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

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: June 10, 2011

RE: Meggitt (Troy), Inc./ 123-29484-00011

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

Notice of Decision: Approval - Effective Immediately

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

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

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

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

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

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

Enclosures
FNPER.dot12/03/07

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Minor Source Operating Permit
OFFICE OF AIR QUALITY

Meggitt (Troy), Inc.
3 Industrial Drive
Troy, Indiana 47588

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

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

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

Operation Permit No.: M123-29484-00011	
Issued by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: June 10, 2011 Expiration Date: June 10, 2016

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SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a stationary metal aircraft part manufacturing and painting source.

Source Address:	3 Industrial Drive, Troy, Indiana 47588
General Source Phone Number:	(812) 547-7071
SIC Code:	3724, 3795
County Location:	Perry
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary

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

(a) Surface Operations, including the following:

(1) Spray coating Operations, for the coating of metal aircraft parts, including the following:

(A) One (1) spray paint booth, formerly identified as the Code 9 Paint Booth and re-identified as the Gray Cell Paint Booth (EU001), constructed in 1989, equipped with one (1) low pressure air atomization spray gun, having a maximum application rate of ten (10) ounces of coating per minute, with water wash for overspray control, and exhausting to one (1) stack identified as SV001;

Under 40 CFR 63, Subpart HHHHHH - National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, this is considered an affected facility.

(B) One (1) spray paint booth, identified as the Blue Cell Paint Booth (EU003), constructed in 1989, equipped with one (1) low pressure air atomization spray gun for use with primer coating and one (1) high volume low pressure (HVLP) spray gun for use with the top coating, having a maximum application rate of ten (10) ounces of coating per minute, with water wash for overspray control, and exhausting to one (1) stack identified as SV003;

(C) One (1) spray paint booth, identified as the New Green Cell Paint Booth (EU004), constructed in 2009, equipped with one (1) high volume low pressure (HVLP) spray gun, having a maximum application rate of ten

(10) ounces of coating per minute, with water wash for overspray control, and exhausting to one (1) stack identified as SV004;

Under 40 CFR 63, Subpart HHHHHH - National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, this is considered an affected facility.

(D) One (1) spray paint booth, identified as the Old Green Cell Paint Booth (EU005), constructed in 1989, equipped with one (1) high volume low pressure (HVLP) spray gun, having a maximum application rate of ten (10) ounces of coating per minute, with water wash for overspray control, and exhausting to one (1) stack identified as SV005; and

Under 40 CFR 63, Subpart HHHHHH - National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, this is considered an affected facility.

(E) One (1) spray paint booth, formerly identified as the touch-up paint booth and re-identified as the NICROBRAZ Booth (EU007), constructed in 1989, for coating metal aircraft parts using aerosol spray cans, having a maximum application rate of twelve (12) ounces of coating per twenty (20) units, with dry filters for overspray control, and exhausting to one (1) stack identified as SV007.

(2) Miscellaneous metal coating operations, including the following:

(A) One (1) metal coating operation, identified as Glyptal 1202 coating (EU103), constructed in 1990, for the hand application of coatings to metal aircraft parts, uncontrolled and exhausting inside the building; and

(B) One (1) metal coating operation, identified as HeliCoil coating (EU120), constructed in 2008, for the hand application of coatings to metal aircraft parts, uncontrolled and exhausting inside the building.

(3) Metal Coating/Treatment Operations, including the following:

(A) One (1) Zinc And Iron Phosphate Line, constructed in 1989, for treating metal aircraft parts at a rate of four hundred (400) pounds per hour, equipped with one (1) wet scrubber, exhausting outside the building, and including:

(i) one (1) alkaline tank, identified as EU016 (Tank 1);

(ii) one (1) muriatic acid tank, referred to as EU017 (Tank 2);

(iii) one (1) zinc phosphate tank, identified as EU018 (Tank 4);

Under 40 CFR 63, Subpart WWWWWW - National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations, this is considered an affected facility.

(iv) one (1) acid rinse tank, identified as EU019 (Tank 5); and

(v) four (4) tap water rinse tanks.

(vi) One (1) Deionized Water System, identified as the DI System, using Hydrochloric Acid and Sodium Hydroxide to recharge the ion exchange beds, uncontrolled and exhausting inside the building;

(B) Two (2) Alodine Acid Treatment Lines, identified as Alodine Lines A & C, and constructed in 1989, and 2009, respectively, for treating metal aircraft parts at a maximum rate of one hundred twenty (120) pounds per hour, each, and including the following:

(i) One (1) phosphoric acid tank, identified as Tank 1, uncontrolled and exhausting outside the building;

(ii) one (1) aluminum cleaner tank, identified as Tank 2, uncontrolled and exhausting outside the building;

(iii) one (1) deoxidizer tank, identified as Tank 5, emissions controlled by minimizing agitation and using surface balls, and exhausting outside the building;

(iv) One (1) electroless chromium conversion tank, identified as Tank 7, emissions controlled by minimizing agitation and using surface balls, and exhausting outside the building.

Under 40 CFR 63, Subpart WWWWWW - National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations, this is considered an affected facility.

(v) Five (5) tap water rinse tanks;

(C) One (1) Alodine Acid Treatment Line, identified as the PW600 Line (Alodine Line B), constructed in 2007, for treating metal aircraft parts at a maximum rate of twenty (20) pounds per hour, and including:

(i) one (1) aluminum cleaner tank, identified as Tank 1, uncontrolled and exhausting outside the building;

(ii) one (1) deoxidizer tank, identified as Tank 4, emissions controlled by minimizing agitation and using surface balls, and exhausting outside the building;

(iii) One (1) electroless chromium conversion tank, identified as Tank 6, emissions controlled by minimizing agitation and using surface balls, and exhausting outside the building; and

Under 40 CFR 63, Subpart WWWWWW - National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations, this is considered an affected facility.

(iv) Three (3) tap water rinse tanks;

(b) Metal Cleaning and Degreasing Operations, including the following:

(1) One (1) metal cleaning line, identified as Blue Cell Cleaning Line, constructed in 2000, uncontrolled, exhausting inside the building, and including: [326 IAC 8-3-4] [326 IAC 8-3-7]

(A) one (1) So-brite acid wash tank, identified as Tank 1; and

(B) one (1) tap water rinse tank.

(2) One (1) metal cleaning line, identified as Green Cell Cleaning Line, constructed in 2000, uncontrolled, exhausting inside the building, and including: [326 IAC 8-3-4] [326 IAC 8-3-7]

(A) one (1) So-brite acid wash tank, identified as Tank 1; and

(B) one (1) tap water rinse tank.

(3) One (1) metal cleaning line, identified as PW600 Cleaning Line (Alodine Acid Treatment Line B), constructed in 2007, uncontrolled, exhausting outside the building, and including: [326 IAC 8-3-4] [326 IAC 8-3-7]

(A) one (1) Terj alkaline wash tank, identified as Tank 1;

(B) one (1) So-brite acid wash tank, identified as Tank 3; and

(C) Two (2) tap water rinse tanks.

(4) One (1) metal cleaning line, identified as Core Cell Cleaning Line 1 (EU027), constructed in 1989, uncontrolled, exhausting outside the building, and including: [326 IAC 8-3-4]

(A) one (1) Terj alkaline wash tank, identified as Tank 1;

(B) one (1) So-brite acid wash tank, identified as Tank 4; and

(C) four (4) tap water rinse tanks.

(5) One (1) metal cleaning line, identified as Core Cell Cleaning Line 2 (EU028), constructed in 1989, uncontrolled, exhausting outside the building, and including: [326 IAC 8-3-4]

(A) one (1) hydrofluoric acid tank, identified as Tank 1;

(B) one (1) picking tank, identified as Tank 3;

(C) one (1) phosphoric acid passivation tank, identified as Tank 4; and

(D) four (4) tap water rinse tanks.

(6) One (1) metal cleaning line, identified as Yellow Cell Cleaning Line, constructed in 2006, uncontrolled, exhausting inside the building, and including: [326 IAC 8-3-4] [326 IAC 8-3-7]

(A) one (1) So-brite acid wash tank, identified as Tank 1; and

(B) one (1) tap water rinse tank.

(7) One (1) metal cleaning line, identified as NPD Cell Cleaning Line, constructed in 2008, uncontrolled, exhausting inside the building, and including the following: [326 IAC 8-3-4] [326 IAC 8-3-7]

(A) one (1) So-brite acid wash tank, identified as Tank 1; and

(B) one (1) tap water rinse tank.

(8) Industrial Flushing rigs, formerly Stoddard flushing units, using ISOPAR K Flushing Solvent, a non-HAP containing solvent, and including the following: [326 IAC 8-3-2]

(A) Blue Cell 1 flushing rig, identified as EU025D, constructed in 1998, with a maximum throughput of capacity two and twenty-eight hundredths (2.28) pounds of solvent per hour, uncontrolled and exhausting to stack SV016D;

(B) Blue Cell 2 flushing rig, identified as EU025E, constructed in 1999, with a maximum throughput of capacity two and twenty-eight hundredths (2.28) pounds of solvent per hour, uncontrolled and exhausting to stack SV016E;

(C) Green Cell flushing rig, identified as EU025B, constructed in 1989, with a maximum throughput capacity of six and thirty-eight hundredths (6.38) pounds of solvent per hour, uncontrolled and exhausting to stack SV016B;

(D) PW600 Cell 1 flushing rig, identified as EU098 (Alodine Acid Treatment Line B), constructed in 2007, with a maximum throughput of capacity two and twenty-eight hundredths (2.28) pounds of solvent per hour, uncontrolled and exhausting to stack SV098; and

(E) PW600 Cell 2 flushing rig, identified as EU099 (Alodine Acid Treatment Line B), constructed in 2007, with a maximum throughput of capacity two and twenty-eight hundredths (2.28) pounds of solvent per hour, uncontrolled and exhausting to stack SV099;

(F) FAA Cell flushing rig, identified as EU025A, constructed in 1989, with a maximum throughput capacity of 6.38 pounds of solvent per hour, uncontrolled and exhausting to stack SV016A;

(G) Yellow Cell flushing rig, identified as EU025C, constructed in 1989, with a maximum throughput capacity of six and thirty-eight hundredths (6.38) pounds of solvent per hour, uncontrolled and exhausting to stack SV016C;

(9) Industrial Parts Washers, utilizing an alkaline, soap-based, non-VOC/non-HAP containing cleaner, constructed in 1995, 1995, and 1997, uncontrolled, exhausting inside the building, and including the following:

(A) Blue Cell Cleaning Line Parts Washer

(B) Blue Cell Machining Line Parts Washer

(C) Green Cell Cleaning Line Parts Washer

(D) Green Cell Machining Line Parts Washer

(E) Core Cell Cleaning Line 1 Parts Washer

(F) Yellow Cell Cleaning Line Parts Washer

(G) NPD Cell Cleaning Line Parts Washer

(10) Miscellaneous Cleaning/Degreasing Operations, consisting of hand-wipe application of solvents, with a maximum usage rate of three (3) gallons of solvent per day, uncontrolled and exhausting inside the building;

(c) Two (2) function test rigs, one located in the Blue Cell and the other in the PW600 Cell (Alodine Line B), using JP-4 Grade Jet Fuel as the testing media, with a maximum VOC emission rate of nine and twenty-nine hundredths (9.29) tons per year, uncontrolled and exhausting inside the building. Note: no combustion occurs in this operation;

(d) One (1) ATP Function Test Rig, serving both the Blue Cell and the PW600 Cell (Alodine Line B) for semi-annual testing and for back-up, using JP-4 and/or JP-8 Grade Jet Fuel(s) as the testing media, with a maximum VOC emission rate of three and thirty-seven hundredths (3.37) tons per year, uncontrolled and exhausting inside the building. Note: no combustion occurs in this operation;

(e) One (1), two (2)-unit Heater Test Stand, identified as HTS-01, constructed in 1989, for the final combustion testing of finished comfort heaters, uncontrolled, exhausting to the general exhaust system and outside the building, and consisting of the following:

(i) one (1) No. 2 Diesel fuel oil fired process heater, with a maximum heat input capacity of six hundredths (0.06) MMBtu/hr, and having a forty-five (45) minute test cycle; and

(ii) one (1) No. 2 Diesel fuel oil fired process heater, with a maximum heat input capacity of three hundredths (0.03) MMBtu/hr, having a thirty (30) minute test cycle.

(f) One (1) petroleum fuel, other than gasoline, dispensing facility, having a maximum storage capacity of less than or equal to 10,500 gallons and dispensing less than or equal to 230,000 gallons per month, including the following:

(i) No. 2 Diesel fuel oil storage containers, consisting of two (2) fifty-five (55) gallon drums; and

(ii) One (1) No. 2 Diesel fuel oil storage tank, with a maximum storage capacity of less than 1,200 gallons, uncontrolled and exhausting to the atmosphere;

(g) Metal machining operations, including the following:

(1) Metal machining where an aqueous cutting coolant continuously floods the machining interface, and including four (4) Milling stations, for machining of aluminum [alloy], with a maximum throughput capacity of one (1.0) pound of metal aircraft parts per hour, each;

(2) Metal machining, controlled by downdraft dust tables, exhausting inside the building, and including the following:

(A) Eight (8) Grinding/Drilling/Sanding stations for machining of aluminum [alloy], with a maximum throughput capacity of fifteen (15.0) pounds of metal aircraft parts per hour, each;

(B) One (1) Grinding/Drilling/Sanding Station, for machining of stainless steel, with a maximum throughput capacity of one (1.00) pound (lb) of metal aircraft parts per hour;

(3) Metal machining, uncontrolled, exhausting inside the building, and including the following:

(A) Ten (10) Coarse Grinding stations for machining of aluminum [alloy], with a maximum throughput capacity of twenty-five hundredths (0.25) pounds of metal aircraft parts per hour, each;

(B) Five (5) Sawing stations, for machining of aluminum [alloy], with a maximum throughput capacity of two hundredths (0.02) pounds of metal aircraft parts per hour, each;

(C) Two (2) Sawing stations for machining of stainless steel, with a maximum throughput capacity of two hundredths (0.02) pounds of metal aircraft parts per hour, each;

(D) Four (4) Milling stations, for machining of stainless steel, with a maximum throughput capacity of twenty hundredths (0.20) pounds of metal aircraft parts per hour, each;

(h) Shotblasting operations, including the following: [326 IAC 6-3-2(e)]

(1) Three (3) self-contained shotblast cabinets, identified as cabinets #1 - #3, constructed in 1995, with a maximum throughput capacity of forty (40) pounds of metal aircraft parts per hour, each, using glass oxide media, controlled by a built-in dust collector and exhausting inside the building.

(2) One (1) self-contained shotblast cabinet, identified as cabinet #4, constructed in 2008, with a maximum throughput capacity of forty (40) pounds of metal aircraft parts per hour, using plastic media, controlled by a built-in dust collector and exhausting inside the building.

(i) Welding operations, consisting of twenty-five (25) stations, collectively identified as EU031, constructed in 1990, using less than six hundred twenty-five (625) pounds of welding rod or wire per day, combined, uncontrolled and exhausting inside the building;

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

(1) One (1) natural gas-fired steam boiler, identified as EU008, installed in 1989, with a maximum heat input capacity of eight (8.0) MMBtu/hr, uncontrolled and exhausting outside the building; [326 IAC 6-2-4]

(2) One (1) natural gas-fired hot water heater, identified as EU012, installed after 1989, with a maximum heat input capacity of thirty-four thousandths (0.034) MMBtu/hr, uncontrolled and exhausting inside the building; [326 IAC 6-2-4]

(3) Two (2) natural gas-fired space heater(s), identified as EU009 and EU010, installed in 1989, with a maximum heat input capacity of six and twenty-two

hundredths (6.22) MMBtu/hr, each, uncontrolled and exhausting inside the building;

(4) One (1) natural gas-fired drying oven, identified as EU004, installed in 1992, with a maximum heat input capacity of one thousandth (0.001) MMBtu/hr, each, uncontrolled and exhausting inside the building;

(k) One (1) soldering booth, identified as EU026; uncontrolled and exhausting inside the building;

(l) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, and cutting torches;

(m) Fifteen (15) electric drying units, identified as EU006, and EU029 through EU043, uncontrolled and exhausting inside the building; and

(n) Two (2) air compressors, identified as EU014 and EU015; constructed in 1989.

(o) One (1) electric EMC 85 Water Eater Wastewater Evaporator, identified as EMC 85, approved for construction in 2011, for the treatment of wastewater at the rate of six (6.0) gallons per hour, and exhausting to the outside;

(p) The following VOC and HAP storage containers:

(1) Storage tanks with capacity less than or equal to one thousand (1,000) gallons and annual throughputs equal to or less than twelve thousand (12,000) gallons.

(2) Vessels storing the following:

(A) Lubricating oils;

(B) Hydraulic oils;

(C) Machining oils; and

(D) Machining fluids.

(q) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(r) Application of oils, greases, lubricants, or other nonvolatile materials applied as temporary protective coatings;

(s) Purging of gas lines and vessels related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.

(t) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.

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

SECTION B GENERAL CONDITIONS

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

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

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

(a) This permit, M123-29484-00011, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

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

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

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

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

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

B.4 Enforceability

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

B.5 Severability

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

B.6 Property Rights or Exclusive Privilege

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

B.7 Duty to Provide Information

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. 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 Annual Notification [326 IAC 2-6.1-5(a)(5)]

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

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

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

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

B.9 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, 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 Permittee shall implement the PMPs.

(b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions.

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

B.10 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to M123-29484-00011 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.11 Termination of Right to Operate [326 IAC 2-6.1-7(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least one hundred twenty (120) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

B.12 Permit Renewal [326 IAC 2-6.1-7]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require an affirmation that the statements in the application are true and complete 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 one hundred twenty (120) days prior to the date of the expiration of this permit; and

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

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-6.1 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-6.1-4(b), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.13 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

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

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

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

(c) The Permittee shall notify the OAQ no later than thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.14 Source Modification Requirement

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

B.15 Inspection and Entry
[326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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

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

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

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

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

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

B.16 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

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

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

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

The application which shall be submitted by the Permittee does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

B.17 Annual Fee Payment [326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees due no later than thirty (30) calendar days of receipt of a bill from IDEM, OAQ.

(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.18 Credible Evidence [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

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

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

(a) Violation of any conditions of this permit.

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

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

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

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

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (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 forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

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

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

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

The Permittee shall not operate an incinerator 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.6 Fugitive Dust Emissions [326 IAC 6-4]

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

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

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

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

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

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

(A) Asbestos removal or demolitions 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.

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

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

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

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

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

(a) 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.

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date.

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

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

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

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

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

Corrective Actions and Response Steps

C.12 Response to Excursions or Exceedances

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.13 Actions Related to Noncompliance Demonstrated by a Stack Test

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall 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.

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

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

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

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

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

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

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

C.15 General Record Keeping Requirements [326 IAC 2-6.1-5]

(a) Records of all required monitoring data, reports, and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner 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 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

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

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

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

(c) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit, “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emission Unit Description [326 IAC 2-6.1-5(a)(1)]: Spray Coating Operations

(a) Surface Coating Operations, for coating/treating metal aircraft parts, including the following:

(1) Spray coating operations, including the following:

(A) One (1) spray paint booth, formerly identified as the Code 9 Paint Booth and re-identified as the Gray Cell Paint Booth (EU001), constructed in 1989, equipped with one (1) low pressure air atomization spray gun, having a maximum application rate of ten (10) ounces of coating per minute, with water wash for overspray control, and exhausting to one (1) stack identified as SV001;

Under 40 CFR 63, Subpart HHHHHH - National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, this is considered an affected facility.

(B) One (1) spray paint booth, identified as the Blue Cell Paint Booth (EU003), constructed in 1989, equipped with one (1) low pressure air atomization spray gun for use with primer coating and one (1) high volume low pressure (HVLP) spray gun for use with the top coating, having a maximum application rate of ten (10) ounces of coating per minute, with water wash for overspray control, and exhausting to one (1) stack identified as SV003;

(C) One (1) spray paint booth, identified as the New Green Cell Paint Booth (EU004), constructed in 2009, equipped with one (1) high volume low pressure (HVLP) spray gun, having a maximum application rate of ten (10) ounces of coating per minute, with water wash for overspray control, and exhausting to one (1) stack identified as SV004;

Under 40 CFR 63, Subpart HHHHHH - National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, this is considered an affected facility.

(D) One (1) spray paint booth, identified as the Old Green Cell Paint Booth (EU005), constructed in 1989, equipped with one (1) high volume low pressure (HVLP) spray gun, having a maximum application rate of ten (10) ounces of coating per minute, with water wash for overspray control, and exhausting to one (1) stack identified as SV005; and

Under 40 CFR 63, Subpart HHHHHH - National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, this is considered an affected facility.

(E) One (1) spray paint booth, formerly identified as the touch-up paint booth and re-identified as the NICROBRAZ Booth (EU007), constructed in 1989, for coating metal aircraft parts using aerosol spray cans, having a maximum application rate of twelve (12) ounces of coating per twenty (20) units, with dry filters for overspray control, and exhausting to one (1) stack identified as SV007.

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

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

D.1.1 Particulate [326 IAC 6-3-2(d)]

(a) Particulate from the Gray Cell Paint Booth (EU001), Blue Cell Paint Booth (EU003), New Green Cell Paint Booth (EU004), and the Old Green Cell Paint Booth (EU005), each,

shall be controlled by waterwash, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

(b) Particulate from the NICROBRAZ Booth (EU007) shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

(c) If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:

(1) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

(2) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

(d) If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for these facilities and their corresponding 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.1.3 Particulate Control

(a) In order to comply with Condition D.1.1, the waterwash for particulate control shall be in operation and control emissions from the Gray Cell Paint Booth (EU001), Blue Cell Paint Booth (EU003), New Green Cell Paint Booth (EU004), and the Old Green Cell Paint Booth (EU005), each, at all times that each spray paint booth is in operation.

(b) In order to comply with Condition D.1.1, the dry particulate filter for particulate control shall be in operation and control emissions from the NICROBRAZ Booth (EU007) at all times the spray paint booth is in operation.

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

D.1.4 Record Keeping Requirements

(a) To document the compliance status with Condition D.1.1(d), the Permittee shall maintain a record of any actions taken if overspray is visibly detected.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emission Unit Description [326 IAC 2-6.1-5(a)(1)]: Metal Cleaning/Degreasing Operations

(b) Metal Cleaning and Degreasing Operations, including the following:

(1) One (1) metal cleaning line, identified as Blue Cell Cleaning Line, constructed in 2000, uncontrolled, exhausting inside the building, and including: [326 IAC 8-3-4][326 IAC 8-3-7]

(A) one (1) So-brite acid wash tank, identified as Tank 1; and

(B) one (1) tap water rinse tank.

(2) One (1) metal cleaning line, identified as Green Cell Cleaning Line, constructed in 2000, uncontrolled, exhausting inside the building, and including: [326 IAC 8-3-4][326 IAC 8-3-7]

(A) one (1) So-brite acid wash tank, identified as Tank 1; and

(B) one (1) tap water rinse tank.

(3) One (1) metal cleaning line, identified as PW600 Cleaning Line (Alodine Acid Treatment Line B), constructed in 2007, uncontrolled, exhausting outside the building, and including: [326 IAC 8-3-4][326 IAC 8-3-7]

(A) one (1) Terj alkaline wash tank, identified as Tank 1;

(B) one (1) So-brite acid wash tank, identified as Tank 3; and

(C) Two (2) tap water rinse tanks.

(4) One (1) metal cleaning line, identified as Core Cell Cleaning Line 1 (EU027), constructed in 1989, uncontrolled, exhausting outside the building, and including: [326 IAC 8-3-4]

(A) one (1) Terj alkaline wash tank, identified as Tank 1;

(B) one (1) So-brite acid wash tank, identified as Tank 4; and

(C) four (4) tap water rinse tanks.

(5) One (1) metal cleaning line, identified as Core Cell Cleaning Line 2 (EU028), constructed in 1989, uncontrolled, exhausting outside the building, and including: [326 IAC 8-3-4]

(A) one (1) hydrofluoric acid tank, identified as Tank 1;

(B) one (1) picking tank, identified as Tank 3;

(C) one (1) phosphoric acid passivation tank, identified as Tank 4; and

(D) four (4) tap water rinse tanks.

(6) One (1) metal cleaning line, identified as Yellow Cell Cleaning Line, constructed in 2006, uncontrolled, exhausting inside the building, and including: [326 IAC 8-3-4][326 IAC 8-3-7]

(A) one (1) So-brite acid wash tank, identified as Tank 1; and

(B) one (1) tap water rinse tank.

(7) One (1) metal cleaning line, identified as NPD Cell Cleaning Line, constructed in 2008, uncontrolled, exhausting inside the building, and including the following:

(A) one (1) So-brite acid wash tank, identified as Tank 1; and

(B) one (1) tap water rinse tank.

(8) Industrial Flushing rigs, formerly Stoddard flushing units, using ISOPAR K Flushing Solvent, a non-HAP containing solvent, and including the following: [326 IAC 8-3-2]

(A) Blue Cell 1 flushing rig, identified as EU025D, constructed in 1998, with a maximum throughput of capacity two and twenty-eight hundredths (2.28) pounds of solvent per hour, uncontrolled and exhausting to stack SV016D;

(B) Blue Cell 2 flushing rig, identified as EU025E, constructed in 1999, with a maximum throughput of capacity two and twenty-eight hundredths (2.28) pounds of solvent per hour, uncontrolled and exhausting to stack SV016E;

(C) Green Cell flushing rig, identified as EU025B, constructed in 1989, with a maximum throughput capacity of six and thirty-eight hundredths (6.38) pounds of solvent per hour, uncontrolled and exhausting to stack SV016B;

(D) PW600 Cell 1 flushing rig, identified as EU098 (Alodine Acid Treatment Line B), constructed in 2007, with a maximum throughput of capacity two and twenty-eight hundredths (2.28) pounds of solvent per hour, uncontrolled and exhausting to stack SV098; and

(E) PW600 Cell 2 flushing rig, identified as EU099 (Alodine Acid Treatment Line B), constructed in 2007, with a maximum throughput of capacity two and twenty-eight hundredths (2.28) pounds of solvent per hour, uncontrolled and exhausting to stack SV099;

(F) FAA Cell flushing rig, identified as EU025A, constructed in 1989, with a maximum throughput capacity of 6.38 pounds of solvent per hour, uncontrolled and exhausting to stack SV016A;

(G) Yellow Cell flushing rig, identified as EU025C, constructed in 1989, with a maximum throughput capacity of six and thirty-eight hundredths (6.38) pounds of solvent per hour, uncontrolled and exhausting to stack SV016C;

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

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

D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operation), for cold cleaning operations constructed after January 1, 1980, the Permittee shall:

(a) Equip the cleaner with a cover;

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

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

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

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

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

D.2.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-4]

Pursuant to 326 IAC 8-3-4 (Conveyorized Degreaser Operation), for conveyorized degreasers with an air to solvent interface of two (2) square meters (twenty-one and six-tenths (21.6) square feet) or greater, constructed after January 1, 1980, the Permittee shall:

(1) minimize carryout emissions by:

(A) racking parts for best drainage;

(B) maintaining the vertical conveyor speed at less than 3.3 meters per minute (eleven (11) feet per minute);

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

(3) repair solvent leaks immediately, or shut down the degreaser;

(4) not use workplace fans near the degreaser opening;

(5) not allow water in solvent exiting the water separator; and

(6) provide a permanent, conspicuous label summarizing the operating requirements.

D.2.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-7]

Pursuant to 326 IAC 8-3-7 (Conveyorized Degreaser Operation and Control), for conveyorized degreasers with an air to solvent interface of two (2) square meters (twenty-one and six-tenths (21.6) square feet) or greater, constructed after January 1, 1990, the following shall apply:

(1) The Permittee shall ensure that the following control equipment requirements are met:

(A) Equip the degreaser's entrances and exits with downtime covers which are closed when the degreaser is not operating.

(B) Equip the degreaser with the following switches:

(i) A condenser flow switch and thermostat which shuts off sump heat if condenser coolant stops circulating or becomes too warm.

(ii) A spray safety switch which shuts off spray pump if the vapor level drops more than ten (10) centimeters (four (4) inches).

(iii) A vapor level control thermostat which shuts off sump heat when vapor level rises more than ten (10) centimeters (four (4) inches).

(C) Equip the degreaser with entrances and exits which silhouette workloads in such a manner that the average clearance between the articles and the degreaser

opening is either less than ten (10) centimeters (four (4) inches) or less than ten percent (10%) of the width of the opening.

(D) Equip the degreaser with a drying tunnel, rotating or tumbling basket, or other equipment which prevents cleaned articles from carrying out solvent liquid or vapor.

(E) Equip the degreaser with a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(F) Equip the degreaser with one (1) of the following control devices:

(i) A refrigerated chiller;

(ii) A carbon adsorption system with ventilation which, with the downtime covers open, achieves a ventilation rate of greater than or equal to fifteen (15) cubic meters per minute per square meter (fifty (50) cubic feet per minute per square foot) of air to solvent interface area, and an average of less than twenty-five (25) parts per million of solvent is exhausted over one (1) complete adsorption cycle; and

(iii) Other systems of demonstrated equivalent or better control as those outlined in clause (A) or (B). Such systems shall be submitted to the U.S. EPA as a SIP revision.

