film coating machine (L-2), one (1) cold cleaner immersion tank (C-24), one (1) cold cleaner tank (C-29), one (1) portable immersion cold cleaner tank (I-14), three (3) insignificant dip coating tanks (J-12, C-9 and C-26) and one (1) vapor degreaser (VD1).
Parameter:	Any single HAP usage (Individual HAP delivered to the applicators at the four (4) paint booths (K-1, K-2, K-6 and K-7) plus individual HAP usage at the other facilities)
Limit:	Less than 8.0 tons per twelve (12) consecutive month period, total, with compliance determined at the end of each month

YEAR:_____

Month	Highest Single HAP Usage (tons)	Highest Single HAP Usage (tons)	Highest Single HAP Usage (tons)
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:_____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FESOP Quarterly Report

Source Name:	Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
Source Address:	1302 West Sample Street, South Bend, Indiana 46619-3895
FESOP Permit No.:	F141-25159-00090
Facility:	Four (4) paint booths (K-1, K-2, K-6 and K-7), one (1) centrifuge dip and spin dry film coating machine (L-2), one (1) cold cleaner immersion tank (C-24), one (1) cold cleaner tank (C-29), one (1) portable immersion cold cleaner tank (I-14), three (3) insignificant dip coating tanks (J-12, C-9 and C-26) and one (1) vapor degreaser (VD1).
Parameter:	Total HAP usage (Combination of HAPs delivered to the applicators at the four (4) paint booths (K-1, K-2, K-6 and K-7) plus total HAPs usage at the other facilities)
Limit:	Less than 20.0 tons per twelve (12) consecutive month period, total, with compliance determined at the end of each month

YEAR:_____

Month	Total HAP Usage (tons)	Total HAP Usage (tons)	Total HAP Usage (tons)
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:_____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
Source Address: 1302 West Sample Street, South Bend, Indiana 46619-3895
FESOP Permit No.: F141-25159-00090

Months: _____ **to** _____ **Year:** _____

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B - Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C - General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".
☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.
☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed by:_____

Title / Position:_____

Date:_____

Phone: _____

Federally Enforceable State Operating Permit Renewal
OFFICE OF AIR QUALITY

Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
South Bend, Indiana

Attachment A

Title 40: Protection of Environment

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

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

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

Source: 73 FR 37741, July 1, 2008, unless otherwise noted.

Applicability and Compliance Dates

§ 63.11504 Am I subject to this subpart?

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

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

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

(ii) Electroless or non-eletrolytic plating.

(iii) Other non-electrolytic metal coating processes, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating; and thermal spraying.

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

(v) Electroforming.

(vi) Electropolishing.

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

(3) Your plating and polishing facility uses or has emissions of compounds of one or more plating and polishing metal HAP, which means any compound of any of the following metals: cadmium, chromium, lead, manganese, and nickel, as defined in §63.11511, “What definitions apply to this subpart?” With the exception of lead, plating and polishing metal HAP also include any of these metals in the elemental form.

(b) [Reserved]

§ 63.11505 What parts of my plant does this subpart cover?

(a) This subpart applies to each new or existing affected source, as specified in paragraphs (a)(1) through (3) of this section, at all times. A new source is defined in §63.11511, “What definitions apply to this subpart?”

(1) Each tank that contains one or more of the plating and polishing metal HAP, as defined in §63.11511, “What definitions apply to this subpart?”, and is used for non-chromium electroplating; electroforming; electropolishing; electroless plating or other non-electrolytic metal coating operations, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating.

(2) Each thermal spraying operation that applies one or more of the plating and polishing metal HAP, as defined in §63.11511, “What definitions apply to this subpart?”

(3) Each dry mechanical polishing operation that emits one or more of the plating and polishing metal HAP, as defined in §63.11511, "What definitions apply to this subpart?"

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

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

(d) This subpart does not apply to any of the process units or operations described in paragraphs (d)(1) through (6) of this section.

(1) Process units that are subject to the requirements of 40 CFR part 63, subpart N (National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks).

(2) Research and development process units, as defined in §63.11511, "What definitions apply to this subpart?"

(3) Process units that are used strictly for educational purposes.

(4) Thermal spraying conducted to repair surfaces.

(5) Dry mechanical polishing conducted to restore the original finish to a surface to apply to restoring the original finish.

(6) Any plating or polishing process that does not use any material that contains cadmium, chromium, lead, or nickel in amounts of 0.1 percent or more by weight, or that contains manganese in amounts of 1.0 percent or more by weight, as reported on the Material Safety Data Sheet for the material.

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

§ 63.11506 What are my compliance dates?

(a) If you own or operate an existing affected source, you must achieve compliance with the applicable provisions of this subpart no later than July 1, 2010.

(b) If you own or operate a new affected source for which the initial startup date is on or before July 1, 2008, you must achieve compliance with the provisions of this subpart no later than July 1, 2008.

(c) If you own or operate a new affected source for which the initial startup date is after July 1, 2008, you must achieve compliance with the provisions of this subpart upon initial startup of your affected source.

Standards and Compliance Requirements

§ 63.11507 What are my standards and management practices?

(a) If you own or operate an affected new or existing non-cyanide electroplating, electroforming, or electropolishing tank (hereafter referred to as an "electrolytic" process tank, as defined in §63.11511, "What definitions apply to this subpart?") that contains one or more of the plating and polishing metal HAP and operates at a pH of less than 12, you must comply with the requirements in paragraph (a)(1), (2), or (3) of this section, and implement the applicable management practices in paragraph (g) of this section, as practicable.

(1) You must use a wetting agent/fume suppressant, as defined in §63.11511, “What definitions apply to this subpart?”, in the bath of the affected tank according to paragraphs (a)(1)(i) through (iii) of this section.

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

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

(iii) If a wetting agent/fume suppressant is included in the electrolytic process bath chemicals used in the affected tank according to the manufacturer's instructions, it is not necessary to add additional wetting agent/fume suppressants to the tank to comply with this rule.

(2) You must capture and exhaust emissions from the affected tank to any one of the following emission control devices: composite mesh pad, packed bed scrubber, or mesh pad mist eliminator, according to paragraphs (a)(2)(i) and (ii) of this section.

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

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

(3) You must cover the tank surface according to paragraph (a)(3)(i) or (ii) of this section.

(i) For batch electrolytic process tanks, as defined in §63.11511, “What definitions apply to this subpart?”, you must use a tank cover, as defined in §63.11511, over all of the effective surface area of the tank for at least 95 percent of the electrolytic process operating time.

(ii) For continuous electrolytic process tanks, as defined in §63.11511, “What definitions apply to this subpart?”, you must cover at least 75 percent of the surface of the tank, as defined in §63.11511, whenever the electrolytic process tank is in operation.

(b) If you own or operate an affected new or existing “flash” or short-term electroplating tank, as defined in §63.11511, “What definitions apply to this subpart?”, that uses or emits one or more of the plating and polishing metal HAP, you must comply with the requirements specified in paragraph (b)(1) or (b)(2), and implement the applicable management practices in paragraph (g) of this section, as practicable.

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

(2) You must use a tank cover, as defined in §63.11511, “What definitions apply to this subpart?”, for at least 95 percent of the plating time.

(c) If you own or operate an affected new or existing process tank that is used both for short-term electroplating and for electrolytic processing of longer duration (i.e., processing that does not meet the definition of short-term or flash electroplating) and contains one or more of the plating and polishing metal HAP, you must meet the requirements specified in paragraph (a) or (b) of this section, whichever apply to the process operation, and implement the applicable management practices in paragraph (g) of this section, as practicable.

(d) If you own or operate an affected new or existing electroplating tank that uses cyanide in the plating bath, operates at pH greater than or equal to 12, and contains one or more of the plating and polishing metal HAP, you must comply with the requirements in paragraphs (d)(1) and (2) of this section:

(1) You must measure and record the pH of the tank upon start-up. No additional pH measurements are required.

(2) You must implement the applicable management practices in paragraph (g) of this section, as practicable.

(e) If you own or operate an affected new or existing dry mechanical polishing equipment that emits one or more of the plating and polishing metal HAP, you must operate a capture system that captures particulate matter (PM) emissions from the dry mechanical polishing process and transports the emissions to a cartridge, fabric, or high efficiency particulate air (HEPA) filter, according to paragraphs (e)(1) and (2) of this section.

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

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

(f) If you own or operate an affected thermal spraying operation that applies one or more of the plating and polishing metal HAP, you must meet the applicable requirements specified in paragraphs (f)(1) through (3) of this section, and the applicable management practices in paragraph (g) of this section.

(1) For existing permanent thermal spraying operations, you must operate a capture system that collects PM emissions from the thermal spraying process and transports the emissions to a water curtain, fabric filter, or HEPA filter, according to paragraphs (f)(1)(i) and (ii) of this section.

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

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

(2) For new permanent thermal spraying operations, you must operate a capture system that collects PM emissions from the thermal spraying process and transports the emissions to a fabric or HEPA filter, according to paragraphs (f)(2)(i) and (ii) of this section.

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

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

(3) For temporary thermal spraying operations, as defined in §63.11511 “What definitions apply to this subpart?”, you must meet the applicable requirements specified in paragraphs (f)(3)(i) and (ii) of this section.

(i) You must document the amount of time the thermal spraying occurs each day, and where it is conducted.

(ii) You must implement the applicable management practices specified in paragraph (g) of this section, as practicable.

(g) If you own or operate an affected new or existing plating and polishing process unit that contains, applies, or emits one or more of the plating and polishing metal HAP, you must implement the applicable management practices in paragraphs (g)(1) through (12) of this section, as practicable.

(1) Minimize bath agitation when removing any parts processed in the tank, as practicable except when necessary to meet part quality requirements.

(2) Maximize the draining of bath solution back into the tank, as practicable, by extending drip time when removing parts from the tank; using drain boards (also known as drip shields); or withdrawing parts slowly from the tank, as practicable.

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

(4) Use tank covers, if already owned and available at the facility, whenever practicable.

(5) Minimize or reduce heating of process tanks, as practicable (e.g., when doing so would not interrupt production or adversely affect part quality).

(6) Perform regular repair, maintenance, and preventive maintenance of racks, barrels, and other equipment associated with affected sources, as practicable.

(7) Minimize bath contamination, such as through the prevention or quick recovery of dropped parts, use of distilled/de-ionized water, water filtration, pre-cleaning of parts to be plated, and thorough rinsing of pre-treated parts to be plated, as practicable.

(8) Maintain quality control of chemicals, and chemical and other bath ingredient concentrations in the tanks, as practicable.

(9) Perform general good housekeeping, such as regular sweeping or vacuuming, if needed, and periodic washdowns, as practicable.

(10) Minimize spills and overflow of tanks, as practicable.

(11) Use squeegee rolls in continuous or reel-to-reel plating tanks, as practicable.

(12) Perform regular inspections to identify leaks and other opportunities for pollution prevention.

§ 63.11508 What are my compliance requirements?

(a) If you own or operate an affected source, you must submit a Notification of Compliance Status in accordance with §63.11509(b) of “What are my notification, reporting, and recordkeeping requirements?”

(b) You must be in compliance with the applicable management practices and equipment standards in this subpart at all times.

(c) To demonstrate initial compliance, you must satisfy the requirements specified in paragraphs (c)(1) through (11) of this section.

(1) If you own or operate an affected electroplating, electroforming, or electropolishing tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(a), “What are my standards and management practices?”, and you use a wetting agent/fume suppressant to comply with this subpart, you must demonstrate initial compliance according to paragraphs (c)(1)(i) through (iv) of this section.

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

(ii) You must state in your Notification of Compliance Status that you add wetting agent/fume suppressant to the bath according to manufacturer's specifications and instructions.

(iii) You must implement the applicable management practices specified in §63.11507(g), “What are my standards and management practices?”, as practicable.

(iv) You must state in your Notification of Compliance Status that you have implemented the applicable management practices specified in §63.11507(g), “What are my standards and management practices?”, as practicable.

(2) If you own or operate an affected electroplating, electroforming, or electropolishing tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(a), “What are my standards and management practices?”, and you use a control system, as defined in §63.11511, “What definitions apply to this subpart?”, to comply with this subpart, you must demonstrate initial compliance according to paragraphs (c)(2)(i) through (v) of this section.

(i) You must install a control system designed to capture emissions from the affected tank and exhaust them to a composite mesh pad, packed bed scrubber, or mesh pad mist eliminator.

(ii) You must state in your Notification of Compliance Status that you have installed the control system according to the manufacturer's specifications and instructions.

(iii) You must implement the applicable management practices specified in §63.11507(g), “What are my standards and management practices?”, as practicable.

(iv) You must state in your Notification of Compliance Status that you have implemented the applicable management practices specified in §63.11507(g), “What are my standards and management practices?”, as practicable.

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

(3) If you own or operate an affected batch electrolytic process tank, as defined in §63.11511, “What definitions apply to this subpart?”, that contains one or more of the plating and polishing metal HAP and which is subject to the requirements in §63.11507(a), “What are my standards and management practices?”, and you use a tank cover, as defined in §63.11511, to comply with this subpart, you must demonstrate initial compliance according to paragraphs (c)(3)(i) through (iv) of this section.

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

(ii) You must state in your Notification of Compliance Status that you operate the tank with the cover in place at least 95 percent of the electrolytic process operating time.

(iii) You must implement the applicable management practices specified in §63.11507(g), “What are my standards and management practices?”, as practicable.

(iv) You must state in your Notification of Compliance Status that you have implemented the applicable management practices specified in §63.11507(g), “What are my standards and management practices?”, as practicable.

(4) If you own or operate an affected continuous electrolytic process tank, as defined in §63.11511, “What definitions apply to this subpart?”, that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(a), “What are my standards and management practices?”, and you cover the tank surface to comply with this subpart, you must demonstrate initial compliance according to paragraphs (c)(4)(i) through (iv) of this section.

(i) You must cover at least 75 percent of the surface area of the affected tank.

(ii) You must state in your Notification of Compliance Status that you operate the tank with the surface cover in place whenever the continuous electrolytic process is in operation.

(iii) You must implement the applicable management practices specified in §63.11507(g), “What are my standards and management practices?”, as practicable.

(iv) You must state in your Notification of Compliance Status that you have implemented the applicable management practices specified in §63.11507(g), “What are my standards and management practices?”, as practicable.

(5) If you own or operate an affected flash or short-term electroplating tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(b), “What are my standards and

management practices?", and you comply with this subpart by limiting the plating time of the affected tank, you must demonstrate initial compliance according to paragraphs (c)(5)(i) through (iii) of this section.

(i) You must state in your Notification of Compliance Status that you limit short-term or flash electroplating to no more than 1 cumulative hour per day, or 3 cumulative minutes per hour of plating time.

(ii) You must implement the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(iii) You must state in your Notification of Compliance Status that you have implemented the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(6) If you own or operate an affected flash or short-term electroplating tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(b), "What are my standards and management practices?", and you comply by operating the affected tank with a cover, you must demonstrate initial compliance according to paragraphs (c)(6)(i) through (iv) of this section.

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

(ii) You must state in your Notification of Compliance Status that you operate the tank with the cover in place at least 95 percent of the plating time.

(iii) You must implement the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(iv) You must state in your Notification of Compliance Status that you have implemented the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(7) If you own or operate an affected tank that contains one or more of the plating and polishing metal HAP, uses cyanide in the bath, and is subject to the management practices specified in §63.11507(d), "What are my standards and management practices?", you must demonstrate initial compliance according to paragraphs (c)(7)(i) through (iii) of this section.

(i) You must report in your Notification of Compliance Status the pH of the bath solution that was measured at start-up, according to the requirements of §63.11507(d)(1).

(ii) You must implement the applicable management practices specified in §63.11507(g), "What are my standards and management practices?", as practicable.

(iii) You must state in your Notification of Compliance Status that you have implemented the applicable management practices specified in §63.11490(g), "What are my standards and management practices?", as practicable.

(8) If you own or operate an affected dry mechanical polishing operation that emits one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(e), "What are my standards and management practices?", you must demonstrate initial compliance according to paragraphs (c)(8)(i) through (iii) of this section.

(i) You must install a control system that is designed to capture PM emissions from the polishing operation and exhaust them to a cartridge, fabric, or HEPA filter.

(ii) You must state in your Notification of Compliance Status that you have installed the control system according to the manufacturer's specifications and instructions.

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

(9) If you own or operate an existing affected permanent thermal spraying operation that applies one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(f)(1), “What are my standards and management practices?”, you must demonstrate initial compliance according to paragraphs (c)(9)(i) through (iii) of this section.

(i) You must install a control system that is designed to capture PM emissions from the thermal spraying operation and exhaust them to a water curtain, fabric filter, or HEPA filter.

(ii) You must state in your Notification of Compliance Status that you have installed and are operating the control system according to the manufacturer's specifications and instructions.

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

(10) If you own or operate a new affected permanent thermal spraying operation that applies one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(f)(2), “What are my standards and management practices?”, you must demonstrate initial compliance according to paragraphs (c)(10)(i) through (iii) of this section.

(i) You must install and operate a control system that is designed to capture PM emissions from the thermal spraying operation and exhaust them to a fabric or HEPA filter.

(ii) You must state in your Notification of Compliance Status that you have installed and operate the control system according to the manufacturer's specifications and instructions.

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

(11) If you own or operate an affected temporary thermal spraying operation that applies one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(f)(3), “What are my standards and management practices?”, you must demonstrate initial compliance according to paragraphs (c)(11)(i) and (ii) of this section.

(i) You must implement the applicable management practices specified in §63.11507(g), “What are my standards and management practices?”, as practicable.

(ii) You must state in your Notification of Compliance Status that you have implemented the applicable management practices specified in §63.11507(g), “What are my standards and management practices?”, as practicable.

(d) To demonstrate continuous compliance with the applicable management practices and equipment standards specified in this subpart, you must satisfy the requirements specified in paragraphs (d)(1) through (8) of this section.

(1) You must always operate and maintain your affected source, including air pollution control equipment.

(2) You must prepare an annual compliance certification according to the requirements specified in §63.11509(c), “Notification, Reporting, and Recordkeeping,” and keep it in a readily-accessible location for inspector review.

(3) If you own or operate an affected electroplating, electroforming, or electropolishing tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(a), “What are my standards and management practices?”, and you use a wetting agent/fume suppressant to comply with this subpart, you must demonstrate continuous compliance according to paragraphs (d)(3)(i) through (iii) of this section.

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

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

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

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

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

(4) If you own or operate an affected electroplating, electroforming, or electropolishing tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(a), “What are my standards and management practices?”, and you use a control system to comply with this subpart; an affected dry mechanical polishing operation that is subject to §63.11507(e); or an affected thermal spraying operation that is subject to §63.11507(f)(1) or (2), you must demonstrate continuous compliance according to paragraphs (d)(4)(i) through (v) of this section.

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

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

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

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

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

(5) If you own or operate an affected flash or short-term electroplating tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(b), “What are my standards and management practices?”, and you comply with this subpart by limiting the plating time for the affected tank, you must demonstrate continuous compliance according to paragraphs (d)(5)(i) through (iii) of this section.

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

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

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

(6) If you own or operate an affected batch electrolytic process tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements of §63.11507(a), “What are my standards and management practices?”, or a flash or short-term electroplating tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(b), and you comply by operating the affected tank with a cover, you must demonstrate continuous compliance according to paragraphs (d)(6)(i) through (iii) of this section.

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

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

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

(7) If you own or operate an affected continuous electrolytic process tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in §63.11507(a), “What are my standards and management practices?”, and you cover your tanks to comply with this subpart, you must demonstrate continuous compliance according to paragraphs (d)(7)(i) and (ii) of this section.

(i) You must operate the tank with at least 75 percent of the surface covered during all periods of electrolytic process operation.

(ii) You must state in your annual certification that you have operated the tank with 75 percent of the surface covered during all periods of electrolytic process operation.

(8) If you own or operate an affected tank or other operation that is subject to the management practices specified in §63.11507(g), “What are my standards and management practices?”, you must demonstrate continuous compliance according to paragraphs (d)(8)(i) and (ii) of this section.

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

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

§ 63.11509 What are my notification, reporting, and recordkeeping requirements?

(a) If you own or operate an affected source, as defined in §63.11505(a), “What parts of my plant does this subpart cover?”, you must submit an Initial Notification in accordance with paragraphs (a)(1) through (4) of this section by the dates specified.

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

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

(3) If you start up your affected source on or before July 1, 2008, you must submit an Initial Notification not later than 120 calendar days after July 1, 2008.

(4) If you start up your new affected source after July 1, 2008, you must submit an Initial Notification not later than 120 calendar days after you become subject to this subpart.

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

(1) The Notification of Compliance Status must be submitted before the close of business on the compliance date specified in §63.11506, “What are my compliance dates?”

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

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

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

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

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

(c) If you own or operate an affected source, you must prepare an annual certification of compliance report according to paragraphs (c)(1) through (7) of this section. These reports do not need to be submitted unless a deviation from the requirements of this subpart has occurred during the reporting year, in which case, the annual compliance report must be submitted along with the deviation report.

(1) If you own or operate an affected electroplating, electroforming, or electropolishing tank that is subject to the requirements in §63.11507(a)(1), “What are my standards and management practices?”, you must state in your annual compliance certification that you have added wetting agent/fume suppressant to the bath according to the manufacturer's specifications and instructions.

(2) If you own or operate any one of the affected sources listed in paragraphs (c)(2)(i) through (iii) of this section, you must state in your annual certification that you have operated and maintained the control system according to the manufacturer's specifications and instructions.

(i) Electroplating, electroforming, or electropolishing tank that is subject to the requirements in §63.11507(a), “What are my standards and management practices?”, and you use a control system to comply with this subpart;

(ii) Dry mechanical polishing operation that is subject to §63.11507(e); or

(iii) Permanent thermal spraying operation that is subject to §63.11507(f)(1) or (2).

(3) If you own or operate an affected flash or short-term electroplating tank that is subject to the requirements in §63.11507(b), “What are my standards and management practices?”, and you comply with this subpart by limiting the plating time of the affected tank, you must state in your annual compliance certification that you have limited short-term or flash electroplating to no more than 1 cumulative hour per day or 3 cumulative minutes per hour of plating time.

(4) If you own or operate an affected batch electrolytic process tank that is subject to the requirements of §63.11507(a) or a flash or short-term electroplating tank that is subject to the requirements in §63.11507(b), “What are my standards and management practices?”, and you comply by operating the affected tank with a cover, you must state in your annual certification that you have operated the tank with the cover in place at least 95 percent of the electrolytic process time.

(5) If you own or operate an affected continuous electrolytic process tank that is subject to the requirements of §63.11507(a), “What are my standards and management practices?”, and you comply by operating the affected tank with a cover, you must state in your annual certification that you have covered at least 75 percent of the surface area of the tank during all periods of electrolytic process operation.

(6) If you own or operate an affected tank that is subject to the management practices specified in §63.11507(g), “What are my standards and management practices?”, you must state in your annual compliance certification that you have implemented the applicable management practices, as practicable.

(7) Each annual compliance report must be prepared no later than January 31 of the year immediately following the reporting period and kept in a readily-accessible location for inspector review. If a deviation has occurred during the year, each annual compliance report must be submitted along with the deviation report, and postmarked or delivered no later than January 31 of the year immediately following the reporting period.

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

(e) You must keep the records specified in paragraphs (e)(1) through (3) of this section.

(1) A copy of any Initial Notification and Notification of Compliance Status that you submitted and all documentation supporting those notifications.

(2) The records specified in §63.10(b)(2)(i) through (iii) and (xiv) of the General Provisions of this part.

(3) The records required to show continuous compliance with each management practice and equipment standard that applies to you, as specified in §63.11508(d), "What are my compliance requirements?"

(f) You must keep each record for a minimum of 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. You must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1) of the General Provisions to part 63. You may keep the records offsite for the remaining 3 years.

Other Requirements and Information

§ 63.11510 What General Provisions apply to this subpart?

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

§ 63.11511 What definitions apply to this subpart?

Terms used in this subpart are defined in this section.

Batch electrolytic process tank means a tank used for an electrolytic process in which a part or group of parts, typically mounted on racks or placed in barrels, is placed in the tank and immersed in an electrolytic process solution as a single unit (i.e., as a batch) for a predetermined period of time, during which none of the parts are removed from the tank and no other parts are added to the tank, and after which the part or parts are removed from the tank as a unit.

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

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

Cartridge filter means a type of control device that uses perforated metal cartridges containing a pleated paper or non-woven fibrous filter media to remove PM from a gas stream by sieving and other mechanisms. Cartridge filters can be designed with single use cartridges, which are removed and disposed after reaching capacity, or continuous use cartridges, which typically are cleaned by means of a pulse-jet mechanism.

Composite mesh pad means a type of control device similar to a mesh pad mist eliminator except that the device is designed with multiple pads in series that are woven with layers of material with varying fiber diameters, which produce a coalescing effect on the droplets or PM that impinge upon the pads.

Continuous electrolytic process tank means a tank that uses an electrolytic process and in which a continuous metal strip or other type of continuous substrate is fed into and removed from the tank continuously. This process is also called reel-to-reel electrolytic plating.

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

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

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

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

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

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

(3) Fails to meet any equipment standard (including emission and operating limits), management standard, or operation and maintenance requirement in this rule during startup, shutdown, or malfunction.

Dry mechanical polishing means a process used for removing defects from and smoothing the surface of finished metals and formed products after plating with any of the plating and polishing metal HAP, as defined in this section, using hard-faced abrasive wheels or belts and where no liquids or fluids are used to trap the removed metal particles.

Electroforming means an electrolytic process using or emitting any of the plating and polishing metal HAP, as defined in this section, that is used for fabricating metal parts. This process is essentially the same as electroplating except that the plated substrate (mandrel) is removed, leaving only the metal plate. In electroforming, the metal plate is self-supporting and generally thicker than in electroplating.

Electroless plating means a non-electrolytic process that uses or emits any of the plating and polishing metal HAP, as defined in this section, in which metallic ions in a plating bath or solution are reduced to form a metal coating at the surface of a catalytic substrate without the use of external electrical energy. Electroless plating is also called non-electrolytic plating. Examples include, but are not limited to, chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating.

Electrolytic plating processes means electroplating and electroforming that use or emit any of the plating and polishing metal HAP, as defined in this section, where metallic ions in a plating bath or solution are reduced to form a metal coating on the surface of parts and products using electrical energy.

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

Electropolishing means an electrolytic process that uses or emits any of the plating and polishing metal HAP, as defined in this section, in which a work piece is attached to an anode immersed in a bath, and the metal substrate is

dissolved electrolytically, thereby removing the surface contaminant; electropolishing is also called electrolytic polishing.

Fabric filter means a type of control device used for collecting PM by filtering a process exhaust stream through a filter or filter media. A fabric filter is also known as a baghouse.

Flash electroplating means an electrolytic process that uses or emits any of the plating and polishing metal HAP, as defined in this section, and that is used no more than 3 cumulative minutes per hour or no more than 1 cumulative hour per day.

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

HAP means hazardous air pollutant as defined from the list of 188 chemicals and compounds specified in the CAA Amendments of 1990; HAP are also called “air toxics.” The five plating and polishing metal HAP, as defined in this section, are on this list of 188 chemicals.

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

Mesh pad mist eliminator means a type of control device, consisting of layers of interlocked filaments densely packed between two supporting grids that remove liquid droplets and PM from the gas stream through inertial impaction and direct interception.

Metal coating operation means any process performed either in a tank that contains liquids or as part of a spraying operation that applies one or more plating and polishing metal HAP, as defined in this section, to parts and products used in manufacturing. These processes include but are not limited to: Non-chromium electroplating; electroforming; electropolishing; other non-electrolytic metal coating processes, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating; and thermal spraying.

New source means any affected source for which you commenced construction or reconstruction after March 14, 2008.

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

Non-electrolytic plating means a process that uses or emits any of the plating and polishing metal HAP, as defined in this section, in which metallic ions in a plating bath or solution are reduced to form a metal coating at the surface of a catalytic substrate without the use of external electrical energy. Non-electrolytic plating is also called electroless plating. Examples include chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating.

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

Plating and polishing facility means a facility engaged in one or more of the following processes that uses or emits any of the plating and polishing metal HAP, as defined in this section: Electroplating processes other than chromium electroplating (i.e., non-chromium electroplating); electroless plating; other non-electrolytic metal coating processes, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating; thermal spraying; and the dry mechanical polishing of finished metals and formed products after plating.

Plating and polishing metal HAP means any compound of any of the following metals: cadmium, chromium, lead, manganese, and nickel, or any of these metals in the elemental form, with the exception of lead. Any material that does not contain cadmium, chromium, lead, or nickel in amounts greater than or equal to 0.1 percent by weight, and does not contain manganese in amounts greater than or equal to 1.0 percent by weight, as reported on the Material Safety Data Sheet for the material, is not considered to be a plating and polishing metal HAP.

Plating and polishing process tanks means any tank in which a process is performed at an affected plating and polishing facility that uses or has the potential to emit any of the plating and polishing metal HAP, as defined in this section. The processes performed in plating and polishing tanks include the following: Electroplating processes other than chromium electroplating (i.e., non-chromium electroplating) performed in a tank; electroless plating; and non-electrolytic metal coating processes, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating; and electropolishing. This term does not include tanks containing solutions that are used to rinse or wash parts prior to placing the parts in a plating and polishing process tank, or subsequent to removing the parts from a plating and polishing process tank. This term also does not include thermal spraying or dry polishing with machines.

PM means solid or particulate matter that is emitted into the air.

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

Short-term plating means an electroplating process that uses or emits any of the plating and polishing metal HAP, as defined in this section, and that is used no more than 3 cumulative minutes per hour or 1 hour cumulative per day.

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

Tank cover for continuous process units, means a solid structure or combination of structures, made of an impervious material that is designed to cover at least 75 percent of the open surface of the tank or process unit that is used for continuous plating or other continuous metal coating processes.

Temporary thermal spraying means a thermal spraying operation that uses or emits any of the plating and polishing metal HAP, as defined in this section, and that lasts no more than 1 hour in duration during any one day and is conducted in situ. Thermal spraying that is conducted in a dedicated thermal spray booth or structure is not considered to be temporary thermal spraying.

Thermal spraying (also referred to as metal spraying or flame spraying) is a process that uses or emits any of the plating and polishing metal HAP, as defined in this section, in which a metallic coating is applied by projecting molten or semi-molten metal particles onto a substrate. Commonly-used thermal spraying methods include high velocity oxy-fuel (HVOF) spraying, flame spraying, electric arc spraying, plasma arc spraying, and detonation gun spraying.

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

Wetting agent/fume suppressant means any chemical agent that reduces or suppresses fumes or mists from a plating and polishing tank by reducing the surface tension of the tank bath.

§ 63.11512 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by EPA or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency, in addition to EPA, has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

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

(c) The authorities that cannot be delegated to State, local, or tribal agencies are specified in paragraphs (c)(1) through (5) of this section.

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

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

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

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

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

§ 63.11513 [Reserved]

Table 1 to Subpart WWWWWW of Part 63. Applicability of General Provisions to Plating and Polishing Area Sources

As required in §63.11510, "What General Provisions apply to this subpart?", you must meet each requirement in the following table that applies to you.