(2) The Permittee shall ensure that the following operating requirements are met:

(A) Minimize solvent carryout emissions by the following:

(i) Racking articles to allow complete drainage; and

(ii) Maintaining the vertical conveyor speed at less than three and three-tenths (3.3) meters per minute (eleven (11) feet per minute).

(B) 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) Repair solvent leaks immediately or shut down the degreaser if leaks cannot be repaired immediately.

(D) Prohibit the exhaust ventilation rate from exceeding twenty (20) cubic meters per minute per square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser opening unless a greater ventilation rate is necessary to meet Occupational Safety and Health Administration requirements.

(E) Prohibit the use of workplace fans near the degreaser opening.

(F) Prohibit visually detectable water in the solvent exiting the water separator; and

(G) Cover entrances and exits at all times except when processing workloads through the degreaser.

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emission Unit Description [326 IAC 2-6.1-5(a)(1)]: Shotblasting Operations

(e) Shotblasting operations, including the following:

(1) Three (3) self-contained shotblast cabinets, identified as cabinets #1 - #3, constructed in 1995, with a maximum throughput capacity of forty (40) pounds of metal aircraft parts per hour, each, using glass oxide media, controlled by a built-in dust collector and exhausting inside the building.

(2) One (1) self-contained shotblast cabinet, identified as cabinet #4, constructed in 2008, with a maximum throughput capacity of forty (40) pounds of metal aircraft parts per hour, using plastic media, controlled by a built-in dust collector and exhausting inside the building.

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

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

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

Pursuant to 326 IAC 6-3-2(e) (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from each of the units in the shotblasting operations shall not exceed the corresponding pound per hour limitations listed in the table below:

Emission Unit	# of Units	Process Weight Rate		Allowable PM Emission Rate (lb/hour)
		(lbs/hr)	(tons/hr)	
shotblast cabinets using glass media	3	398 (each)	0.20 (each)	1.39 (each)
shotblast cabinets using plastic media	1	326	0.16	1.22

These limitations were calculated as follows:

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

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

D.3.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan is required for these facilities and their corresponding 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.3.3 Particulate Control

(a) In order to comply with Condition D.1.1, the dust collectors for particulate control in each of the four (4) self-contained shotblast cabinets shall be in operation and control emissions at all times that the corresponding shotblast unit is in operation.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

D.3.4 Visible Emissions Notations

(a) Daily visible emission notations of the four (4) shotblast cabinet dust collector stack exhausts shall be performed during normal daylight operations when exhausting to the outside atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.3.5 Dust Collector Parametric Monitoring

The Permittee shall record the pressure drop across each of the four (4) dust collectors used in conjunction with the four (4) shotblast cabinets, at least once per day when the corresponding shotblast cabinet is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of three (3.0) and six (6.0) inches of water or a range established during the latest stack test, the Permittee shall take reasonable response. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replace at least once every six (6) months.

D.3.6 Dust Collector Failure Detection

In the event that dust collector failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section C- Response to Excursions or Exceedances).

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

D.3.7 Record Keeping Requirements

(a) To document the compliance status with Condition D.3.4, the Permittee shall maintain daily records of the visible emission notations of each dust collector stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (i.e. the process did not operate that day).

(b) To document the compliance status with Condition D.3.5, the Permittee shall maintain daily records of the pressure drop across each dust collector controlling the corresponding shotblast cabinet. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (i.e. the process did not operate that day).

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

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emission Unit Description [326 IAC 2-6.1-5(a)(1)]: Natural Gas-fired Boilers

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

(1) One (1) natural gas-fired steam boiler, identified as EU008, installed in 1989, with a maximum heat input capacity of eight (8.0) MMBtu/hr, uncontrolled and exhausting outside the building; [326 IAC 6-2-4]

(2) One (1) natural gas-fired hot water heater, identified as EU012, installed after 1989, with a maximum heat input capacity of thirty-four thousandths (0.034) MMBtu/hr, uncontrolled and exhausting inside the building; [326 IAC 6-2-4]

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

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

D.4.1 Particulate Emissions [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from the eight (8.0) MMBtu/hr natural gas-fired steam boiler, identified as EU008, and the thirty-four thousandths (0.034) MMBtu/hr natural gas-fired hot water heater, identified as EU012, each, shall not exceed six tenths (0.6) pounds per MMBtu heat input.

SECTION E.1 NESHAPs REQUIREMENTS

Emissions Unit Description: Spray Coating Operations

(1) Spray coating Operations, for the coating of metal aircraft parts, including the following:

(A) One (1) spray paint booth, formerly identified as the Code 9 Paint Booth and re-identified as the Gray Cell Paint Booth (EU001), constructed in 1989, equipped with one (1) low pressure air atomization spray gun, having a maximum application rate of ten (10) ounces of coating per minute, with water wash for overspray control, and exhausting to one (1) stack identified as SV001;

Under 40 CFR 63, Subpart HHHHHH - National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, this is considered an affected facility.

(C) One (1) spray paint booth, identified as the New Green Cell Paint Booth (EU004), constructed in 2009, equipped with one (1) high volume low pressure (HVLP) spray gun, having a maximum application rate of ten (10) ounces of coating per minute, with water wash for overspray control, and exhausting to one (1) stack identified as SV004;

Under 40 CFR 63, Subpart HHHHHH - National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, this is considered an affected facility.

(D) One (1) spray paint booth, identified as the Old Green Cell Paint Booth (EU005), constructed in 1989, equipped with one (1) high volume low pressure (HVLP) spray gun, having a maximum application rate of ten (10) ounces of coating per minute, with water wash for overspray control, and exhausting to one (1) stack identified as SV005; and

Under 40 CFR 63, Subpart HHHHHH - National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, this is considered an affected facility.

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

National Emission Standards for Hazardous Air Pollutants (NESHAPs) Requirements [326 IAC 2-6.1-5(a)(1)]

E.1.1 General Provisions Relating to the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources (40 CFR 63, Subpart HHHHHH), [326 IAC 20-1] [40 CFR Part 63, Subpart A]

Pursuant to §63.11174, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, as specified in Table 1 of 40 CFR Part 63, Subpart HHHHHH, and in accordance with the schedule in 40 CFR 63 Subpart HHHHHH.

E.1.2 National Emission Standards for Hazardous Air Pollutants (NESHAPs): for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources [40 CFR 63, Subpart HHHHHH] [326 IAC 20]

The Permittee, that operates an area source of HAPs, as defined in 40 CFR 63.11170(b), and performs 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 in §63.11180, shall comply with the following provisions of

40 CFR Part 63, Subpart HHHHHH (included as Attachment A of this permit), with a compliance date of January 10, 2011 for existing affected sources, and upon initial startup for new or reconstructed affected sources where initial startup occurs after January 9, 2008:

(1) 40 CFR 63.11169(c);
(2) 40 CFR 63.11170(a)(3),(b);
(3) 40 CFR 63.11171(a),(b),(c),(e);
(4) 40 CFR 63.11172(a)(2),(b);
(5) 40 CFR 63.11173(e),(f),(g);
(6) 40 CFR 63.11174;
(7) 40 CFR 63.11175;
(8) 40 CFR 63.11176(a);
(9) 40 CFR 63.11177(a),(b),(c),(d),(g),(h);
(10) 40 CFR 63.11178;
(11) 40 CFR 63.11179; and
(12) 40 CFR 63.11180.

SECTION E.2 NESHAPs REQUIREMENTS

Emissions Unit Description: Metal Coating/Treatment Operations

(3) Metal Coating/Treatment Operations, including the following:

(A) One (1) Zinc And Iron Phosphate Line, constructed in 1989, for treating metal aircraft parts at a rate of four hundred (400) pounds per hour, equipped with one (1) wet scrubber, exhausting inside the building, and including:

(i) one (1) alkaline tank, identified as EU016 (Tank 1);

(ii) one (1) muriatic acid tank, referred to as EU017 (Tank 2);

(iii) one (1) zinc phosphate tank, identified as EU018 (Tank 4);

Under 40 CFR 63, Subpart WWWWWW - National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations, this is considered an affected facility.

(iv) one (1) acid rinse tank, identified as EU019 (Tank 5); and

(v) four (4) tap water rinse tanks.

(vi) One (1) Deionized Water System, identified as the DI System, using Hydrochloric Acid and Sodium Hydroxide to recharge the ion exchange beds, uncontrolled and exhausting inside the building;

(B) Two (2) Alodine Acid Treatment Lines, identified as Alodine Lines A & C, and constructed in 1989, and 2009, respectively, for treating metal aircraft parts at a maximum rate of one hundred twenty (120) pounds per hour, each, and including the following:

(i) One (1) phosphoric acid tank, identified as Tank 1, uncontrolled and exhausting inside the building;

(ii) one (1) aluminum cleaner tank, identified as Tank 2, uncontrolled and exhausting inside the building;

(iii) one (1) deoxidizer tank, identified as Tank 5, emissions controlled by minimizing agitation and using surface balls, and exhausting inside the building;

(iv) One (1) electroless chromium conversion tank, identified as Tank 7, emissions controlled by minimizing agitation and using surface balls, and exhausting inside the building.

Under 40 CFR 63, Subpart WWWWWW - National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations, this is considered an affected facility.

(v) Five (5) tap water rinse tanks;

(C) One (1) Alodine Acid Treatment Line, identified as the PW600 Line (Alodine Line B), constructed in 2007, for treating metal aircraft parts at a maximum rate of twenty (20) pounds per hour, and including:

(i) one (1) aluminum cleaner tank, identified as Tank 1, uncontrolled and exhausting inside the building;

(ii) one (1) deoxidizer tank, identified as Tank 4, emissions controlled by minimizing agitation and using surface balls, and exhausting inside the building;

(iii) One (1) electroless chromium conversion tank, identified as Tank 6, emissions controlled by minimizing agitation and using surface balls, and exhausting inside the building; and

Under 40 CFR 63, Subpart WWWWWW - National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations, this is considered an affected facility.

(iv) Three (3) tap water rinse tanks;

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

National Emission Standards for Hazardous Air Pollutants (NESHAPs) Requirements [326 IAC 2-6.1-5(a)(1)]

E.2.1 General Provisions Relating to the National Emission Standards for Hazardous Air Pollutants (NESHAPs): Area Source Standards for Plating and Polishing Operations (40 CFR 63, Subpart WWWWWW), [40 CFR Part 63, Subpart A] [326 IAC 20-1]

Pursuant to §63.11510, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, as specified in Table 1 of 40 CFR Part 63, Subpart WWWWWW, and in accordance with the schedule in 40 CFR 63 Subpart WWWWWW.

E.2.2 National Emission Standards for Hazardous Air Pollutants (NESHAPs): Area Source Standards for Plating and Polishing Operations [40 CFR 63, Subpart WWWWWW] [326 IAC 20]

The Permittee, that owns or operates a plating and polishing facility, as defined in 40 CFR 63.11504, that is an area source of plating and polishing metal hazardous air pollutant (HAP) emissions, as defined in 40 CFR 63.11511, shall comply with the following provisions of 40 CFR Part 63, Subpart WWWWWW (included as Attachment B of this permit), with a compliance date for existing affected sources, constructed or reconstructed on or before March 14, 2008, of July 1, 2010, and for new affected sources, constructed after March 14, 2008, upon initial startup:

(1) § 63.11504(a)(1)(iii), (a)(1)(iv), (a)(2), (a)(3);
(2) § 63.11505(a)(1), (a)(3), (b), (c), (e);
(3) § 63.11506;
(4) § 63.11507(e), (g);
(5) § 63.11508(a), (b), (c)(7), (c)(8), (d)(1), (d)(2), (d)(8);
(6) § 63.11509(a), (b), (c)(2), (c)(6), (c)(7), (d), (e), (f);
(7) § 63.11510;
(8) § 63.11511; and
(9) § 63.11512.

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

MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION

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

Company Name:	Meggitt (Troy), Inc.
Address:	3 Industrial Drive
City:	Troy, Indiana 47588
Phone #:	(812) 547-7071
MSOP #:	M123-29484-00011

I hereby certify that Meggitt (Troy), Inc. is :
- ☐ still in operation.
- ☐ no longer in operation.

I hereby certify that Meggitt (Troy), Inc. is :
- ☐ in compliance with the requirements of MSOP M123-29484-00011.
- ☐ not in compliance with the requirements of MSOP M123-29484-00011.

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

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

Noncompliance:

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
FAX NUMBER: (317) 233-6865

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

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

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

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

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

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

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

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

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

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

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____
_____

MEASURES TAKEN TO MINIMIZE EMISSIONS:_____
_____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

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

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

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

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

326 IAC 1-6-1 Applicability of rule

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

326 IAC 1-2-39 "Malfunction" definition

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

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

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

_____
_____

Minor Source Operating Permit
OFFICE OF AIR QUALITY

Meggitt (Troy), Inc.
3 Industrial Drive,
Troy, IN 47588

Attachment A

Title 40: Protection of Environment

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

Subpart HHHHHH - Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources

M123-29484-00011

40 CFR 63, 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.

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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.

Citation	Subject	Applicable to subpart HHHHHH	Explanation
§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.

Citation	Subject	Applicable to subpart HHHHHH	Explanation
§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.

Reference
The US EPA Electronic Code of Federal Regulations - 40 CFR 63, Subpart HHHHHH—National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources weblink:
http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=bd4400437f30e9df6715e363ba94c4ee&rgn=div6&view=text&node=40:14.0.1.1.1.20&idno=40

Minor Source Operating Permit
OFFICE OF AIR QUALITY

Meggitt (Troy), Inc.
3 Industrial Drive,
Troy, IN 47588

Attachment B

Title 40: Protection of Environment

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

Subpart WWWWWW - Area Source Standards for Plating and Polishing Operations

M123-29484-00011

40 CFR 63, 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-electrolytic 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]

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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.

Reference

The US EPA Electronic Code of Federal Regulations - 40 CFR 63, Subpart WWWWWW: National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations web address:
http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=e9a08c3e4308b9d8938e9529efbc6b50&rgn=div6&view=text&node=40:14.0.1.1.1.32&idno=40

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document (ATSD)
for a Permit by Rule Permit (PBR)
Transitioning to a Minor Source Operating Permit (MSOP)

Source Background and Description

Source Name:	Meggitt (Troy), Inc.
Source Location:	3 Industrial Drive, Troy, IN 47588
County:	Perry
SIC Code:	3724, 3795
Operation Permit No.:	M 123-29484-00011
Permit Reviewer:	Hannah L. Desrosiers

On May 5, 2011, the Office of Air Quality (OAQ) had a notice published in the Perry County News, Tell City, Indiana, stating that Meggitt (Troy), Inc. had applied for a transition from their Permit by Rule (PBR), issued on October 18, 2007, to a Minor Source Operating Permit (MSOP). The notice also stated that the OAQ proposed to issue a MSOP for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments and Responses

On May 10 2011, Meggitt (Troy), Inc. submitted comments to IDEM, OAQ on the draft MSOP.

The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes. IDEM, OAQ does not make any changes to the original TSD, but the Permit will have the updated changes. The comments and revised permit language are provided below with deleted language as ~~strikeouts~~ and new language **bolded**.

Comment 1:

One emission unit was missed during the review process and needs to be added to the permit. A comfort heater [combustion] test stand. The equipment, consisting of 2 process heaters, is used to conduct a final combustion test on the comfort heaters, to check and adjust settings for each heater prior to final shipment. The process heaters, that comprise the test stand, fire No. 2 Diesel Fuel Oil (DF2), and use less than 100 gallons per year (this is probably 4 times the amount used, but would cover all). The fuel is pumped from the drum(s) to the test stand with automatic feed to test units. General exhaust is used to exhaust any emissions out of the building.

The 2-unit combustion test stand consists of two (2) process heaters, rated at 60,000 and 30,000 BTU/hr, respectively. The 60,000 BTU/hr process heater has a forty-five (45) minute test cycle, and the 30,000 BTU/hr process heater, a thirty (30) minute test cycle.

Diesel Fuel Storage in the area includes two (2) 55-gal drums and one(1) 1,000 gal storage tank.

Response to Comment 1:

IDEM agrees with the recommended change, since the addition of the heater test stand, consisting of two (2) diesel-fired heaters, to the permit would be considered a notice-only change. The potential emissions of regulated criteria pollutants and hazardous air pollutants are less than the ranges specified 326 IAC 2-6.1-6(g)(4) and 326 IAC 2-6.1-6(d)(10), respectively, and the uncontrolled/

unlimited potential to emit of the entire source will continue to be less than the threshold levels specified in 326 IAC 2-7. Moreover, the addition of these units will not cause the source's potential to emit to be greater than the threshold levels specified in 326 IAC 2-2 or 326 IAC 2-3.

See ATSD Appendix A for detailed emission calculations.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

(a) 40 CFR 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
The requirements of the New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines, 40 CFR Part 60, Subpart IIII (326 IAC 12), are not included in the permit for the Heater Test Stand, consisting of two (2) stations for testing diesel-fired comfort heaters, since the heaters being tested are direct-fired process heaters and not stationary compression ignition (CI) internal combustion engines.

(b) 40 CFR 60, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
The requirements of the New Source Performance Standards for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60, Subpart JJJJ (4J) (326 IAC 12), are not included in the permit for the Heater Test Stand, consisting of two (2) stations for testing diesel-fired comfort heaters, since the heaters being tested are direct-fired process heaters and not stationary spark ignition (SI) internal combustion engines.

(c) 40 CFR 60, Subpart KKKK - Performance Standard for Stationary Combustion Turbines
The requirements of the New Source Performance Standard for Stationary Combustion Turbines, 40 CFR 60, Subpart KKKK (4K) (326 IAC 12), are not included in the permit for the Heater Test Stand, consisting of two (2) stations for testing diesel-fired comfort heaters, since the heaters being tested are each not a combustion turbine or consist of any combustion turbines.

National Emissions Standards for Hazardous Air Pollutants (NESHAPs)

(d) 40 CFR 63, Subpart YYYY - NESHAPs for Stationary Combustion Turbines
The requirements of the National Emissions Standards for Hazardous Air Pollutants (NESHAPs) for Stationary Combustion Turbines, 40 CFR 63, Subpart YYYY (4Y) (326 IAC 20-90), are not included in the permit for the Heater Test Stand, consisting of two (2) stations for testing diesel-fired comfort heaters, since this source is an area source of HAPs and the heaters being tested are each not a combustion turbine or consist of any combustion turbines.

(e) 40 CFR 63, Subpart ZZZZ - NESHAPs for Stationary Reciprocating Internal Combustion Engines
The requirements of the National Emissions Standards for Hazardous Air Pollutants (NESHAPs) for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63 Subpart ZZZZ (4Z) (326 IAC 20-82), are not included in the permit for the Heater Test Stand, consisting of two (2) stations for testing diesel-fired comfort heaters, since although the source is an area source, as defined in 40 CFR § 63.2, the heaters being tested are direct-

fired process heaters and not reciprocating internal combustion engines (RICE).

(f) 40 CFR 63, Subpart PPPPP - NESHAPs for Engine Test Cells/Stands
The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Engine Test Cells/Stands, 40 CFR 63, Subpart PPPPP (5P) (326 IAC 20-75), are not included in the permit for the Heater Test Stand, consisting of two (2) stations for testing diesel-fired comfort heaters, since the heaters being tested are portable process heaters, not mobile (motive) engines.

State Rule Applicability Determination

(a) 326 IAC 4-2-2 (Incinerators)
The Heater Test Stand, consisting of two (2) stations for testing diesel-fired comfort heaters, is not an incinerator, as defined by 326 IAC 1-2-34, since it does not burn waste substances. Therefore, the requirements of 326 IAC 4-2-2 (Incinerators) do not apply, and are not included in the permit.

(b) 326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)
The Heater Test Stand, consisting of two (2) stations for testing diesel-fired comfort heaters, does not meet the definition of an indirect heating unit, as defined in 236 IAC 1-2-19. Therefore, the requirements of 326 IAC 6-2 (Particulate Emissions from Indirect Heating Units) do not apply, and are not included in this permit.

(c) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
The Heater Test Stand, consisting of two (2) stations for testing diesel-fired comfort heaters, does not meet the definition of a "manufacturing process", as defined in 326 IAC 6-3-1.5(2). Therefore, each of these units is exempt from 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), and the requirements are not included in this permit.

(d) 326 IAC 7-1.1 (Sulfur Dioxide Emissions Limitations)
The potential SO2 emissions from the Heater Test Stand, consisting of two (2) stations for testing diesel-fired comfort heaters, are less than twenty-five (25) tons per year and ten (10) pounds per hour respectively. Therefore, the requirements of 326 IAC 7-1.1-2 do not apply, and are not included in this permit.

Compliance Determination, Monitoring, Testing, and Recordkeeping Requirements

There are no compliance determination, monitoring, testing, or recordkeeping requirements included in the permit for the Heater Test Stand, consisting of two (2) stations for testing diesel-fired comfort heaters.

The permit has been revised as follows:)

(1) Condition A.2, page 10 of 40 of the permit, has been revised to include the emission unit description for the Heater Test Stand, and corresponding fuel storage, as follows:

A.2 Emission Units and Pollution Control Equipment Summary

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

(e) One (1), two (2)-unit Heater Test Stand, identified as HTS-01, constructed in 1989, for the final combustion testing of finished comfort heaters,

uncontrolled, exhausting to the general exhaust system and outside the building, and consisting of the following:

(i) one (1) No. 2 Diesel fuel oil fired process heater, with a maximum heat input capacity of six hundredths (0.06) MMBtu/hr, and having a forty-five (45) minute test cycle; and

(ii) one (1) No. 2 Diesel fuel oil fired process heater, with a maximum heat input capacity of three hundredths (0.03) MMBtu/hr, having a thirty (30) minute test cycle.

(f) One (1) petroleum fuel, other than gasoline, dispensing facility, having a maximum storage capacity of less than or equal to 10,500 gallons and dispensing less than or equal to 230,000 gallons per month, including the following:

(i) No. 2 Diesel fuel oil storage containers, consisting of two (2) fifty-five (55) gallon drums; and

(ii) One (1) No. 2 Diesel fuel oil storage tank, with a maximum storage capacity of less than 1,200 gallons, uncontrolled and exhausting to the atmosphere;

(**g~~e~~**) Metal machining operations, including the following:

Note: The remaining emission unit descriptions have been renumbered accordingly.

There are no other changes to the permit as a result of this comment.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Ms. Hannah Desrosiers at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5374 or toll free at 1-800-451-6027 extension 4-5374.

(b) A copy of the permit is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) 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

Appendix A: Emissions Calculations
Emission Summary

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Uncontrolled Potential Emissions (tons/year)

		Emissions Generating Activity													
Category	Pollutant	Spray Coating (mult units)	Nicrobraze Booth (EU007)	Miscellaneous Coating (mult units)	Zinc Phosphate Line	Alodine Conversion Coating (mult units)	Cleaning Lines & Flushing Rigs (mult units)	Miscellaneous Cleaning/ Degreasing	Function Testing (mult units)	Metal Machining (mult units)	Welding (mult units)	Shotblasting (Cabinets 1-4)	Natural Gas Combustion (mult units)	Test Stand Diesel Fuel Combustion (mult units)	**TOTAL**
Criteria Pollutants	PM	0.64	5.21E-06	4.18E-03	0	0	0	0	0	0.64	0.62	59.51	0.17	0.12	61.72
	PM10	0.64	5.21E-06	4.18E-03	0	0	0	0	0	0.06	0.62	41.66	0.68	0.12	43.80
	PM2.5	0.64	5.21E-06	4.18E-03	0	0	0	0	0	0.06	0.62	41.66	0.68	0.12	43.80
	SO2	0	0	0	0	0	0	0	0	0	0	0	0.05	0.11	0.17
	NOx	0	0	0	0	0	0	0	0	0	0	0	8.97	1.74	10.71
	VOC	18.81	0.02	0.06	2.27	0.49	0.84	3.61	9.29	0	0	0	0.49	0.14	36.03
	CO	0	0	0	0	0	0	0	0	0	0	0	7.53	0.37	7.91
Hazardous Air Pollutants	1,4 Dioxane	3.42E-03	0	0	0	0	0	0	0	0	0	0	0	0	3.42E-03
	1,3-Butadiene	0	0	0	0	0	0	0	0	0	0	0	0	1.54E-05	1.54E-05
	Acetaldehyde	0	0	0	0	0	0	0	0	0	0	0	0	3.02E-04	3.02E-04
	Acrolein	0	0	0	0	0	0	0	0	0	0	0	0	3.65E-05	3.65E-05
	Benzene	0	0	0	0	0	0	0	0.46	0	0	0	1.88E-04	3.68E-04	0.47
	Chromic Acid	0	0	0	0	0.35	0	0	0	0	0	0	0	0	0.35
	Cumene	1.37E-04	0	0	0	0	0	0	0	0	0	0	0	0	1.37E-04
	Cyclohexane	0	0	0	0	0	0	0	0.46	0	0	0	0	0	0.46
	Dichlorobenzene	0	0	0	0	0	0	0	0	0	0	0	1.08E-04	0	1.08E-04
	Diethanolamine	0	0	0	0	0	7.23E-03	0	0	0	0	0	0	0	0.01
	Ethylbenzene	0.04	0	9.26E-09	0	0	0	0	0.28	0	0	0	0	0	0.32
	Ethylene Dichloride	3.42E-03	0	0	0	0	0	0	0	0	0	0	0	0	3.42E-03
	Formaldehyde	3.42E-03	0	0	0	0	0	0	0	0	0	0	6.73E-03	4.65E-04	0.01
	Hexane	0	0	0	0	0	0	0	1.21	0	0	0	0.16	0	1.37
	Hydrochloric Acid	0	0	0	2.24	0	0	0	0	0	0	0	0	0	2.24
	Hydrofluoric Acid	0	0	0	7.44E-04	0.12	1.82E-03	0	0	0	0	0	0	0	0.12
	Methanol	0	0	0	0	0	0	0.14	0	0	0	0	0	0	0.14
	Methyl isobutyl ketone	0.05	0	0	0	0	0	0.04	0	0	0	0	0	0	0.09
	Methylene Chloride	0.19	0	0	0	0	0	0	0	0	0	0	0	0	0.19
	Napthalene	0	1.77E-04	0	0	0	0	0	0	0	0	0	0	0	1.77E-04
	Toluene	0.18	6.98E-03	4.89E-12	0	0	0	0	0.93	0	0	0	3.05E-04	1.61E-04	1.12
	Xylenes	0.16	0	0.04	0	0	0	0	0.93	0	0	0	0	3.22E-04	1.13
	Total PAH HAPs	0	0	0	0	0	0	0	0	0	0	0	0	6.62E-05	6.62E-05
	Cadmium Compounds	0	0	0	0	0	0	0	0	0	0	0	9.87E-05	0	9.87E-05
	Chromium Compounds	0.34	0	0	0	1.78E-04	0	0	0	0.03	9.44E-03	0	1.26E-04	0	0.38
	Cobalt Compounds	0	0	0	0	0	0	0	0	3.41E-04	0	0	0	0	3.41E-04
	Cyanide Compounds	0	0	0	0	1.40E-03	0	0	0	0	0	0		0	1.40E-03
	Lead Compounds	0	0	0	0	0	0	0	0	0	0	0	4.48E-05	0	4.48E-05
	Manganese Compounds	0	0	0	0	0	0	0	0	0.02	6.57E-03	0	3.41E-05	0	0.02
	Nickel Compounds	0	3.21E-03	0.01	3.69E-03	0	0	0	0	0.03	1.54E-02	0	1.88E-04	0	0.06
	Selenium Compounds	0	0	0	0	0	0	0	0	1.82E-04	0	0	0	0	1.82E-04
	Totals	**0.98**	**0.01**	**0.05**	**2.25**	**0.46**	**0.01**	**0.18**	**4.27**	**0.08**	**0.03**	**0**	**0.17**	**1.74E-03**	**8.50**
															2.24

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

Appendix A: Emissions Calculations
Test Stand Diesel Fuel Combustion Summary

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Uncontrolled Potential Emissions (tons/year)				
	Emissions Generating Activity			
		Heater Test Stand		
Category	Pollutant	60,000 Btu/hr Test Unit	30,000 Btu/hr Test Unit	**TOTAL**
Criteria Pollutants	PM	0.08	0.04	0.12
	PM10	0.08	0.04	0.12
	PM2.5	0.08	0.04	0.12
	SO2	0.08	0.04	0.11
	NOx	1.16	0.58	1.74
	VOC	0.09	0.05	0.14
	CO	0.25	0.12	0.37
Hazardous Air Pollutants	1,3-Butadiene	1.03E-05	5.14E-06	1.54E-05
	Acetaldehyde	2.02E-04	1.01E-04	3.02E-04
	Acrolein	2.43E-05	1.22E-05	3.65E-05
	Benzene	2.45E-04	1.23E-04	3.68E-04
	Formaldehyde	3.10E-04	1.55E-04	4.65E-04
	Toluene	1.07E-04	5.37E-05	1.61E-04
	Xylene	2.85E-04	3.74E-05	3.22E-04
	Total PAH HAPs	4.42E-05	2.21E-05	6.62E-05
	Totals	**1.23E-03**	**5.09E-04**	**1.74E-03**
				4.65E-04

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

ATSD Appendix A: Emission Calculations
Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (<=600 HP)
Maximum Input Rate (<=4.2 MMBtu/hr)
Large Test Unit (60,000 Btu/hr)

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Emissions calculated based on heat input capacity (MMBtu/hr)

Heat Input Capacity (MMBtu/hr)	0.06
Maximum Hours Operated per Year	8760
Potential Throughput (MMBtu/yr)	526

	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMBtu	0.31	0.31	0.31	0.29	4.41	0.36	0.95
Potential Emission in tons/yr	0.08	0.08	0.08	0.08	1.16	0.09	0.25

*PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Hazardous Air Pollutants (HAPs)

	Pollutant							
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/MMBtu	9.33E-04	4.09E-04	2.85E-04	3.91E-05	1.18E-03	7.67E-04	9.25E-05	1.68E-04
Potential Emission in tons/yr	2.45E-04	1.07E-04	7.49E-05	1.03E-05	3.10E-04	2.02E-04	2.43E-05	4.42E-05

Potential Emission of Total HAPs (tons/yr)	**1.02E-03**

Notes
The maximum heat input capacity was provided in Btu/hr.
Constant: 1 MMBtu/hr = 1,000,000 Btu/hr.