Citation	Subject
63.1	Applicability.
63.2	Definitions.
63.3	Units and abbreviations.
63.4	Prohibited activities.
63.6(a), (b)(1)–(b)(5), (c)(1), (c)(2), (c)(5), (j)	Compliance with standards and maintenance requirements.
63.10(a), (b)(1), (b)(2)(i)–(iii),(xiv), (b)(3), (d)(1), (f)	Recordkeeping and reporting.
63.12	State authority and delegations.
63.13	Addresses of State air pollution control agencies and EPA regional offices.
63.14	Incorporation by reference.
63.15	Availability of information and confidentiality.

[1]Section 63.11505(e), "What parts of my plant does this subpart cover?", exempts affected sources from the obligation to obtain title V operating permits.

Federally Enforceable State Operating Permit Renewal
OFFICE OF AIR QUALITY

Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
South Bend, Indiana

Attachment B

Title 40: Protection of Environment

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

Subpart HHHHHH
National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources

Subpart HHHHHH—National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources

Source: 73 FR 1759, Jan. 9, 2008, unless otherwise noted.

What This Subpart Covers

§ 63.11169 What is the purpose of this subpart?

Except as provided in paragraph (d) of this section, this subpart establishes national emission standards for hazardous air pollutants (HAP) for area sources involved in any of the activities in paragraphs (a) through (c) of this section. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission standards contained herein.

(a) Paint stripping operations that involve the use of chemical strippers that contain methylene chloride (MeCl), Chemical Abstract Service number 75092, in paint removal processes;

(b) Autobody refinishing operations that encompass motor vehicle and mobile equipment spray-applied surface coating operations;

(c) Spray application of coatings containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd), collectively referred to as the target HAP to any part or product made of metal or plastic, or combinations of metal and plastic that are not motor vehicles or mobile equipment.

(d) This subpart does not apply to any of the activities described in paragraph (d)(1) through (6) of this section.

(1) Surface coating or paint stripping performed on site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State), the National Aeronautics and Space Administration, or the National Nuclear Security Administration.

(2) Surface coating or paint stripping of military munitions, as defined in §63.11180, manufactured by or for the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State) or equipment directly and exclusively used for the purposes of transporting military munitions.

(3) Surface coating or paint stripping performed by individuals on their personal vehicles, possessions, or property, either as a hobby or for maintenance of their personal vehicles, possessions, or property. This subpart also does not apply when these operations are performed by individuals for others without compensation. An individual who spray applies surface coating to more than two motor vehicles or pieces of mobile equipment per year is subject to the requirements in this subpart that pertain to motor vehicle and mobile equipment surface coating regardless of whether compensation is received.

(4) Surface coating or paint stripping that meets the definition of “research and laboratory activities” in §63.11180.

(5) Surface coating or paint stripping that meets the definition of “quality control activities” in §63.11180.

(6) Surface coating or paint stripping activities that are covered under another area source NESHAP.

§ 63.11170 Am I subject to this subpart?

(a) You are subject to this subpart if you operate an area source of HAP as defined in paragraph (b) of this section, including sources that are part of a tribal, local, State, or Federal facility and you perform one or more of the activities in paragraphs (a)(1) through (3) of this section:

(1) Perform paint stripping using MeCl for the removal of dried paint (including, but not limited to, paint, enamel, varnish, shellac, and lacquer) from wood, metal, plastic, and other substrates.

(2) Perform spray application of coatings, as defined in §63.11180, to motor vehicles and mobile equipment including operations that are located in stationary structures at fixed locations, and mobile repair and refinishing operations that travel to the customer's location, except spray coating applications that meet the definition of facility maintenance in §63.11180. However, if you are the owner or operator of a motor vehicle or mobile equipment surface coating operation, you may petition the Administrator for an exemption from this subpart if you can demonstrate, to the satisfaction of the Administrator, that you spray apply no coatings that contain the target HAP, as defined in §63.11180. Petitions must include a description of the coatings that you spray apply and your certification that you do not spray apply any coatings containing the target HAP. If circumstances change such that you intend to spray apply coatings containing the target HAP, you must submit the initial notification required by 63.11175 and comply with the requirements of this subpart.

(3) Perform spray application of coatings that contain the target HAP, as defined in §63.11180, to a plastic and/or metal substrate on a part or product, except spray coating applications that meet the definition of facility maintenance or space vehicle in §63.11180.

(b) An area source of HAP is a source of HAP that is not a major source of HAP, is not located at a major source, and is not part of a major source of HAP emissions. A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year, or emit any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year.

§ 63.11171 How do I know if my source is considered a new source or an existing source?

(a) This subpart applies to each new and existing affected area source engaged in the activities listed in §63.11170, with the exception of those activities listed in §63.11169(d) of this subpart.

(b) The affected source is the collection of all of the items listed in paragraphs (b)(1) through (6) of this section. Not all affected sources will have all of the items listed in paragraphs (b)(1) through (6) of this section.

(1) Mixing rooms and equipment;

(2) Spray booths, ventilated prep stations, curing ovens, and associated equipment;

(3) Spray guns and associated equipment;

(4) Spray gun cleaning equipment;

(5) Equipment used for storage, handling, recovery, or recycling of cleaning solvent or waste paint; and

(6) Equipment used for paint stripping at paint stripping facilities using paint strippers containing MeCl.

(c) An affected source is a new source if it meets the criteria in paragraphs (c)(1) and (c)(2) of this section.

(1) You commenced the construction of the source after September 17, 2007 by installing new paint stripping or surface coating equipment. If you purchase and install spray booths, enclosed spray gun cleaners, paint stripping equipment to reduce MeCl emissions, or purchase new spray guns to comply with this subpart at an existing source, these actions would not make your existing source a new source.

(2) The new paint stripping or surface coating equipment is used at a source that was not actively engaged in paint stripping and/or miscellaneous surface coating prior to September 17, 2007.

(d) An affected source is reconstructed if it meets the definition of reconstruction in §63.2.

(e) An affected source is an existing source if it is not a new source or a reconstructed source.

General Compliance Requirements

§ 63.11172 When do I have to comply with this subpart?

The date by which you must comply with this subpart is called the compliance date. The compliance date for each type of affected source is specified in paragraphs (a) and (b) of this section.

(a) For a new or reconstructed affected source, the compliance date is the applicable date in paragraph (a)(1) or (2) of this section:

(1) If the initial startup of your new or reconstructed affected source is after September 17, 2007, the compliance date is January 9, 2008.

(2) If the initial startup of your new or reconstructed affected source occurs after January 9, 2008, the compliance date is the date of initial startup of your affected source.

(b) For an existing affected source, the compliance date is January 10, 2011.

§ 63.11173 What are my general requirements for complying with this subpart?

(a) Each paint stripping operation that is an affected area source must implement management practices to minimize the evaporative emissions of MeCl. The management practices must address, at a minimum, the practices in paragraphs (a)(1) through (5) of this section, as applicable, for your operations.

(1) Evaluate each application to ensure there is a need for paint stripping (e.g., evaluate whether it is possible to re-coat the piece without removing the existing coating).

(2) Evaluate each application where a paint stripper containing MeCl is used to ensure that there is no alternative paint stripping technology that can be used.

(3) Reduce exposure of all paint strippers containing MeCl to the air.

(4) Optimize application conditions when using paint strippers containing MeCl to reduce MeCl evaporation (e.g., if the stripper must be heated, make sure that the temperature is kept as low as possible to reduce evaporation).

(5) Practice proper storage and disposal of paint strippers containing MeCl (e.g., store stripper in closed, air-tight containers).

(b) Each paint stripping operation that has annual usage of more than one ton of MeCl must develop and implement a written MeCl minimization plan to minimize the use and emissions of MeCl. The MeCl minimization plan must address, at a minimum, the management practices specified in paragraphs (a)(1) through (5) of this section, as applicable, for your operations. Each operation must post a placard or sign outlining the MeCl minimization plan in each area where paint stripping operations subject to this subpart occur. Paint stripping operations with annual usage of less than one ton of MeCl, must comply with the requirements in paragraphs (a)(1) through (5) of this section, as applicable, but are not required to develop and implement a written MeCl minimization plan.

(c) Each paint stripping operation must maintain copies of annual usage of paint strippers containing MeCl on site at all times.

(d) Each paint stripping operation with annual usage of more than one ton of MeCl must maintain a copy of their current MeCl minimization plan on site at all times.

(e) Each motor vehicle and mobile equipment surface coating operation and each miscellaneous surface coating operation must meet the requirements in paragraphs (e)(1) through (e)(5) of this section.

(1) All painters must be certified that they have completed training in the proper spray application of surface coatings and the proper setup and maintenance of spray equipment. The minimum requirements for training and certification are described in paragraph (f) of this section. The spray application of surface coatings is prohibited by persons who are not certified as having completed the training described in paragraph (f) of this section. The requirements of this paragraph do not apply to the students of an accredited surface coating training program who are under the direct supervision of an instructor who meets the requirements of this paragraph.

(2) All spray-applied coatings must be applied in a spray booth, preparation station, or mobile enclosure that meets the requirements of paragraph (e)(2)(i) of this section and either paragraph (e)(2)(ii), (e)(2)(iii), or (e)(2)(iv) of this section.

(i) All spray booths, preparation stations, and mobile enclosures must be fitted with a type of filter technology that is demonstrated to achieve at least 98-percent capture of paint overspray. The procedure used to demonstrate filter efficiency must be consistent with the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Method 52.1, “Gravimetric and Dust-Spot Procedures for Testing Air-Cleaning Devices Used in General Ventilation for Removing Particulate Matter, June 4, 1992” (incorporated by reference, see §63.14 of subpart A of this part). The test coating for measuring filter efficiency shall be a high solids bake enamel delivered at a rate of at least 135 grams per minute from a conventional (non-HVLP) air-atomized spray gun operating at 40 pounds per square inch (psi) air pressure; the air flow rate across the filter shall be 150 feet per minute. Owners and operators may use published filter efficiency data provided by filter vendors to demonstrate compliance with this requirement and are not required to perform this measurement. The requirements of this paragraph do not apply to waterwash spray booths that are operated and maintained according to the manufacturer's specifications.

(ii) Spray booths and preparation stations used to refinish complete motor vehicles or mobile equipment must be fully enclosed with a full roof, and four complete walls or complete side curtains, and must be ventilated at negative pressure so that air is drawn into any openings in the booth walls or preparation station curtains. However, if a spray booth is fully enclosed and has seals on all doors and other openings and has an automatic pressure balancing system, it may be operated at up to, but not more than, 0.05 inches water gauge positive pressure.

(iii) Spray booths and preparation stations that are used to coat miscellaneous parts and products or vehicle subassemblies must have a full roof, at least three complete walls or complete side curtains, and must be ventilated so that air is drawn into the booth. The walls and roof of a booth may have openings, if needed, to allow for conveyors and parts to pass through the booth during the coating process.

(iv) Mobile ventilated enclosures that are used to perform spot repairs must enclose and, if necessary, seal against the surface around the area being coated such that paint overspray is retained within the enclosure and directed to a filter to capture paint overspray.

(3) All spray-applied coatings must be applied with a high volume, low pressure (HVLP) spray gun, electrostatic application, airless spray gun, air-assisted airless spray gun, or an equivalent technology that is demonstrated by the spray gun manufacturer to achieve transfer efficiency comparable to one of the spray gun technologies listed above for a comparable operation, and for which written approval has been obtained from the Administrator. The procedure used to demonstrate that spray gun transfer efficiency is equivalent to that of an HVLP spray gun must be equivalent to the California South Coast Air Quality Management District's “Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989” and “Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns, September 26, 2002” (incorporated by reference, see §63.14 of subpart A of this part). The requirements of this paragraph do not apply to painting performed by students and instructors at paint training centers. The requirements of this paragraph do not apply to the surface coating of aerospace vehicles that involves the coating of components that normally require the use of an airbrush or an extension on the spray gun to properly reach limited access spaces; to the application of coatings on aerospace vehicles that contain fillers that adversely affect atomization with HVLP spray guns; or to the application of coatings on aerospace vehicles that normally have a dried film thickness of less than 0.0013 centimeter (0.0005 in.).

(4) All paint spray gun cleaning must be done so that an atomized mist or spray of gun cleaning solvent and paint residue is not created outside of a container that collects used gun cleaning solvent. Spray gun cleaning may be done with, for example, hand cleaning of parts of the disassembled gun in a container of solvent, by flushing solvent through the gun without atomizing the solvent and paint residue, or by using a fully enclosed spray gun washer. A combination of non-atomizing methods may also be used.

(5) As provided in §63.6(g), we, the U.S. Environmental Protection Agency, may choose to grant you permission to use an alternative to the emission standards in this section after you have requested approval to do so according to §63.6(g)(2).

(f) Each owner or operator of an affected miscellaneous surface coating source must ensure and certify that all new and existing personnel, including contract personnel, who spray apply surface coatings, as defined in §63.11180, are trained in the proper application of surface coatings as required by paragraph (e)(1) of this section. The training program must include, at a minimum, the items listed in paragraphs (f)(1) through (f)(3) of this section.

(1) A list of all current personnel by name and job description who are required to be trained;

(2) Hands-on and classroom instruction that addresses, at a minimum, initial and refresher training in the topics listed in paragraphs (f)(2)(i) through (2)(iv) of this section.

(i) Spray gun equipment selection, set up, and operation, including measuring coating viscosity, selecting the proper fluid tip or nozzle, and achieving the proper spray pattern, air pressure and volume, and fluid delivery rate.

(ii) Spray technique for different types of coatings to improve transfer efficiency and minimize coating usage and overspray, including maintaining the correct spray gun distance and angle to the part, using proper banding and overlap, and reducing lead and lag spraying at the beginning and end of each stroke.

(iii) Routine spray booth and filter maintenance, including filter selection and installation.

(iv) Environmental compliance with the requirements of this subpart.

(3) A description of the methods to be used at the completion of initial or refresher training to demonstrate, document, and provide certification of successful completion of the required training. Owners and operators who can show by documentation or certification that a painter's work experience and/or training has resulted in training equivalent to the training required in paragraph (f)(2) of this section are not required to provide the initial training required by that paragraph to these painters.

(g) As required by paragraph (e)(1) of this section, all new and existing personnel at an affected motor vehicle and mobile equipment or miscellaneous surface coating source, including contract personnel, who spray apply surface coatings, as defined in §63.11180, must be trained by the dates specified in paragraphs (g)(1) and (2) of this section. Employees who transfer within a company to a position as a painter are subject to the same requirements as a new hire.

(1) If your source is a new source, all personnel must be trained and certified no later than 180 days after hiring or no later than July 7, 2008, whichever is later. Painter training that was completed within five years prior to the date training is required, and that meets the requirements specified in paragraph (f)(2) of this section satisfies this requirement and is valid for a period not to exceed five years after the date the training is completed.

(2) If your source is an existing source, all personnel must be trained and certified no later than 180 days after hiring or no later than January 10, 2011, whichever is later. Painter training that was completed within five years prior to the date training is required, and that meets the requirements specified in paragraph (f)(2) of this section satisfies this requirement and is valid for a period not to exceed five years after the date the training is completed.

(3) Training and certification will be valid for a period not to exceed five years after the date the training is completed, and all personnel must receive refresher training that meets the requirements of this section and be re-certified every five years.

[73 FR 1760, Jan. 9, 2008; 73 FR 8408, Feb. 13, 2008]

§ 63.11174 What parts of the General Provisions apply to me?

(a) Table 1 of this subpart shows which parts of the General Provisions in subpart A apply to you.