Methodology
Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2
Potential Throughput (MMBtu/yr) = [Heat Input Capacity (MMBtu/hr)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2,000 lb/ton]

ATSD Appendix A: Emission Calculations
Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (<=600 HP)
Maximum Input Rate (<=4.2 MMBtu/hr)
Small Test Unit (30,000 Btu/hr)

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Emissions calculated based on heat input capacity (MMBtu/hr)

Heat Input Capacity (MMBtu/hr)	0.03
Maximum Hours Operated per Year	8760
Potential Throughput (MMBtu/yr)	263

	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMBtu	0.31	0.31	0.31	0.29	4.41	0.36	0.95
Potential Emission in tons/yr	0.04	0.04	0.04	0.04	0.58	0.05	0.12

*PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Hazardous Air Pollutants (HAPs)

	Pollutant							
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/MMBtu	9.33E-04	4.09E-04	2.85E-04	3.91E-05	1.18E-03	7.67E-04	9.25E-05	1.68E-04
Potential Emission in tons/yr	1.23E-04	5.37E-05	3.74E-05	5.14E-06	1.55E-04	1.01E-04	1.22E-05	2.21E-05

Potential Emission of Total HAPs (tons/yr)	**5.09E-04**

Notes
The maximum heat input capacity was provided in Btu/hr.
Constant: 1 MMBtu/hr = 1,000,000 Btu/hr.

Methodology
Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2
Potential Throughput (MMBtu/yr) = [Heat Input Capacity (MMBtu/hr)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2,000 lb/ton]

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Permit by Rule Permit (PBR) Transitioning to a Minor Source Operating Permit (MSOP)

Source Description and Location

Source Name:	Meggitt (Troy), Inc.
Source Location:	3 Industrial Drive, Troy, IN 47588
County:	Perry
SIC Code:	3724, 3795
Operation Permit No.:	M 123-29484-00011
Permit Reviewer:	Hannah L. Desrosiers

On July 2, 2010, the Office of Air Quality (OAQ) received an application from Meggitt (Troy), Inc. requesting a name change from Stewart Warner South Wind Corporation and a modification to their existing permit, construction, and operation of new emission units at an existing stationary metal aircraft part manufacturing and painting source and transition from a PBR to a MSOP.

Existing Approvals

The source has been operating under Permit by Rule Permit (PBR) No. 123-25363-00011, issued on October 18, 2007.

Due to this application, the source is transitioning from a Permit by Rule Permit to a MSOP.

County Attainment Status

The source is located in Perry County. The following attainment status designations are applicable to Perry County:

Pollutant	Designation
SO2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O3	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard.[1]
PM10	Unclassifiable effective November 15, 1990.
NO2	Cannot be classified or better than national standards.
PM2.5	Unclassifiable or attainment effective April 5, 2005.
Pb	Not designated.

[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.

(a) Ozone Standards

Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Perry County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) PM2.5
Perry County has been classified as attainment for PM2.5. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM2.5 emissions. These rules became effective on July 15, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule permits require IDEM to regulate PM10 emissions as a surrogate for PM2.5 emissions until 326 IAC 2-2 is revised.

(c) Other Criteria Pollutants
Perry County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-6.1 (Minor Source Operating Permits) applicability.

Background and Description of (Permitted Emission Units)

The Office of Air Quality (OAQ) has reviewed an application, submitted by Meggitt (Troy), Inc. on July 2, 2010, relating to a change of the company name from Stewart Warner South Wind Corporation . During the review, Meggitt (Troy), Inc. indicated that they had removed several existing units and changed some of the coatings used in their surface coating and treatment operations. Finally, upon further evaluation of the Potential to Emit (PTE) of the entire source, using the most current source data and AP 42 emission factors, IDEM, in collaboration with the source, has determined that this source shall transition from a Permit by Rule (PBR) to a Minor Source Operating Permit (MSOP).

The source consists of the following permitted emission unit*(s)*:

(a) Surface Coating Operations, for coating/treating metal aircraft parts, including the following:

(1) Spray coating operations, including the following:

(A) One (1) spray paint booth, formerly identified as the Code 9 Paint Booth and re-identified as the Gray Cell Paint Booth (EU001), constructed in 1989, equipped with one (1) low pressure air atomization spray gun, having a maximum application rate of ten (10) ounces of coating per minute, with water wash for overspray control, and exhausting to one (1) stack identified as SV001;

Under 40 CFR 63, Subpart HHHHHH - National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, this is considered an affected facility.

(B) One (1) spray paint booth, identified as the Blue Cell Paint Booth (EU003), constructed in 1989, equipped with one (1) low pressure air atomization spray gun for use with primer coating and one (1) high volume low pressure (HVLP) spray gun for use with the top coating, having a maximum application rate of ten (10) ounces of coating per minute, with water wash for overspray control, and exhausting to one (1) stack identified as SV003;

(C) One (1) spray paint booth, identified as the New Green Cell Paint Booth (EU004), constructed in 2009, equipped with one (1) high volume low pressure (HVLP) spray gun, having a maximum application rate of ten (10) ounces of coating per minute, with water wash for overspray control, and exhausting to one (1) stack identified as SV004;

Under 40 CFR 63, Subpart HHHHHH - National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, this is considered an affected facility.

(D) One (1) spray paint booth, identified as the Old Green Cell Paint Booth (EU005), constructed in 1989, equipped with one (1) high volume low pressure (HVLP) spray gun, having a maximum application rate of ten (10) ounces of coating per minute, with water wash for overspray control, and exhausting to one (1) stack identified as SV005; and

Under 40 CFR 63, Subpart HHHHHH - National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, this is considered an affected facility.

(E) One (1) spray paint booth, formerly identified as the touch-up paint booth and re-identified as the NICROBRAZ Booth (EU007), constructed in 1989, for coating metal aircraft parts using aerosol spray cans, having a maximum application rate of twelve (12) ounces of coating per twenty (20) units, with dry filters for overspray control, and exhausting to one (1) stack identified as SV007.

(2) Miscellaneous metal coating operations, including the following:

(A) One (1) metal coating operation, identified as Glyptal 1202 coating (EU103), constructed in 1990, for the hand application of coatings to metal aircraft parts, uncontrolled and exhausting inside the building; and

(B) One (1) metal coating operation, identified as HeliCoil coating (EU120), constructed in 2008, for the hand application of coatings to metal aircraft parts, uncontrolled and exhausting inside the building.

(3) Metal Coating/Treatment Operations, including the following:

(A) One (1) Zinc And Iron Phosphate Line, constructed in 1989, for treating metal aircraft parts at a rate of four hundred (400) pounds per hour, equipped with one (1) wet scrubber, exhausting outside the building, and including:

(i) one (1) alkaline tank, identified as EU016 (Tank 1);

(ii) one (1) muriatic acid tank, referred to as EU017 (Tank 2);

(iii) one (1) zinc phosphate tank, identified as EU018 (Tank 4);

Under 40 CFR 63, Subpart WWWWWW - National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations, this is considered an affected facility.

(iv) one (1) acid rinse tank, identified as EU019 (Tank 5); and

(v) four (4) tap water rinse tanks.

(vi) One (1) Deionized Water System, identified as the DI System, using Hydrochloric Acid and Sodium Hydroxide to recharge the ion exchange beds, uncontrolled and exhausting inside the building;

(B) Two (2) Alodine Acid Treatment Lines, identified as Alodine Lines A & C, and constructed in 1989, and 2009, respectively, for treating metal aircraft parts at a maximum rate of one hundred twenty (120) pounds per hour, each, and including:

(i) One (1) phosphoric acid tank, identified as Tank 1, uncontrolled and exhausting outside the building;

(ii) one (1) aluminum cleaner tank, identified as Tank 2, uncontrolled and exhausting outside the building;

(iii) one (1) deoxidizer tank, identified as Tank 5, emissions controlled by minimizing agitation and using surface balls, and exhausting outside the building;

(iv) One (1) electroless chromium conversion tank, identified as Tank 7, emissions controlled by minimizing agitation and using surface balls, and exhausting outside the building.

Under 40 CFR 63, Subpart WWWWWW - National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations, this is considered an affected facility.

(v) Five (5) tap water rinse tanks;

(C) One (1) Alodine Acid Treatment Line, identified as the PW600 Line (Alodine Line B), constructed in 2007, for treating metal aircraft parts at a maximum rate of twenty (20) pounds per hour, and including:

(i) one (1) aluminum cleaner tank, identified as Tank 1, uncontrolled and exhausting outside the building;

(ii) one (1) deoxidizer tank, identified as Tank 4, emissions controlled by minimizing agitation and using surface balls, and exhausting outside the building;

(iii) One (1) electroless chromium conversion tank, identified as Tank 6, emissions controlled by minimizing agitation and using surface balls, and exhausting outside the building; and

Under 40 CFR 63, Subpart WWWWWW - National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations, this is considered an affected facility.

(iv) Three (3) tap water rinse tanks;

(b) Metal Cleaning and Degreasing Operations, including the following:

(1) One (1) metal cleaning line, identified as Blue Cell Cleaning Line, constructed in 2000, uncontrolled, exhausting inside the building, and including:

(A) one (1) So-brite acid wash tank, identified as Tank 1; and

(B) one (1) tap water rinse tank.

(2) One (1) metal cleaning line, identified as Green Cell Cleaning Line, constructed in 2000, uncontrolled, exhausting inside the building, and including:

(A) one (1) So-brite acid wash tank, identified as Tank 1; and

(B) one (1) tap water rinse tank.

(3) One (1) metal cleaning line, identified as PW600 Cleaning Line (Alodine Acid Treatment Line B), constructed in 2007, uncontrolled, exhausting outside the building, and including:

(A) one (1) Terj alkaline wash tank, identified as Tank 1;

(B) one (1) So-brite acid wash tank, identified as Tank 3; and

(C) Two (2) tap water rinse tanks.

(4) One (1) metal cleaning line, identified as Core Cell Cleaning Line 1 (EU027), constructed in 1989, uncontrolled, exhausting outside the building, and including:

(A) one (1) Terj alkaline wash tank, identified as Tank 1;

(B) one (1) So-brite acid wash tank, identified as Tank 4; and

(C) four (4) tap water rinse tanks.

(5) One (1) metal cleaning line, identified as Core Cell Cleaning Line 2 (EU028), constructed in 1989, uncontrolled, exhausting outside the building, and including:

(A) one (1) hydrofluoric acid tank, identified as Tank 1;

(B) one (1) picking tank, identified as Tank 3;

(C) one (1) phosphoric acid passivation tank, identified as Tank 4; and

(D) four (4) tap water rinse tanks.

(6) One (1) metal cleaning line, identified as Yellow Cell Cleaning Line, constructed in 2006, uncontrolled, exhausting inside the building, and including:

(A) one (1) So-brite acid wash tank, identified as Tank 1; and

(B) one (1) tap water rinse tank.

(7) One (1) metal cleaning line, identified as NPD Cell Cleaning Line, constructed in 2008, uncontrolled, exhausting inside the building, and including:

(A) one (1) So-brite acid wash tank, identified as Tank 1; and

(B) one (1) tap water rinse tank.

(8) Industrial Flushing rigs, formerly Stoddard flushing units, using ISOPAR K Flushing Solvent, a non-HAP containing solvent, and including the following:

(A) Blue Cell 1 flushing rig, identified as EU025D, constructed in 1998, with a maximum throughput of capacity two and twenty-eight hundredths (2.28) pounds of solvent per hour, uncontrolled and exhausting to stack SV016D;

(B) Blue Cell 2 flushing rig, identified as EU025E, constructed in 1999, with a maximum throughput of capacity two and twenty-eight hundredths (2.28) pounds of solvent per hour, uncontrolled and exhausting to stack SV016E;

(C) Green Cell flushing rig, identified as EU025B, constructed in 1989, with a maximum throughput capacity of six and thirty-eight hundredths (6.38) pounds of solvent per hour, uncontrolled and exhausting to stack SV016B;

(D) PW600 Cell 1 flushing rig, identified as EU098 (Alodine Acid Treatment Line B), constructed in 2007, with a maximum throughput of capacity two and twenty-eight hundredths (2.28) pounds of solvent per hour, uncontrolled and exhausting to stack SV098; and

(E) PW600 Cell 2 flushing rig, identified as EU099 (Alodine Acid Treatment Line B), constructed in 2007, with a maximum throughput of capacity two and twenty-eight hundredths (2.28) pounds of solvent per hour, uncontrolled and exhausting to stack SV099;

(F) FAA Cell flushing rig, identified as EU025A, constructed in 1989, with a maximum throughput capacity of 6.38 pounds of solvent per hour, uncontrolled and exhausting to stack SV016A;

(G) Yellow Cell flushing rig, identified as EU025C, constructed in 1989, with a maximum throughput capacity of six and thirty-eight hundredths (6.38) pounds of solvent per hour, uncontrolled and exhausting to stack SV016C;

(9) Industrial Parts Washers, utilizing an alkaline, soap-based, non-VOC/non-HAP containing cleaner, constructed in 1995, 1995, and 1997, uncontrolled, exhausting inside the building, and including the following:

(A) Blue Cell Cleaning Line Parts Washer

(B) Blue Cell Machining Line Parts Washer

(C) Green Cell Cleaning Line Parts Washer

(D) Green Cell Machining Line Parts Washer

(E) Core Cell Cleaning Line 1 Parts Washer

(F) Yellow Cell Cleaning Line Parts Washer

(G) NPD Cell Cleaning Line Parts Washer

(10) Miscellaneous Cleaning/Degreasing Operations, consisting of hand-wipe application of solvents, with a maximum usage rate of three (3) gallons of solvent per day, uncontrolled, and exhausting inside the building;

(c) Two (2) function test rigs, one located in the Blue Cell and the other in the PW600 Cell (Alodine Line B), using JP-4 Grade Jet Fuel as the testing media, with a maximum VOC emission rate of nine and twenty-nine hundredths (9.29) tons per year, uncontrolled and exhausting inside the building. Note: no combustion occurs in this operation;

(d) One (1) ATP Function Test Rig, serving both the Blue Cell and the PW600 Cell (Alodine Line B) for semi-annual testing and for back-up, using JP-4 and/or JP-8 Grade Jet Fuel(s) as the testing media,

with a maximum VOC emission rate of three and thirty-seven hundredths (3.37) tons per year, uncontrolled and exhausting inside the building. Note: no combustion occurs in this operation;

(e) Metal machining operations, including the following:

(1) Metal machining where an aqueous cutting coolant continuously floods the machining interface, and including four (4) Milling stations, for machining of aluminum [alloy], with a maximum throughput capacity of one (1.0) pound of metal aircraft parts per hour, each;

(2) Metal machining, controlled by downdraft dust tables, exhausting inside the building, and including the following:

(A) Eight (8) Grinding/Drilling/Sanding stations for machining of aluminum [alloy], with a maximum throughput capacity of fifteen (15.0) pounds of metal aircraft parts per hour, each;

(B) One (1) Grinding/Drilling/Sanding Station, for machining of stainless steel, with a maximum throughput capacity of one (1.00) pound (lb) of metal aircraft parts per hour;

(3) Metal machining, uncontrolled, exhausting inside the building, and including the following:

(A) Ten (10) Coarse Grinding stations for machining of aluminum [alloy], with a maximum throughput capacity of twenty-five hundredths (0.25) pounds of metal aircraft parts per hour, each;

(B) Five (5) Sawing stations, for machining of aluminum [alloy], with a maximum throughput capacity of two hundredths (0.02) pounds of metal aircraft parts per hour, each;

(C) Two (2) Sawing stations for machining of stainless steel, with a maximum throughput capacity of two hundredths (0.02) pounds of metal aircraft parts per hour, each;

(D) Four (4) Milling stations, for machining of stainless steel, with a maximum throughput capacity of twenty hundredths (0.20) pounds of metal aircraft parts per hour, each;

(f) Welding operations, consisting of twenty-five (25) stations, collectively identified as EU031, constructed in 1990, using less than six hundred twenty-five (625) pounds of welding rod or wire per day, combined, uncontrolled and exhausting inside the building;

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

(1) One (1) natural gas-fired steam boiler, identified as EU008, installed in 1989, with a maximum heat input capacity of eight (8.0) MMBtu/hr, uncontrolled and exhausting outside the building; [326 IAC 6-2-4]

(2) One (1) natural gas-fired hot water heater, identified as EU012, installed after 1989, with a maximum heat input capacity of thirty-four thousandths (0.034) MMBtu/hr, uncontrolled and exhausting inside the building; [326 IAC 6-2-4]

(3) Two (2) natural gas-fired space heater(s), identified as EU009 and EU010, installed in 1989, with a maximum heat input capacity of six and twenty-two hundredths (6.22) MMBtu/hr, each, uncontrolled and exhausting inside the building;

(4) One (1) natural gas-fired drying oven, identified as EU004, installed in 1992, with a maximum heat input capacity of one thousandth (0.001) MMBtu/hr, each, uncontrolled and exhausting inside the building;

(h) One (1) soldering booth, identified as EU026; uncontrolled and exhausting inside the building;

(i) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, and cutting torches;

(j) Fifteen (15) electric drying units, identified as EU006, and EU029 through EU043, uncontrolled and exhausting inside the building; and

(k) Two (2) air compressors, identified as EU014 and EU015; constructed in 1989.

(l) One (1) electric EMC 85 Water Eater Wastewater Evaporator, identified as EMC 85, approved for construction in 2011, for the treatment of wastewater at the rate of six (6.0) gallons per hour, and exhausting to the outside;

(m) The following VOC and HAP storage containers:

(1) Storage tanks with capacity less than or equal to one thousand (1,000) gallons and annual throughputs equal to or less than twelve thousand (12,000) gallons.

(2) Vessels storing the following:

(A) Lubricating oils;

(B) Hydraulic oils;

(C) Machining oils; and

(D) Machining fluids.

(n) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(o) Application of oils, greases, lubricants, or other nonvolatile materials applied as temporary protective coatings;

(p) Purging of gas lines and vessels related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.

(q) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.

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

Unpermitted Emission Units and Pollution Control Equipment

The source consists of the following unpermitted emission unit*(s)*:

(a) Shotblasting operations, including the following:

(1) Three (3) self-contained shotblast cabinets, identified as cabinets #1 - #3, constructed in 1995, with a maximum throughput capacity of forty (40) pounds of metal aircraft parts per

hour, each, using glass oxide media, controlled by a built-in dust collector and exhausting inside the building.

(2) One (1) self-contained shotblast cabinet, identified as cabinet #4, constructed in 2008, with a maximum throughput capacity of forty (40) pounds of metal aircraft parts per hour, using plastic media, controlled by a built-in dust collector and exhausting inside the building.

Enforcement Issues

IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit. IDEM is reviewing this matter and will take the appropriate action. This proposed approval is intended to satisfy the requirements of the construction permit rules.

Emission Units and Pollution Control Equipment Removed From the Source

The source has removed the following emission units:

(a) Three (3) dip tanks for aluminum cleaning, collectively identified as EU041, with a combined maximum throughput of 55 gallons of Neostrip and 433 gallons of Purasolv.

(b) One (1) surface coating booth, identified as EU032, used to paint heat exchange units, equipped with an air atomization spray gun, with a maximum of ten (10) units per hour, and using dry filters to control emissions;

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – MSOP

The following table reflects the unlimited potential to emit (PTE) of the entire source before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	61.66
PM10[(1)]	43.74
PM2.5	43.74
SO_2	0.05
NO_x	8.97
VOC	39.27
CO	7.53

(1) 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".

(a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of PM, PM10, PM2.5 and VOCs are each less than one hundred (100) tons per year, but greater than or equal to twenty-five (25) tons per year. The PTE of all other regulated criteria pollutants are less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. A Minor Source Operating Permit (MSOP) will be issued.

HAPs	Potential To Emit (tons/year)
HCL	2.24
Hexane	1.81
Xylenes	1.47
Toluene	1.45
Benzene	0.63
Cyclohexane	0.63
Ethylbenzene	0.42
Chromium Compounds	0.38
Chromic Acid	0.35
Methylene Chloride	0.19

HAPs	Potential To Emit (tons/year)
Methanol	0.14
Hydrofluoric Acid	0.12
Napthalene	0.10
Methyl Isobutyl Ketone	0.09
1,2,4 Trimethylbenzene	0.07
Nickel Compounds	0.06
Manganese Compounds	0.02
Formaldehyde	0.01
Diethanolamine	0.01
Remaining HAPs	9.15E-03
TOTAL HAPs	**10.21 tpy**

(b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.

PTE of the Entire Source After Issuance of the MSOP

The table below summarizes the potential to emit of the entire source after issuance of this MSOP, reflecting all limits, of the emission units.

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Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of MSOP (tons/year)								
	PM	PM10 *	PM2.5	SO2	NOx	VOC	CO	Total HAPs	Worst Single HAP
Spray Coating (mult. units)									
Gray Cell Paint Booth (EU001)	0.27	0.27	0.27	0	0	0.33	0	0.36	0.14 (toluene)
Blue Cell Paint Booth (EU003)	0.02	0.02	0.02	0	0	0.46	0	0.23	0.19 (methylene chloride)
New Green Cell Paint Booth (EU004)	0.15	0.15	0.15	0	0	0.24	0	0.14	0.12 (strontium chromate)
Old Green Cell Paint Booth (EU005)	0.20	0.20	0.20	0	0	17.79	0	0.25	0.16 (strontium chromate)
Nicrobraze Booth (EU007)	negl.	negl.	negl.	0	0	0.02	0	0.01	0.01 (toluene)
Miscellaneous Metal Coating (mult. units)	4.18E-03	4.18E-03	4.18E-03	0	0	0.06	0	0.05	0.04 (xylenes)
Zinc Phosphate Line	negl.	negl.	negl.	0	0	2.27	0	2.25	2.24 (HCL)
Alodine Conversion Coating (mult. units)	negl.	negl.	negl.	0	0	0.49	0	0.47	0.35 (chromic acid)
Cleaning Lines & Flushing Rigs (mult. units)	negl.	negl.	negl.	0	0	0.84	0	0.01	0.01 (diethanolamine)
Miscellaneous Cleaning/Degreasing	negl.	negl.	negl.	0	0	3.61	0	0.18	0.14 (methanol)
Function Testing (mult. units)	negl.	negl.	negl.	0	0	12.66	0	5.99	1.65 (hexane)
Metal Machining (mult. units)	0.71	0.13	0.13	0	0	0.01	0	0.08	0.03 (chromium)
Welding (mult. units)	0.62	0.62	0.62	0	0	0	0	0.03	0.02 (nickel)
Shotblasting (Cabinets 1-4)	59.51	41.66	41.66	0	0	0	0	0	n/a
Natural Gas Combustion (mult. units)	0.17	0.68	0.68	0.05	8.97	0.49	7.53	0.17	0.16 (hexane)
Total PTE of Entire Source (tpy)	**61.66**	**43.74**	**43.74**	**0.05**	**8.97**	**39.27**	**7.53**	**10.21**	**2.24 (HCL)**
Registration Thresholds	25	25	25	25	25	25	100	25	10
Title V Major Source Thresholds	NA	100	100	100	100	100	100	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	250	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 ten (10) micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.

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Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

(a) 40 CFR 60, Subpart Dc - Standards for Small Industrial-Commercial-Institutional Steam Generating Units
The requirements of the New Source Performance Standards (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc (326 IAC 12), are not included in the permit, since the natural gas-fired steam boiler, natural gas-fired hot water heater, two (2) natural gas-fired space heater(s), and the natural gas-fired drying oven, each, have maximum design heat input capacities less than the applicability threshold of ten million (10,000,000) British thermal units per hour.

(b) 40 CFR Part 60, Subpart Kb - Standards for Volatile Organic Liquid Storage Vessels
The requirements of the New Source Performance Standards (NSPS) for Volatile Organic Liquid Storage Vessels, 40 CFR 60, Subpart Kb (326 IAC 12), are not included in the permit, since the JP-4 Grade Jet Fuel storage tanks, and all other storage containers, each have a maximum capacity less than seventy-five (75) cubic meters (m3) (19,813 gallons). Pursuant to 40 CFR 60.110b(a), these tanks and other storage containers are exempt from the rule.

(c) 40 CFR 60 Subpart MM - Standards for Automobile and Light Duty Truck Surface Coating Operations
The requirements of the New Source Performance Standards (NSPS) for Automobile and Light Duty Truck Surface Coating Operations, 40 CFR 60, Subpart MM (2M) (326 IAC 12), are not included in the permit, since this existing source applies coatings to aircraft engine parts and components not automobile or light-duty truck bodies or body parts for automobiles or light-duty trucks.

(d) 40 CFR 60 Subpart TT - Standards for Metal Coil Surface Coating
The requirements of the New Source Performance Standards (NSPS) for Metal Coil Surface Coating, 40 CFR 60, Subpart TT (2T) (326 IAC 12), are not included in the permit, since the HeliCoil coating facility does not meet the definition of a metal coil surface coating operation, as defined in §60.46: Definitions, because the coatings are applied by hand to the individual HeliCoils, not using an application system to coat continuous metal strips, having a thickness of fifteen hundredths (0.15) millimeter (mm) (six thousandths (0.006) inch (in.)) or more, packaged in a roll or coil.

(e) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this source.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

(a) 40 CFR 63 Subpart N - NESHAPs for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks
The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks, 40 CFR 63, Subpart N (326 IAC 14 and 326 IAC 20-8), are not included in the permit for the zinc and iron phosphate line, and the three (3) Alodine Acid Treatment Lines, because tanks that contain a chromium solution, but in which no electrolytic process occurs, are specifically exempted under §63.340(c). This source does not engage in any type of electroplating or anodizing.

(b) 40 CFR 63, Subpart T - NESHAPs for Halogenated Solvent Cleaning
The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Halogenated Solvent Cleaning, 40 CFR 60, Subpart T (326 IAC 20-6), are not included in the permit, since this source does not use a degreasing solvent that contain any of the halogenated compounds listed in 40 CFR 63.460(a).

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(c) 40 CFR 63, Subpart GG - NESHAPs for Aerospace Manufacturing and Rework Facilities
The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Aerospace Manufacturing and Rework Facilities, 40 CFR 60, Subpart GG (326 IAC 20-15), are not included in the permit, since although this existing source manufactures and coats metal aircraft parts and components, it is not a major source of hazardous air pollutant emissions, as defined in §63.2.

(d) 40 CFR 63 Subpart IIII - NESHAPs: Surface Coating of Automobiles and Light Duty Trucks
The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs): Surface Coating of Automobiles & Light Duty Trucks, 40 CFR 63, Subpart IIII (4I) (326 IAC 20-85), are not included in the permit, since this existing source does not apply topcoat to new automobile or new light-duty truck bodies or body parts for new automobiles or new light-duty trucks and is not a major source of hazardous air pollutant emissions, as defined in §63.2.

(e) 40 CFR 63 Subpart MMMM - NESHAPs for Surface Coating of Miscellaneous Metal Parts and Products
The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Surface Coating of Miscellaneous Metal Parts and Products, 40 CFR 60, Subpart MMMM (4M) (326 IAC 20-80), are not included in the permit, since this existing source is specifically exempted under §63.3881(c)(10), as otherwise subject to review under 40 CFR 60, Subpart GG, Aerospace Manufacturing and Rework Facilities. Furthermore, this existing source is not a major source of hazardous air pollutant emissions, as defined in §63.2.

(f) 40 CFR 63, Subpart - SSSS - NESHAPs: Surface Coating of Metal Coil
The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs): Surface Coating of Metal Coil, CFR 63, Subpart SSSS (4S) (326 IAC 20-64), are not included in this permit, since the HeliCoil coating operation does not meet the definition of a coil coating line, as defined in §63.5110, and this existing source is not a major source of hazardous air pollutant emissions, as defined in §63.2.

(g) 40 CFR 63, Subpart DDDDD - NESHAPs for Industrial, Commercial, and Institutional Boilers, and Process Heaters
The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD (5D) (326 IAC 20), are not included in this permit, as follows:

On June 8, 2007, the United States Court of Appeals for the District of Columbia Circuit (in National Resource Defense Council, Sierra Club, Environmental Integrity Project vs. EPA, No. 04-1385), vacated 40 CFR 63, Subpart DDDDD in its entirety. Additionally, since State Rule 326 IAC 20-95 incorporated the requirements of the NESHAP 40 CFR 63, Subpart DDDDD by reference, the requirements of 326 IAC 20-95 are no longer effective. However, since NESHAP 40 CFR Part 63, Subpart DDDDD has been vacated, Section 112(j) of the Clean Air Act, major sources of Hazardous Air Pollutants (HAPs), in specified source categories, requires a case-by-case MACT determination when EPA fails to promulgate a scheduled MACT Standard by the regulatory deadline. Meggitt (Troy), Inc. is still considered an area source under Section 112 of the Clean Air Act, MACT Standards. Therefore, this existing source is not subject to a case-by-case MACT determination.