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

Notifications, Reports, and Records

§ 63.11175 What notifications must I submit?

(a) Initial Notification. If you are the owner or operator of a paint stripping operation using paint strippers containing MeCl and/or a surface coating operation subject to this subpart, you must submit the initial notification required by §63.9(b). For a new affected source, you must submit the Initial Notification no later than 180 days after initial startup or July 7, 2008, whichever is later. For an existing affected source, you must submit the initial notification no later than January 11, 2010. The initial notification must provide the information specified in paragraphs (a)(1) through (8) of this section.

(1) The company name, if applicable.

(2) The name, title, street address, telephone number, e-mail address (if available), and signature of the owner and operator, or other certifying company official;

(3) The street address (physical location) of the affected source and the street address where compliance records are maintained, if different. If the source is a motor vehicle or mobile equipment surface coating operation that repairs vehicles at the customer's location, rather than at a fixed location, such as a collision repair shop, the notification should state this and indicate the physical location where records are kept to demonstrate compliance;

(4) An identification of the relevant standard (i.e., this subpart, 40 CFR part 63, subpart HHHHHH);

(5) A brief description of the type of operation as specified in paragraph (a)(5)(i) or (ii) of this section.

(i) For all surface coating operations, indicate whether the source is a motor vehicle and mobile equipment surface coating operation or a miscellaneous surface coating operation, and include the number of spray booths and preparation stations, and the number of painters usually employed at the operation.

(ii) For paint stripping operations, identify the method(s) of paint stripping employed (e.g., chemical, mechanical) and the substrates stripped (e.g., wood, plastic, metal).

(6) Each paint stripping operation must indicate whether they plan to annually use more than one ton of MeCl after the compliance date.

(7) A statement of whether the source is already in compliance with each of the relevant requirements of this subpart, or whether the source will be brought into compliance by the compliance date. For paint stripping operations, the relevant requirements that you must evaluate in making this determination are specified in §63.11173(a) through (d) of this subpart. For surface coating operations, the relevant requirements are specified in §63.11173(e) through (g) of this subpart.

(8) If your source is a new source, you must certify in the initial notification whether the source is in compliance with each of the requirements of this subpart. If your source is an existing source, you may certify in the initial notification that the source is already in compliance. If you are certifying in the initial notification that the source is in compliance

with the relevant requirements of this subpart, then include also a statement by a responsible official with that official's name, title, phone number, e-mail address (if available) and signature, certifying the truth, accuracy, and completeness of the notification, a statement that the source has complied with all the relevant standards of this subpart, and that this initial notification also serves as the notification of compliance status.

(b) Notification of Compliance Status. If you are the owner or operator of a new source, you are not required to submit a separate notification of compliance status in addition to the initial notification specified in paragraph (a) of this subpart provided you were able to certify compliance on the date of the initial notification, as part of the initial notification, and your compliance status has not since changed. If you are the owner or operator of any existing source and did not certify in the initial notification that your source is already in compliance as specified in paragraph (a) of this section, then you must submit a notification of compliance status. You must submit a Notification of Compliance Status on or before March 11, 2011. You are required to submit the information specified in paragraphs (b)(1) through (4) of this section with your Notification of Compliance Status:

(1) Your company's name and the street address (physical location) of the affected source and the street address where compliance records are maintained, if different.

(2) The name, title, address, telephone, e-mail address (if available) and signature of the owner and operator, or other certifying company official, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart or an explanation of any noncompliance and a description of corrective actions being taken to achieve compliance. For paint stripping operations, the relevant requirements that you must evaluate in making this determination are specified in §63.11173(a) through (d). For surface coating operations, the relevant requirements are specified in §63.11173(e) through (g).

(3) The date of the Notification of Compliance Status.

(4) If you are the owner or operator of an existing affected paint stripping source that annually uses more than one ton of MeCl, you must submit a statement certifying that you have developed and are implementing a written MeCl minimization plan in accordance with §63.11173(b).

§ 63.11176 What reports must I submit?

(a) Annual Notification of Changes Report. If you are the owner or operator of a paint stripping, motor vehicle or mobile equipment, or miscellaneous surface coating affected source, you are required to submit a report in each calendar year in which information previously submitted in either the initial notification required by §63.11175(a), Notification of Compliance, or a previous annual notification of changes report submitted under this paragraph, has changed. Deviations from the relevant requirements in §63.11173(a) through (d) or §63.11173(e) through (g) on the date of the report will be deemed to be a change. This includes notification when paint stripping affected sources that have not developed and implemented a written MeCl minimization plan in accordance with §63.11173(b) used more than one ton of MeCl in the previous calendar year. The annual notification of changes report must be submitted prior to March 1 of each calendar year when reportable changes have occurred and must include the information specified in paragraphs (a)(1) through (2) of this section.

(1) Your company's name and the street address (physical location) of the affected source and the street address where compliance records are maintained, if different.

(2) The name, title, address, telephone, e-mail address (if available) and signature of the owner and operator, or other certifying company official, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart or an explanation of any noncompliance and a description of corrective actions being taken to achieve compliance.

(b) If you are the owner or operator of a paint stripping affected source that has not developed and implemented a written MeCl minimization plan in accordance with §63.11173(b) of this subpart, you must submit a report for any calendar year in which you use more than one ton of MeCl. This report must be submitted no later than March 1 of the following calendar year. You must also develop and implement a written MeCl minimization plan in accordance with §63.11173(b) no later than December 31. You must then submit a Notification of Compliance Status report containing the information specified in §63.11175(b) by March 1 of the following year and comply with the

requirements for paint stripping operations that annually use more than one ton of MeCl in §§63.11173(d) and 63.11177(f).

§ 63.11177 What records must I keep?

If you are the owner or operator of a surface coating operation, you must keep the records specified in paragraphs (a) through (d) and (g) of this section. If you are the owner or operator of a paint stripping operation, you must keep the records specified in paragraphs (e) through (g) of this section, as applicable.

(a) Certification that each painter has completed the training specified in §63.11173(f) with the date the initial training and the most recent refresher training was completed.

(b) Documentation of the filter efficiency of any spray booth exhaust filter material, according to the procedure in §63.11173(e)(3)(i).

(c) Documentation from the spray gun manufacturer that each spray gun with a cup capacity equal to or greater than 3.0 fluid ounces (89 cc) that does not meet the definition of an HVLP spray gun, electrostatic application, airless spray gun, or air assisted airless spray gun, has been determined by the Administrator to achieve a transfer efficiency equivalent to that of an HVLP spray gun, according to the procedure in §63.11173(e)(4).

(d) Copies of any notification submitted as required by §63.11175 and copies of any report submitted as required by §63.11176.

(e) Records of paint strippers containing MeCl used for paint stripping operations, including the MeCl content of the paint stripper used. Documentation needs to be sufficient to verify annual usage of paint strippers containing MeCl (e.g., material safety data sheets or other documentation provided by the manufacturer or supplier of the paint stripper, purchase receipts, records of paint stripper usage, engineering calculations).

(f) If you are a paint stripping source that annually uses more than one ton of MeCl you are required to maintain a record of your current MeCl minimization plan on site for the duration of your paint stripping operations. You must also keep records of your annual review of, and updates to, your MeCl minimization plan.

(g) Records of any deviation from the requirements in §§63.11173, 63.11174, 63.11175, or 63.11176. These records must include the date and time period of the deviation, and a description of the nature of the deviation and the actions taken to correct the deviation.

(h) Records of any assessments of source compliance performed in support of the initial notification, notification of compliance status, or annual notification of changes report.

§ 63.11178 In what form and for how long must I keep my records?

(a) If you are the owner or operator of an affected source, you must maintain copies of the records specified in §63.11177 for a period of at least five years after the date of each record. Copies of records must be kept on site and in a printed or electronic form that is readily accessible for inspection for at least the first two years after their date, and may be kept off-site after that two year period.

Other Requirements and Information

§ 63.11179 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. Environmental Protection Agency (EPA), or a delegated authority such as your State, local, or tribal agency. If the Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

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

(c) The authority in §63.11173(e)(5) will not be delegated to State, local, or tribal agencies.

§ 63.11180 What definitions do I need to know?

Terms used in this subpart are defined in the Clean Air Act, in 40 CFR 63.2, and in this section as follows:

Additive means a material that is added to a coating after purchase from a supplier (e.g., catalysts, activators, accelerators).

Administrator means, for the purposes of this rulemaking, the Administrator of the U.S. Environmental Protection Agency or the State or local agency that is granted delegation for implementation of this subpart.

Aerospace vehicle or component means any fabricated part, processed part, assembly of parts, or completed unit, with the exception of electronic components, of any aircraft including but not limited to airplanes, helicopters, missiles, rockets, and space vehicles.

Airless and air-assisted airless spray mean any paint spray technology that relies solely on the fluid pressure of the paint to create an atomized paint spray pattern and does not apply any atomizing compressed air to the paint before it leaves the paint nozzle. Air-assisted airless spray uses compressed air to shape and distribute the fan of atomized paint, but still uses fluid pressure to create the atomized paint.

Appurtenance means any accessory to a stationary structure coated at the site of installation, whether installed or detached, including but not limited to: bathroom and kitchen fixtures; cabinets; concrete forms; doors; elevators; fences; hand railings; heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools; lamp posts; partitions; pipes and piping systems; rain gutters and downspouts; stairways, fixed ladders, catwalks, and fire escapes; and window screens.

Architectural coating means a coating to be applied to stationary structures or their appurtenances at the site of installation, to portable buildings at the site of installation, to pavements, or to curbs.

Cleaning material means a solvent used to remove contaminants and other materials, such as dirt, grease, or oil, from a substrate before or after coating application or from equipment associated with a coating operation, such as spray booths, spray guns, racks, tanks, and hangers. Thus, it includes any cleaning material used on substrates or equipment or both.

Coating means, for the purposes of this subpart, a material spray-applied to a substrate for decorative, protective, or functional purposes. For the purposes of this subpart, coating does not include the following materials:

(1) Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances.

(2) Paper film or plastic film that may be pre-coated with an adhesive by the film manufacturer.

(3) Adhesives, sealants, maskants, or caulking materials.

(4) Temporary protective coatings, lubricants, or surface preparation materials.

(5) In-mold coatings that are spray-applied in the manufacture of reinforced plastic composite parts.

Compliance date means the date by which you must comply with this subpart.

Deviation means any instance in which an affected source, subject to this subpart, or an owner or operator of such a source fails to meet any requirement or obligation established by this subpart.

Dry media blasting means abrasive blasting using dry media. Dry media blasting relies on impact and abrasion to remove paint from a substrate. Typically, a compressed air stream is used to propel the media against the coated surface.

Electrostatic application means any method of coating application where an electrostatic attraction is created between the part to be coated and the atomized paint particles.

Equipment cleaning means the use of an organic solvent to remove coating residue from the surfaces of paint spray guns and other painting related equipment, including, but not limited to stir sticks, paint cups, brushes, and spray booths.

Facility maintenance means, for the purposes of this subpart, surface coating performed as part of the routine repair or renovation of the tools, equipment, machinery, and structures that comprise the infrastructure of the affected facility and that are necessary for the facility to function in its intended capacity. Facility maintenance also includes surface coating associated with the installation of new equipment or structures, and the application of any surface coating as part of janitorial activities. Facility maintenance includes the application of coatings to stationary structures or their appurtenances at the site of installation, to portable buildings at the site of installation, to pavements, or to curbs. Facility maintenance also includes the refinishing of mobile equipment in the field or at the site where they are used in service and at which they are intended to remain indefinitely after refinishing. Such mobile equipment includes, but is not limited to, farm equipment and mining equipment for which it is not practical or feasible to move to a dedicated mobile equipment refinishing facility. Such mobile equipment also includes items, such as fork trucks, that are used in a manufacturing facility and which are refinished in that same facility. Facility maintenance does not include surface coating of motor vehicles, mobile equipment, or items that routinely leave and return to the facility, such as delivery trucks, rental equipment, or containers used to transport, deliver, distribute, or dispense commercial products to customers, such as compressed gas canisters.

High-volume, low-pressure (HVLP) spray equipment means spray equipment that is permanently labeled as such and used to apply any coating by means of a spray gun which is designed and operated between 0.1 and 10 pounds per square inch gauge (psig) air atomizing pressure measured dynamically at the center of the air cap and at the air horns.

Initial startup means the first time equipment is brought online in a paint stripping or surface coating operation, and paint stripping or surface coating is first performed.

Materials that contain HAP or HAP-containing materials mean, for the purposes of this subpart, materials that contain 0.1 percent or more by mass of any individual HAP that is an OSHA-defined carcinogen as specified in 29 CFR 1910.1200(d)(4), or 1.0 percent or more by mass for any other individual HAP.

Military munitions means all ammunition products and components produced or used by or for the U.S. Department of Defense (DoD) or for the U.S. Armed Services for national defense and security, including military munitions under the control of the Department of Defense, the U.S. Coast Guard, the National Nuclear Security Administration (NNSA), U.S. Department of Energy (DOE), and National Guard personnel. The term military munitions includes: confined gaseous, liquid, and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries used by DoD components, including bulk explosives and chemical warfare agents, chemical munitions, biological weapons, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, nonnuclear components of nuclear weapons, wholly inert ammunition products, and all devices and components of any items listed in this definition.

Miscellaneous parts and/or products means any part or product made of metal or plastic, or combinations of metal and plastic. Miscellaneous parts and/or products include, but are not limited to, metal and plastic components of the following types of products as well as the products themselves: motor vehicle parts and accessories for automobiles, trucks, recreational vehicles; automobiles and light duty trucks at automobile and light duty truck assembly plants; boats; sporting and recreational goods; toys; business machines; laboratory and medical equipment; and household and other consumer products.

Miscellaneous surface coating operation means the collection of equipment used to apply surface coating to miscellaneous parts and/or products made of metal or plastic, including applying cleaning solvents to prepare the surface before coating application, mixing coatings before application, applying coating to a surface, drying or curing the coating after application, and cleaning coating application equipment, but not plating. A single surface coating operation may include any combination of these types of equipment, but always includes at least the point at which a coating material is applied to a given part. A surface coating operation includes all other steps (such as surface preparation with solvent and equipment cleaning) in the affected source where HAP are emitted from the coating of a part. The use of solvent to clean parts (for example, to remove grease during a mechanical repair) does not constitute a miscellaneous surface coating operation if no coatings are applied. A single affected source may have multiple surface coating operations. Surface coatings applied to wood, leather, rubber, ceramics, stone, masonry, or substrates other than metal and plastic are not considered miscellaneous surface coating operations for the purposes of this subpart.

Mobile equipment means any device that may be drawn and/or driven on a roadway including, but not limited to, heavy-duty trucks, truck trailers, fleet delivery trucks, buses, mobile cranes, bulldozers, street cleaners, agriculture equipment, motor homes, and other recreational vehicles (including camping trailers and fifth wheels).

Motor vehicle means any self-propelled vehicle, including, but not limited to, automobiles, light duty trucks, golf carts, vans, and motorcycles.

Motor vehicle and mobile equipment surface coating means the spray application of coatings to assembled motor vehicles or mobile equipment. For the purposes of this subpart, it does not include the surface coating of motor vehicle or mobile equipment parts or subassemblies at a vehicle assembly plant or parts manufacturing plant.

Non-HAP solvent means, for the purposes of this subpart, a solvent (including thinners and cleaning solvents) that contains less than 0.1 percent by mass of any individual HAP that is an OSHA-defined carcinogen as specified in 29 CFR 1910.1200(d)(4) and less than 1.0 percent by mass for any other individual HAP.

Paint stripping and/or miscellaneous surface coating source or facility means any shop, business, location, or parcel of land where paint stripping or miscellaneous surface coating operations are conducted.

Paint stripping means the removal of dried coatings from wood, metal, plastic, and other substrates. A single affected source may have multiple paint stripping operations.

Painter means any person who spray applies coating.

Plastic refers to substrates containing one or more resins and may be solid, porous, flexible, or rigid. Plastics include fiber reinforced plastic composites.

Protective oil means organic material that is applied to metal for the purpose of providing lubrication or protection from corrosion without forming a solid film. This definition of protective oil includes, but is not limited to, lubricating oils, evaporative oils (including those that evaporate completely), and extrusion oils.

Quality control activities means surface coating or paint stripping activities that meet all of the following criteria:

(1) The activities associated with a surface coating or paint stripping operation are intended to detect and correct defects in the final product by selecting a limited number of samples from the operation, and comparing the samples against specific performance criteria.

(2) The activities do not include the production of an intermediate or final product for sale or exchange for commercial profit; for example, parts that are surface coated or stripped are not sold and do not leave the facility.

(3) The activities are not a normal part of the surface coating or paint stripping operation; for example, they do not include color matching activities performed during a motor vehicle collision repair.

(4) The activities do not involve surface coating or stripping of the tools, equipment, machinery, and structures that comprise the infrastructure of the affected facility and that are necessary for the facility to function in its intended capacity; that is, the activities are not facility maintenance.

Research and laboratory activities means surface coating or paint stripping activities that meet one of the following criteria:

(1) Conducted at a laboratory to analyze air, soil, water, waste, or product samples for contaminants, or environmental impact.

(2) Activities conducted to test more efficient production processes, including alternative paint stripping or surface coating materials or application methods, or methods for preventing or reducing adverse environmental impacts, provided that the activities do not include the production of an intermediate or final product for sale or exchange for commercial profit.

(3) Activities conducted at a research or laboratory facility that is operated under the close supervision of technically trained personnel, the primary purpose of which is to conduct research and development into new processes and products and that is not engaged in the manufacture of products for sale or exchange for commercial profit.

Solvent means a fluid containing organic compounds used to perform paint stripping, surface prep, or cleaning of surface coating equipment.

Space Vehicle means vehicles designed to travel beyond the limit of the earth's atmosphere, including but not limited to satellites, space stations, and the Space Shuttle System (including orbiter, external tanks, and solid rocket boosters).

Spray-applied coating operations means coatings that are applied using a hand-held device that creates an atomized mist of coating and deposits the coating on a substrate. For the purposes of this subpart, spray-applied coatings do not include the following materials or activities:

(1) Coatings applied from a hand-held device with a paint cup capacity that is equal to or less than 3.0 fluid ounces (89 cubic centimeters).

(2) Surface coating application using powder coating, hand-held, non-refillable aerosol containers, or non-atomizing application technology, including, but not limited to, paint brushes, rollers, hand wiping, flow coating, dip coating, electrodeposition coating, web coating, coil coating, touch-up markers, or marking pens.

(3) Thermal spray operations (also known as metallizing, flame spray, plasma arc spray, and electric arc spray, among other names) in which solid metallic or non-metallic material is heated to a molten or semi-molten state and propelled to the work piece or substrate by compressed air or other gas, where a bond is produced upon impact.

Surface preparation or Surface prep means use of a cleaning material on a portion of or all of a substrate prior to the application of a coating.

Target HAP are compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd).

Target HAP containing coating means a spray-applied coating that contains any individual target HAP that is an Occupational Safety and Health Administration (OSHA)–defined carcinogen as specified in 29 CFR 1910.1200(d)(4) at a concentration greater than 0.1 percent by mass, or greater than 1.0 percent by mass for any other individual target HAP compound. For the purpose of determining whether materials you use contain the target HAP compounds, you may rely on formulation data provided by the manufacturer or supplier, such as the material safety data sheet (MSDS), as long as it represents each target HAP compound in the material that is present at 0.1 percent by mass or more for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other target HAP compounds.

Transfer efficiency means the amount of coating solids adhering to the object being coated divided by the total amount of coating solids sprayed, expressed as a percentage. Coating solids means the nonvolatile portion of the coating that makes up the dry film.

Truck bed liner coating means any coating, excluding color coats, labeled and formulated for application to a truck bed to protect it from surface abrasion.

Table 1 to Subpart HHHHHH of Part 63—Applicability of General Provisions to Subpart HHHHHH of Part 63

Citation	Subject	Applicable to subpart HHHHHH	Explanation
§63.1(a)(1)–(12)	General Applicability	Yes	
§63.1(b)(1)–(3)	Initial Applicability Determination	Yes	Applicability of subpart HHHHHH is also specified in §63.11170.
§63.1(c)(1)	Applicability After Standard Established	Yes	
§63.1(c)(2)	Applicability of Permit Program for Area Sources	Yes	(63.11174(b) of Subpart HHHHHH exempts area sources from the obligation to obtain Title V operating permits.
§63.1(c)(5)	Notifications	Yes	
§63.1(e)	Applicability of Permit Program to Major Sources Before Relevant Standard is Set	No	(63.11174(b) of Subpart HHHHHH exempts area sources from the obligation to obtain Title V operating permits.
§63.2	Definitions	Yes	Additional definitions are specified in §63.11180.
§63.3(a)–(c)	Units and Abbreviations	Yes	
§63.4(a)(1)–(5)	Prohibited Activities	Yes	
§63.4(b)–(c)	Circumvention/Fragmentation	Yes	
§63.5	Construction/Reconstruction of major sources	No	Subpart HHHHHH applies only to area sources.
§63.6(a)	Compliance With Standards and Maintenance Requirements—Applicability	Yes	
§63.6(b)(1)–(7)	Compliance Dates for New and Reconstructed Sources	Yes	§63.11172 specifies the compliance dates.
§63.6(c)(1)–(5)	Compliance Dates for Existing Sources	Yes	§63.11172 specifies the compliance dates.
§63.6(e)(1)–(2)	Operation and Maintenance	Yes	
§63.6(e)(3)	Startup, Shutdown, and Malfunction Plan	No	No startup, shutdown, and malfunction plan is required by subpart HHHHHH.

§63.6(f)(1)	Compliance Except During Startup, Shutdown, and Malfunction	Yes	
§63.6(f)(2)–(3)	Methods for Determining Compliance	Yes	
§63.6(g)(1)–(3)	Use of an Alternative Standard	Yes	
§63.6(h)	Compliance With Opacity/Visible Emission Standards	No	Subpart HHHHHH does not establish opacity or visible emission standards.
§63.6(i)(1)–(16)	Extension of Compliance	Yes	
§63.6(j)	Presidential Compliance Exemption	Yes	
§63.7	Performance Testing Requirements	No	No performance testing is required by subpart HHHHHH.
§63.8	Monitoring Requirements	No	Subpart HHHHHH does not require the use of continuous monitoring systems.
§63.9(a)–(d)	Notification Requirements	Yes	§63.11175 specifies notification requirements.
§63.9(e)	Notification of Performance Test	No	Subpart HHHHHH does not require performance tests.
§63.9(f)	Notification of Visible Emissions/Opacity Test	No	Subpart HHHHHH does not have opacity or visible emission standards.
§63.9(g)	Additional Notifications When Using CMS	No	Subpart HHHHHH does not require the use of continuous monitoring systems.
§63.9(h)	Notification of Compliance Status	No	§63.11175 specifies the dates and required content for submitting the notification of compliance status.
§63.9(i)	Adjustment of Submittal Deadlines	Yes	
§63.9(j)	Change in Previous Information	Yes	§63.11176(a) specifies the dates for submitting the notification of changes report.
§63.10(a)	Recordkeeping/Reporting—Applicability and General Information	Yes	
§63.10(b)(1)	General Recordkeeping Requirements	Yes	Additional requirements are specified in §63.11177.
§63.10(b)(2)(i)–(xi)	Recordkeeping Relevant to Startup, Shutdown, and Malfunction Periods and CMS	No	Subpart HHHHHH does not require startup, shutdown, and malfunction plans, or CMS.
§63.10(b)(2)(xii)	Waiver of recordkeeping requirements	Yes	
§63.10(b)(2)(xiii)	Alternatives to the relative accuracy test	No	Subpart HHHHHH does not require the use of CEMS.

§63.10(b)(2)(xiv)	Records supporting notifications	Yes	
§63.10(b)(3)	Recordkeeping Requirements for Applicability Determinations	Yes	
§63.10(c)	Additional Recordkeeping Requirements for Sources with CMS	No	Subpart HHHHHH does not require the use of CMS.
§63.10(d)(1)	General Reporting Requirements	Yes	Additional requirements are specified in §63.11176.
§63.10(d)(2)–(3)	Report of Performance Test Results, and Opacity or Visible Emissions Observations	No	Subpart HHHHHH does not require performance tests, or opacity or visible emissions observations.
§63.10(d)(4)	Progress Reports for Sources With Compliance Extensions	Yes	
§63.10(d)(5)	Startup, Shutdown, and Malfunction Reports	No	Subpart HHHHHH does not require startup, shutdown, and malfunction reports.
§63.10(e)	Additional Reporting requirements for Sources with CMS	No	Subpart HHHHHH does not require the use of CMS.
§63.10(f)	Recordkeeping/Reporting Waiver	Yes	
§63.11	Control Device Requirements/Flares	No	Subpart HHHHHH does not require the use of flares.
§63.12	State Authority and Delegations	Yes	
§63.13	Addresses of State Air Pollution Control Agencies and EPA Regional Offices	Yes	
§63.14	Incorporation by Reference	Yes	Test methods for measuring paint booth filter efficiency and spray gun transfer efficiency in §63.11173(e)(2) and (3) are incorporated and included in §63.14.
§63.15	Availability of Information/Confidentiality	Yes	
§63.16(a)	Performance Track Provisions—reduced reporting	Yes	
§63.16(b)–(c)	Performance Track Provisions—reduced reporting	No	Subpart HHHHHH does not establish numerical emission limits.

Appendix A: Emission Calculations
Summary

Company Name: **Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies**
Address City IN Zip: **1302 West Sample St., South Bend, IN 46619**
FESOP: **141-30937-00090**
Administrative Amendment: **141-32695-00090**
Reviewer: **Deborah Cole**

Emission Unit	Uncontrolled PTE PM tons/yr	Uncontrolled PTE PM-10 tons/yr	Uncontrolled PTE PM2.5 tons/yr	Uncontrolled PTE VOC tons/yr	Uncontrolled PTE SO2 tons/yr	Uncontrolled PTE NOx tons/yr	Uncontrolled PTE CO tons/yr	Uncontrolled PTE GHGs as CO2e tons/yr	Uncontrolled PTE Single Hap tons/yr	Uncontrolled PTE Total HAPs tons/yr
Paint Booth K-1	30.10	30.10*	30.10*	69.96	-	-	-	-	63.51 (xylene)	237.00
Paint Booth K-2	30.10	30.10*	30.10*	69.96	-	-	-	-	63.51 (xylene)	237.00
Paint Booth K-6	30.10	30.10*	30.10*	69.96	-	-	-	-	63.51 (xylene)	237.00
Paint Booth K-7	30.10	30.10*	30.10*	69.96	-	-	-	-	63.51 (xylene)	237.00
Degreasers, Tanks, and other sources of VOC*****	-	-	-	18.49	-	9.14	-	-	0.14 (HCl)	0.32
Blasters (B1 through B5 and PB-1)	0.44	0.31	0.31	-	-	-	-	-	-	-
Insignificant Activities										
Natural Gas Combustion	0.03	0.13	0.13	0.10	0.011	1.75	1.47	2,115.19	0.06 (hexane)	0.03
Paved Roads	0.12	0.02	0.00	-	-	-	-	-	-	-
Total	**121.00**	**120.86**	**120.86**	**298.44**	**0.01**	**10.89**	**1.47**	**2,115.19**	**254.04 (xylene)**	**948.37**

	Controlled PTE PM tons/yr	Controlled PTE PM-10 tons/yr	Controlled PTE PM2.5 tons/yr	Controlled PTE VOC tons/yr	Controlled PTE SO2 tons/yr	Controlled PTE NOx tons/yr	Controlled PTE CO tons/yr	Controlled PTE GHGs as CO2e tons/yr	Controlled PTE Single Hap tons/yr	Controlled PTE Total HAPs tons/yr
Paint Booth K-1	9.03	9.03*	9.03*	<80.0***	-	-	-	-	<8.0****	<20.0****
Paint Booth K-2	9.03	9.03*	9.03*		-	-	-	-		
Paint Booth K-6	9.03	9.03*	9.03*		-	-	-	-		
Paint Booth K-7	9.03	9.03*	9.03*		-	-	-	-		
Degreasers, Tanks, and other sources of VOC**	-	-	-		-	9.14	-	-		
Blasters (B1 through B5 and PB-1)	0.44	0.31	0.31	-	-	-	-	-	-	-
Insignificant Activities										
Natural Gas Combustion	0.03	0.13	0.13	0.10	0.01	1.75	1.47	2,115.19	0.06 (hexane)	0.03
Paved Roads	0.12	0.02	0.00	-	-	-	-	-	-	-
Total	**36.72**	**36.58**	**36.38**	**80.10**	**0.01**	**10.89**	**1.47**	**2,115.19**	**8.06**	**20.03**

Note: PTE calculations for Tanks Storage Containers were from the previously issued FESOP 141-14152-00090

*PM is assumed to equal PM10 and PM2.5 for the Paint Booths K1, K2, K6 and K7, and PM10 is assumed to equal PM2.5 for Natural Gas Combustion and for the Blasters (B1 through B5).

**The additional sources of VOC emissions include the following: one (1) centrifuge dip and spin dry film coating machine (L-2), one (1) cold cleaner immersion tank (C-24), six (6) portable cold cleaner degreasers (I-3 through I-8), one (1) cold cleaner tank (C-29), one (1) immersion solvent cleaning tank (I-13), one (1) portable immersion cold cleaner tank (I-14) and three (3) insignificant dip coating tanks (J-12, C-9 and C-26), and one (1) vapor degreaser (VD1).

***The source has limited their total VOC usage to less than 80.0 tons per year.

****The source has limited their single HAPs usage to less than 8.0 tons per year and total HAPs usage to less than 20.0 tons per year.

Additional HAPs summary is found on the next page.

Appendix A: Emission Calculations
Summary

Company Name: Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
Address City IN Zip: 1302 West Sample St., South Bend, IN 46619
FESOP: 141-30937-00090
Administrative Amendment: 141-32695-00090
Reviewer: Deborah Cole

	Xylene Emissions (tons/yr)	Toluene Emissions (tons/year)	Formaldehyde Emissions (tons/yr)	Ethyl Benzene Emissions (tons/yr)	Glycol Ethers Emissions (tons/yr)	Methyl isobutyl ketone Emissions (tons/yr)	Phenol Emissions (tons/yr)	Chromium Compounds Emissions (tons/yr)	Ethylene Dichloride Emissions (tons/yr)	1,4 Dioxane Emissions (tons/yr)	4,4-Diphenylmethane diisocyanate (MDI) (tons/yr)	Lead Compounds (tons/yr)	Total Combined HAPs
Paint Booth K-1	63.510	41.172	0.823	6.947	6.491	39.551	4.030	36.336	7.884	7.884	0.695	21.681	237.004
Paint Booth K-2	63.510	41.172	0.823	6.947	6.491	39.551	4.030	36.336	7.884	7.884	0.695	21.681	237.004
Paint Booth K-6	63.510	41.172	0.823	6.947	6.491	39.551	4.030	36.336	7.884	7.884	0.695	21.681	237.004
Paint Booth K-7	63.510	41.172	0.823	6.947	6.491	39.551	4.030	36.336	7.884	7.884	0.695	21.681	237.004
Total HAPs	**254.040**	**164.688**	**3.294**	**27.787**	**25.965**	**158.206**	**16.118**	**145.346**	**31.536**	**31.536**	**2.779**	**86.724**	**948.018**

Appendix A: Emissions Calculations
VOC and Particulate Matter
From Surface Coating Operations

Company Name: Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
Address City IN Zip: 1302 West Sample St., South Bend, IN 46619
FESOP: 141-30937-00090
Administrative Amendment: 141-32695-00090
Reviewer: Deborah Cole

Unrestricted Potential to Emit VOC and Particulate Matter from four (4) paint booths, identified as K-1, K-2, K-6, and K-7.