(g) 40 CFR 63, Subpart CCCCCC - NESHAPs for Source Category: Gasoline Dispensing Facilities
The requirements of the National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities, 40 CFR 63, Subpart CCCCCC (6C) (326 IAC 20), are not included in the permit, since although this existing source meets the definition of an area source, as defined in 40 CFR § 63.2, and the material being dispensed meets the definition of gasoline, as defined in §63.11132, the material is being dispensed into drums and/or other containers for use as testing media in the Blue Cell and PW600 Cell function testing units, and not being used, in any way, for any combustion related purpose(s).

(h) 40 CFR 63, Subpart HHHHHH - NESHAPs: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources

(1) The spray coating operations, including the Gray Cell Paint Booth, New Green Cell Paint Booth, and Old Green Cell Paint Booth, each, are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, 40 CFR 63, Subpart HHHHHH (6H)(326 IAC 20), because this existing source meets the definition of an area source, as defined in 40 CFR § 63.2, uses spray application methods to coat metal aircraft parts, using coatings that contain compounds of chromium (Cr).

The facilities subject to this rule include the following:

(A) Mixing rooms and equipment;

(B) Spray booths, ventilated prep stations, curing ovens, and associated equipment;

(C) Spray guns and associated equipment;

(D) Spray gun cleaning equipment;

(E) Equipment used for storage, handling, recovery, or recycling of cleaning solvent or waste paint; and

Applicable portions of the NESHAP include the following:

(A)	40 CFR 63.11169(c);	(G)	40 CFR 63.11175;
(B)	40 CFR 63.11170(a)(3),(b);	(8)	40 CFR 63.11176(a);
(C)	40 CFR 63.11171(a),(b),(c),(e);	(9)	40 CFR 63.11177(a),(b),(c),(d),(g),(h);
(D)	40 CFR 63.11172(a)(2),(b);	(10)	40 CFR 63.11178;
(E)	40 CFR 63.11173(e),(f),(g);	(11)	40 CFR 63.11179; and
(F)	40 CFR 63.11174;	(12)	40 CFR 63.11180.

Note: There are no testing requirements applicable to this source for this NESHAP.

Nonapplicable portions of the NESHAP will not be included in the permit.

The requirements of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the spray coating operations, including the Gray Cell Paint Booth, Blue Cell Paint Booth, New Green Cell Paint Booth, and Old Green Cell Paint Booth, each, except as otherwise specified in 40 CFR 63, Subpart HHHHHH.

(2) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs): Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, 40 CFR 63, Subpart HHHHHH (6H) (326 IAC 20), are not included in the permit for the Blue Cell Paint Booth and the NICROBRAZ Booth, each, since although this existing source meets the definition of an area source, as defined in 40 CFR § 63.2, and uses spray application methods to coat metal aircraft parts, the coatings used in these facilities do not contain compounds of cadmium (Cd), chromium (Cr), lead (Pb), manganese (Mn), or nickel (Ni). Additionally, although the source uses Methylene Chloride (MeCl) as a solvent in the Blue Cell Paint Booth, it is not being used to perform paint stripping.

(3) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs): Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, 40 CFR 63, Subpart HHHHHH (6H) (326 IAC 20), are not included in the permit for the Red Cell Paint Booth, since although this existing source meets the definition of an area source, as defined in 40 CFR § 63.2, and the coatings used in this facility contain compounds of nickel (Ni), they use hand application not spray application methods to apply the coatings.

(4) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs): Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources,

40 CFR 63, Subpart HHHHHH (6H) (326 IAC 20), are not included in the permit for the HeliCoil coating facility, since although this existing source meets the definition of an area source, as defined in 40 CFR § 63.2, the coatings used in this facility do not contain any target HAPs as defined in §63.11180, and the source uses hand application not spray application methods to apply the coatings.

(5) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs): Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, 40 CFR 63, Subpart HHHHHH (6H) (326 IAC 20), are not included in the permit for the zinc and iron phosphate line, and three (3) Alodine Acid Treatment Lines, each, since although the coatings used in these facilities contain compounds of chromium (Cr) and nickel (Ni), they use dip application and not spray application methods to apply the coatings.

(6) This existing stationary metal aircraft part manufacturing and painting source does not perform paint stripping using Methylene Chloride (MeCl), and does not conduct any autobody refinishing operations.

(i) 40 CFR 63, Subpart WWWWWW - NESHAPs for Plating and Polishing Operations

(1) The zinc and iron phosphate line, and three (3) Alodine Acid Treatment Lines, each, are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Plating and Polishing Operations, 40 CFR 63, Subpart WWWWWW (6W) (326 IAC 20), since this existing source meets the definition of an area source, as defined in 40 CFR §63.11504(a)(2), is engaged in non-electrolytic metal coating processes, such as chromate conversion coating, nickel acetate sealing, and sodium dichromate sealing, and contains plating and polishing metal HAPs, as defined in §63.11511, in the bath solution(s).

The facilities subject to this rule include each tank that contains one or more of the plating and polishing metal HAP, and is used for non-electrolytic metal coating operations.

Applicable portions of the NESHAP include the following:

(1) § 63.11504(a)(1)(iii),(a)(2),(a)(3);
(2) § 63.11505(a)(1),(b),(c),(e);
(3) § 63.11506;
(4) § 63.11507(g);
(5) § 63.11508(a), (b), (c)(7), (d)(1), (d)(2), (d)(8);
(6) § 63.11509(a), (b), (c)(6), (c)(7), (d), (e), (f);
(7) § 63.11510;
(8) § 63.11511; and
(9) § 63.11512.

Note: There are no testing requirements applicable to this source for this NESHAP.

Nonapplicable portions of the NESHAP will not be included in the permit.

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

(2) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Plating and Polishing Operations, 40 CFR 63, Subpart WWWWWW (6W), (326 IAC 20), are not included in the permit for any of the metal cleaning operations, including the Blue Cell Cleaning Line, Green Cell Cleaning Line, PW600 Cleaning Line, Core Cell Cleaning Line 1, Core Cell Cleaning Line 2, Yellow Cell Cleaning Line, and the NPD Cell Cleaning Line, because none of the tanks contain or have the potential to emit any of the specifically listed plating or polishing metal HAPs, (i.e., compounds of cadmium (Cd), chromium (Cr), lead (Pb), manganese (Mn), or nickel (Ni), or any of these metals in the elemental form).

(3) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Plating and Polishing Operations, 40 CFR 63, Subpart WWWWWW (6W),

(326 IAC 20), are not included in the permit for the four (4) milling stations, machining of aluminum [alloy],each controlled by coolant, eight (8) grinding/drilling/sanding stations for machining aluminum [alloy], and one (1) grinding/drilling/sanding station for machining stainless steel, each controlled by downdraft dust tables, the ten (10) coarse grinding stations and five (5) sawing stations, for machining aluminum [alloy], and the two (2) sawing stations and four (4) milling stations, for machining stainless steel, each uncontrolled, because these operations occur prior to the metal coating and treatment operations and accordingly do not emit one or more of the plating and polishing metal HAPs, as defined in §63.11511.

(4) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Plating and Polishing Operations, 40 CFR 63, Subpart WWWWWW (6W), (326 IAC 20), are not included in the permit for any of the four (4) self contained shotblast cabinets, because these operations occur prior to the metal coating and treatment operations and accordingly do not emit one or more of the plating and polishing metal HAPs, as defined in §63.11511.

(j) 40 CFR 63, Subpart XXXXXX - NESHAPs Area Source Standards for Nine Metal Fabrication and Finishing Source Categories
The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Nine Metal Fabrication and Finishing Source Categories, 40 CFR 63, Subpart XXXXXX (6X) (326 IAC 20), are not included in the permit, since although this existing source manufactures metal aircraft parts, it is not primarily engaged in the operations in one of the nine metal fabrication and finishing source categories, as defined in 40 CFR 63.11514 and 63.11522.

(k) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) (40 CFR Part 63, 326 IAC 14, and 326 IAC 20) included in this permit.

Compliance Assurance Monitoring (CAM)

Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

State Rule Applicability Determination

Entire Source

(a) 326 IAC 2-1.1-5 (Nonattainment New Source Review)
Perry County has been classified as attainment or unclassifiable in Indiana for all criteria pollutants. Therefore, pursuant to 326 IAC 2-1.1-5, the Nonattainment New Source Review requirements do not apply.

(b) 326 IAC 2-2 (Prevention of Significant Deterioration (PSD))
This existing stationary source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit of all attainment regulated pollutants are less than two hundred fifty (<250) tons per year and this source is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1). Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

(c) 326 IAC 2-3 (Emission Offset)
Perry County has been classified as attainment or unclassifiable in Indiana for all criteria pollutants. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

(d) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area

source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.

(e) 326 IAC 2-6 (Emission Reporting)
This source is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than five (5) tons per year. Therefore, pursuant to 326 IAC 2-6-1(b), the source is only subject to additional information requests as provided in 3266 IAC 2-6-5.

(f) 326 IAC 2-6.1 (Minor Source Operating Permits (MSOP))
MSOP applicability is discussed under the "Permit Level Determination – MSOP" section above.

Note: The following terms and conditions from the previous approval have been revised in this MSOP:

(1) The existing FESOP PM10 limit of less than 99 tons per twelve (12) consecutive month period (22.6 pound per hour) has been removed from the permit.

(2) The existing FESOP VOC limit of 98.4 tons per twelve (12) consecutive month period of VOC delivered to the spray booth applicators plus the amount of VOCs used for clean-up plus the usage of Stoddard solvent minus the amount disposed of as waste has been removed from the permit.

(3) The existing FESOP single HAP limit of 9 tons per twelve (12) consecutive month period as delivered to the spray booth applicators, plus the amount of any single HAP used for clean-up, has been removed from the permit.

(4) The existing FESOP combined HAPs limit of 23.4 tons per twelve (12) consecutive month period as delivered to the spray booth applicators, plus the amount of any combination of HAPs used for clean-up, has been removed from the permit.

Changes in coating and solvent usage at this existing source, as demonstrated in the updated calculations included as attachment A to this TSD, have resulted in a net decrease in emissions, allowing for the removal of the above-listed emission limits from the permit, and supporting the transition to a MSOP. Updated MSDSs were submitted by the source during this review.

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

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

(2) 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.

(h) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source 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.

(i) 326 IAC 12 (New Source Performance Standards)
See Federal Rule Applicability Section of this TSD.

(j) 326 IAC 20 (Hazardous Air Pollutants)
See Federal Rule Applicability Section of this TSD.

State Rule Applicability – Individual Facilities

Surface Coating Operations

(a) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2(a), surface coating processes shall follow the work practices and control technologies contained in 326 IAC 6-3-2(d).

Therefore, particulate from the spray coating operations, including the Gray Cell Paint Booth, Blue Cell Paint Booth, New Green Cell Paint Booth, Old Green Cell Paint Booth, and NICROBRAZ Booth, shall be controlled by a dry particulate filter, waterwash, or an equivalent control device, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

(1) If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:

(A) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

(B) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

(2) If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

(b) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
(1) The spray coating operations, including the Gray Cell Paint Booth, Blue Cell Paint Booth, New Green Cell Paint Booth, Old Green Cell Paint Booth, and NICROBRAZ Booth, are otherwise subject to the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating), therefore, the requirements of 326 IAC 8-1-6 (General Reduction Requirements) do not apply, and are not included in the permit.

(2) The miscellaneous metal coating operations, including the Red Cell Paint Booth and the HeliCoil coating, are otherwise subject to the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating), therefore, the requirements of 326 IAC 8-1-6 (General Reduction Requirements) do not apply, and are not included in the permit.

(3) The metal coating/treatment operations, including The Zinc and Iron Phosphate Line and the three (3) Alodine Acid Treatment Lines, are otherwise subject to the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating), therefore, the requirements of 326 IAC 8-1-6 (General Reduction Requirements) do not apply, and are not included in the permit.

(c) 326 IAC 8-2-9 (Miscellaneous Metal and Plastic Coating Operations)
(1) The Gray Cell Paint Booth, Blue Cell Paint Booth, Old Green Cell Paint Booth, and NICROBRAZ Booth, were constructed in 1989, and the potential to emit VOCs is less than twenty-five (25) tons per year, each, therefore the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) do not apply, and are not included in the permit.

Note: The following terms and conditions from the previous approval have been revised in this MSOP:

The existing 326 IAC 8-2-9 avoidance limit of less than 24 tons of VOC per twelve (12) consecutive month period as delivered to the spray booth applicators, minus the amount of VOC disposed of as waste, has been removed from the permit.

Changes in coating and solvent usage at this existing source, as demonstrated in the updated calculations included as attachment A to this TSD, have resulted in a net decrease in emissions, allowing for the removal of the above-listed emission limits from the permit. Updated MSDSs were submitted by the source during this review.

(2) The New Green Cell Paint Booth was constructed in 2009, and the potential to emit VOCs is less than fifteen (15) pounds per day, therefore the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) do not apply, and are not included in the permit.

(3) Alodine Acid Treatment Line A was constructed in 1989, and the potential to emit VOCs is less than twenty-five (25) tons per year, each, therefore the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) do not apply, and are not included in the permit.

(4) Alodine Acid Treatment Lines B and C were constructed in 2007 and 2009, respectively, and the potential to emit VOCs is less than fifteen (15) pounds per day, each, therefore the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) do not apply, and are not included in the permit.

(5) The solvent cleanup activities in each of the surface coating operations are specifically exempted from the requirements of 326 IAC 8-2-9 since the usage of cleanup solvents is not considered an application of surface coatings, as defined in §8-1-0.5(c). Therefore, the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) do not apply, and are not included in the permit.

See Appendix A, for the detailed calculations.

(d) There are no other 326 IAC 8 Rules applicable to any of the surface coating operations at this existing source.

Metal Cleaning and Degreasing Operations

(a) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
The metal cleaning and degreasing operations, including the seven (7) metal cleaning lines, seven (7) industrial flushing rigs, the seven (7) industrial parts washers, and the miscellaneous cleaning/degreasing operations, are specifically exempted from the requirements of 326 IAC 6-3-2, since the potential to emit particulate is less than five hundred fifty-one thousandths (0.551) pound per hour, under 326 IAC 6-3-1(14), and since the usage of solvents for cleaning and degreasing is not considered an application of surface coatings, as defined in 326 IAC 6-3-1.5(5). Therefore, the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) do not apply, and are not included in the permit.

(b) 326 IAC 8-1-6 (New Facilities: General Reduction Requirements)
The metal cleaning and degreasing operations, including the seven (7) metal cleaning lines, seven (7) industrial flushing rigs, the seven (7) industrial parts washers, and the miscellaneous cleaning/degreasing operations, are otherwise subject to the requirements of 326 IAC 8-3 Organic Solvent Degreasing Operations, therefore, the requirements of 326 IAC 8-1-6 (General Reduction Requirements), do not apply, and are not included in the permit.

(c) 326 IAC 8-3 (Organic Solvent Degreasing Operations)
(1) Two (2) of the metal cleaning lines, including the Core Cell Cleaning Line 1 and Core Cell Cleaning Line 2, were constructed after 1980 but before 1990, use organic solvents, as

defined in 326 IAC 1-2-72, containing volatile organic compounds (VOCs), as defined in 326 IAC 1-2-90, to dissolve oxidation from metal parts. Additionally, the tanks have an air to solvent interface of two (2) square meters (twenty-one and six-tenths (21.6) square feet) or greater. Consequently, these operations meet the definition of a conveyorized degreaser under 326 IAC 1-2-21.5. Therefore, the requirements of 326 IAC 8-3-4 (Conveyorized Degreaser Operation) apply, and are included in the permit.

(2) Four (4) of the metal cleaning lines, including the Blue Cell Cleaning Line, Green Cell Cleaning Line, PW600 Cleaning Line, Yellow Cell Cleaning Line, and the NPD Cell Cleaning Line, were constructed after 1990, use organic solvents, as defined in 326 IAC 1-2-72, containing volatile organic compounds (VOCs), as defined in 326 IAC 1-2-90, to dissolve oxidation from metal parts. Additionally, the tanks have an air to solvent interface of two (2) square meters (twenty-one and six-tenths (21.6) square feet) or greater. Consequently, these operations meet the definition of a conveyorized degreaser under 326 IAC 1-2-21.5. Therefore, the requirements of 326 IAC 8-3-4 (Conveyorized Degreaser Operation) and 326 IAC 8-3-7 (Conveyorized Degreaser Operation and Control) apply, and are included in the permit.

(3) The six (6) industrial flushing rigs, including the Blue Cell 1 flushing rig, Blue Cell 2 flushing rig, Green Cell flushing rig, PW600 Cell 1 flushing rig, PW600 Cell 2 flushing rig, FAA Cell flushing rig, and the Yellow Cell flushing rig, were constructed after 1980, use organic solvents containing volatile organic compounds (VOCs), as defined in 326 IAC 1-2-90, meet the definition of a cold cleaner degreaser under 326 IAC 1-2-18.5 and have remote solvent reservoirs. Therefore, the requirements of 326 IAC 8-3-2 (Cold Cleaner Operation) apply, and are included in the permit.

(4) The seven (7) industrial parts washers, constructed in 1995, 1995, and 1997, use aqueous soap-based cleaning solutions containing less than or equal to one percent (1%) by weight of VOCs, excluding HAPs. Therefore, pursuant to 326 IAC 2-1.1-3(e)(13)(D)(Exemptions), the requirements of 326 IAC 8-3 (Organic Solvent Degreasing Operations) do not apply, and are not included in this permit.

(5) The miscellaneous cleaning/degreasing operations at this source are not of the type listed in 326 IAC 8-3-1(a)(1), but are performed using hand application of solvents, therefore, the requirements of 326 IAC 8-3 (Organic Solvent Degreasing Operations) do not apply, and are not included in this permit.

(d) 326 IAC 8-3-2 (Cold Cleaner Operation)
Pursuant to 326 IAC 8-3-2, the owner or operator of a cold cleaning facility shall:

(1) equip the cleaner with a cover;

(2) equip the cleaner with a facility for draining cleaned parts;

(3) close the degreaser cover whenever parts are not being handled in the cleaner;

(4) drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(5) provide a permanent, conspicuous label summarizing the operating requirements; and

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

(e) 326 IAC 8-3-4 (Conveyorized Degreaser Operation)
Pursuant to 326 IAC 8-3-4, the owner or operator of a conveyorized degreaser shall:

(1) minimize carryout emissions by:

(A) racking parts for best drainage;

(B) maintaining the vertical conveyor speed at less than 3.3 meters per minute (eleven (11) feet per minute);

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

(3) repair solvent leaks immediately, or shut down the degreaser;

(4) not use workplace fans near the degreaser opening;

(5) not allow water in solvent exiting the water separator; and

(6) provide a permanent, conspicuous label summarizing the operating requirements.

(f) 326 IAC 8-3-7 (Conveyorized Degreaser Operation and Control)
Pursuant to 326 IAC 8-3-7, the following shall apply:

(1) The owner or operator of a conveyorized degreaser shall ensure that the following control equipment requirements are met:

(A) Equip the degreaser's entrances and exits with downtime covers which are closed when the degreaser is not operating.

(B) Equip the degreaser with the following switches:

(i) A condenser flow switch and thermostat which shuts off sump heat if condenser coolant stops circulating or becomes too warm.

(ii) A spray safety switch which shuts off spray pump if the vapor level drops more than ten (10) centimeters (four (4) inches).

(iii) A vapor level control thermostat which shuts off sump heat when vapor level rises more than ten (10) centimeters (four (4) inches).

(C) Equip the degreaser with entrances and exits which silhouette workloads in such a manner that the average clearance between the articles and the degreaser opening is either less than ten (10) centimeters (four (4) inches) or less than ten percent (10%) of the width of the opening.

(D) Equip the degreaser with a drying tunnel, rotating or tumbling basket, or other equipment which prevents cleaned articles from carrying out solvent liquid or vapor.

(E) Equip the degreaser with a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(F) Equip the degreaser with one (1) of the following control devices:

(i) A refrigerated chiller;

(ii) A carbon adsorption system with ventilation which, with the downtime covers open, achieves a ventilation rate of greater than or equal to fifteen (15) cubic meters per minute per square meter (fifty (50) cubic feet per minute per square foot) of air to solvent interface area, and an average of less than

twenty-five (25) parts per million of solvent is exhausted over one (1) complete adsorption cycle; and

(iii) Other systems of demonstrated equivalent or better control as those outlined in clause (A) or (B). Such systems shall be submitted to the U.S. EPA as a SIP revision.

(2) The owner or operator of a conveyorized degreaser shall ensure that the following operating requirements are met:

(A) Minimize solvent carryout emissions by the following:

(i) Racking articles to allow complete drainage; and

(ii) Maintaining the vertical conveyor speed at less than three and three-tenths (3.3) meters per minute (eleven (11) feet per minute).

(B) 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) Repair solvent leaks immediately or shut down the degreaser if leaks cannot be repaired immediately.

(D) Prohibit the exhaust ventilation rate from exceeding twenty (20) cubic meters per minute per square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser opening unless a greater ventilation rate is necessary to meet Occupational Safety and Health Administration requirements.

(E) Prohibit the use of workplace fans near the degreaser opening.

(F) Prohibit visually detectable water in the solvent exiting the water separator; and

(G) Cover entrances and exits at all times except when processing workloads through the degreaser.

Function Test Rigs

Note: The material being used as testing media (JP-4 and JP-8 Grade Jet Fuel) in each of the two (2) function testing units is not being used, in any way, for any combustion related purpose(s).

(a) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
The activities performed in the two (2) function test rigs, located in the Blue Cell and the PW600 Cell, and the one (1) new ATP Function Test Rig, serving the Blue Cell and the PW600 Cell, each, are exempt from the requirements of 326 IAC 6-3, since they do not meet the definition of a "manufacturing process", as defined in 326 IAC 6-3-1.5(2), as they pertain specifically to the quality assurance and quality control of a manufactured item. Therefore, the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) do not apply, and are not included in the permit.

(b) 326 IAC 8-1-6 (New facilities; general reduction requirements)
The potential to emit VOCs from the three (3) function test rigs, combined, are less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) do not apply, and are not included in the permit.

See Appendix A for detailed calculations.

(c) 326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)
The JP-4 and JP-8 grade jet fuel storage tanks each have maximum capacities of less than 39,000 gallons. Therefore, the requirements of 326 IAC 8-4-3 (Petroleum Liquid Storage Facilities) do not apply, and are not included in this permit.

(d) 326 IAC 8-4-6 (Gasoline dispensing facilities)
The JP-4 and JP-8 grade jet fuel dispensing facility does not meet the definition of a "Gasoline dispensing facility" under 326 IAC 8-4-6(a)(8), since the main storage tank has a capacity of less than nine hundred forty-six (946) liters (two hundred fifty (250) gallons). Therefore, the requirements of 326 IAC 8-4-6 (Gasoline dispensing facilities) do not apply, and are not included in this permit.

(e) 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)
This stationary metal aircraft part manufacturing and painting source is located in Perry County, not Clark, Floyd, Lake, or Porter Counties. Therefore, the requirements of 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels) do not apply, and are not included in this permit.

(f) There are no other 326 IAC 8 Rules that are applicable to the two (2) function testing units.

Metal Machining Operations

(a) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
The uncontrolled potential to emit particulate from each of the metal machining operations, including the ten (10) coarse grinding stations, nine (9) grinding/drilling/sanding stations, four (4) milling stations, and the seven (7) sawing stations, are less than five hundred fifty-one thousandths (0.551) pound per hour. Therefore, pursuant to 326 IAC 6-3-1(b)(14) each of the metal machining operations are exempt from 326 IAC 6-3, and the requirements are not included in the permit.

See Appendix A, for the detailed calculations.

(b) 326 IAC 8-1-6 (New Facilities: General Reduction Requirements)
The potential to emit VOCs from the aqueous cutting coolant usage in the nine (9) grinding/drilling/ sanding stations and four (4) milling stations, combined, is less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) do not apply, and are not included in the permit.

Shotblasting Operations

(a) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2(e) (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from each of the units in the shotblasting operations shall not exceed the corresponding pound per hour limitations listed in the table below:

Emission Unit	# of Units	Process Weight Rate		Allowable PM Emission Rate (lb/hour)
		(lbs/hr)	(tons/hr)	
shotblast cabinets using glass media	3	398 (each)	0.20 (each)	1.39 (each)
shotblast cabinets using plastic media	1	326	0.16	1.22

These limitations were calculated as follows:

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

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

(a) The uncontrolled PM emission rate from each of the three (3) self-contained shotblast cabinets using glass media is three and fifty-eight hundredths (3.58) pounds per hour, which is greater than the allowable rate of one and thirty-nine hundredths (1.39) pounds of PM per hour, each.

Therefore, the dust collectors shall be in operation at all times the shotblast cabinets are in operation, in order to comply with this limit.

(b) The uncontrolled PM emission rate from the one (1) self-contained shotblast cabinet using plastic media is two and eighty-six hundredths (2.86) pounds per hour, which is greater than the allowable rate of one and twenty-two hundredths (1.22) pounds of PM per hour.

Therefore, the dust collector shall be in operation at all times the shotblast cabinet is in operation, in order to comply with this limit.

See Appendix A, for the detailed calculations.

Welding, Brazing, Soldering, and Cutting Torch Operations

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

(1) The welding operations, conducted at this existing source, consume less than six hundred twenty-five (625) pounds of rod or wire per day. Therefore, pursuant to 326 IAC 6-3-1(b)(9), each of these units is exempt from 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) and the requirements are not included in the permit.

(2) The brazing and soldering operations, conducted at this existing source, produce particulate emissions of less than five hundred and fifty-one thousandths (0.551) pounds per hour each. Therefore, pursuant to 326 IAC 6-3-1(b)(14) these operations are exempt from 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) and the requirements are not included in the permit.

(3) The cutting torches are used to cut less than 3,400 inches of metal stock, having a thickness one (1) inch or less, per hour, combined. Therefore, pursuant to 326 IAC 6-3-1(b)(10), the metal cutting operations are exempt from 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) and the requirements are not included in the permit.

Natural Gas Combustion

(a) 326 IAC 4-2-2 (Incinerators)

The one (1) natural gas-fired steam boiler, one (1) natural gas-fired hot water heater, two (2) natural gas-fired space heater(s), and the one (1) natural gas-fired drying oven, are each not an incinerator, as defined by 326 IAC 1-2-34, since they do not burn waste substances. Therefore, the requirements of 326 IAC 4-2-2 (Incinerators) do not apply, and are not included in the permit.

(b) 326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)

(1) The two (2) natural gas-fired space heater(s), and the one (1) natural gas-fired drying oven, each, do not meet the definition of an indirect heating unit, as defined in 236 IAC 1-2-19. Therefore, the requirements of 326 IAC 6-2 (Particulate Emissions from Indirect Heating Units) do not apply, and are not included in this permit.

(2) The one (1) eight (8.0) MMBtu/hr natural gas-fired steam boiler, installed in 1989, and the one (1) thirty-four thousandths (0.034) MMBtu/hr natural gas-fired hot water heater, installed after 1989, after the rule applicability date of September 21, 1983, each must comply with the requirements of 326 IAC 6-2-4, as follows:

The emission limitation for these units, as provided in 326 IAC 6-2-4, is based on the following equation:

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

Where:
Pt = Emission rate limit (lbs PM per MMBtu)
Q_T = Total source heat input capacity rating in million Btu per hour ($Q_T = Q_1 + Q_2$)
= 8.034 MMBtu per hour

However, according to 326 IAC 6-2-4(a), for Q less than ten (10) MMBtu per hour, Pt shall not exceed six tenths (0.6) lbs PM per MMBtu. Therefore, the one (1) boiler and one (1) hot water heater are each limited to six tenths (0.6) lbs of PM per MMBtu heat input.

Based on Appendix A and AP-42, the potential PM emission rate is one and ninety hundredths (1.90) pounds per million cubic feet of natural gas or nineteen ten-thousandths (0.0019) pounds per million British thermal units. Therefore, the one (1) boiler and one (1) hot water heater, each, complies with this rule.

(c) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
The one (1) natural gas-fired steam boiler, one (1) natural gas-fired hot water heater, two (2) natural gas-fired space heater(s), and the one (1) natural gas-fired drying oven, each, do not meet the definition of a "manufacturing process", as defined in 326 IAC 6-3-1.5(2). Therefore, each of these units is exempt from 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), and the requirements are not included in this permit.

(d) 326 IAC 7-1.1 (Sulfur Dioxide Emissions Limitations)
The potential SO2 emissions from the one (1) natural gas-fired steam boiler, one (1) natural gas-fired hot water heater, two (2) natural gas-fired space heater(s), and the one (1) natural gas-fired drying oven, each, are less than twenty-five (25) tons per year and ten (10) pounds per hour respectively. Therefore, the requirements of 326 IAC 7-1.1-2 do not apply, and are not included in this permit.