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Maximum Average (gal/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Uncontrolled Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency	Controlled Particulate Potential (ton/yr)
Aeroglaze Z306	7.9	71.97%	0.0%	72.0%	0.0%	23.00%	2.000	5.71	5.71	11.41	273.95	50.00	5.84	24.81	70%	1.75
Akzo mil prf 22750 36231 paint	13.8	17.00%	0.0%	17.0%	0.0%	66.00%	2.000	2.35	2.35	4.69	112.61	20.55	30.10	3.55	70%	9.03
Akzo mil prf 22750	7.8	47.00%	0.0%	47.0%	0.0%	49.00%	2.000	3.67	3.67	7.33	175.97	32.11	10.86	7.48	70%	3.26
Everlube 620 (pev620)	9.2	65.00%	0.0%	65.0%	0.0%	16.40%	2.000	5.78	5.77	11.54	276.96	50.55	8.46	36.46	70%	2.54
Everlube Lube-Lok 1000	9.9	65.00%	0.0%	65.0%	0.0%	10.70%	2.000	6.44	6.46	12.92	310.08	56.59	9.11	60.14	70%	2.73
EM Lube-Lok 4253	9.0	74.00%	0.0%	74.0%	0.0%	12.40%	2.000	6.20	6.71	13.42	322.08	58.78	6.15	53.71	70%	1.84
EM Lube-Lok 4396	9.4	67.00%	0.0%	67.0%	0.0%	11.40%	2.000	5.98	6.49	12.98	311.52	56.85	8.15	55.25	70%	2.45
EM Lube-Lok 5306	9.1	59.00%	0.0%	59.0%	0.0%	21.00%	2.000	5.34	5.37	10.74	257.76	47.04	9.81	25.57	70%	2.94
Coatings for Industry alseal 518	13.8	58.00%	0.0%	58.0%	0.0%	40.00%	2.000	7.99	7.99	15.97	383.36	69.96	15.20	19.97	70%	4.56
Akzo High Solids Epoxy Primer 23377 yellow	13.6	19.00%	0.0%	19.0%	0.0%	62.00%	2.000	2.58	2.58	5.17	124.03	22.64	28.95	4.17	70%	8.69
Chemsl Mil C 22750 Epoxy Coating HS Base	13.4	31.00%	0.0%	31.0%	0.0%	60.00%	2.000	2.70	2.70	5.40	129.60	23.65	24.21	6.90	70%	7.26
Solvent Blend 3534	6.9	100.00%	0.0%	100.0%	0.0%	0.00%	2.000	6.86	6.86	13.72	329.28	60.09	0.00	N/A	70%	0.00
Primer	12.9	21.40%	0.0%	21.4%	0.0%	60.30%	2.000	2.76	2.76	5.52	132.51	24.18	26.65	4.58	70%	7.99
Primer Solvent	6.49	99.86%	0.0%	99.9%	0.0%	0.00%	2.000	6.48	6.48	12.96	311.08	56.77	0.02	N/A	70%	0.01
Topcoat	9.62	43.46%	0.0%	43.5%	0.0%	36.97%	2.000	4.18	4.18	8.36	200.68	36.62	14.29	11.31	70%	4.29
Topcoat Solvent	7.25	100.00%	0.0%	100.0%	0.0%	0.00%	2.000	7.25	7.25	14.50	348.00	63.51	0.00	N/A	70%	0.00
Potential PM and VOC Emissions from Worst Case coatings												**69.96**	**30.10**			**9.03**

METHODOLOGY

Materials listed include the worst case coatings used in recently in the paint booths and the worst case coatings that were previously listed in FESOP 141-14152-00090 and Significant Permit Revisions F141-16781-00090 and F141-18648-00090
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emissions Calculations
HAPs Emissions
From Surface Coating Operations

Company Name: Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
Address City IN Zip: 1302 West Sample St., South Bend, IN 46619
FESOP: 141-30937-00090
Administrative Amendment: 141-32695-00090
Reviewer: Deborah Cole

Unrestricted Potential to Emit HAPs for each of the four (4) paint booths, identified as K-1, K-2, K-6, and K-7.

Material	Density (lb/gal)	Maximum Average (gal/hr)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyde	Weight % Ethyl Benzene	Weight % Glycol Ethers	Weight % Methyl isobutyl ketone	Weight % Phenol	Weight % Chromium Compounds	Weight % Ethylene Dichloride	Weight % 1, 4 Dioxane	Weight % 4,4-Diphenylmethane diisocyanate(MDI)	Weight % Lead Compounds	**Xylene Emissions (tons/yr)**	**Toluene Emissions (tons/year)**	**Formaldehyde Emissions (tons/yr)**	**Ethyl Benzene Emissions (tons/yr)**	**Glycol Ethers Emissions (tons/yr)**	**Methyl isobutyl ketone Emissions (tons/yr)**	**Phenol Emissions (tons/yr)**	**Chromium Compounds Emissions (tons/yr)**	**Ethylene Dichloride Emissions (tons/yr)**	**1,4 Dioxane Emissions (tons/yr)**	**4,4-Diphenylmethane diisocyanate (MDI) (tons/yr)**	**Lead Compounds (tons/yr)**	**Total Combined HAPs**
Aeroglaze Z306	7.9	2.00	25.00%	15.00%	0.00%	10.00%	0.00%	15.00%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	17.37	10.42	0.00	6.95	0.00	10.42	0.00	0.00	0.00	0.00	0.69	0.00	45.85
Akzo mil prf 22750 36231 paint	13.8	2.00	1.00%	4.20%	0.00%	0.00%	0.00%	4.10%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.21	5.08	0.00	0.00	0.00	4.96	0.00	0.00	0.00	0.00	0.00	0.00	11.24
Akzo mil prf 22750	7.8	2.00	22.40%	0.00%	0.00%	5.20%	9.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	15.31	0.00	0.00	3.55	6.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.35
Everlube 620 (pev620)	9.2	2.00	0.00%	25.00%	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	20.15	0.00	0.00	0.00	0.00	4.03	0.00	0.00	0.00	0.00	0.00	24.18
Everlube Lube-Lok 1000	9.9	2.00	70.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.00%	60.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.68	82.39
EM Lube-Lok 4253	9	2.00	0.00%	25.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	10.00%	0.00%	0.00%	0.00	19.71	0.00	0.00	0.00	0.00	0.00	0.00	7.88	7.88	0.00	0.00	35.48
EM Lube-Lok 4396	9.4	2.00	0.00%	50.00%	1.00%	0.00%	0.00%	0.00%	1.00%	0.00%	5.00%	5.00%	0.00%	0.00%	0.00	41.17	0.82	0.00	0.00	0.00	0.82	0.00	4.12	4.12	0.00	0.00	51.05
EM Lube-Lok 5306	9.1	2.00	0.00%	20.00%	0.10%	0.00%	0.00%	20.00%	5.00%	0.00%	0.00%	0.00%	0.00%	5.00%	0.00	15.94	0.08	0.00	0.00	15.94	3.99	0.00	0.00	0.00	0.00	3.99	39.94
Coatings for Industry alseal 518	13.77	2.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.30%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.98	0.00	0.00	0.00	0.00	3.98
Akzo High Solids Epoxy Primer 23377 yellow	13.6	2.00	2.40%	0.00%	0.00%	0.60%	0.00%	9.00%	0.00%	30.50%	0.00%	0.00%	0.00%	0.00%	2.86	0.00	0.00	0.71	0.00	10.72	0.00	36.34	0.00	0.00	0.00	0.00	50.63
Chemsl Mil C 22750 Epoxy Coating HS Base	13.35	2.00	7.00%	0.00%	0.00%	0.00%	0.00%	6.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	8.19	0.00	0.00	0.00	0.00	7.02	0.00	0.00	0.00	0.00	0.00	0.00	15.20
Solvent Blend 3534	6.86	2.00	0.00%	33.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	19.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.83
Primer	12.9	2.00	5.00%	0.00%	0.00%	0.00%	0.00%	35.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.65	0.00	0.00	0.00	0.00	39.55	0.00	0.00	0.00	0.00	0.00	0.00	45.20
Primer Solvent	6.49	2.00	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	5.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.69
Topcoat	9.62	2.00	47.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	39.61	0.00	0.00	4.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	43.82
Topcoat Solvent	7.25	2.00	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	63.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	63.51
Potential HAP Emissions from Worst Case coatings															**63.51**	**41.17**	**0.82**	**6.95**	**6.49**	**39.55**	**4.03**	**36.34**	**7.88**	**7.88**	**0.69**	**21.68**	**237.00**

METHODOLOGY
Materials listed include the worst case coatings used in recently in the paint booths and the worst case coatings that were previously listed in FESOP 141-14152-00090 and Significant Permit Revisions F141-16781-00090 and F141-18648-00090
HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emission Calculations
PM and PM10 Emissions
Blasters B1 through B5 and PB-1

Company Name: **Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies**
Address City IN Zip: **1302 West Sample St., South Bend, IN 46619**
FESOP: **141-30937-00090**
Administrative Amendment: **141-32695-00090**
Reviewer: **Deborah Cole**

Description	Unit ID	Max. Abrasive Usage (lbs/hr)	*PM Emission Factor (lbs/lbs)	PTE of PM Uncontrolled (lbs/hr)	PTE of PM Uncontrolled (tons/yr)	*PM10 Emission Factor (lbs/lbs PM)	PTE of PM10 Uncontrolled (lbs/hr)	PTE of PM10 Uncontrolled (tons/yr)
Small Cabinet Blaster: Glass, Plastic Bead or Aluminum Oxide Media	Blaster 4 (B4)	0.50	0.04	0.02	0.09	0.70	0.01	0.06
Large Dual Cabinet Blaster: Aluminum Oxide Media	Blaster 2 (B2)	0.67	0.04	0.03	0.12	0.70	0.02	0.08
Small Cabinet Blaster: Glass, Plastic Bead or Aluminum Oxide	Blaster 3 (B3)	0.50	0.04	0.02	0.09	0.70	0.01	0.06
Wet Blaster: Vermiculite Media	Blaster 5 (B5)	0.06	0.04	0.00	0.01	0.70	0.00	0.01
Tumble Blaster: Aluminum Oxide Media	Blaster 1 (B1)	0.25	0.04	0.01	0.04	0.70	0.01	0.03
New Pencil Blaster: Aluminum Oxide Media	**PB-1**	**0.50**	**0.04**	**0.02**	**0.09**	**0.70**	**0.01**	**0.06**
	Total				**0.44**			**0.31**

* The emission factors are the ones for sand blasting from Air Quality Permits, Vol.1, Section 3 "Abrasive Blasting" (1991 Edition) by Stappa Alapco.

Methodology

PTE = Potential to Emit
PTE of PM/PM10 Uncontrolled (lbs/hr) = Max. Abrasive Usage (lbs/hr) x PM/PM10 Emission Factor (lbs/lbs)
PTE of PM/PM10 Uncontrolled (tons/yr) = Max. Abrasive Usage (lbs/hr) x PM/PM10 Emission Factor (lbs/lbs) x 8760 hr/yr x 1 ton/2000 lbs
Assume that PM10 = PM 2.5

Appendix A: Emissions Calculations
Degreasing and Oil Tanks

Company Name: **Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies**
Address City IN Zip: **1302 West Sample St., South Bend, IN 46619**
FESOP: **141-30937-00090**
Administrative Amendment: **141-32695-00090**
Reviewer: **Deborah Cole**

Material	Maximum Consumption (lbs/hr)	Weight % VOC	VOC Emissions (tons/yr)
MEK	2.267	100%	9.93
Isopropyl Alcohol	1.400	100%	6.13
Mineral Spirits and Oil	0.555	100%	2.43
	TOTALS	**(tons/yr)**	**18.5**

Total State Potential Emissions

METHODOLOGY

Note: PTE calculations for Degreasing and Oil Tanks were from the previously issued FESOP 141-14152-00090
VOC/HAPs emission rate (tons/yr) = Material Usage (lbs/hr) * Weight % VOC/HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emission Calculations
NOx Emissions from Passivation Line

Company Name: Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
Address City IN Zip: 1302 West Sample St., South Bend, IN 46619
FESOP: 141-30937-00090
Administrative Amendment: 141-32695-00090
Reviewer: Deborah Cole

NOx Emissions

Process	Parts Passivated (cub. ft./ yr)	Free Iron on parts (microns/ sq. ft.)	Free iron on parts (cub. ft/sq. ft)	Amount of Free Iron (cub. ft.)	Density of Iron (lbs/ cub. ft.)	Amount of Free Iron (lb moles)	NO3 per lb mole of iron (lbs/ lb mole Fe)	NOx emissions (lbs/yr)	NOx emissions (tons/yr)
Passivation Line	47590	10	3.28E-05	1.56	490.68	13.72	62	851	0.425

Methodology
Assumption: Maximum thickness of 50 microns of free Iron on surface of parts prior to passivation
Free iron on parts (cub. ft/sq. ft) = Free Iron on parts (microns/sq. ft) x 3.937E-5 inch/micron/ 12 inches/ft
Amount of Free Iron (cub. ft) = Free Iron on Parts (cub. ft/sq. ft) x Parts Passivated (cub. ft/yr)
Amount of Free Iron (lb moles) = Density of Iron (lbs/cub. ft) x Amount of Free Iron (cub. ft) x 1 lb mole/ 55.847 lbs
NO3 emissions (lbs/yr) = NO3 amount (lbs/lb mole) x Amount of Free Iron (lb moles)
NO3 emissions (tons/yr) = NO3 emissions (lbs/yr) / 2,000 lbs/ton
Calculations based on the ALOHA model.

NOx Emissions

Tank	Capacity (gallons)	Molecular Weight HNO3 (Mw HNO3) (kg/kmol)	Molecular Weight Water (Mw H2O) (kg/kmol)	Molecular Diffusivity of Water in Air (D h2o) (sq.m/s)	Molecular Diffusivity of HNO3 in Air (D hno3) (sq.m/s)	Laminar Schmidt Number (Sc) (sq.m/s)	Vent flow rate (U) (m/s)	Tank Surface Diameter Along Wind Direction (Z) (m)	Mass Transfer Coefficient (Km) (m/s)	Concentration of 42 Be HNO3, 67.7 wt % (vol %)	Nominal Concentration of HNO3 in Tank (wt %)	Partial Vapor Pressure at 20 deg. C (Pv) (Pa)	Temperature (T) (deg C)	Surface Area of Tank (sq.m)	Evaporation Rate (kg/s)	Potential HNO3 Emissions (tons/yr)	Potential NOx Emissions (tons/yr)
F-10	265	63.013	18.015	2.4E-05	1.28E-05	1.169	10.1603	1.524	0.025	100.00%	67.70%	317.384	20	1.16	2.38E-04	8.31	8.31
E-24	12.86	63.013	18.015	2.4E-05	1.28E-05	1.169	0.52065	0.558	0.003	100.00%	67.70%	317.384	20	0.213	4.85555E-06	0.169	0.169
E-25	12.86	63.013	18.015	2.4E-05	1.28E-05	1.169	0.52065	0.558	0.003	100.00%	67.70%	317.384	20	0.213	4.85555E-06	0.169	0.169
E-30	10	63.013	18.015	2.4E-05	1.28E-05	1.169	0.52065	0.558	0.003	67.00%	45.36%	21.15	20	0.213	3.23567E-07	0.011	0.011
															Total:	**8.66**	**8.66**

Methodology
Note: PTE calculations for NOx emissions from the Passivation Line were from the previously issued FESOP 141-14152-00090
Molecular Diffusivity of HNO3 in Air (D hno3) = D h2o x (Mw H2O/Mw HNO3)^0.5
Laminar Schmidt Number (Sc) = Viscosity of Air (0.000015) / D hno3
Mass Transfer Coefficient (Km) = 0.0048 x U^(7/9) x Z^(-1/9) x Sc^(-2/3)
Evaporation Rate (kg/sec) = Surface Area of Tank x Km x (Mw HNO3 x Pv/(8314 J/kmolK) x (T+273.15))
Potential HNO3 Emissions = (Evaporation Rate (kg/sec) x 2.21 lb/kg) x 60 sec/min x 60 min/hr x 8,760 hrs/yr / 2,000 lbs/ton
Potential NOx Emissions = Potential HNO3 Emissions (conservative estimate)
Calculations based on the ALOHA model.

See next page for more NOx emissions

Appendix A: Emission Calculations
HF and NOx Emissions

Company Name: Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
Address City IN Zip: 1302 West Sample St., South Bend, IN 46619
FESOP: 141-30937-00090
Administrative Amendment: 141-32695-00090
Reviewer: Deborah Cole

ESTIMATION OF ACID LOSSES FROM NITRIC/HF PICKLING TANKS

Open Tanks

E-17

INPUT DATA			RESULTS				
Item	Units	Quantity	Item	Units	Quantity	Quantity	Quantity
HF in acid	% w/v	0			HF	HNO3	Water
HNO3 in acid	% w/v	47.42	Surface loss	lb/h/sqft	0.000	0.006	-0.056
Temperature	deg F	68	Total loss	lb/h	0.000	0.046	-0.45
Exhaust rate	cfm/sqft	0	Exhaust conc.	ppmv	0.000	0.338	
Total air	acfm	14000		% by vol			1.72
Tank width	ft	2		tons/yr	0.000	0.202	
Tank length	ft	4					
Calcs for open tank							
sg	1.251326						
%w/w HF	0						
%w/w HNO3	37.89580014						
vp HF	0						
vp HNO3/20	0.002178301						
vp HNO3/30	0.023158565						
vp HNO3/40	0.078108408						
vp HNO3 act	0.066545862						
temp K	293						
temp R	528						
vp water	17.46673786						
1-MR	0.658937799						
vp sol'n	11.5094938						
Air vel	29.16666667						
HF loss	0.000	per sq.ft					
HNO3 loss	0.006	per sq.ft					
water loss	-0.056169643	per sq.ft					

E-22

INPUT DATA			RESULTS				
Item	Units	Quantity	Item	Units	Quantity	Quantity	Quantity
HF in acid	% w/v	0			HF	HNO3	Water
HNO3 in acid	% w/v	47.42	Surface loss	lb/h/sqft	0.000	0.005	-0.051
Temperature	deg F	68	Total loss	lb/h	0.000	0.047	-0.456
Exhaust rate	cfm/sqft	0	Exhaust conc.	ppmv	0.000	0.343	
Total air	acfm	14000		% by vol			1.72
Tank width	ft	2.24		tons/yr	0.000	0.205	
Tank length	ft	4					
Calcs for open tank							
sg	1.251326						
%w/w HF	0						
%w/w HNO3	37.8958						
vp HF	0						
vp HNO3/20	0.0021783						
vp HNO3/30	0.0231586						
vp HNO3/40	0.0781084						
vp HNO3 act	0.0665459						
temp K	293						
temp R	528						
vp water	17.47						
1-MR	0.6589378						
vp sol'n	11.51						
Air vel	26.041667						
HF loss	0.000	per sq.ft					
HNO3 loss	0.005	per sq.ft					
water loss	-0.0508663	per sq.ft					

Closed Tanks

E-27

INPUT DATA			RESULTS				
Item	Units	Quantity	Item	Units	Quantity	Quantity	Quantity
HF in acid	% w/v	2.75			HF	HNO3	Water
HNO3 in acid	% w/v	22.76	Surface loss	lb/h/sqft	0.000	0.000	0.003
Temperature	deg F	68	Total loss	lb/h	0.000	0.000	0.007
Exhaust rate	acfm	2	Exhaust conc.	ppmv	51.944	2.970	
# takeoffs		1.47		% by vol			1.84
Tank width	ft	1.25		tons/yr	0.001	0.000	
Tank length	ft	1.83					
Freeboard	ft	0.58					
Calcs for closed tank							
sg	1.130638						
%w/w HF	2.432255063						
%w/w HNO3	20.13022736						
vp HF	0.033142677	mmHg					
vp HNO3/20	0.002178301	mmHg					
vp HNO3/30	0.023158565	mmHg					
vp HNO3/40	0.078108408	mmHg					
vp HNO3 act	0.002451522	mmHg					
temp K	293						
temp R	528						
vp water	17.46673786	mmHg					
1-MR	0.789640893						
vp sol'n	13.79245048	mmHg					
Air vel	0.015638439	fps					
HF loss	0.000140824	lb/h/sqft					
HNO3 loss	2.53615E-05	lb/h/sqft					
water loss	0.002981776	lb/h/sqft					

J-13

INPUT DATA			RESULTS				
Item	Units	Quantity	Item	Units	Quantity	Quantity	Quantity
HF in acid	% w/v	1.12			HF	HNO3	Water
HNO3 in acid	% w/v	18.18	Surface loss	lb/h/sqft	0.0001	0.0000	0.007
Temperature	deg F	68	Total loss	lb/h	0.00	0.00	0.02
Exhaust rate	acfm	2	Exhaust conc.	ppmv	22	2	
# takeoffs		1.47		% by vol			2.00
Tank width	ft	1.25		tons/yr	0.001	0.000	
Tank length	ft	1.83					
Freeboard	ft	0.42					
Calcs for closed tank							
sg	1.100						
%w/w HF	1.018						
%w/w HNO3	16.52						
vp HF	0.014	mmHg					
vp HNO3/20	0.002	mmHg					
vp HNO3/30	0.023	mmHg					
vp HNO3/40	0.078	mmHg					
vp HNO3 act	0.002	mmHg					
temp K	293						
temp R	528						
vp water	17.47	mmHg					
1-MR	0.8390994						
vp sol'n	14.66	mmHg					
Air vel	0.0215959	fps					
HF loss	5.902E-05	lb/h/sqft					
HNO3 loss	1.864E-05	lb/h/sqft					
water loss	0.0066627	lb/h/sqft					

Appendix A: Emission Calculations

HF and NOx Emissions

Company Name: Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
Address City IN Zip: 1302 West Sample St., South Bend, IN 46619
FESOP: 141-30937-00090
Reviewer: Sarah Germann
Date: 10/13/2011

ESTIMATION OF ACID LOSSES FROM NITRIC/HF PICKLING TANKS

E-4

INPUT DATA			RESULTS				
Item	Units	Quantity	Item	Units	Quantity	Quantity	Quantity
HF in acid	% w/v	2.77			HF	HNO3	Water
HNO3 in acid	% w/v	0	Surface loss	lb/h/sqft	0.001	0.000	0.094
Temperature	deg F	68	Total loss	lb/h	0.010	0.000	1.054
Exhaust rate	cfm/sqft	0	Exhaust conc.	ppmv	0.261	0.000	
Total air	acfm	12783		% by vol			1.73
Tank width	ft	2.25		tons/yr	0.045	0.000	
Tank length	ft	5					
Calcs for open tank							
sg	1.01						
%w/w HF	2.74						
%w/w HNO3	0.00						
vp HF	0.04						
vp HNO3/20	0.0022						
vp HNO3/30	0.0232						
vp HNO3/40	0.0781						
vp HNO3 act	0.0000						
temp K	293						
temp R	528						
vp water	17.47						
1-MR	0.97						
vp sol'n	16.89						
Air vel	18.94						
HF loss	0.001	per sq.ft					
HNO3 loss	0.000	per sq.ft					
water loss	0.094	per sq.ft					

E-13

INPUT DATA			RESULTS				
Item	Units	Quantity	Item	Units	Quantity	Quantity	Quantity
HF in acid	% w/v	2.86			HF	HNO3	Water
HNO3 in acid	% w/v	0	Surface loss	lb/h/sqft	0.001	0.000	0.133
Temperature	deg F	68	Total loss	lb/h	0.011	0.000	1.082
Exhaust rate	cfm/sqft	0	Exhaust conc.	ppmv	0.254	0.000	
Total air	acfm	14000		% by vol			1.73
Tank width	ft	2.04		tons/yr	0.048	0.000	
Tank length	ft	4					
Calcs for open tank							
sg	1.01						
%w/w HF	2.83						
%w/w HNO3	0.00						
vp HF	0.04						
vp HNO3/20	0.0022						
vp HNO3/30	0.0232						
vp HNO3/40	0.0781						
vp HNO3 act	0.0000						
temp K	293						
temp R	528						
vp water	17.47						
1-MR	0.9660336						
vp sol'n	16.873456						
Air vel	28.594771						
HF loss	0.0013504	per sq.ft					
HNO3 loss	0	per sq.ft					
water loss	0.1326129	per sq.ft					

E-30

INPUT DATA			RESULTS				
Item	Units	Quantity	Item	Units	Quantity	Quantity	Quantity
HF in acid	% w/v	0.08			HF	HNO3	Water
HNO3 in acid	% w/v	63.77	Surface loss	lb/h/sqft	0.000	see page 4	-0.013
Temperature	deg F	68	Total loss	lb/h	0.000	see page 4	-0.030
Exhaust rate	acfm	2	Exhaust conc.	ppmv	1.277	see page 4	
# takeoffs		1.47		% by vol			1.18
Tank width	ft	1.25		tons/yr	0.00003	see page 4	
Tank length	ft	1.83					
Freeboard	ft	0.58					
Calcs for closed tank							
sg	1.338						
%w/w HF	0.060						
%w/w HNO3	47.651						
vp HF	0.001	mmHg					
vp HNO3/20	0.002	mmHg					
vp HNO3/30	0.023	mmHg					
vp HNO3/40	0.078	mmHg					
vp HNO3 act	CONC TOO HIGH	mmHg					
temp K	293						
temp R	528						
vp water	17.47	mmHg					
1-MR	0.57						
vp sol'n	9.96	mmHg					
Air vel	0.02	fps					
HF loss	3.46101E-06	lb/h/sqft					
HNO3 loss	see page 4	lb/h/sqft					
water loss	-0.013237749	lb/h/sqft					

E-31

INPUT DATA			RESULTS				
Item	Units	Quantity	Item	Units	Quantity	Quantity	Quantity
HF in acid	% w/v	0.72			HF	HNO3	Water
HNO3 in acid	% w/v	0	Surface loss	lb/h/sqft	0.000	0.000	0.018
Temperature	deg F	68	Total loss	lb/h	0.000	0.000	0.041
Exhaust rate	acfm	2	Exhaust conc.	ppmv	15.382	0.000	
# takeoffs		1.47		% by vol			2.46
Tank width	ft	1.25		tons/yr	0.00042	0.000	
Tank length	ft	1.83					
Freeboard	ft	0.33					
Calcs for closed tank							
sg	1.0026208						
%w/w HF	0.718118						
%w/w HNO3	0						
vp HF	0.0097853	mmHg					
vp HNO3/20	0.0021783	mmHg					
vp HNO3/30	0.0231586	mmHg					
vp HNO3/40	0.0781084	mmHg					
vp HNO3 act	0	mmHg					
temp K	293						
temp R	528						
vp water	17.47	mmHg					
1-MR	0.9913826						
vp sol'n	17.32	mmHg					
Air vel	0.0274857	fps					
HF loss	4.17E-05	lb/h/sqft					
HNO3 loss	0	lb/h/sqft					
water loss	0.018036	lb/h/sqft					

Appendix A: Emission Calculations

HF and NOx Emissions

Company Name: Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
Address City IN Zip: 1302 West Sample St., South Bend, IN 46619
FESOP: 141-30937-00090
Reviewer: Sarah Germann
Date: 10/13/2011

C-33

INPUT DATA			RESULTS			
Item	Units	Quantity	Item	Units	Quantity	Quantity
HF in acid	% w/v	1.03			HF	HNO3
HNO3 in acid	% w/v	22.76	Surface loss	lb/h/sqft	0.0005	0.0009
Temperature	deg F	135	Total loss	lb/h	0	0
Exhaust rate	acfm	2	Exhaust conc.	ppmv	399	202
# takeoffs		1.47		% by vol		
Tank width	ft	1.83		tons/yr	0.011	0.017
Tank length	ft	2.5				
Freeboard	ft	0.58				
Calcs for closed tank						
sg	1.124					
%w/w HF	0.916					
%w/w HNO3	20.24					
vp HF	0.127	mmHg				
vp HNO3/20	0.075	mmHg				
vp HNO3/30	0.426	mmHg				
vp HNO3/40	1.249	mmHg				
vp HNO3 act	0.083	mmHg				
temp K	330.222					
temp R	595					
vp water	130.7	mmHg				
1-MR	0.80683					
vp sol'n	105.45	mmHg				
Air vel	0.01068	fps				
HF loss	0.00054	lb/h/sqft				
HNO3 loss	0.00086	lb/h/sqft				
water loss	0.41779	lb/h/sqft				

New Nitric/Hydrofluoric Acid Tank C-35

INPUT DATA			RESULTS				
Item	Units	Quantity	Item	Units	Quantity	Quantity	Quantity
HF in acid	% w/v	2.0			HF	HNO3	Water
HNO3 in acid	% w/v	20.0	Surface loss	lb/h/sqft	0.002	0.001	0.705
Temperature	deg F	140.0	Total loss	lb/h	0.02	0.01	
Exhaust rate	cfm/sqft	0.0	Exhaust conc.	ppmv	5.66	1.28	
Total air	acfm	1011.0		% by vol			1.72
Tank width	ft	2.2		tons/yr	0.08	0.06	
Tank length	ft	4.7					
Calcs for open tank							
sg	1.11328						
%w/w HF	1.796493245						
%w/w HNO3	17.96493245						
vp HF	0.290750861						
vp HNO3/20	0.094447609						
vp HNO3/30	0.515476619						
vp HNO3/40	1.498827796						
vp HNO3 act	0.084837246						
temp K	333						
temp R	600						
vp water	148.8021564						
1-MR	0.816757689						
vp sol'n	121.5353053						
Air vel	1.662735965						
HF loss	0.001751205	per sq.ft					
HNO3 loss	0.001243953	per sq.ft					
water loss	0.704596662	per sq.ft					

Assumptions for HNO3 and HF tanks- Evaporation into air at 60-80 deg F, 70%RH
Essentially atmospheric pressure
Either general building or lateral exhaust.
Less than 15% HF and/or 35% nitric

	Total Potential HNO3 Emissions (tons/yr):	**0.480**
	Total Potential NOx Emissions (tons/yr):	**0.480**
	Total Potential HF Emissions (tons/yr):	**0.185**

Methodology

Calculation methodology by Esco Engineering, Kingsville, Ontario - March 1993
This spreadsheet cannot handle concentrations greater than 40% of nitric acid. Emissions from those tanks (F-10, E-24, E-25 and E-30) are calculated on the previous page.