Compliance Determination, Monitoring, Testing, and Recordkeeping Requirements

Compliance Determination

(a) The compliance determination requirements applicable to this source are as follows:

(1) The water wash for particulate control in the Gray Cell Paint Booth, Blue Cell Paint Booth, New Green Cell Paint Booth, Old Green Cell Paint Booth, each, and the dry filters in the NICROBRAZ Booth, shall be in operation and control emissions at all times that the corresponding spray coating booth is in operation:

(2) The dust collectors for particulate control in each of the four (4) shotblast cabinets shall be in operation and control emissions at all times that the corresponding shotblast unit is in operation.

(b) There are no other compliance determination requirements included in the permit.

Compliance Monitoring Requirements

(a) The compliance monitoring requirements applicable to this source are as follows:

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Control	Parameter	Frequency	Range	Excursions & Exceedances
Paint booth waterwash	Inspections	Daily	Normal-Abnormal	Response Steps
Paint booth dry filters	Inspections	Daily	Normal-Abnormal	Response Steps
Paint booth coating emissions and presence of overspray on the rooftops and the nearby ground	Inspections	Weekly & Monthly	Normal-Abnormal	Response Steps
Dust collectors for the shotblast units	Visible Emissions	Once per day	Normal-Abnormal	Response Steps
	Pressure Drop	Once per day	Normal-Abnormal	Response Steps
	Fabric filter(s)	As needed	Normal-Abnormal	Response Steps

(1) These paint booth monitoring conditions are necessary because the water wash for the Gray Cell Paint Booth, Blue Cell Paint Booth, New Green Cell Paint Booth, Old Green Cell Paint Booth, each, and the dry filters for the NICROBRAZ Booth, each, must operate properly to ensure compliance with 326 IAC 6-3-2(d) (Particulate emission limitations, work practices, and control technologies).

(2) These shotblast cabinet dust collector monitoring conditions are necessary because the dust collectors for the four (4) shotblast cabinets, each, must operate properly to ensure compliance with 326 IAC 6-3-2(e) (Particulate emission limitations, work practices, and control technologies).

(b) There are no other compliance monitoring requirements included in the permit.

Testing requirements

There are no specific testing requirements associated with any of the emission units located at this existing source.

Recordkeeping Requirements

(a) The source shall maintain a record of any actions taken if overspray is visibly detected.

(b) The source shall maintain records of the results of the shotblast cabinet dust collector inspections.

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on July 20, 2010.

The operation of this source shall be subject to the conditions of the attached proposed MSOP No. 123-29484-00011. The staff recommends to the Commissioner that this MSOP be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Ms. Hannah Desrosiers at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate

Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5374 or toll free at 1-800-451-6027 extension 4-5374.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) 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.in.gov/idem

Appendix A: Emissions Calculations
Emission Summary

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Uncontrolled Potential Emissions (tons/year)

		Emissions Generating Activity												
Category	Pollutant	Spray Coating (mult units)	Nicrobraze Booth (EU007)	Miscellaneous Coating (mult units)	Zinc Phosphate Line	Alodine Conversion Coating (mult units)	Cleaning Lines & Flushing Rigs (mult units)	Miscellaneous Cleaning/ Degreasing	Function Testing (mult units)	Metal Machining (mult units)	Welding (mult units)	Shotblasting (Cabinets 1-4)	Natural Gas Combustion (mult units)	**TOTAL**
Criteria	PM	0.64	5.21E-06	4.18E-03	0	0	0	0	0	0.71	0.62	59.51	0.17	61.66
Pollutants	PM10	0.64	5.21E-06	4.18E-03	0	0	0	0	0	0.13	0.62	41.66	0.68	43.74
	PM2.5	0.64	5.21E-06	4.18E-03	0	0	0	0	0	0.13	0.62	41.66	0.68	43.74
	SO2	0	0	0	0	0	0	0	0	0	0	0	0.05	0.05
	NOx	0	0	0	0	0	0	0	0	0	0	0	8.97	8.97
	VOC	18.81	0.02	0.06	2.27	0.49	0.84	3.61	12.66	0.01	0	0	0.49	39.27
	CO	0	0	0	0	0	0	0	0	0	0	0	7.53	7.53
Hazardous	1,4 Dioxane	3.42E-03	0	0	0	0	0	0	0	0	0	0	0	3.42E-03
Air	I,2,4 Trimethylbenzene	0	0	0	0	0	0	0	0.07	0	0	0	0	0.07
Pollutants	Benzene	0	0	0	0	0	0	0	0.63	0	0	0	1.88E-04	0.63
	Chromic Acid	0	0	0	0	0.35	0	0	0	0	0	0	0	0.35
	Cumene	1.37E-04	0	0	0	0	0	0	0	0	0	0	0	1.37E-04
	Cyclohexane	0	0	0	0	0	0	0	0.63	0	0	0	0	0.63
	Dichlorobenzene	0	0	0	0	0	0	0	0	0	0	0	1.08E-04	1.08E-04
	Diethanolamine	0	0	0	0	0	7.23E-03	0	0	0	0	0	0	0.01
	Ethylbenzene	0.04	0	9.26E-09	0	0	0	0	0.38	0	0	0	0	0.42
	Ethylene Dichloride	3.42E-03	0	0	0	0	0	0	0	0	0	0	0	3.42E-03
	Formaldehyde	3.42E-03	0	0	0	0	0	0	0	0	0	0	6.73E-03	0.01
	Hexane	0	0	0	0	0	0	0	1.65	0	0	0	0.16	1.81
	Hydrochloric Acid	0	0	0	2.24	0	0	0	0	0	0	0	0	2.24
	Hydrofluoric Acid	0	0	0	7.44E-04	0.12	1.82E-03	0	0	0	0	0	0	0.12
	Methanol	0	0	0	0	0	0	0.14	0	0	0	0	0	0.14
	Methyl isobutyl ketone	0.05	0	0	0	0	0	0.04	0	0	0	0	0	0.09
	Methylene Chloride	0.19	0	0	0	0	0	0	0	0	0	0	0	0.19
	Napthalene	0	1.77E-04	0	0	0	0	0	0.10	0	0	0	0	0.10
	Toluene	0.18	6.98E-03	4.89E-12	0	0	0	0	1.27	0	0	0	3.05E-04	1.45
	Xylenes	0.16	0	0.04	0	0	0	0	1.27	0	0	0	0	1.47
	Cadmium Compounds	0	0	0	0	0	0	0	0	0	0	0	9.87E-05	9.87E-05
	Chromium Compounds	0.34	0	0	0	1.78E-04	0	0	0	0.03	9.44E-03	0	1.26E-04	0.38
	Cobalt Compounds	0	0	0	0	0	0	0	0	3.41E-04	0	0	0	3.41E-04
	Cyanide Compounds	0	0	0	0	1.40E-03	0	0	0	0	0	0		1.40E-03
	Lead Compounds	0	0	0	0	0	0	0	0	0	0	0	4.48E-05	4.48E-05
	Manganese Compounds	0	0	0	0	0	0	0	0	0.02	6.57E-03	0	3.41E-05	0.02
	Nickel Compounds	0	3.21E-03	0.01	3.69E-03	0	0	0	0	0.03	1.54E-02	0	1.88E-04	0.06
	Selenium Compounds	0	0	0	0	0	0	0	0	1.82E-04	0	0	0	1.82E-04
	Totals	**0.98**	**0.01**	**0.05**	**2.25**	**0.46**	**0.01**	**0.18**	**5.99**	**0.08**	**0.03**	**0**	**0.17**	**10.21**
														2.24

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

Appendix A: Emissions Calculations
Particulate and Volatile Organic Compound (VOC) Emissions
From the Gray Cell Paint Booth (EU001)

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Mix Ratio	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water & exempt solvents	Weight % Organics	Volume % Water & exempt solvents	Volume % Non-Volatiles (solids)	Maximum Material Usage [α] (gal/unit)	Maximum Throughput [β] (unit/hour)	Maximum Material Usage (gal/day)	Maximum Usage (lb/hr)	Pounds VOC per gallon of coating	Pounds VOC per gallon of coating less Water and Exempt Solvents	Potential VOC (lbs/hour)	Potential VOC (lbs/day)	Potential VOC (tons/year)	Particulate Potential (ton/yr)	Pounds VOC per Gallon of Solids	Transfer Efficiency [ɤ]
High Temp O. D. Green	4	12.02	35.00%	NA	35.0%	NA	NA	0.0028	3.75	0.249	0.125	4.209	4.209	0.044	1.050	0.192	0.267	NA	25%
Xylene	1	7.26	100.00%	0.00%	100.0%	NA	NA	0.0011	3.75	0.103	0.031	7.256	7.256	0.031	0.750	0.137	0.000	NA	25%
							Total Potential Emissions:	**0.00392**	**3.75**	**0.35**				**7.50E-02**	**1.80**	**0.33**	**0.27**	NA	
Low Luster Black	3	9.68	46.02%	NA	46.0%	NA	36.90%	0.00155	6.25	0.232	0.094	4.456	4.260	0.043	1.035	0.189	0.166	12.076	25%
Mineral Spirits	1	6.59	100.00%	0.00%	100.0%	NA	NA	0.00076	6.25	0.114	0.031	6.589	6.589	0.031	0.750	0.137	0.000	NA	25%
							Total Potential Emissions:	**0.0023**	**6.25**	**0.35**				**0.07**	**1.79**	**0.33**	**0.17**	**9.06**	

Total Potential Emissions (tons/yr)	**Uncontrolled:**	0.08	1.80	**0.33**	**0.27**
				PM Control Efficiency:	**80.0%**
				Controlled:	**5.34E-02**

NOTES
n/a = not applicable, NA = Not available
Hours of operation are 8 hrs per day, 40 hrs per 5 day work week, and 2080 hrs per year.
The source applies only one of the "as applied" coatings to a given part. Additionally, the booth contains only one spray gun, which must be cleaned between coatings.
[α] Maximum material usage (oz/day) provided by the source. This has been converted to gal/unit. Additionally, usage has been converted from an 8hr workday to the potential of 24hrs/day and 8760 hrs/yr.
[β] Maximum Throughput (unit/day) provided by the source, based on an 8 hr. day. This has been converted to units per hour.
[ɤ] The transfer efficiency for air assisted spray coating ranges from 25% to 40%. The worst case was used.

METHODOLOGY
Density (Lb/Gal) = [Specific gravity * Density of Water (8.34 Lb/gal)], or where applicable, "as-supplied" data taken from the MSDS.
Weight % Volatile (H20 & Organics) = SUM(Weight %s individual Volatile components "as-supplied" in the MSDS)
Weight % organics = Weight % Volatile (H20 & Organics) - Weight % Water & exempt solvents
Volume % Non-Volatiles (solids) = 100% - SUM(Volume %s individual Volatiles "as-supplied" in the MSDS)
Maximum Material Usage (gal/day) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * 24 (hrs/day)
Maximum Usage (lb/hr) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * Density (Lb/Gal)
Pounds of VOC per Gallon Coating = [(Density (lb/gal) * Weight % Organics)]
Pounds of VOC per Gallon Coating less Water & exempt solvents = [(Density (lb/gal) * Weight % Organics) / (1-Volume % water)]
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 Potential Emissions = "Worst Case" Coating + Sum of all solvents used

Appendix A: Emission Calculations
Hazardous Air Pollutant (HAP) Emissions
From the Gray Cell Paint Booth (EU001)

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Mix Ratio	Density (Lb/Gal)	Maximum Material Usage (gal/unit)	Maximum Throughput (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Ethylbenzene	Weight % Dicromium Trioxide	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Ethylbenzene Emissions (ton/yr)	Dichromium Trioxide Emissions (ton/yr)
High Temp O. D. Green	4	12.02	0.0028	3.75	5.00%	25.00%	0%	10.00%	0.027	0.137	0	0.055
Xylene	1	7.26	0.0011	3.75	70.00%	0%	30.00%	0%	0.096	0	0.041	0
							Total Potential Single HAP Emissions:		**0.12**	**0.14**	**0.04**	**0.05**
Low Luster Black	3	9.68	0.0015	6.25	23.92%	0.60%	0%	0%	0.098	2.45E-03	0	0
Mineral Spirits	1	6.59	0.0008	6.25	1.00%	0%	0%	0%	1.37E-03	0	0	0
							Total Potential Single HAP Emissions:		**0.10**	**2.45E-03**	**0**	**0**

Total Potential Emissions (tons/yr)	**"Worst Case" Individual HAP :**	**0.12**	**0.14**	**0.04**	**0.05**
	"Worst Case" Total HAPs :	**0.36**			

NOTES
The source applies only one of the "as applied" coatings to a given part. Additionally, this booth contains only one spray gun, which must be cleaned between coatings.

METHODOLOGY
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
Total HAPs (tons/yr) = SUM(Individual HAPs emission rates (tons/yr))
Individual HAP Emission Rate (tons/yr) = [(Mix Ratio$_1$ * HAP$_1$ Emissions (tons/yr)) + (Mix Ratio$_2$ * HAP$_2$ Emissions (tons/yr))] / (Mix Ratio$_1$ + Mix Ratio$_2$)
"Worst Case" Individual HAP (tons/yr) = MAX("As-Applied" Individual HAP Emission Rate (tons/yr))
"Worst Case" Total HAPs (tons/yr) = SUM("Worst Case" Individual HAPs (tons/yr))

Appendix A: Emissions Calculations
Particulate and Volatile Organic Compound (VOC) Emissions
From the Blue Cell Paint Booth (EU003)

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Mix Ratio	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water & exempt solvents	Weight % Organics	Volume % Water & exempt solvents	Volume % Non-Volatiles (solids)	Maximum Material Usage[α] (gal/unit)	Maximum Throughput (unit/hour)	Maximum Material Usage (gal/day)	Maximum Usage (lb/hr)	Pounds VOC per gallon of coating	Pounds VOC per gallon of coating less Water and Exempt Solvents	Potential VOC (lbs/hour)	Potential VOC (lbs/day)	Potential VOC (tons/year)	Particulate Potential (ton/yr)	Transfer Efficiency[β]
Low VOC Chromate Free Dk Grey Primer	7	11.34	85.00%	5.00%	80.0%	NA	NA	0.0012	4.00	0.116	0.055	9.074	9.074	0.044	1.050	0.192	0.018	50%
Catalyst	1	9.17	100.00%	0.00%	100.0%	NA	NA	0.0002	4.00	0.020	0.008	9.174	9.174	0.008	0.188	0.034	0.000	50%
Reducer	1.2	7.17	100.00%	0.00%	100.0%	NA	NA	0.0003	4.00	0.031	0.009	7.172	7.172	0.009	0.225	0.041	0.000	50%
							Total Potential Emissions:	0.0014	4.00	0.14				0.05	1.24	0.23	0.02	
Low VOC Aluminum Topcoat	3	9.26	90.00%	0.00%	90.0%	NA	NA	0.0006	4.00	0.061	0.023	8.332	8.332	0.021	0.506	0.092	0.005	50%
Catalyst	1	9.17	100.00%	0.00%	100.0%	NA	NA	0.0002	4.00	0.020	0.008	9.174	9.174	0.008	0.188	0.034	0.000	50%
Reducer	0.6	7.17	100.00%	0.00%	100.0%	NA	NA	0.0002	4.00	0.016	0.005	7.172	7.172	0.005	0.113	0.021	0.000	50%
							Total Potential Emissions:	0.0010	4.00	0.10				0.03	0.81	0.15	0.01	
Solvent 6600	4	8.85	100.00%	30.00%	70.0%	NA	NA	0.0014	5.00	0.169	0.063	6.195	6.195	0.044	1.050	0.192	0.000	25%
Lube-Lok 4389	1	9.45	85.00%	0.00%	85.0%	NA	NA	0.0003	5.00	0.040	0.016	8.033	8.033	0.013	0.319	0.058	0.008	25%
							Total Potential Emissions:	0.0017	5.00	0.21				0.06	1.37	0.25	0.01	
PM Acetate - gun clean-up solvent	6	8.04	100.00%	0.00%	100.0%	NA	NA	0.0015	4.00	0.140	0.047	8.040	8.040	0.047	1.125	0.205	0.000	98%
							Total:	0.0015	4.00	0.14				0.05	1.13	0.21	0.00	

NOTES
n/a = not applicable, NA = Not available
Hours of operation are 8 hrs per day, 40 hrs per 5 day work week and 2080 hrs per year.
The source applies only one of the "as applied" coatings to a given part. Additionally, this booth contains only one spray gun, which must be cleaned between coatings.
[α] Maximum material usage (oz/day) provided by the source. This has been converted to gal/unit. Additionally, usage has been converted from an 8hr workday to the potential of 24hrs/day and 8760 hrs/yr.
[β] The Primer and Topcoat are applied using a HVLP sprayer. According to EPA, the transfer efficiency for this type of applicator is approximately 50 %. The Lube-Lok is applied using air assisted spray, which has a transfer efficiency, worst-case, of 25%.

Total Potential Emissions (tons/yr)	**Uncontrolled:**	0.10	2.49	**0.46**	**0.02**
			PM Control Efficiency:		**80.0%**
				Controlled:	**3.59E-03**

METHODOLOGY
Density (Lb/Gal) = [Specific gravity * Density of Water (8.3453 Lb/gal)], or where applicable, "as-supplied" data taken from the MSDS.
Weight % Volatile (H20 & Organics) = SUM(Weight %s individual Volatile components "as-supplied" in the MSDS)
Weight % organics = Weight % Volatile (H20 & Organics) - Weight % Water & exempt solvents
Maximum Material Usage (gal/day) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * 24 (hrs/day)
Maximum Usage (lb/hr) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * Density (Lb/Gal)
Pounds of VOC per Gallon Coating = [(Density (lb/gal) * Weight % Organics)]
Pounds of VOC per Gallon Coating less Water & exempt solvents = [(Density (lb/gal) * Weight % Organics) / (1-Volume % water)]
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)
Total Potential Emissions = "Worst Case" Coating + Sum of all solvents used

Appendix A: Emission Calculations
Hazardous Air Pollutant (HAP) Emissions
From the Blue Cell Paint Booth (EU003)

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Mix Ratio	Density (Lb/Gal)	Maximum Material Usage (gal/unit)	Maximum Throughput (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Cumene	Weight % Formaldehyde	Weight % Ethylene Dichloride	Weight % 1,4 Dioxane	Weight % Methylene Chloride	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Cumene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Ethylene Dichloride Emissions (ton/yr)	1,4 Dioxane Emissions (ton/yr)	Methylene Chloride Emissions (ton/yr)
Low VOC Aluminum Topcoat	3	9.26	0.0006	4.00	0.05%	0%	0.05%	0%	0%	0%	0%	5.13E-05	0	2.77E-09	0	0	0	0
Catalyst	1	9.17	0.0002	4.00	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0
Reducer	1	7.17	0.0002	4.00	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0
											Total Potential Single HAP Emissions:	**5.13E-05**	**0**	**2.77E-09**	**0**	**0**	**0**	**0**
Solvent 6600	4	8.85	0.0014	5.00	0%	0%	0%	0%	0%	0%	70.00%	0	0	0	0	0	0	0.192
Lube-Lok 4389	1	9.45	0.0003	5.00	0%	45.00%	0%	5.00%	5.00%	5.00%	0%	0	0.031	0	0.003	0.003	0.003	0
											Total Potential Single HAP Emissions:	**0**	**0.03**	**0**	**3.42E-03**	**3.42E-03**	**3.42E-03**	**0.19**

Total Potential Emissions (tons/yr)	**"Worst Case" Individual HAP**	**5.13E-05**	**0.03**	**2.77E-09**	**3.42E-03**	**3.42E-03**	**3.42E-03**	**0.19**
	Total Combined HAPs	**0.23**						

NOTES

Based on MSDSs submitted by the source, the Low VOC Chromate Free Dk Grey Primer, catalysts, reducer, and PM Acetate - gun clean-up solvent are each HAP free.
The source applies only one of the "as applied" coatings to a given part. Additionally, this booth contains only one spray gun, which must be cleaned between coatings.

METHODOLOGY

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
Total Potential Single HAP Emissions (tons/yr) = SUM(Individual HAPs emission rates (tons/yr))
Individual HAP Emission Rate (tons/yr) = [(Mix Ratio $_1$ * HAP$_1$ Emissions (tons/yr)) + (Mix Ratio$_2$ * HAP$_2$ Emissions (tons/yr))] / (Mix Ratio$_1$ + Mix Ratio$_2$)
"Worst Case" Individual HAP (tons/yr) = MAX("As-Applied" Individual HAP Emission Rate (tons/yr)) + SUM(solvent "As-Applied" Individual HAP Emission Rate (tons/yr))
"Worst Case" Total HAPs (tons/yr) = SUM("Worst Case" Individual HAPs (tons/yr))

Appendix A: Emissions Calculations
Particulate and Volatile Organic Compound (VOC) Emissions
From the New Green Cell Paint Booth (EU004)

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Mix Ratio	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water & exempt solvents	Weight % Organics	Volume % Water & exempt solvents	Volume % Non-Volatiles (solids)	Maximum Material Usage[α] (gal/unit)	Maximum Throughput (unit/hour)	Maximum Material Usage (gal/day)	Maximum Usage (lb/hr)	Pounds VOC per gallon of coating	Pounds VOC per gallon of coating less Water and Exempt Solvents	Potential VOC (lbs/hour)	Potential VOC (lbs/day)	Potential VOC (tons/year)	Particulate Potential (ton/yr)	Pounds VOC per Gallon of Solids	Transfer Efficiency[β]
Primer - Green (P28145)	3	12.83	64.50%	NA	64.5%	NA	NA	0.00183	4.00	0.175	0.094	2.620	8.273	0.019	0.460	0.084	0.073	NA	50%
Catalyst 1	1	8.03	100.00%	0.00%	100.0%	NA	NA	0.00097	4.00	0.093	0.031	3.104	8.031	0.012	0.290	0.053	0.000	NA	50%
						Total Potential Emissions:		**0.0028**	**4.00**	**0.27**				**0.03**	**0.75**	**0.14**	**0.07**	NA	
Primer - Yellow (P28146)	3	12.99	34.50%	NA	34.5%	NA	NA	0.00180	4.00	0.173	0.094	2.629	4.480	0.019	0.455	0.083	0.134	NA	50%
Catalyst 2	1	8.03	100.00%	0.00%	100.0%	NA	NA	0.00097	4.00	0.093	0.031	3.104	8.031	0.012	0.290	0.053	0.000	NA	50%
						Total Potential Emissions:		**0.0028**	**4.00**	**0.27**				**0.03**	**0.75**	**0.14**	**0.13**	NA	
Primer - Gray (P28082)	2	10.84	36.00%	9.25%	26.8%	NA	58.00%	0.00216	4.00	0.208	0.094	2.900	2.900	0.025	0.602	0.110	0.131	5.00	50%
Catalyst 3	1	8.00	78.80%	13.80%	65.0%	NA	40.00%	0.00146	4.00	0.141	0.047	5.200	5.200	0.030	0.731	0.133	0.022	13.00	50%
						Total Potential Emissions:		**0.0036**	**4.00**	**0.35**				**0.06**	**1.33**	**0.24**	**0.15**	**18.00**	

Total Potential Emissions (tons/yr)	**Uncontrolled:**	0.06	1.33	**0.24**	**0.15**
				PM Control Efficiency:	**80.0%**
				Controlled	**0.03**

NOTES

n/a = not applicable, NA = Not available
Hours of operation are 8 hrs per day, 40 hrs per 5 day work week and 2080 hrs per year.
The source applies only one of the "as applied" coatings to a given part. Additionally, the booth contains only one spray gun, which must be cleaned between coatings.
Acetone is specifically exempted from the definition of Volatile Organic Compounds (VOC) by EPA.
[α] Maximum material usage (gal/day) provided by the source. This has been converted to gal/unit. Additionally, usage has been converted from an 8hr workday to the potential of 24hrs/day and 8760 hrs/yr.
[β] The coatings in this booth are applied using a HVLP sprayer. According to EPA, the transfer efficiency for this type of applicator is approximately 50 %.

METHODOLOGY

Density (Lb/Gal) = [Specific gravity * Density of Water (8.3453 Lb/gal)], or where applicable, "as-supplied" data taken from the MSDS.
Weight % Volatile (H20 & Organics) = SUM(Weight %s individual Volatile components "as-supplied" in the MSDS)
Weight % organics = Weight % Volatile (H20 & Organics) - Weight % Water & exempt solvents
Maximum Material Usage (gal/day) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * 24 (hrs/day)
Maximum Usage (lb/hr) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * Density (Lb/Gal)
Pounds of VOC per Gallon Coating = [(Density (lb/gal) * Weight % Organics)], or where applicable, "as-supplied" data taken from the MSDS.
Pounds of VOC per Gallon Coating less Water & exempt solvents = [(Density (lb/gal) * Weight % Organics) / (1-Volume % water)], or where applicable, "as-supplied" data taken from the MSDS.
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 Potential Emissions = "Worst Case" Coating + Sum of all solvents used

Appendix A: Emission Calculations
Hazardous Air Pollutant (HAP) Emissions
From the New Green Cell Paint Booth (EU004)

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Mix Ratio	Density (Lb/Gal)	Maximum Material Usage (gal/unit)	Maximum Throughput (unit/hour)	Weight % Xylene	Weight % Cumene	Weight % Strontium Chromate	Xylene Emissions (ton/yr)	Cumene Emissions (ton/yr)	Strontium Chromate Emissions (ton/yr)
Primer - Green (P28145)	3	12.83	0.00183	4.00	0%	0%	30.00%	0	0	0.12
Catalyst 1	1	8.03	0.00097	4.00	0.10%	0.10%	0%	1.37E-04	1.37E-04	0
							Total Potential Single HAP Emissions:	**1.37E-04**	**1.37E-04**	**0.12**
Primer - Yellow (P28146)	3	12.99	0.00180	4.00	0%	0%	30.00%	0	0	0.12
Catalyst 2	1	8.03	0.00097	4.00	0.10%	0.10%	0%	1.37E-04	1.37E-04	0
							Total Potential Single HAP Emissions:	**1.37E-04**	**1.37E-04**	**0.12**
Primer - Gray (P28082)	2	10.84	0.00216	4.00	5.00%	0%	0%	0.021	0	0
Catalyst 3	1	8.00	0.00146	4.00	0%	0%	0%	0	0	0
							Total Potential Single HAP Emissions:	**0.02**	**0**	**0**

Total Potential Emissions (tons/yr)	**"Worst Case" Individual HAP**	**0.02**	**1.37E-04**	**0.12**
	"Worst Case" Total HAPs	**0.14**		

NOTES
Based on the MSDSs submitted by the source, Catalyst 3 and the Acetone, each, contain no HAPs.

The source applies only one of the "as applied" coatings to a given part. Additionally, this booth contains only one spray gun, which must be cleaned between coatings.

METHODOLOGY
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
Total HAPs (tons/yr) = SUM(Individual HAPs emission rates (tons/yr))
Individual HAP Emission Rate (tons/yr) = [(Mix Ratio$_1$ * HAP$_1$ Emissions (tons/yr)) + (Mix Ratio$_2$ * HAP$_2$ Emissions (tons/yr))] / (Mix Ratio$_1$ + Mix Ratio$_2$)
"Worst Case" Individual HAP (tons/yr) = MAX("As-Applied" Individual HAP Emission Rate (tons/yr)) + SUM(solvent "As-Applied" Individual HAP Emission Rate (tons/yr))
"Worst Case" Total HAPs (tons/yr) = SUM("Worst Case" Individual HAPs (tons/yr))

Appendix A: Emissions Calculations
Particulate and Volatile Organic Compound (VOC) Emissions
From the Old Green Cell Paint Booth (EU005)

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Mix Ratio	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water & exempt solvents	Weight % Organics	Volume % Water & exempt solvents	Volume % Non-Volatiles (solids)	Maximum Material Usage[α] (gal/unit)	Maximum Throughput (unit/hour)	Maximum Material Usage (gal/day)	Maximum Usage (lb/hr)	Pounds VOC per gallon of coating	Pounds VOC per gallon of coating Less Water and Exempt Solvents	Potential VOC (lbs/hour)	Potential VOC (lbs/day)	Potential VOC (tons/year)	Particulate Potential (ton/yr)	Pounds VOC per Gallon of Solids	Transfer Efficiency[β]
Primer - Green (P26789A)	3	13.34	20.00%	NA	20.0%	NA	61.00%	0.00176	4.00	0.169	0.094	2.669	2.669	0.019	0.450	0.082	0.164	4.375	50%
Catalyst (P26789B)	1	7.90	44.00%	NA	44.0%	NA	55.00%	0.00099	4.00	0.095	0.031	3.476	3.476	0.014	0.330	0.060	0.038	6.320	50%
							Total Potential Emissions:	0.0027	4.00	0.26				0.03	0.78	0.14	0.20	4.86	
Paint - Gray (P28082)	2	10.84	27.00%	NA	27.0%	NA	58.00%	0.00216	4.00	0.208	0.094	2.629	2.927	0.023	0.546	0.100	0.150	5.047	50%
Catalyst (P28082)	1	8.00	51.00%	NA	51.0%	NA	40.00%	0.00146	4.00	0.141	0.047	3.104	4.080	0.018	0.437	0.080	0.050	10.200	50%
							Total Potential Emissions:	0.0036	4.00	0.35				0.04	0.98	0.18	0.20	6.76	
Primer - Yellow (P28061AB)	3	13.60	19.00%	NA	19.0%	NA	82.00%	0.00172	4.00	0.165	2.837	2.584	2.584	0.018	0.428	0.078	0.166	3.151	50%
Catalyst (P28061AB)	1	7.90	44.00%	NA	44.0%	NA	55.00%	0.00099	4.00	0.095	0.031	3.446	3.476	0.014	0.327	0.060	0.038	6.320	50%
							Total Potential Emissions:	0.0027	4.00	0.26				0.03	0.75	0.14	0.20	3.94	
PM Acetate (gun clean-up solvent)	n/a	8.04	100.00%	0.00%	100.0%	NA	NA	0.12500	4.00	12.000	4.020	8.040	8.040	4.020	96.477	17.607	0.000	NA	85%
							Total Potential Emissions:	0.1250	4.00	12.00				4.02	96.48	17.61	0	NA	

Total Potential Emissions (tons/yr)					
Uncontrolled:	4.06	97.46	**17.79**	**0.20**
			PM Control Efficiency:	**80.0%**
			Controlled:	**0.04**

NOTES
n/a = not applicable, NA = Not available
Hours of operation are 8 hrs per day, 40 hrs per 5 day work week and 2080 hrs per year.