For total emissions from OPEN tanks:
Based on either air flow per square foot of tank surface or the total rate and tank dimensions

For total emissions from CLOSED tanks:
Freeboard is the distance from the liquid surface to the underside of the cover.
The # of takeoffs is the number of points at which air is exhausted from the tank - assumed equally spaced.
For strip picklers with continuous side slots, # of takeoffs = tank length/tank width

CORRECTION FACTORS - Esco Engineering, Kingsville, Ontario - March 1993

The spreadsheet calculations give maximum values for emissions based on the assumptions, i.e.
- all air passes over the whole liquid surface
- air above the liquid contains no acid vapor
- air/acid vapor/water vapor are uniformly mixed

In practice, some air will short-circuit, and only pass over some of the surface, and the mixture will not be uniform.
Also, the evaporation into the air will reduce the rate of evaporation towards the outlet end of the air flow.
Calculations on the effect of the build-up of acid and water vapors in the air show that this introduces an error of less than 10% (high) in the estimate, for typical pickling conditions.
Comparison of estimated and measured values show that the estimates are fairly good for open tanks.
Uneven air flow, and incomplete mixing, in closed picklers, have quite a significant effect in reducing rates of evaporation.

Appendix A: Emission Calculations
HCl Emissions

Company Name: Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
Address City IN Zip: 1302 West Sample St., South Bend, IN 46619
FESOP: 141-30937-00090
Administrative Amendment: 141-32695-00090
Reviewer: Deborah Cole

ESTIMATION OF HCl LOSSES FROM PICKLING TANKS

Open Tank
C-3

INPUT DATA			RESULTS			
Item	Units	Quantity	Item	Units	Quantity	Quantity
HCl in acid	% w/v	9.35			HCl	Water
Fe in acid	% w/v	4.5	Surface loss	lb/h/sqft	0.000	0.035
Temperature	deg F	68	Total loss	lb/h	0.006	0.756
Exhaust rate	cfm/sqft	0	Exhaust conc.	ppmv	0.152	
Total air	acfm	7000		% by vol		1.73
Tank width	ft	3.25		ton/yr	0.026	
Tank length	ft	6.71				
Calcs for open tank						
sg	1.147					
%w/w acid	8.151					
%w/w FeCl2	8.897					
vp HCl	0.018					
temp K	293.000					
vp water	17.467					
1-MR	0.948					
vp sol'n	16.559					
Air vel	5.350					
HCl loss	2.77E-04	per sq.ft				
water loss	0.035	per sq.ft				

Open Tank
E-4

INPUT DATA			RESULTS			
Item	Units	Quantity	Item	Units	Quantity	Quantity
HCl in acid	% w/v	10.37			HCl	Water
Fe in acid	% w/v	4.5	Surface loss	lb/h/sqft	0.001	0.085
Temperature	deg F	68	Total loss	lb/h	0.012	0.962
Exhaust rate	cfm/sqft	0	Exhaust conc.	ppmv	0	
Total air	acfm	12783		% by vol		1.73
Tank width	ft	2.25		ton/yr	0.050	
Tank length	ft	5				
Calcs for open tank						
sg	1.15					
%w/w acid	9.02					
%w/w FeCl2	8.88					
vp HCl	0.03					
temp K	293					
vp water	17.47					
1-MR	0.95					
vp sol'n	16.56					
Air vel	18.94					
HCl loss	0.0010	per sq.ft				
water loss	0.09	per sq.ft				

Open Tank
E-13

INPUT DATA			RESULTS			
Item	Units	Quantity	Item	Units	Quantity	Quantity
HCl in acid	% w/v	10.26			HCl	Water
Fe in acid	% w/v	4.5	Surface loss	lb/h/sqft	0.001	0.122
Temperature	deg F	68	Total loss	lb/h	0.011	0.992
Exhaust rate	cfm/sqft	0	Exhaust conc.	ppmv	0	
Total air	acfm	14000		% by vol		1.72
Tank width	ft	2.04		ton/yr	0.050	
Tank length	ft	4				
Calcs for open tank						
sg	1.15					
%w/w acid	8.93					
%w/w FeCl2	8.88					
vp HCl	0.026					
temp K	293.000					
vp water	17.467					
1-MR	0.948					
vp sol'n	16.560					
Air vel	28.595					
HCl loss	0.001	per sq.ft				
water loss	0.122	per sq.ft				

Open Tank
F-6

INPUT DATA			RESULTS			
Item	Units	Quantity	Item	Units	Quantity	Quantity
HCl in acid	% w/v	7.44			HCl	Water
Fe in acid	% w/v	4.5	Surface loss	lb/h/sqft	0.000	0.048
Temperature	deg F	68	Total loss	lb/h	0.002	0.536
Exhaust rate	cfm/sqft	0	Exhaust conc.	ppmv	0	
Total air	acfm	6000		% by vol		1.73
Tank width	ft	3.17		ton/yr	0.009	
Tank length	ft	3.5				
Calcs for open tank						
sg	1.14					
%w/w acid	6.51					
%w/w FeCl2	8.93					
vp HCl	0.008					
temp K	293.000					
vp water	17.467					
1-MR	0.948					
vp sol'n	16.556					
Air vel	9.013					
HCl loss	0.000	per sq.ft				
water loss	0.048	per sq.ft				

Appendix A: Emission Calculations
HCl Emissions

Company Name: Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies
Address City IN Zip: 1302 West Sample St., South Bend, IN 46619
FESOP: 141-30937-00090
Reviewer: Sarah Germann
Date: 10/13/2011

ESTIMATION OF HCl LOSSES FROM PICKLING TANKS

Closed Tank
E-31

INPUT DATA			RESULTS			
Item	Units	Quantity	Item	Units	Quantity	Quantity
HCl in acid	% w/v	2.5			HCl	Water
Fe in acid	% w/v	4.5	Surface loss	lb/h/sqft	0.00001	0.015
Temperature	deg F	68	Total loss	lb/h	0.00002	0.034
Exhaust rate	acfm	2	Exhaust conc.	ppmv	2	
# takeoffs		1.47		% by vol		2.33
Tank width	ft	1.25		ton/yr	0.0001	
Tank length	ft	1.83				
Freeboard	ft	0.33				
Calcs for closed tank						
sg	1.133					
%w/w acid	2.207					
%w/w FeCl2	9.008					
vp HCl	0.001					
temp K	293.000					
vp water	17.467					
1-MR	0.947					
vp sol'n	16.548					
Air vel	0.027					
HCl loss	7.50E-06	per sq.ft				
water loss	0.015	per sq.ft				

Total Potential HCl Emissions (tons/yr):	**0.135**

Methodology

Calculation methodology by Esco Engineering, Kingsville, Ontario - March 1993

For total emissions from OPEN tanks:
Based on either air flow per square foot of tank surface or the total rate and tank dimensions

For total emissions from CLOSED tanks:
Freeboard is the distance from the liquid surface to the underside of the cover.
The # of takeoffs is the number of points at which air is exhausted from the tank - assumed equally spaced.
For strip picklers with continuous side slots, # of takeoffs = tank length/tank width

CORRECTION FACTORS - Esco Engineering, Kingsville, Ontario - March 1993

The spreadsheet calculations give maximum values for emissions based on the assumptions, i.e.
- all air passes over the whole liquid surface
- air above the liquid contains no acid vapor
- air/acid vapor/water vapor are uniformly mixed

In practice, some air will short-circuit, and only pass over some of the surface, and the mixture will not be uniform.
Also, the evaporation into the air will reduce the rate of evaporation towards the outlet end of the air flow.
Calculations on the effect of the build-up of acid and water vapors in the air show that this introduces an error of less than 10% (high) in the estimate, for typical pickling conditions.
Comparison of estimated and measured values show that the estimates are fairly good for open tanks.
Uneven air flow, and incomplete mixing, in closed picklers, have quite a significant effect in reducing rates of evaporation.

SOURCES OF DATA - HCl TANKS
Vapor pressure of pickling solutions:
Dow Chemical, from 'Development of hydrochloric acid pickling of steel in India', Akerkar, D.D. and Shahani, NML Tech Journal, Vol 12, #11, 87-92, (1970)
Specific gravity of pickling solutions:
Esco Engineering lab work
Elevation of boiling point of ferrous chloride:
International Critical Tables, McGraw Hill, 1926
Emissions from open-top tanks:
'Heat Losses from tanks, vats and kettles', Friedman, S.J., Heating and Ventilating, April 1948
Vapor pressure of water:
'Table of properties of pure compounds', DIPRR, AIChE, 1985

Assumptions for HCl tanks-
Evaporation into air at 60-80 deg F, 70%RH
Essentially atmospheric pressure
Tanks are covered, with multiple exhaust points, assumed equally spaced.

Appendix A: Emissions Calculations
Natural Gas Fired Units
MM BTU/HR <100

Company Name: **Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies**
Address City IN Zip: **1302 West Sample St., South Bend, IN 46619**
FESOP: **141-30937-00090**
Administrative Amendment: **141-32695-00090**
Reviewer: **Deborah Cole**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
1.4	12.3

	Pollutant						
	PM*	PM10*	PM2.5	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.01	0.05	0.05	0.004	0.61	0.03	0.52

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined. PM2.5 emission

**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
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-
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See next page for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Fired Units
MM BTU/HR <100
HAPs Emissions

Company Name: **Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies**
Address City IN Zip: **1302 West Sample St., South Bend, IN 46619**
FESOP: **141-30937-00090**
Administrative Amendment: **141-32695-00090**
Reviewer: **Deborah Cole**

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	0.00001	0.00001	0.00046	0.01104	0.00002

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	
Emission Factor in lb/MMcf	5.00E-04	1.10E-03	1.40E-03	3.80E-04	2.10E-03	Total
Potential Emission in tons/yr	0.000003	0.000007	0.000009	0.000002	0.000013	0.012

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: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Greenhouse Gas Emissions

Company Name: **Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies**
Address City IN Zip: **1302 West Sample St., South Bend, IN 46619**
FESOP: **141-30937-00090**
Administrative Amendment: **141-32695-00090**
Reviewer: **Deborah Cole**

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	735.84	0.01	0.01
Summed Potential Emissions in tons/yr	735.87		
CO2e Total in tons/yr	740.32		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emissions Calculations
Natural Gas Fired Units
MM BTU/HR <100

Company Name: **Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies**
Address City IN Zip: **1302 West Sample St., South Bend, IN 46619**
FESOP: **141-30937-00090**
Administrative Amendment: **141-32695-00090**
Reviewer: **Deborah Cole**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
4.0	35.0

(This includes the removal of M-2 and the addition of M-3)

	Pollutant						
	PM*	PM10*	PM2.5	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.03	0.13	0.13	0.011	1.75	0.10	1.47

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined. PM2.5 emission

**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
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 1-03-0
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See next page for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Fired Units
MM BTU/HR <100
HAPs Emissions

Company Name: **Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies**
Address City IN Zip: **1302 West Sample St., South Bend, IN 46619**
FESOP: **141-30937-00090**
Administrative Amendment: **141-32695-00090**
Reviewer: **Deborah Cole**

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	0.0000	0.0000	0.0013	0.0315	0.0001

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	Total
Potential Emission in tons/yr	0.00001	0.00002	0.00002	0.00001	0.00004	0.033

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: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Greenhouse Gas Emissions

Company Name: **Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies**
Address City IN Zip: **1302 West Sample St., South Bend, IN 46619**
FESOP: **141-30937-00090**
Administrative Amendment: **141-32695-00090**
Reviewer: **Deborah Cole**

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	2,102.40	0.04	0.04
Summed Potential Emissions in tons/yr	2,102.48		
CO2e Total in tons/yr	2,115.19		

Methodology
The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emission Calculations
Fugitive Dust Emissions - Paved Roads

Company Name: **Imagineering Enterprises, Inc. dba Imagineering Finishing Technologies**
Address City IN Zip: **1302 West Sample St., South Bend, IN 46619**
FESOP: **141-30937-00090**
Administrative Amendment: **141-32695-00090**
Reviewer: **Deborah Cole**

Paved Roads at Industrial Site

The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (12/2003).

Vehicle Informtation (provided by source)

Type	Maximum number of vehicles	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Vehicle (entering plant) (one-way trip)	50.0	1.0	50.0	2.5	125.0	1320	0.250	12.5	4562.5
Vehicle (leaving plant) (one-way trip)	50.0	1.0	50.0	2.5	125.0	1320	0.250	12.5	4562.5
		Total	**100.0**		**250.0**			**25.0**	**9125.0**

Average Vehicle Weight Per Trip =	2.5	tons/trip
Average Miles Per Trip =	0.25	miles/trip

Unmitigated Emission Factor, Ef = [k * (sL/2)^0.65 * (W/3)^1.5 - C] (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5		
where k =	0.082	0.016	0.0024	lb/mi =	particle size multiplier (AP-42 Table 13.2.1-1)
W =	2.5	2.5	2.5	tons =	average vehicle weight (provided by source)
C =	0.00047	0.00047	0.00036	lb/mi =	emission factor for vehicle exhaust, brake wear, and tire wear (AP-42 Table 13.2.1-2
sL =	0.6	0.6	0.6	g/m^2 =	Ubitiguous Baseline Silt Loading Values of paved roads (Table 13.2.1-3 for summe

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [1 - (p/4N)]
Mitigated Emission Factor, Eext = Ef * [1 - (p/4N)]

where p =	125	days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N =	365	days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	2.81E-02	5.10E-03	4.75E-04	lb/mile
Mitigated Emission Factor, Eext =	2.56E-02	4.66E-03	4.34E-04	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Vehicle (entering plant) (one-way trip)	6.40E-02	1.16E-02	1.08E-03	5.85E-02	1.06E-02	9.90E-04
Vehicle (leaving plant) (one-way trip)	6.40E-02	1.16E-02	1.08E-03	5.85E-02	1.06E-02	9.90E-04
	0.13	**0.02**	**0.00**	**0.12**	**0.02**	**0.00**

Methodology

Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile]
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
Unmitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Unmitigated Emission Factor (lb/mile)] * (ton/2000 lbs)
Mitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Mitigated Emission Factor (lb/mile)] * (ton/2000 lbs)
Controlled PTE (tons/yr) = [Mitigated PTE (tons/yr)] * [1 - Dust Control Efficiency]

Abbreviations

PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particle Matter (<2.5 um)
PTE = Potential to Emit

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

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

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Jacinda Edman
Imagineering Enterprises, Inc
1302 W Sample St
South Bend, IN 46619

DATE: January 31, 2013

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

SUBJECT: Final Decision
Administrative Amendment
141-32695-00090

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Michael Kolo (Vice President – Operations)
Nate Black (D&B Environmental Services, Inc)
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 11/30/07

Mail Code 61-53

IDEM Staff	MIDENNEY 1/31/2013 Imagineering Enterprises, Inc. 141-32695-00090 (final)			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**	

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1		Jacinda Edman Imagineering Enterprises, Inc. 1302 W Sample St South Bend IN 46619 (Source CAATS) via confirm delivery									
2		Michael A Kolo VP - Ops Imagineering Enterprises, Inc. 1302 W Sample St South Bend IN 46619 *(RO CAATS)*									
3		Mr. Wayne Falda South Bend Tribune 255 W Colfax Ave South Bend IN 46626 *(Affected Party)*									
4		South Bend City Council / Mayors Office 227 W. Jefferson Blvd. South Bend IN 46601 *(Local Official)*									
5		St. Joseph County Board of Commissioners 227 West Jefferson Blvd, South Bend IN 46601 *(Local Official)*									
6		St. Joseph County Health Department 227 W Jefferson Blvd, Room 825 South Bend IN 46601-1870 *(Health Department)*									
7		Nate Black D & B Environmental Services, Inc. 401 Lincoln Way West Osceola IN 46561 *(Consultant)*									
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