The source applies only one of the "as applied" coatings to a given part. Additionally, the booth contains only one spray gun, which must be cleaned between coatings.

[α] Maximum material usage (gal/day) provided by the source. This has been converted to gal/unit. Additionally, usage has been converted from an 8hr workday to the potential of 24hrs/day and 8760 hrs/yr.

[β] The coatings in this booth are applied using a HVLP sprayer. According to EPA, the transfer efficiency for this type of applicator is approximately 50 %.

METHODOLOGY
Density (Lb/Gal) = [Specific gravity * Density of Water (8.3453 Lb/gal)], or where applicable, "as-supplied" data taken from the MSDS.
Weight % Volatile (H20 & Organics) = SUM(Weight %s individual Volatile components "as-supplied" in the MSDS)
Weight % organics = Weight % Volatile (H20 & Organics) - Weight % Water & exempt solvents
Maximum Material Usage (gal/day) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * 24 (hrs/day)
Maximum Usage (lb/hr) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * Density (Lb/Gal)
Pounds of VOC per Gallon Coating = [(Density (lb/gal) * Weight % Organics)], or where applicable, "as-supplied" data taken from the MSDS.
Pounds of VOC per Gallon Coating less Water & exempt solvents = [(Density (lb/gal) * Weight % Organics) / (1-Volume % water)], or where applicable, "as-supplied" data taken from the MSDS.
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 Potential Emissions = "Worst Case" Coating + Sum of all solvents used

Appendix A: Emission Calculations
Hazardous Air Pollutant (HAP) Emissions
From the Old Green Cell Paint Booth (EU005)

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Mix Ratio	Density (Lb/Gal)	Maximum Material Usage (gal/unit)	Maximum Throughput (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % MIBK	Weight % Strontium Chromate	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	MIBK Emissions (ton/yr)	Strontium Chromate Emissions (ton/yr)
Primer - Green (P26789A)	3	13.34	0.00176	4.00	5%	0%	13%	30%	0.021	0	0.053	0.123
Catalyst (P26789B)	1	7.90	0.00099	4.00	0%	40%	0%	0%	0	0.014	0	0
								Total Potential Single HAP Emissions:	**0.02**	**0.01**	**0.05**	**0.12**
Paint/Catalyst (P28082)	2	10.84	0.00216	4.00	5%	0%	0%	0%	0.021	0	0	0
Catalyst (P28082)	1	8.00	0.00146	4.00	0%	0%	0%	0%	0	0	0	0
								Total Potential Single HAP Emissions:	**0.02**	**0**	**0**	**0**
Primer - Yellow (P28061AB)	3	13.60	0.00172	4.00	5%	0%	10%	40%	0.021	0	0.041	0.164
Catalyst (P28061AB)	1	7.90	0.00099	4.00	0%	40%	0%	0%	0	0.014	0	0
								Total Potential Single HAP Emissions:	**0.02**	**1.37E-02**	**0.04**	**0.16**

Total Potential Emissions (tons/yr)	**"Worst Case" Individual HAP**	**0.02**	**1.37E-02**	**0.05**	**0.16**
	"Worst Case" Total HAPs	**0.25**			

NOTES
Based on MSDSs submitted by the source, the Catalyst (P28082) and the PM Acetate (gun clean-up solvent) are each HAP free.
The source applies only one of the "as applied" coatings to a given part. Additionally, this booth contains only one spray gun, which must be cleaned between coatings.

METHODOLOGY
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
Individual HAP Emission Rate (tons/yr) = [(Mix Ratio$_1$ * HAP$_1$ Emissions (tons/yr)) + (Mix Ratio$_2$ * HAP$_2$ Emissions (tons/yr))] / (Mix Ratio$_1$ + Mix Ratio$_2$)
"Worst Case" Individual HAP (tons/yr) = MAX("As-Applied" Individual HAP Emission Rate (tons/yr)) + SUM(solvent "As-Applied" Individual HAP Emission Rate (tons/yr))
"Worst Case" Total HAPs (tons/yr) = SUM("Worst Case" Individual HAPs (tons/yr))

Appendix A: Emissions Calculations
VOC and Particulate Emissions
From Nicrobraz Operations (EU007)

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water & Exempt Solvents	Weight % Organics	Volume % Water & Exempt Solvents	Volume % Non-Volatiles (solids)	Maximum Material Usage[α] (gal/unit)	Maximum Throughput (unit/hour)	Maximum Material Usage (gal/day)	Maximum Usage (lb/hr)	Pounds VOC per gallon of coating less water and exempt solvents	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Potential Particulate (ton/yr)	lb VOC/gal solids	Transfer Efficiency[β]
Krylon Decorator Spray Paint, Acrylic Crystal Clear	6.07	100.00%	49.16%	50.84%	35.78%	NA	0.00618	0.25	0.0371	0.009	4.805	3.086	0.005	0.114	0.021	0.000	NA	90%
Nicrobraz 320 Cement	7.59	94.00%	NA	94.00%	NA	35.30%	1.29E-07	0.25	7.74E-07	2.45E-07	7.134	7.134	2.30E-07	5.52E-06	1.01E-06	6.43E-09	20.21	90%
Nicrobraz 520 Cement	8.42	94.00%	NA	94.00%	NA	35.30%	0.00005	0.25	3.00E-04	1.05E-04	7.918	7.918	9.90E-05	2.38E-03	4.34E-04	2.77E-06	22.43	90%
Nicrobraz 620 Cement	8.89	95.00%	NA	95.00%	NA	22.81%	0.00005	0.25	3.00E-04	1.11E-04	8.446	8.446	1.06E-04	2.53E-03	4.62E-04	2.43E-06	37.02	90%
							Total Potential Emissions:						**4.97E-03**	**1.19E-01**	**2.18E-02**	**5.21E-06**		

Total Potential Emissions (tons/yr):	4.97E-03	0.12	**0.02**	**5.21E-06**

NOTES
n/a = not applicable, NA = Not available
Based on the MSDSs submitted by the source, the Nicrobraze 130 Cement does not meet the definition of a VOC because it does not contain carbon.

[α] Maximum material usage provided by the source. Krylon usage is 12 oz per 20 units, with a max of 40 units per month. Usage has been converted to the potential of 24hrs/day and 8760 hrs/yr.
[β] Each of the liquid Nicrobraze Cements (320, 520, and 620) are applied by hand, using a brush. According to EPA, the transfer efficiency for this type of applicator is approximately 95%. Therefore, particulate emissions are assumed negligible.

METHODOLOGY
Volume % Water & Exempt Solvents = [(Weight % Water & exempt solvents * Density of the coating (lb/gal)) / Density of water (8.3435lb/gal)], or where applicable, "as-supplied" data taken from the MSDS.
Volume % Non-Volatiles (solids) = [SUM(Weight percent Solids (%)) / Specific Gravity], or where applicable, "as-supplied" data taken from the MSDS.
Maximum Material Usage (gal/day) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * 24 (hrs/day)
Maximum Usage (lb/hr) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * Density (Lb/Gal)
Pounds of VOC per Gallon Coating less Water & Exempt Solvents = (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)
Potential Particulate (tons per year) = Maximum Throughput (units/hour) * Maximum Application (gal/unit) * Maximum Usage (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 Potential Emissions = Sum of all coatings used

Emission Unit	Maximum Usage (lbs/hour)	Weight % Solids	Transfer Efficiency (%)	*PTE of PM/PM10/PM2.5 (tons/year)
Nicrobraz 130-S	0.009	78.20%	90%	3.21E-03
State Potential Emissions (Tons/yr)				**3.21E-03**

METHODOLOGY
Uncontrolled PTE PM/PM10/PM2.5 (tons/year) = Max. Throughput Rate (lb/hour) * Weight % Solids * 8760 hours/year * 1 ton/2000 lbs * (1-Transfer Efficiency %)

NOTES
PTE = Potential to Emit
* PM10, and PM 2.5 emissions are assumed equal to PM emissions.

Appendix A: Emission Calculations
HAP Emission Calculations
From Nicrobraz Operations (EU007)

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Density (Lb/Gal)	Maximum Material Usage (gal/unit)	Maximum Throughput (unit/hour)	Weight % Napthalene	Weight % Toluene	Napthalene Emissions (ton/yr)	Toluene Emissions (ton/yr)
Krylon Decorator Spray Paint, Acrylic Crystal Clear	6.07	0.00618	0.25	0.43%	17.00%	1.77E-04	6.98E-03
				Total Single HAP emissions (tons/yr)		**1.77E-04**	**0.007**

METHODOLOGY
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

Material	Maximum Usage* (lbs/hour)	Weight % Nickel	Transfer Efficiency (%)	Nickel Emissions (ton/yr)
Nicrobraz 130-S	0.009	78.20%	90.00%	3.21E-03
	Total Single HAP emissions (tons/yr)			**3.21E-03**

NOTES
The Nicrobraze 130 is applied by hand.
Maximum material usage provided by the source. Usage has been converted from an 8hr workday to the potential of 24hrs/day and 8760 hrs/yr.
Based on MSDSs submitted by the source, the Nicrobraz 320, Nicrobraz 520, and Nicrobraz 620 are each HAP free.

METHODOLOGY
HAPS emission rate (tons/yr) = Max. Usage Rate (lbs/hour) * Weight % HAP * 8760 hours/year * 1 ton/2000 lbs * (1-Transfer Efficiency %)

Total Combined HAP Emissions (tons/yr) =	**0.010**

Appendix A: Emissions Calculations
Particulate and Volatile Organic Compound (VOC) Emissions
From the Red Cell Paint Booth (EU103)

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Mix Ratio	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water & exempt solvents	Weight % Organics	Volume % Water & exempt solvents	Volume % Non-Volatiles (solids)	Maximum Material Usage[a] (gal/unit)	Maximum Throughput (unit/hour)	Maximum Material Usage (gal/hr)	Maximum Material Usage (gal/day)	Maximum Usage (lb/hr)	Pounds VOC per gallon of coating	Pounds VOC per gallon of coating less Water and Exempt Solvents	Potential VOC (lbs/hour)	Potential VOC (lbs/day)	Potential VOC (tons/year)	Particulate Potential (ton/yr)	Transfer Efficiency[b]
Glyptal 1202 Insulating Varnish (P6480)	n/a	8.17	50.00%	NA	50.0%	NA	NA	0.0005	4.00	0.0010	0.051	0.017	4.150	4.087	0.009	0.210	0.038	1.89E-03	95%

Total Potential Emissions (tons/yr):	0.01	0.21	**0.04**	**1.89E-03**

NOTES

n/a = not applicable, NA = Not available

Hours of operation are 8 hrs per day, 40 hrs per 5 day work week and 2080 hrs per year.

[a] Maximum material usage (ml/unit) provided by the source. This has been converted to gal/unit. Constant: 1 milliliter = 0.00026417205236 gallon [US, liquid]. Additionally, usage has been converted from an 8hr workday to the potential of 24hrs/day and 8760 hrs/yr.

[b] The Glyptal 1202 Insulating Varnish (P6480) is applied by hand. According to EPA, the transfer efficiency for this type of applicator is approximately 95%. Therefore particulate emissions are determined negligible.

METHODOLOGY

Density (Lb/Gal) = [Specific gravity * Density of Water (8.3453 Lb/gal)], or where applicable, "as-supplied" data taken from the MSDS.
Weight % Volatile (H20 & Organics) = SUM(Weight %s individual Volatile components "as-supplied" in the MSDS)
Weight % organics = Weight % Volatile (H20 & Organics) - Weight % Water & exempt solvents
Maximum Material Usage (gal/day) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * 24 (hrs/day)
Maximum Usage (lb/hr) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * Density (Lb/Gal)
Pounds of VOC per Gallon Coating = [(Density (lb/gal) * Weight % Organics)], or where applicable, "as-supplied" data taken from the MSDS.
Pounds of VOC per Gallon Coating less Water & exempt solvents = [(Density (lb/gal) * Weight % Organics) / (1-Volume % water)], or where applicable, "as-supplied" data taken from the MSDS.
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 Potential Emissions = Sum of all coatings used

Appendix A: Emission Calculations
Hazardous Air Pollutant (HAP) Emissions
From the Red Cell Paint Booth (EU103)

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Mix Ratio	Density (Lb/Gal)	Maximum Material Usage (gal/unit)	Maximum Throughput (unit/hour)	Maximum Material Usage (gal/hr)	Weight % Xylene	Weight % Toluene	Weight % Ethylbenzene	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Ethylbenzene Emissions (ton/yr)
Glyptal 1202 Insulating Varnish (P6480)	n/a	8.17	0.0005	4.00	0.0021	49.90%	0.0001%	0.0001%	0.038	4.89E-12	9.26E-09

Total Potential Emissions (tons/yr)	**"Worst Case" Individual HAP :**	**0.04**	**4.89E-12**	**9.26E-09**
	Total Combined HAPs :	**0.04**		

METHODOLOGY

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: Emissions Calculations
Particulate and Volatile Organic Compound (VOC) Emissions
From the Helicoil coating

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Mix Ratio	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water & exempt solvents	Weight % Organics	Volume % Water & exempt solvents	Volume % Non-Volatiles (solids)	Maximum Material Usage (gal/unit)	Maximum Throughput (unit/hour)	Maximum Material Usage[a] (gal/hr)	Maximum Material Usage (gal/day)	Maximum Usage (lb/hr)	Pounds VOC per gallon of coating	Pounds VOC per gallon of coating less Water and Exempt Solvents	Potential VOC (lbs/hour)	Potential VOC (lbs/day)	Potential VOC (tons/year)	Particulate Potential (ton/yr)	Pounds VOC per Gallon of Solids	Transfer Efficiency[b]
Zinc Molybdate Alkyd Primer	n/a	13.41	22.00%	NA	22.0%	NA	56.00%	n/a	n/a	0.0010	0.024	0.013	4.150	2.950	4.15E-03	0.100	0.018	2.29E-03	5.27	95%

Total Potential Emissions (tons/yr):	4.15E-03	0.10	**0.02**	**2.29E-03**

NOTES

n/a = not applicable, NA = Not available

Hours of operation are 8 hrs per day, 40 hrs per 5 day work week and 2080 hrs per year.

[a] Maximum material usage (gal/hr) provided by the source. Additionally, usage has been converted from an 8hr workday to the potential of 24hrs/day and 8760 hrs/yr.

[b] The Zinc Molybdate Alkyd Primer is applied by hand. According to EPA, the transfer efficiency for this type of applicator is approximately 95%. Therefore particulate emissions are determined negligible.

METHODOLOGY

Density (Lb/Gal) = [Specific gravity * Density of Water (8.3453 Lb/gal)], or where applicable, "as-supplied" data taken from the MSDS.

Weight % Volatile (H20 & Organics) = 100% - Weight % Solids "as-supplied" in the MSDS)

Weight % organics = Weight % Volatile (H20 & Organics) - Weight % Water & exempt solvents

Volume % Water & Exempt Solvents = [(Weight % Water & exempt solvents * Density of the coating (lb/gal)) / Density of water (8.3435lb/gal)], or where applicable, "as-supplied" data taken from the MSDS.

Volume % Non-Volatiles (solids) = [SUM(Weight percent Solids (%)) / Specific Gravity], or where applicable, "as-supplied" data taken from the MSDS.

Maximum Material Usage (gal/day) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * 24 (hrs/day)

Maximum Usage (lb/hr) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * Density (Lb/Gal)

Pounds of VOC per Gallon Coating = [(Density (lb/gal) * Weight % Organics)], or where applicable, "as-supplied" data taken from the MSDS.

Pounds of VOC per Gallon Coating less Water & exempt solvents = [(Density (lb/gal) * Weight % Organics) / (1-Volume % water)], or where applicable, "as-supplied" data taken from the MSDS.

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 Potential Emissions = Sum of all coatings used

Appendix A: Emission Calculations
Hazardous Air Pollutant (HAP) Emissions
From the Helicoil coating

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Mix Ratio	Density (Lb/Gal)	Maximum Material Usage (gal/unit)	Maximum Throughput (unit/hour)	Maximum Material Usage (gal/hr)	Weight % Xylene	Weight % Nickel Compounds	Xylene Emissions (ton/yr)	Nickel Compounds Emissions (ton/yr)
Zinc Molybdate Alkyd Primer	n/a	13.41	n/a	n/a	0.0010	0.22%	17.22%	1.31E-04	0.010

Total Potential Emissions (tons/yr)	**"Worst Case" Individual HAP :**	**1.31E-04**	**0.01**
	Total Combined HAPs :	**0.01**	

NOTES
The Zinc Molybdate Alkyd Primer is applied by hand.

METHODOLOGY
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: Emissions Calculations
Volatile Organic Compound (VOC) Emissions
From the Zinc Phosphate Line

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Mix Ratio (%)	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water & exempt solvents	Weight % Organics	Volume % Water & exempt solvents	Volume % Non-Volatiles (solids)	Maximum Material Usage (gal/unit)	Maximum Throughput* (unit/hour)	Maximum Material Usage ** (gal/hr)	Maximum Material Usage (gal/day)	Maximum Usage (lb/hr)	Pounds VOC per gallon of coating less water (weighted)	Pounds VOC per gallon of coating (weighted)	Potential VOC pounds per hour (weighted)	Potential VOC pounds per day (weighted)	Potential VOC tons per year (weighted)	Transfer Efficiency
Tank 2																		
Muriatic Acid	50.00%	9.83	100.0%	68.0%	32.0%	NA	NA	0.00962	20.0	0.192	4.615	0.945	1.573	1.573	0.303	7.261	1.325	95%
									Total Potential Emissions:	**0.19**	**4.62**				**0.30**	**7.26**	**1.33**	
Tank 4																		
Perma-Gard 3028 (Zinc Phosphatizer)	15.22%	11.50	100.0%	64.0%	36.0%	NA	NA	0.00048	20.0	0.010	0.231	0.017	0.630	0.630	0.006	0.145	0.027	95%
									Total Potential Emissions:	**0.010**	**0.231**				**6.06E-03**	**0.145**	**0.027**	
Tank 5																		
Duraseal	0.50%	9.04	100.0%	88.50%	11.5%	NA	NA	0.00012	20.0	0.002	0.058	0.000	0.005	0.005	1.25E-05	0.000	5.47E-05	95%
									Total Potential Emissions:	**2.40E-03**	**0.06**				**1.25E-05**	**3.00E-04**	**5.47E-05**	
DI Water System																		
Hydrochloric Acid	100.00%	9.61	100.0%	63.00%	37.0%	NA	NA	n/a	n/a	0.059	1.414	0.566	3.556	3.556	0.210	5.029	0.918	95%
									Total Potential Emissions:	**0.06**	**1.41**				**0.21**	**5.03**	**0.92**	

Total Potential Emissions (tons/yr):	0.52	12.44	**2.27**

NOTES

n/a = not applicable, NA = Not available
The mix ratio for the Zinc Phosphatizer is 4.5 ml/gal of solution. Constant: 1.0 ml = 0.033814022701 oz.
* Maximum Throughput (unit/hour) = number of baskets containing 20 lbs of metal parts.
** Maximum material replacement volume (gal/yr) provided by the source. Usage for each of the Zinc Phosphate tanks has been converted from an 8hrs/day, 5 days/wk, and 52 wks/yr (2080hrs/yr), to the potential uasge of 24hrs/day and 8760 hrs/yr. Usage from the DI Water System has been converted from 8hrs/day and 350 days/yr (2800 hrs/yr).
Particulate Emissions from the Zinc Phosphate Line are assumed to be negligible because operating temperatures are below the evaporation levels of the process chemicals and finishes are dip applied which minimizes any agitation in the process. Replenishment of the tanks is done with mixes of the same percentages of chemicals as are in the tanks. This is due to the fact that any losses are caused by drag-out rather than evaporation.
Based on MSDSs submitted by the source, the Nitric Acid, and Phosphoric Acid, each do not meet the definition of a VOC because they do not contain carbon.
The Super-Terj is a powder. Therefore VOCs are determined negligible.

METHODOLOGY

Density (Lb/Gal) = [Specific gravity * Density of Water (8.3453 Lb/gal)], or where applicable, "as-supplied" data taken from the MSDS.
Weight % organics = Weight % Volatile (H20 & Organics) - Weight % Water & exempt solvents
Volume % Water & Exempt Solvents = [(Weight % Water & exempt solvents * Density of the coating (lb/gal)) / Density of water (8.3435lb/gal)], or where applicable, "as-supplied" data taken from the MSDS.
Volume % Non-Volatiles (solids) = [SUM(Weight percent Solids (%)) / Specific Gravity], or where applicable, "as-supplied" data taken from the MSDS.
Maximum Material Usage (gal/day) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * 24 (hrs/day)
Maximum Usage (lb/hr) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * Density (Lb/Gal)
Pounds of VOC per Gallon Coating = [(Mix Ratio (%) * Density (lb/gal) * Weight % Organics)], or where applicable, "as-supplied" data taken from the MSDS.
Pounds of VOC per Gallon Coating less Water & exempt solvents = [(Mix Ratio (%) * Density (lb/gal) * Weight % Organics) / (1-Volume % water)], or where applicable, "as-supplied" data taken from the MSDS.
Potential VOC Pounds per Hour = Pounds of VOC per Gallon Coating (weighted) (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon Coating (weighted) (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon Coating (weighted) (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Total Potential Emissions = Sum of all coatings used

Appendix A: Emissions Calculations
Potential Particulate and Hazardous Air Pollutant (HAP) Emissions
From the Zinc Phosphate Line

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Mix Ratio (%)	Density (Lb/Gal)	Maximum Material Usage (gal/unit)	Maximum Throughput* (unit/hour)	Maximum Material Usage ** (gal/day)	Weight % Hydrochloric Acid	Weight % Hydrofluoric Acid	Weight % Nickel Nitrate	Hydrochloric Acid Emissions (tons/yr)	Hydrofluoric Acid Emissions (tons/yr)	Nickel Nitrate Emissions (tons/yr)
Tank 2											
Muriatic Acid	50.00%	9.83	0.00962	20.0	4.62	32.00%	0%	0.00%	1.325	0	0
Tank 4											
Zinc Phosphatizer	15.22%	11.50	0.00048	20.00	0.23	0%	1.00%	5.00%	0	7.37E-04	3.69E-03
Tank 5											
Duraseal	0.50%	9.04	0.00012	20.00	0.06	0.00%	1.50%	0%	0	7.14E-06	0
DI Water System											
Hydrochloric Acid	100.00%	9.61	n/a	n/a	1.41	37.00%	0%	0%	0.918	0	0

Total Potential Emissions (tons/yr)	**"Worst Case" Individual HAP :**	**2.24**	**7.44E-04**	**3.69E-03**
	Total Combined HAPs :	**2.25**		

NOTES

Based on MSDSs submitted by the source, the Super Terj is HAP free.

* Maximum Throughput (unit/hour) = number of baskets containing 20 lbs of metal parts.

** Maximum material usage provided by the source. Usage has been converted from an 8hr workday to the potential of 24hrs/day and 8760 hrs/yr.

METHODOLOGY

Potential Single Emissions (tons/yr) = Total Uncontrolled Potential Particulate (tons/yr) * Weight % HAP
Total Combined HAP Emissions (tons/yr) = SUM(Potential Single Emissions (tons/yr))

Appendix A: Emissions Calculations
Volatile Organic Compound (VOC) Emissions
From the Alodine Acid Treatment Line A

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Mix Ratio (%)	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water & exempt solvents	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Maximum Material Usage * (gal/unit)	Maximum Throughput ** (unit/hour)	Maximum Material Usage (gal/day)	Maximum Usage (lb/hr)	Pounds VOC per gallon of coating less water (weighted)	Pounds VOC per gallon of coating (weighted)	Potential VOC pounds per hour (weighted)	Potential VOC pounds per day (weighted)	Potential VOC tons per year (weighted)	Transfer Efficiency
Tank 2																	
Multi-Terj 2111	4.00%	9.18	6.5%	NA	6.5%	NA	NA	0.01875	4.0	1.800	0.028	0.024	0.024	1.79E-03	0.043	0.008	95%
									Total Potential Emissions:	**1.80**				**1.79E-03**	**0.04**	**0.01**	
Tank 5																	
Deoxidizer 6	5.00%	10.01	40.0%	NA	40.0%	NA	NA	0.03125	4.0	3.000	0.063	0.200	0.200	0.025	0.600	0.110	95%
Deoxidizer 16	5.00%	10.01	40.0%	NA	40.0%	NA	NA	0.03125	4.0	3.000	0.063	0.200	0.200	0.025	0.600	0.110	95%
									Total Potential Emissions:	**6.00**				**0.05**	**1.20**	**0.22**	
Tank 7																	
Alodine 1600	0.06%	15.01	40.0%	NA	40.0%	NA	NA	0.00063	4.0	0.060	2.25E-05	0.004	0.004	9.01E-06	2.16E-04	3.95E-05	95%
Alodine 1660	2.00%	9.17	40.0%	NA	40.0%	NA	NA	0.00125	4.0	0.120	9.17E-04	0.073	0.073	3.67E-04	8.81E-03	1.61E-03	95%
Alodine 22 Toner	0.15%	9.99	30.0%	NA	30.0%	NA	NA	1.88E-05	4.0	1.80E-03	1.12E-06	0.004	0.004	3.37E-07	8.09E-06	1.48E-06	95%
Alodine 1201 Toner	100.00%	8.51	3.0%	NA	3.0%	NA	NA	3.91E-04	4.0	0.038	0.013	0.255	0.255	3.99E-04	9.57E-03	1.75E-03	95%
									Total Potential Emissions:	**0.22**				**7.75E-04**	**0.02**	**3.39E-03**	

Total State Potential Emissions (tons/yr):	0.05	1.26	**0.23**

NOTES

n/a = not applicable, NA = Not available

Hours of operation are 8 hrs per day, 40 hrs per 5 day work week and 2080 hrs per year.

* Maximum material usage provided by the source as gal/week or quarts/mo. This has been converted to gal/unit. Constant: 4 quarts/gal. Also, usage has been converted from an 8hr workday to the potential of 24hrs/day and 8760 hrs/yr.

** Maximum Throughput (unit/hour) = number of baskets containing 30 lbs of metal parts, max.

Particulate Emissions from Alodine Acid Treatment Line A are assumed to be negligible because operating temperatures are below the evaporation levels of the process chemicals and finishes are dip applied which minimizes any agitation in the process. Replenishment of the tanks is done with mixes of the same percentages of chemicals as are in the tanks. This is due to the fact that any losses are caused by drag-out rather than evaporation.

Based on MSDSs submitted by the source, the Nitric Acid, and Phosphoric Acid, each do not meet the definition of a VOC because they do not contain carbon.

METHODOLOGY

Density (Lb/Gal) = [Specific gravity * Density of Water (8.3453 Lb/gal)], or where applicable, "as-supplied" data taken from the MSDS.

Weight % Volatile (H20 & Organics) = [SUM(Weight %s individual Volatile components "as-supplied" in the MSDS)], or where applicable, "as-supplied" data taken from the MSDS.

Weight % organics = Weight % Volatile (H20 & Organics) - Weight % Water & exempt solvents

Volume % Water & Exempt Solvents = [(Weight % Water & exempt solvents * Density of the coating (lb/gal)) / Density of water (8.3435lb/gal)], or where applicable, "as-supplied" data taken from the MSDS.

Volume % Non-Volatiles (solids) = [SUM(Weight percent Solids (%)) / Specific Gravity], or where applicable, "as-supplied" data taken from the MSDS.

Maximum Material Usage (gal/day) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * 24 (hrs/day)

Maximum Usage (lb/hr) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * Density (Lb/Gal)

Pounds of VOC per Gallon Coating (weighted) = [(Mix Ratio (%) * Density (lb/gal) * Weight % Organics)], or where applicable, "as-supplied" data taken from the MSDS.

Pounds of VOC per Gallon Coating less Water & exempt solvents (weighted) = [(Mix Ratio (%) * Density (lb/gal) * Weight % Organics) / (1-Volume % water)], or where applicable, "as-supplied" data taken from the MSDS.

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)

Total Potential Emissions = Sum of all coatings used

Appendix A: Emissions Calculations
Potential Particulate and Hazardous Air Pollutant (HAP) Emissions
From Alodine Acid Treatment Line A

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Mix Ratio (%)	Density (Lb/Gal)	Maximum Material Usage * (gal/unit)	Maximum Throughput ** (unit/hour)	Weight % Chromic Acid	Weight % Cyanide Compounds	Weight % Hydrofluoric Acid	Weight % Sodium Dichromate	Chromic Acid Emissions (tons/yr)	Cyanide Compounds Emissions (tons/yr)	Hydrofluoric Acid Emissions (tons/yr)	Sodium Dichromate Emissions (tons/yr)
Tank 5												
Deoxidizer 6	5.00%	10.01	0.03125	4.00	30.00%	0%	10.00%	0%	0.082	0	0.027	0
Deoxidizer 16	5.00%	10.01	0.03125	4.00	30.00%	0%	10.00%	0%	0.082	0	0.027	0
							Total Potential Single HAP Emissions:		**0.16**	**0**	**0.05**	**0**
Tank 7												
Alodine 1600	0.06%	15.01	0.00063	4.00	0%	0%	0%	60.00%	0	0	0	5.92E-05
Alodine 1201 Toner	100.00%	8.51	0.00039	4.00	2%	1%	0%	0%	1.16E-03	5.82E-04	0	0
							Total Potential Single HAP Emissions:		**1.16E-03**	**5.82E-04**	**0**	**5.92E-05**

Total Potential Emissions (tons/yr)	**"Worst Case" Individual HAP :**	**0.17**	**5.82E-04**	**0.05**	**5.92E-05**
	Total Combined HAPs :	**0.22**			

NOTES

Based on MSDSs submitted by the source, the Phosphoric Acid, Multi-Terj 2111, Nitric Acid, Alodine 1660, and Alodine 22 Toner are each HAP free.

* Maximum material usage provided by the source as gal/week or quarts/mo. This has been converted to gal/unit. Constant: 4 quarts/gal. Also, usage has been converted from an 8hr workday to the potential of 24hrs/day and 8760 hrs/yr.

** Maximum Throughput (unit/hour) = number of baskets containing 30 lbs of metal parts, max.

METHODOLOGY

Potential Single Emissions (tons/yr) = Total Uncontrolled Potential Particulate (tons/yr) * Weight % HAP
Total Combined HAP Emissions (tons/yr) = SUM(Potential Single Emissions (tons/yr))

Appendix A: Emissions Calculations
Volatile Organic Compound (VOC) Emissions
From the Alodine Acid Treatment Line B (PW600)

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Mix Ratio (%)	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water & exempt solvents	Weight % Organics	Volume % Water & exempt solvents	Volume % Non-Volatiles (solids)	Maximum Material Usage * (gal/unit)	Maximum Throughput ** (unit/hour)	Maximum Material Usage (gal/day)	Maximum Usage (lb/hr)	Pounds VOC per gallon of coating less water (weighted)	Pounds VOC per gallon of coating (weighted)	Potential VOC pounds per hour (weighted)	Potential VOC pounds per day (weighted)	Potential VOC tons per year (weighted)	Transfer Efficiency
Tank 1																	
Multi-Terj 2111	4.00%	9.18	6.5%	NA	6.5%	NA	NA	0.001875	4.0	0.180	2.75E-03	0.024	0.024	1.79E-04	4.30E-03	7.84E-04	95%
									Total Potential Emissions:	**0.18**				**1.79E-04**	**4.30E-03**	**7.84E-04**	
Tank 4																	
Deoxidizer 6	5.00%	10.01	40.0%	NA	40.0%	NA	NA	0.003125	4.0	0.300	0.006	0.200	0.200	0.003	0.060	0.011	95%
Deoxidizer 16	5.00%	10.01	40.0%	NA	40.0%	NA	NA	0.003125	4.0	0.300	0.006	0.200	0.200	0.003	0.060	0.011	95%
									Total Potential Emissions:	**0.60**				**0.01**	**0.12**	**0.02**	
Tank 6																	
Alodine 1600	0.06%	15.01	40.0%	NA	40.0%	NA	NA	0.00063	4.0	0.060	2.25E-05	0.004	0.004	9.01E-06	2.16E-04	3.95E-05	95%
Alodine 1660	2.00%	9.17	40.0%	NA	40.0%	NA	NA	0.00125	4.0	0.120	9.17E-04	0.073	0.073	3.67E-04	8.81E-03	1.61E-03	95%
Toner 22	0.15%	9.99	30.0%	NA	30.0%	NA	NA	1.88E-05	4.0	1.80E-03	1.12E-06	0.004	0.004	3.37E-07	8.09E-06	1.48E-06	95%
Toner 1201	100.00%	8.51	3.0%	NA	3.0%	NA	NA	1.56E-04	4.0	0.015	5.32E-03	0.255	0.255	1.60E-04	3.83E-03	6.99E-04	95%
									Total Potential Emissions:	**0.20**				**5.36E-04**	**0.01**	**2.35E-03**	

Total Potential Emissions (tons/yr):	0.01	0.14	**0.03**

NOTES

n/a = not applicable, NA = Not available

Hours of operation are 8 hrs per day, 40 hrs per 5 day work week and 2080 hrs per year.

* Maximum material usage provided by the source as gal/week or quarts/mo. This has been converted to gal/unit. Constant: 4 quarts/gal. Also, usage has been converted from an 8hr workday to the potential of 24hrs/day and 8760 hrs/yr.

** Maximum Throughput (unit/hour) = number of baskets containing 5 lbs of metal parts, max.

Particulate Emissions from Alodine Acid Treatment Line B are assumed to be negligible because operating temperatures are below the evaporation levels of the process chemicals and finishes are dip applied which minimizes any agitation in the process. Replenishment of the tanks is done with mixes of the same percentages of chemicals as are in the tanks. This is due to the fact that any losses are caused by drag-out rather than evaporation.

Based on MSDSs submitted by the source, the Nitric Acid does not meet the definition of a VOCs because it does not contain carbon.

METHODOLOGY

Density (Lb/Gal) = [Specific gravity * Density of Water (8.3453 Lb/gal)], or where applicable, "as-supplied" data taken from the MSDS.

Weight % Volatile (H20 & Organics) = [SUM(Weight %s individual Volatile components "as-supplied" in the MSDS)], or where applicable, "as-supplied" data taken from the MSDS.

Weight % organics = Weight % Volatile (H20 & Organics) - Weight % Water & exempt solvents

Volume % Water & Exempt Solvents = [(Weight % Water & exempt solvents * Density of the coating (lb/gal)) / Density of water (8.3435lb/gal)], or where applicable, "as-supplied" data taken from the MSDS.

Volume % Non-Volatiles (solids) = [SUM(Weight percent Solids (%)) / Specific Gravity], or where applicable, "as-supplied" data taken from the MSDS.

Maximum Material Usage (gal/day) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * 24 (hrs/day)

Maximum Usage (lb/hr) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * Density (Lb/Gal)

Pounds of VOC per Gallon Coating (weighted) = [(Mix Ratio (%) * Density (lb/gal) * Weight % Organics)], or where applicable, "as-supplied" data taken from the MSDS.

Pounds of VOC per Gallon Coating less Water & exempt solvents (weighted) = [(Mix Ratio (%) * Density (lb/gal) * Weight % Organics) / (1-Volume % water)], or where applicable, "as-supplied" data taken from the MSDS.

Potential VOC Pounds per Hour = Pounds of VOC per Gallon Coating (weighted) (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon Coating (weighted) (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon Coating (weighted) (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Total Potential Emissions = Sum of all coatings used

Appendix A: Emissions Calculations
Potential Particulate and Hazardous Air Pollutant (HAP) Emissions
From Alodine Acid Treatment Line B

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Mix Ratio (%)	Density (Lb/Gal)	Maximum Material Usage * (gal/unit)	Maximum Throughput ** (unit/hour)	Weight % Chromic Acid	Weight % Cyanide Compounds	Weight % Hydrofluoric Acid	Weight % Sodium Dichromate	Chromic Acid Emissions (tons/yr)	Cyanide Compounds Emissions (tons/yr)	Hydrofluoric Acid Emissions (tons/yr)	Sodium Dichromate Emissions (tons/yr)
Tank 4												
Deoxidizer 6	5.00%	10.01	0.00313	4.00	30.00%	0%	10.00%	0%	8.22E-03	0	2.74E-03	0
Deoxidizer 16	5.00%	10.01	0.00313	4.00	30.00%	0%	10.00%	0%	8.22E-03	0	2.74E-03	0
							Total Potential Single HAP Emissions:		**0.02**	**0**	**5.48E-03**	**0**
Tank 6												
Alodine 1600	0.06%	15.01	0.00063	4.00	0%	0%	0%	60.00%	0	0	0	5.92E-05
Alodine 1201 Toner	100.00%	8.51	0.00016	4.00	2%	1%	0%	0%	4.66E-04	2.33E-04	0	0
							Total Potential Single HAP Emissions:		**4.66E-04**	**2.33E-04**	**0**	**5.92E-05**

Total Potential Emissions (tons/yr)	**"Worst Case" Individual HAP :**	**0.02**	**2.33E-04**	**5.48E-03**	**5.92E-05**
	Total Combined HAPs :	**0.02**			

NOTES

Based on MSDSs submitted by the source, the Phosphoric Acid, Multi-Terj 2111, Nitric Acid, Alodine 1660, and Alodine 22 Toner are each HAP free.

* Maximum material usage provided by the source as gal/week or quarts/mo. This has been converted to gal/unit. Constant: 4 quarts/gal. Also, usage has been converted from an 8hr workday to the potential of 24hrs/day and 8760 hrs/yr.

** Maximum Throughput (unit/hour) = number of baskets containing 5 lbs of metal parts, max.

METHODOLOGY

Potential Single Emissions (tons/yr) = Total Uncontrolled Potential Particulate (tons/yr) * Weight % HAP
Total Combined HAP Emissions (tons/yr) = SUM(Potential Single Emissions (tons/yr))

Appendix A: Emissions Calculations
Volatile Organic Compound (VOC) Emissions
From the Alodine Acid Treatment Line C

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Mix Ratio (%)	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water & exempt solvents	Weight % Organics	Volume % Water & exempt solvents	Volume % Non-Volatiles (solids)	Maximum Material Usage * (gal/unit)	Maximum Throughput ** (unit/hour)	Maximum Material Usage (gal/day)	Maximum Usage (lb/hr)	Pounds VOC per gallon of coating less water (weighted)	Pounds VOC per gallon of coating (weighted)	Potential VOC pounds per hour (weighted)	Potential VOC pounds per day (weighted)	Potential VOC tons per year (weighted)	Transfer Efficiency
Tank 2																	
Multi-Terj 2111	4.00%	9.18	6.5%	NA	6.5%	NA	NA	0.01875	4.0	1.800	0.028	0.024	0.024	0.002	0.043	0.008	95%
									Total Potential Emissions:	**1.80**				**1.79E-03**	**0.04**	**0.01**	
Tank 5																	
Deoxidizer 6	5.00%	10.01	40.0%	NA	40.0%	NA	NA	0.03125	4.0	3.000	0.063	0.200	0.200	0.025	0.600	0.110	95%
Deoxidizer 16	5.00%	10.01	40.0%	NA	40.0%	NA	NA	0.03125	4.0	3.000	0.063	0.200	0.200	0.025	0.600	0.110	95%
									Total Potential Emissions:	**6.00**				**0.05**	**1.20**	**0.22**	
Tank 7																	
Alodine 1600	0.06%	15.01	40.0%	NA	40.0%	NA	NA	0.00063	4.0	0.060	2.25E-05	0.004	0.004	9.01E-06	2.16E-04	3.95E-05	95%
Alodine 1660	2.00%	9.17	40.0%	NA	40.0%	NA	NA	0.00125	4.0	0.120	9.17E-04	0.073	0.073	3.67E-04	8.81E-03	1.61E-03	95%
Toner 22	0.15%	9.99	40.0%	NA	40.0%	NA	NA	1.88E-05	4.0	1.80E-03	1.12E-06	0.006	0.006	4.50E-07	1.08E-05	1.97E-06	95%
Toner 1201	100.00%	8.51	3.0%	NA	3.0%	NA	NA	3.91E-04	4.0	0.038	0.013	0.255	0.255	3.99E-04	9.57E-03	1.75E-03	95%
									Total Potential Emissions:	**0.22**				**7.75E-04**	**0.02**	**3.40E-03**	

Total Potential Emissions (tons/yr):	0.05	1.26	**0.23**

NOTES

n/a = not applicable, NA = Not available

Hours of operation are 8 hrs per day, 40 hrs per 5 day work week and 2080 hrs per year.

* Maximum material usage provided by the source as gal/week or quarts/mo. This has been converted to gal/unit. Constant: 4 quarts/gal. Also, usage has been converted from an 8hr workday to the potential of 24hrs/day and 8760 hrs/yr.

** Maximum Throughput (unit/hour) = number of baskets containing 30 lbs of metal parts, max.

Particulate Emissions from Alodine Acid Treatment Line C are assumed to be negligible because operating temperatures are below the evaporation levels of the process chemicals and finishes are dip applied which minimizes any agitation in the process. Replenishment of the tanks is done with mixes of the same percentages of chemicals as are in the tanks. This is due to the fact that any losses are caused by drag-out rather than evaporation.

Based on MSDSs submitted by the source, the Nitric Acid, and Phosphoric Acid, each do not meet the definition of a VOC because they do not contain carbon.

METHODOLOGY

Density (Lb/Gal) = [Specific gravity * Density of Water (8.3453 Lb/gal)], or where applicable, "as-supplied" data taken from the MSDS.
Weight % Volatile (H20 & Organics) = [SUM(Weight %s individual Volatile components "as-supplied" in the MSDS)], or where applicable, "as-supplied" data taken from the MSDS.
Weight % organics = Weight % Volatile (H20 & Organics) - Weight % Water & exempt solvents
Volume % Water & Exempt Solvents = [(Weight % Water & exempt solvents * Density of the coating (lb/gal)) / Density of water (8.3435lb/gal)], or where applicable, "as-supplied" data taken from the MSDS.
Volume % Non-Volatiles (solids) = [SUM(Weight percent Solids (%)) / Specific Gravity], or where applicable, "as-supplied" data taken from the MSDS.
Maximum Material Usage (gal/day) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * 24 (hrs/day)
Maximum Usage (lb/hr) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * Density (Lb/Gal)
Pounds of VOC per Gallon Coating (weighted) = [(Mix Ratio (%) * Density (lb/gal) * Weight % Organics)], or where applicable, "as-supplied" data taken from the MSDS.
Pounds of VOC per Gallon Coating less Water & exempt solvents (weighted) = [(Mix Ratio (%) * Density (lb/gal) * Weight % Organics) / (1-Volume % water)], or where applicable, "as-supplied" data taken from the MSDS.
Potential VOC Pounds per Hour = Pounds of VOC per Gallon Coating (weighted) (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon Coating (weighted) (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon Coating (weighted) (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Total Potential Emissions = Sum of all coatings used

Appendix A: Emissions Calculations
Potential Particulate and Hazardous Air Pollutant (HAP) Emissions
From Alodine Acid Treatment Line C

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Mix Ratio (%)	Density (Lb/Gal)	Maximum Material Usage * (gal/unit)	Maximum Throughput ** (unit/hour)	Weight % Chromic Acid	Weight % Cyanide Compounds	Weight % Hydrofluoric Acid	Weight % Sodium Dichromate	Chromic Acid Emissions (tons/yr)	Cyanide Compounds Emissions (tons/yr)	Hydrofluoric Acid Emissions (tons/yr)	Sodium Dichromate Emissions (tons/yr)
Tank 5												
Deoxidizer 6	5.00%	10.01	0.0313	4.00	30.00%	0%	10.00%	0%	0.0822	0	0.027	0
Deoxidizer 16	5.00%	10.01	0.0313	4.00	30.00%	0%	10.00%	0%	0.0822	0	0.027	0
							Total Potential Single HAP Emissions:		**0.16**	**0**	**0.05**	**0**
Tank 7												
Alodine 1600	0.06%	15.01	0.0006	4.00	0%	0%	0%	60.00%	0	0	0	5.92E-05
Alodine 1201 Toner	100.00%	8.51	0.0004	4.00	2.00%	1.00%	0%	0%	1.16E-03	5.82E-04	0	0
							Total Potential Single HAP Emissions:		**1.16E-03**	**5.82E-04**	**0**	**5.92E-05**

Total Potential Emissions (tons/yr)	**"Worst Case" Individual HAP :**	**0.17**	**5.82E-04**	**0.05**	**5.92E-05**
	Total Combined HAPs :	**0.22**			

NOTES

Based on MSDSs submitted by the source, the Phosphoric Acid, Multi-Terj 2111, Nitric Acid, Alodine 1660, and Alodine 22 Toner are each HAP free.

* Maximum material usage provided by the source as gal/week or quarts/mo. This has been converted to gal/unit. Constant: 4 quarts/gal. Also, usage has been converted from an 8hr workday to the potential of 24hrs/day and 8760 hrs/yr.

** Maximum Throughput (unit/hour) = number of baskets containing 30 lbs of metal parts, max.

METHODOLOGY

Potential Single Emissions (tons/yr) = Total Uncontrolled Potential Particulate (tons/yr) * Weight % HAP
Total Combined HAP Emissions (tons/yr) = SUM(Potential Single Emissions (tons/yr))

Appendix A: Emissions Calculations
Volatile Organic Compound (VOC) Emissions
From the Cleaning Lines

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Unit ID	Mix Ratio (%)	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water & exempt solvents	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Maximum Material Usage (gal/hr)	Maximum Material Usage (gal/day)	Maximum Usage (lb/hr)	Pounds VOC per gallon of coating less water (weighted)	Pounds VOC per gallon of coating (weighted)	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	lb VOC/gal solids (weighted)	Transfer Efficiency
Blue Cell Cleaning Line																		
So Brite Plus	Tank 1	15.0%	8.76	76.2%	NA	76.2%	NA	25.0%	0.00625	0.150	0.055	1.001	1.001	6.26E-03	0.150	0.027	4.00	95.0%
								Total Potential Emissions:						**0.01**	**0.15**	**0.03**		
Green Cell Cleaning Line																		
So Brite Plus	Tank 1	15.0%	8.76	76.2%	NA	76.2%	NA	25.0%	0.00625	0.150	0.055	1.001	1.001	6.26E-03	0.150	0.027	4.00	95.0%
								Total Potential Emissions:						**0.01**	**0.15**	**0.03**		
Alodine Acid Treatment Line B (PW600) Cleaning Line																		
Multi-Terj 2111	Tank 1	4.0%	9.18	6.5%	NA	6.5%	NA	NA	0.00075	0.018	0.007	0.024	0.024	1.79E-05	4.30E-04	7.84E-05	NA	95.0%
So Brite Plus	Tank 3	2.0%	8.76	76.2%	NA	76.2%	NA	25.0%	0.00013	0.003	0.001	0.133	0.133	1.67E-05	4.00E-04	7.31E-05	0.534	95.0%
								Total Potential Emissions:						**3.46E-05**	**8.30E-04**	**1.51E-04**		
Core Cell Cleaning Line 1																		
Multi-Terj 2111	Tank 1	4.0%	9.18	6.5%	NA	6.5%	NA	NA	0.00075	0.018	0.007	0.024	0.024	1.79E-05	4.30E-04	7.84E-05	NA	95.0%
So Brite Plus	Tank 4	15.0%	8.76	76.2%	NA	76.2%	NA	25.0%	0.00013	0.003	0.001	1.001	1.001	1.25E-04	3.00E-03	5.48E-04	4.00	95.0%
								Total Potential Emissions:						**1.43E-04**	**3.43E-03**	**6.26E-04**		
Yellow Cell Cleaning Line																		
So Brite Plus	Tank 1	15.0%	8.76	76.2%	NA	76.2%	NA	25.0%	0.00625	0.150	0.055	1.001	1.001	6.26E-03	0.150	0.027	4.00	95.0%
								Total Potential Emissions:						**0.01**	**0.15**	**0.03**		
NPD Cell Cleaning Line																		
So Brite Plus	Tank 1	15.0%	8.76	76.2%	0%	76.2%	0%	25.0%	0.00625	0.150	0.055	1.001	1.001	6.26E-03	0.150	0.027	4.00	95.0%
								Total Potential Emissions:						**0.01**	**0.15**	**0.03**		

Total Potential Emissions (tons/yr):	0.03	0.60	**0.11**

NOTES
n/a = not applicable, NA = Not available
Hours of operation are 8 hrs per day, 40 hrs per 5 day work week and 2080 hrs per year.
Maximum material usage (gal/day) provided by the source. This has been converted to gal/hr. Additionally, usage has been converted from an 8hr workday to the potential of 24hrs/day.
Particulate Emissions from each of the Cleaning Lines are assumed to be negligible because operating temperatures are below the evaporation levels of the process chemicals and finishes are dip applied which minimizes any agitation in the process. Replenishment of the tanks is done with mixes of the same percentages of chemicals as are in the tanks. This is due to the fact that any losses are caused by drag-out rather than evaporation.
Based on MSDSs submitted by the source, the Nitric Acid and Phosphoric Acid used in Core Cell Cleaning Line 2, and the Sodium Hydroxide used in each of the remaining cleaning lines,each, do not meet the definition of a VOC because they do not contain carbon.

METHODOLOGY
Density (Lb/Gal) = [Specific gravity * Density of Water (8.3453 Lb/gal)], or where applicable, "as-supplied" data taken from the MSDS.
Weight % Volatile (H20 & Organics) = [100% - Weight % Solids "as-supplied" in the MSDS)], or where applicable, "as-supplied" data taken from the MSDS.
Weight % organics = Weight % Volatile (H20 & Organics) - Weight % Water & exempt solvents
Maximum Usage (lb/hr) = [Maximum Material Usage (gal/hr) * Density (Lb/Gal)
Pounds of VOC per Gallon Coating = [(Mix Ratio or Solution Concentration * Density (lb/gal) * Weight % Organics)], or where applicable, "as-supplied" data taken from the MSDS.
Pounds of VOC per Gallon Coating less Water & exempt solvents = [(Mix Ratio or Solution Concentration * Density (lb/gal) * Weight % Organics) / (1-Volume % water)], or where applicable, "as-supplied" data taken from the MSDS.
Potential VOC Pounds per Hour = [(Pounds of VOC per Gallon coating (weighted) (lb/gal) * Maximum Material Usage (gal/day)) / (24 hrs/day)]
Potential VOC Pounds per Day = [Pounds of VOC per Gallon coating (weighted) (lb/gal) * Maximum Material Usage (gal/day)]
Potential VOC Tons per Year = [Potential VOC Pounds per Hour * (8760 hr/yr) * (1 ton/2000 lbs)]
Pounds VOC per Gallon of Solids = [Mix Ratio (%) * (Density (lbs/gal) * Weight % organics) / (Volume % solids)]
Total Potential Emissions = Sum of all coatings used

Appendix A: Emission Calculations
Particulate and Hazardous Air Pollutant (HAP) Emissions
From the Cleaning Lines

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Unit ID	Mix Ratio	Density (Lb/Gal)	Maximum Material Usage (gal/hr)	Weight % Diethanolamine	Weight % Hydrofluoric Acid	Diethanolamine Emissions (ton/yr)	Hydrofluoric Acid Emissions (ton/yr)
Blue Cell Cleaning Line								
So Brite Plus	Tank 1	15.0%	8.76	0.00625	5.00%	0%	1.80E-03	0
Green Cell Cleaning Line								
So Brite Plus	Tank 1	15.0%	8.76	0.00625	5.00%	0%	1.80E-03	0
Alodine Acid Treatment Line B (PW600) Cleaning Line								
So Brite Plus	Tank 3	2.0%	8.76	0.00013	5.00%	0%	4.79E-06	0
Core Cell Cleaning Line 1								
So Brite Plus	Tank 4	15.0%	8.76	0.00013	5.00%	0%	3.60E-05	0
Core Cell Cleaning Line 2								
Hydrofluoric Acid	Tank 1	1.5%	10.01	0.00125	0%	51.00%	0	4.19E-04
Hydrofluoric Acid	Tank 3	5.0%	10.01	0.00125	0%	51.00%	0	1.40E-03
Yellow Cell Cleaning Line								
So Brite Plus	Tank 1	15.0%	8.76	0.00625	5.00%	0%	1.80E-03	0
NPD Cell Cleaning Line								
So Brite Plus	Tank 1	15.0%	8.76	0.00625	5.00%	0%	1.80E-03	0

Total Potential Emissions (tons/yr)	**"Worst Case" Individual HAP :**	**7.23E-03**	**1.82E-03**
	Total Combined HAPs :	**9.05E-03**	

NOTES
Based on MSDSs submitted by the source, the Nitric Acid and Phosphoric Acid used in Core Cell Cleaning Line 2, and the Sodium Hydroxide used in each of the remaining cleaning lines,each, do not contain any HAPs.

METHODOLOGY
HAPS emission rate (tons/yr) = Mix Ratio or Solution Concentration * Density (lb/gal) * Maximum Material Usage (gal/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations
Volatile Organic Compound (VOC) Emissions
From Solvent Use in the Flushing Rigs

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Mix Ratio (%)	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water & exempt solvents	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Maximum Material Usage (gal/hr)	Maximum Material Usage (gal/day)	Maximum Usage (lb/hr)	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	Transfer Efficiency
Blue Cell 1																
ISOPAR K (Flushing Solvent)	100%	6.360	100%	0.0%	100.0%	NA	NA	0.006	0.150	0.040	6.360	6.351	0.040	0.953	0.174	75%
Blue Cell 2																
ISOPAR K (Flushing Solvent)	100%	6.360	100%	0.0%	100.0%	NA	NA	0.006	0.150	0.040	6.360	6.351	0.040	0.953	0.174	75%
Green Cell																
ISOPAR K (Flushing Solvent)	100%	6.360	100%	0.0%	100.0%	NA	NA	0.006	0.150	0.040	6.360	6.351	0.040	0.953	0.174	75%
Alodine Acid Treatment Line B (PW600) Cell 1						NA	NA									
ISOPAR K (Flushing Solvent)	100%	6.360	100%	0.0%	100.0%	NA	NA	0.006	0.150	0.040	6.360	6.351	0.040	0.953	0.174	75%
Alodine Acid Treatment Line B (PW600) Cell 2																
ISOPAR K (Flushing Solvent)	100%	6.360	100%	0.0%	100.0%	NA	NA	0.006	0.150	0.040	6.360	6.351	0.040	0.953	0.174	75%
FAA Cell																
ISOPAR K (Flushing Solvent)	100%	6.360	100%	0.0%	100.0%	NA	NA	0.0001	0.003	0.001	6.360	6.351	0.001	0.019	0.003	75%
Yellow Cell																
ISOPAR K (Flushing Solvent)	100%	6.360	100%	0.00%	100.0%	NA	NA	0.001	0.030	0.008	6.360	6.351	0.008	0.191	0.035	75%

Total Potential Emissions (tons/yr):	0.17	4.02	**0.73**

NOTES

n/a = not applicable, NA = Not available
Maximum material usage (gal/day) provided by the source. This has been converted to gal/hr. Additionally, usage has been converted from the 8hr workday to the potential 24hrs/day.
Particulate Emissions from each of the Flushing Rigs are assumed to be negligible because operating temperatures are below the evaporation levels of the process chemicals and finishes are dip applied which minimizes any agitation in the process. Replenishment of the tanks is done with mixes of the same percentages of chemicals as are in the tanks. This is due to the fact that any losses are caused by drag-out rather than evaporation.
Based on the MSDS submitted by the source, the ISOPAR K Flushing Solvent does not contain any HAPs.

METHODOLOGY

Density (Lb/Gal) = [Specific gravity * Density of Water (8.3453 Lb/gal)], or where applicable, "as-supplied" data taken from the MSDS.
Weight % organics = Weight % Volatile (H20 & Organics) - Weight % Water & exempt solvents
Volume % Water & Exempt Solvents = [(Weight % Water & exempt solvents * Density of the coating (lb/gal)) / Density of water (8.3435lb/gal)], or where applicable, "as-supplied" data taken from the MSDS.
Volume % Non-Volatiles (solids) = [SUM(Weight percent Solids (%)) / Specific Gravity], or where applicable, "as-supplied" data taken from the MSDS.
Maximum Material Usage (gal/day) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * 24 (hrs/day)
Maximum Usage (lb/hr) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * Density (Lb/Gal)
Pounds of VOC per Gallon Coating = [(Density (lb/gal) * Weight % Organics)], or where applicable, "as-supplied" data taken from the MSDS.
Pounds of VOC per Gallon Coating less Water & exempt solvents = [(Density (lb/gal) * Weight % Organics) / (1-Volume % water)], or where applicable, "as-supplied" data taken from the MSDS.
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)
Total Potential Emissions = Sum of all solvents used

Appendix A: Emissions Calculations
VOC & HAP Emissions
From Miscellaneous Cleaning/Degreasing Operations

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Volatile Organic Compound (VOC) Emissions

Material	VOC content of Solvent (Density) (lbs/gal)	Maximum Material Usage (daily replacement volume) (gal/day)	VOC PTE (tons/year)
Eastman Alcohol	6.59	3.00	3.61

Total Potential Emissions (tons/yr):	**3.61**

NOTES
The Eastman Alcohol is applied by hand wipe.
Maximum material usage (gal/day) provided by the source. Usage has been converted from an 8hr workday to the potential of 24hrs/day.

METHODOLOGY
PTE = VOC Content (lbs/gal) * Maximum Material Usage (gal/day) * 365 days/yr * 1 ton/2000 lbs

Hazardous Air Pollutant (HAP) Emissions

Material	Density (Lb/Gal)	Maximum Material Usage (daily replacement volume) (gal/day)	Weight % Methanol	Weight % MIBK	Methanol Emissions (ton/yr)	MIBK Emissions (ton/yr)
Eastman Alcohol	6.59	3.00	4.00%	1.00%	0.144	0.036

Total Potential Emissions (tons/yr)	**"Worst Case" Individual HAP :**	**0.14**	**0.04**
	Total Combined HAPs :	**0.18**	

METHODOLOGY
MIBK = Methyl isobutyl ketone
HAPS emission rate (tons/yr) = Density (lb/gal) * Maximum Material Usage (gal/day) * Weight % HAP * 365 days/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations
VOC and HAP Emissions
From the Function Test Rigs in the
Blue Cell and Alodine Acid Treatment Line B (PW600)

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Permit No: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Submitted: 7/20/2010

VOC Emissions (TPY)

Testing Media	Gallons Unaccounted for per Year (gal/yr)	Density (lb/gal)	Pounds Unaccounted for per Year (lbs/yr)	VOC Emissions (TPY)
Jet Fuel (JP-4 Grade)	2,887.91	6.43	18,581.71	9.29
			VOC Emissions:	**9.29**

HAPs Emissions (TPY)

Jet Fuel (JP-4 Grade) HAP Constituents	Tons per year
Benzene = 5% (by weight) =	0.465
Cyclohexane = 5% (by weight) =	0.465
Ethyl Benzene = 3% (by weight) =	0.279
n-Hexane = 13% (by weight) =	1.208
Toluene = 10% (by weight) =	0.929
Xylene = 10% (by weight) =	0.929
Combined HAP Emissions:	**4.274**

Total Potential Emissions (tons/yr)	**Total VOC Emissions:**	**9.29**	
	"Worst" Single HAP Emissions:	**1.21**	***n-Hexane***
	Total Combined HAP Emissions:	**4.27**	

NOTES
The Jet Fuel (JP-4 Grade) is used to test aircraft parts as a part of the quality assurance process. The temperature of the media is reduced to -40 degrees Farenheight.
Actual material usage was provided by the source, as 600 gallons for the last year (2010). Additionally, actual hours of operation were 7 hrs per day, 40 hrs per 5 day work week, and 52 wks/year (1820 hrs/yr). Usage has been converted to the potential of 24hrs/day and 8760 hrs/yr.

METHODOLOGY
Pounds Unaccounted for per Year (lbs/yr) = Gallons Unaccounted for per Year (gal/yr) * Density (lbs/gal)
VOC Emissions (TPY) = Pounds Unaccounted for per Year (lbs/yr) * 1 ton/2000 lbs
Individual HAP Emissions (tons/yr) = VOC Emissions (TPY) * Weight percent HAP (%)
Total Combined HAP Emissions (tons/yr) = SUM (Individual HAP Emissions (tons/yr))

Appendix A: Emissions Calculations
VOC and HAP Emissions
From the New ATP Function Test Rig

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Permit No: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Submitted: 7/20/2010

VOC Emissions (TPY)

Testing Media	Gallons Unaccounted for per Year (gal/yr)	Density (lb/gal)	Pounds Unaccounted for per Year (lbs/yr)	VOC Emissions (TPY)
Jet Fuel (JP-4/JP-8 Grade)	962.64	7.01	6,743.85	3.37
			VOC Emissions:	**3.37**

HAPs Emissions (TPY)

Jet Fuel (JP-4 Grade) HAP Constituents	Tons per year
I,2,4 Trimethylbenzene = 2% (by weight) =	0.067
Benzene = 5% (by weight) =	0.169
Cyclohexane = 5% (by weight) =	0.169
Ethyl Benzene = 3% (by weight) =	0.101
n-Hexane = 13% (by weight) =	0.438
Napthalene = 3% (by weight) =	0.101
Toluene = 10% (by weight) =	0.337
Xylene = 10% (by weight) =	0.337
Combined HAP Emissions:	**1.652**

Total Potential Emissions (tons/yr)	**Total VOC Emissions:**	**3.37**	
	"Worst" Single HAP Emissions:	**0.44**	***n-Hexane***
	Total Combined HAP Emissions:	**1.65**	

NOTES

The source has indicated that two grades of jet fuel (JP-4 and JP-8) may be used in the new Function Testing Rig. Therefore, the worst-case values from the MSDSs have been used to calculate potential VOC and HAP emissions.
The Jet Fuel (JP-4/JP-8 Grade) is used to test aircraft parts as a part of the quality assurance process. The temperature of the media is reduced less than to -40 degrees Farenheight.
Projected worst-case actual material usage was provided by the source, as 200 gallons for year (2011). Additionally, based on the actual hours of operation for the existing Function Testing Rigs (7 hrs per day, 40 hrs per 5 day work week, and 52 wks/year (1820 hrs/yr)) the projected actual usage has been converted to the potential usage for 24hrs/day and 8760 hrs/yr.

METHODOLOGY

Pounds Unaccounted for per Year (lbs/yr) = Gallons Unaccounted for per Year (gal/yr) * Density (lbs/gal)
VOC Emissions (TPY) = Pounds Unaccounted for per Year (lbs/yr) * 1 ton/2000 lbs
Individual HAP Emissions (tons/yr) = VOC Emissions (TPY) * Weight percent HAP (%)
Total Combined HAP Emissions (tons/yr) = SUM (Individual HAP Emissions (tons/yr))

Appendix A: Emission Calculations
Particulate Emissions (PM, PM10, and PM2.5)
from the Metal Machining Operations

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Process/Unit ID	# of units	Maximum Capacity (lbs/hr)	Control Efficiency* (%)	Pollutant	Emission Factor (lbs/ton)	Emission Rate before Controls (lbs/hr)	Emission Rate before Controls (tons/yr)	Emission Rate after Controls (lb/hr)	Emission Rate after Controls (tons/yr)
Aluminum [Alloy]									
Coarse Grinding	10	0.25	NA	PM	17.0	0.0021	**9.31E-03**	NA	**NA**
				PM10	1.7	0.0002	**9.31E-04**	NA	**NA**
Grinding/Drilling/Sanding	8	15.00	95.0%	PM	17.0	0.1275	**0.558**	6.38E-03	**0.028**
				PM10	1.7	0.0128	**0.056**	6.38E-04	**2.79E-03**
Milling	4	1.00	95.0%	PM	17.0	0.0085	**0.037**	4.25E-04	**1.86E-03**
				PM10	1.7	8.50E-04	**3.72E-03**	4.25E-05	**1.86E-04**
Sawing	5	0.02	NA	PM	17.0	1.70E-04	**7.45E-04**	NA	**NA**
				PM10	1.7	1.70E-05	**7.45E-05**	NA	**NA**
Stainless Steel									
Grinding/Drilling/Sanding	1	1.00	95.0%	PM	17.0	0.0085	**0.037**	4.25E-04	**1.86E-03**
				PM10	1.7	8.50E-04	**3.72E-03**	4.25E-05	**1.86E-04**
Milling	4	0.20	NA	PM	17.0	0.0017	**7.45E-03**	NA	**NA**
				PM10	1.7	1.70E-04	**7.45E-04**	NA	**NA**
Sawing	2	0.02	NA	PM	17.0	1.70E-04	**7.45E-04**	NA	**NA**
				PM10	1.7	1.70E-05	**7.45E-05**	NA	**NA**

Methodology

Emission Rate for PM an PM_{10} before controls (lbs/hr) = Emission Factor (lbs/ton) * Capacity (lbs/hr) * (1 ton/2000 lbs)
Emission Rate for PM and PM_{10} before controls (tons/yr) = Emission Rate (lbs/hr) * (8760 hours/1 year) *(1 ton/2000 lbs)
Emission Rate for PM and PM_{10} after controls (lbs/hr) = Emission Rate (lbs/hr) before controls * (1-control efficiency)
Emission Rate for PM and PM_{10} after controls (tons/yr) = Emission Rate after controls (lbs/hr) * (8760 hours/1 year) * (1 ton/2000 lbs)
Total Potential Emissions = Sum of all coatings used

Total Potential Emissions (tons/yr)	PM	PM10*
Uncontrolled	0.64	0.06
Controlled	0.03	0.003

Notes

NA = Not applicable

The emission factor for PM is from AP 42-12.10 Grey Iron Foundries - Grinding/Cleaning (Table 12.10-7, SCC#30400340). Since AP-42 does not supply a PM10 emission factor for Grey Iron Foundries - Castings Finishing, the emission factor for PM10 was taken from AP42-12.13 Steel Foundries - Casting Cleaning (Table 12.13-2, SCC#30400711).

In the absence of valid AP 42 emission factors, PM 2.5 emissions are assumed equal to PM10 emissions.

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". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.

*The Grinding/Drilling/Sanding operations are controlled by down draft dust tables to keep the work surface clear of chips and to control qualiyt assurance. Additionally, the aluminum milling operations are controlled by coolant continuously flooding the work surface, and the coarse grinding, sawing, and stainless steel milling are each uncontrolled activities.

326 IAC 6-3-2(e) Allowable Rate of Emissions Applicability

Pursuant to 326 IAC 6-3-1(b)(14), (14) Manufacturing processes with potential emissions less than five hundred fifty-one thousandths (0.551) pound per hour are exempt from the requirements of 326 IAC 6-3-2(e).

Appendix A: Process Particulate Emissions
Potential Metal Hazardous Air Pollutant Process Emissions (MHAP)
from the Metal Machining Operations

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Process/ Unit ID	* Total Uncontrolled Potential Particulate (PM) (tons/yr)	Weight % Chromium Compounds	Weight % Cobalt Compounds	Weight % Manganese Compounds	Weight % Nickel Compounds	Weight % Selenium Compounds	Chromium Compounds Emissions (ton/yr)	Cobalt Compounds Emissions (ton/yr)	Manganese Compounds Emissions (ton/yr)	Nickel Compounds Emissions (ton/yr)	Nickel Compounds Emissions (ton/yr)
Aluminum [Alloy]											
Coarse Grinding	0.009	3.00%	0%	2.00%	3.00%	0%	2.79E-04	0	1.86E-04	2.79E-04	0
Grinding/Drilling/Sanding	0.558	3.00%	0%	2.00%	3.00%	0%	0.017	0	0.011	0.017	0
Milling	0.037	3.00%	0%	2.00%	3.00%	0%	1.12E-03	0	7.45E-04	1.12E-03	0
Sawing	0.001	3.00%	0%	2.00%	3.00%	0%	2.23E-05	0	1.49E-05	2.23E-05	0
Stainless Steel											
Grinding/Drilling/Sanding	0.037	27.00%	0.75%	10.00%	22.00%	0.40%	0.010	2.79E-04	3.72E-03	8.19E-03	1.49E-04
Milling	0.007	27.00%	0.75%	10.00%	22.00%	0.40%	2.01E-03	5.58E-05	7.45E-04	1.64E-03	2.98E-05
Sawing	0.001	27.00%	0.75%	10.00%	22.00%	0.40%	2.01E-04	5.58E-06	7.45E-05	1.64E-04	2.98E-06

Total Potential Emissions (tons/yr)	**Uncontrolled:**	**0.03**	**3.41E-04**	**0.02**	**0.03**	**1.82E-04**
	Control Efficiency (%)	**95%**				
	Controlled:	**1.52E-03**	**1.70E-05**	**8.33E-04**	**1.41E-03**	**9.08E-06**

Notes:
Total emissions based on rated capacity at 8,760 hours/year.
* Potential Particulate (PM) Process Emissions from the Metal Machining Operations, taken from the previous page of this Appendix.
Metal HAPS, including Cadmium, Chromium, Lead, Manganese and Nickel, are particulate in nature and can be controlled using a control device.

Methodology:
Uncontrolled Potential Emissions (tons/yr) = Total Potential Particulate (tons/yr) * Weight % Metal HAP
Controlled Potential Emissions (tons/yr) = Uncontrolled Potential Emissions (tons/yr) *(1 - Control Efficiency (%))

Appendix A: Emissions Calculations
Particulate and Volatile Organic Compound (VOC) Emissions
From the Use of Coolant in the Metal Machining Operations

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Received: 7/20/2010

Material	Mix Ratio	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water & exempt solvents	Weight % Organics	Volume % Water & exempt solvents	Volume % Non-Volatiles (solids)	Maximum Material Usage (gal/unit)	Maximum Throughput (unit/hour)	Maximum Material Usage[a] (gal/yr)	Maximum Material Usage (gal/hr)	Maximum Material Usage (gal/day)	Maximum Usage (lb/hr)	Pounds VOC per gallon of coating	Pounds VOC per gallon of coating less Water and Exempt Solvents	Potential VOC (lbs/hour)	Potential VOC (lbs/day)	Potential VOC (tons/year)	Particulate Potential (ton/yr)	Transfer Efficiency[b]
Wallover Oil	n/a	8.34	2.00%	NA	2.0%	NA	n/a	n/a	n/a	25.00	0.0120	0.29	0.10	0.17	0.167	2.00E-03	0.048	0.009	0.065	85%
Total Potential Emissions (tons/yr):																2.00E-03	0.05	**0.01**	**0.06**	

NOTES

n/a = not applicable, NA = Not available

Hours of operation are 8 hrs per day, 40 hrs per 5 day work week and 2080 hrs per year.

[a] Maximum material usage (gal/yr) provided by the source is based on a 2080 hr workyear. Potential emissions are based on a 8760 hr workyear.

[b] The Wallover Oil Coolant is pumped through a hose and continuously floods the part being machined, during the machining process. The transfer efficiency for this type of applicator is assumed 85%.

Based on the MSDS submitted by the source, the Wallover Oil does not contain any HAPs.

METHODOLOGY

Density (Lb/Gal) = [Specific gravity * Density of Water (8.3453 Lb/gal)], or where applicable, "as-supplied" data taken from the MSDS.

Weight % Volatile (H20 & Organics) = 100% - Weight % Solids "as-supplied" in the MSDS)

Weight % organics = Weight % Volatile (H20 & Organics) - Weight % Water & exempt solvents

Volume % Water & Exempt Solvents = [(Weight % Water & exempt solvents * Density of the coating (lb/gal)) / Density of water (8.3435lb/gal)], or where applicable, "as-supplied" data taken from the MSDS.

Volume % Non-Volatiles (solids) = [SUM(Weight percent Solids (%)) / Specific Gravity], or where applicable, "as-supplied" data taken from the MSDS.

Maximum Material Usage (gal/day) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * 24 (hrs/day)

Maximum Usage (lb/hr) = [Maximum Material Usage (gal/unit) * Maximum Throughput (unit/hour) * Density (Lb/Gal)

Pounds of VOC per Gallon Coating = [(Density (lb/gal) * Weight % Organics)], or where applicable, "as-supplied" data taken from the MSDS.

Pounds of VOC per Gallon Coating less Water & exempt solvents = [(Density (lb/gal) * Weight % Organics) / (1-Volume % water)], or where applicable, "as-supplied" data taken from the MSDS.

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)

Total Potential Emissions = Sum of all coatings used

Appendix A: Emissions Calculations
Welding and Thermal Cutting

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Renewal No.: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Submitted: 7/20/2010

PROCESS / WELDING	Number of Stations	Max. electrode consumption per station (lbs/hr)		EMISSION FACTORS* (lb pollutant/lb electrode) PM = PM10	Mn	Ni	Cr	EMISSIONS (lbs/hr) PM = PM10 = PM2.5	Mn	Ni	Cr	HAPS (lbs/hr)
Metal Inert Gas (MIG)(carbon steel)	1	0	Maintenance only	0.0055	0.0005			0	0	0	0	0
Stick (E7018 electrode)	1	0	Maintenance only	0.0211	0.0009			0	0	0	0	0
Tungsten Inert Gas (TIG) (aluminum and stainless steel)	25	0.0558	Production	0.0775	0.0010	0.0025	0.0015	0.11	1.40E-03	3.49E-03	2.09E-03	6.98E-03
Oxyacetylene (carbon steel)	0	0	NA	0.0055	0.0005			0	0	0	0	0

FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)** PM = PM10	Mn	Ni	Cr	EMISSIONS (lbs/hr) PM = PM10 = PM2.5	Mn	Ni	Cr	HAPS (lbs/hr)
Oxyacetylene (Maintenance only)	1	0.5	7	0.1622	0.0005	0.0001	0.0003	0.034	1.05E-04	2.10E-05	6.30E-05	1.89E-04

EMISSION TOTALS	EMISSIONS (lbs/hr) PM = PM10 = PM2.5	Mn	Ni	Cr	HAPS
Potential Emissions (lbs/hr)	0.14	1.50E-03	3.51E-03	2.16E-03	7.16E-03
Potential Emissions (lbs/day)	3.41	0.04	0.08	0.05	0.17
Potential Emissions (tons/year)	**0.62**	**6.57E-03**	**0.02**	**9.44E-03**	**0.03**

METHODOLOGY

*Emission Factors are for TIG welding using "worst-case" values for aluminum and stainless steel electrode as noted in the Process column.

**Emission Factor for plasma cutting from American Welding Society (AWS). Trials reported for wet cutting of 8 mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted). Therefore, the emission factor for plasma cutting is for 8 mm thick rather than 1 inch, and the maximum metal thickness is not used in calculting the emissions.

Using AWS average values: (0.25 g/min)/(3.6 m/min) x (0.0022 lb/g)/(39.37 in./m) x (1,000 in.) = 0.0039 lb/1,000 in. cut, 8 mm thick

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.

NOTES

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". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.

Maximum electrode consumption per day

PROCESS / WELDING	Number of Stations	Maximum electrode consumption per station (lbs/hr)	Combined maximum electrode consumption (lbs/hr)	Combined maximum electrode consumption (lbs/day)
Metal Inert Gas (MIG)(ER5154)	1	0	0	0
Stick (E7018 electrode)	1	0	0	0
Tungsten Inert Gas (TIG) (carbon steel)	25	0.0558	1.395	33.48
Oxyacetylene (carbon steel)	0	0	0	0
		Total	1.4	**33.5**

Methodology

Combined maximum electrode consumption (lbs/hr) = Number of Stations * Maximum electrode consumption per station (lb/hr)
Combined maximum electrode consumption (lbs/day) = Combined maximum electrode consumption (lbs/hr) * 24 hrs/day

326 IAC 6-3-2(e) Allowable Rate of Emissions

Note: Welding is exempt from this rule, provided that less than six hundred twenty-five (625) pounds of rod or wire is consumed per day.

Appendix A: Emission Calculations
Abrasive Blasting - Confined
Shotblast Cabinet 1 - using Glass Oxide Media

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Permit Number: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date: 7/20/2010

Table 1 - Emission Factors for Abrasives

	Emission Factor (EF)	
Abrasive	lb PM / lb abrasive	lb PM10 / lb PM
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other	0.010	NA

Table 2 - Density of Abrasives (lb/ft3)

Abrasive	Density (lb/ft3)
Al oxides	160
Sand	99
Steel	487
Glass Oxides	100

Table 3 - Sand Flow Rate (FR1) Through Nozzle (lb/hr)

Flow rate (FR1) of sand through a blasting nozzle as a function of nozzle pressure and internal diameter (ID1)

		Nozzle Pressure (psig)							
Nozzle Type (diameter)	Internal diameter, in	30	40	50	60	70	80	90	100
No. 2 (1/8 inch)	0.125	28	35	42	49	55	63	70	77
No. 3 (3/16 inch)	0.1875	65	80	94	107	122	135	149	165
No. 4 (1/4 inch)	0.25	109	138	168	195	221	255	280	309
No. 5 (5/16 inch)	0.3125	205	247	292	354	377	420	462	507
No. 6 (3/8 inch)	0.375	285	355	417	477	540	600	657	720
No. 7 (7/16 inch)	0.4375	385	472	560	645	755	820	905	940
No. 8 (1/2 inch)	0.50	503	615	725	835	945	1050	1160	1265
No. 10 (5/8 inch)	0.625	820	990	1170	1336	1510	1680	1850	2030
No. 12 (3/4 inch)	0.75	1140	1420	1670	1915	2160	2400	2630	2880
No. 16 (1 inch)	1	2030	2460	2900	3340	3780	4200	4640	5060

CALCULATIONS

Adjusting Flow Rates for Different Abrasives and Nozzle Diameters
Flow Rate (FR) = Abrasive flow rate (lb/hr) of abrasive at nozzle pressure and internal nozzle diameter (ID)

D1 = Density of sand from Table 2 =	99	lb/ft3
ID1 = Internal diameter of nozzle for sand blasting from Table 3 =	0.3125	inch
FR1 = Sand flow rate at nozzle pressure and internal diameter (ID1) from Table 3 =	354	lb/hr
D = Density of actual abrasive =	100	lb/ft3
ID = internal diameter of actual nozzle =	0.3125	inch
FR = Flow rate of actual abrasive (lb/hr) =	357.6	lb/hr (per nozzle)

Potential to Emit Before Control

FR = Flow rate of actual abrasive (lb/hr) =	357.6		lb/hr (per nozzle)
w = fraction of time of wet blasting =	0		%
N = number of nozzles =	1		
EF = PM emission factor for actual abrasive from Table 1 =	0.010		lb PM/ lb abrasive
PM10 emission factor ratio for actual abrasive from Table 1 =	0.70		lb PM10 / lb PM
	PM	**PM10**	
Potential to Emit (before control) =	**3.576**	**2.503**	**lb/hr**
=	**85.82**	**60.07**	**lb/day**
=	**15.66**	**10.96**	**ton/yr**

Potential to Emit After Control

	PM	PM10	
Emission Control Device Efficiency =	**99.9%**	**99.9%**	
Potential to Emit (after control) =	**3.6E-03**	**2.5E-03**	**lb/hr**
=	**0.086**	**0.060**	**lb/day**
=	**0.016**	**0.011**	**ton/yr**

METHODOLOGY

Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)
There is no PM10 emission factor for the "Other" category in Table 1 - Emission Factors for Abrasives. Therefore, the PM10 emission factor for Grit has been used.
Flow rate of actual abrasive (FR) (lb/hr) = FR1 x (ID/ID1)^2 x (D/D1)
Potential to Emit (before control) = EF x FR x (1 - w/200) x N (where w should be entered in as a whole number (if w is 50%, enter 50))
Potential to Emit (after control) = [Potential to Emit (before control)] * [1 - control efficiency]
Potential to Emit (tons/year) = [Potential to Emit (lbs/hour)] x [8760 hours/year] x [ton/2000 lbs]

326 IAC 6-3-2(e) ALLOWABLE RATE OF EMISSIONS

Unit ID	Process Rate (lbs/hr)	Process Weight Rate * (tons/hr)	Allowable Emissions (lbs/hr)
Shotblasting	398	0.20	**1.39**

Methodology
*Process weight; weight rate: Total weight of all materials introduced into any source operation (326 IAC 1-2-59(a)).
Allowable Emissions (lb/hr) = 4.10(Process Weight Rate (lb/hr)^0.67
Allowable Emissions (tons/yr) = (Allowable Emissions (lb/hr)*8760)/2000

Appendix A: Emission Calculations
Abrasive Blasting - Confined
Shotblast Cabinet 2 - using Glass Oxide Media

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Permit Number: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date: 7/20/2010

Table 1 - Emission Factors for Abrasives

	Emission Factor (EF)	
Abrasive	lb PM / lb abrasive	lb PM10 / lb PM
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other	0.010	NA

Table 2 - Density of Abrasives (lb/ft3)

Abrasive	Density (lb/ft3)
Al oxides	160
Sand	99
Steel	487
Glass Oxides	100

Table 3 - Sand Flow Rate (FR1) Through Nozzle (lb/hr)

Flow rate (FR1) of sand through a blasting nozzle as a function of nozzle pressure and internal diameter (ID1)

		Nozzle Pressure (psig)							
Nozzle Type (diameter)	Internal diameter, in	30	40	50	60	70	80	90	100
No. 2 (1/8 inch)	0.125	28	35	42	49	55	63	70	77
No. 3 (3/16 inch)	0.1875	65	80	94	107	122	135	149	165
No. 4 (1/4 inch)	0.25	109	138	168	195	221	255	280	309
No. 5 (5/16 inch)	0.3125	205	247	292	354	377	420	462	507
No. 6 (3/8 inch)	0.375	285	355	417	477	540	600	657	720
No. 7 (7/16 inch)	0.4375	385	472	560	645	755	820	905	940
No. 8 (1/2 inch)	0.50	503	615	725	835	945	1050	1160	1265
No. 10 (5/8 inch)	0.625	820	990	1170	1336	1510	1680	1850	2030
No. 12 (3/4 inch)	0.75	1140	1420	1670	1915	2160	2400	2630	2880
No. 16 (1 inch)	1	2030	2460	2900	3340	3780	4200	4640	5060

CALCULATIONS

Adjusting Flow Rates for Different Abrasives and Nozzle Diameters
Flow Rate (FR) = Abrasive flow rate (lb/hr) of abrasive at nozzle pressure and internal nozzle diameter (ID)

D1 = Density of sand from Table 2 =	99	lb/ft3
ID1 = Internal diameter of nozzle for sand blasting from Table 3 =	0.3125	inch
FR1 = Sand flow rate at nozzle pressure and internal diameter (ID1) from Table 3 =	354	lb/hr
D = Density of actual abrasive =	100	lb/ft3
ID = internal diameter of actual nozzle =	0.3125	inch
FR = Flow rate of actual abrasive (lb/hr) =	357.6	lb/hr (per nozzle)

Potential to Emit Before Control

FR = Flow rate of actual abrasive (lb/hr) =	357.6	lb/hr (per nozzle)
w = fraction of time of wet blasting =	0	%
N = number of nozzles =	1	
EF = PM emission factor for actual abrasive from Table 1 =	0.010	lb PM/ lb abrasive
PM10 emission factor ratio for actual abrasive from Table 1 =	0.70	lb PM10 / lb PM

	PM	PM10	
Potential to Emit (before control) =	**3.576**	**2.503**	**lb/hr**
=	**85.82**	**60.07**	**lb/day**
=	**15.66**	**10.96**	**ton/yr**

Potential to Emit After Control

	PM	PM10	
Emission Control Device Efficiency =	**99.9%**	**99.9%**	
Potential to Emit (after control) =	**3.6E-03**	**2.5E-03**	**lb/hr**
=	**0.086**	**0.060**	**lb/day**
=	**0.016**	**0.011**	**ton/yr**

METHODOLOGY

Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)
There is no PM10 emission factor for the "Other" category in Table 1 - Emission Factors for Abrasives. Therefore, the PM10 emission factor for Grit has been used.
Flow rate of actual abrasive (FR) (lb/hr) = FR1 x (ID/ID1)^2 x (D/D1)
Potential to Emit (before control) = EF x FR x (1 - w/200) x N (where w should be entered in as a whole number (if w is 50%, enter 50))
Potential to Emit (after control) = [Potential to Emit (before control)] * [1 - control efficiency]
Potential to Emit (tons/year) = [Potential to Emit (lbs/hour)] x [8760 hours/year] x [ton/2000 lbs]

326 IAC 6-3-2(e) ALLOWABLE RATE OF EMISSIONS

Unit ID	Process Rate (lbs/hr)	Process Weight Rate * (tons/hr)	Allowable Emissions (lbs/hr)
Shotblasting	398	0.20	**1.39**

Methodology
*Process weight; weight rate: Total weight of all materials introduced into any source operation (326 IAC 1-2-59(a)).
Allowable Emissions (lb/hr) = 4.10(Process Weight Rate (lb/hr)^0.67
Allowable Emissions (tons/yr) = (Allowable Emissions (lb/hr)*8760)/2000

Appendix A: Emission Calculations
Abrasive Blasting - Confined
Shotblast Cabinet 3 - using Glass Oxide Media

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Permit Number: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date: 7/20/2010

Table 1 - Emission Factors for Abrasives

	Emission Factor (EF)	
Abrasive	lb PM / lb abrasive	lb PM10 / lb PM
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other	0.010	NA

Table 2 - Density of Abrasives (lb/ft3)

Abrasive	Density (lb/ft3)
Al oxides	160
Sand	99
Steel	487
Glass Oxides	100

Table 3 - Sand Flow Rate (FR1) Through Nozzle (lb/hr)

Flow rate (FR1) of sand through a blasting nozzle as a function of nozzle pressure and internal diameter (ID1)

		Nozzle Pressure (psig)							
Nozzle Type (diameter)	Internal diameter, in	30	40	50	60	70	80	90	100
No. 2 (1/8 inch)	0.125	28	35	42	49	55	63	70	77
No. 3 (3/16 inch)	0.1875	65	80	94	107	122	135	149	165
No. 4 (1/4 inch)	0.25	109	138	168	195	221	255	280	309
No. 5 (5/16 inch)	0.3125	205	247	292	354	377	420	462	507
No. 6 (3/8 inch)	0.375	285	355	417	477	540	600	657	720
No. 7 (7/16 inch)	0.4375	385	472	560	645	755	820	905	940
No. 8 (1/2 inch)	0.50	503	615	725	835	945	1050	1160	1265
No. 10 (5/8 inch)	0.625	820	990	1170	1336	1510	1680	1850	2030
No. 12 (3/4 inch)	0.75	1140	1420	1670	1915	2160	2400	2630	2880
No. 16 (1 inch)	1	2030	2460	2900	3340	3780	4200	4640	5060

CALCULATIONS

Adjusting Flow Rates for Different Abrasives and Nozzle Diameters
Flow Rate (FR) = Abrasive flow rate (lb/hr) of abrasive at nozzle pressure and internal nozzle diameter (ID)

D1 = Density of sand from Table 2 =	99	lb/ft3
ID1 = Internal diameter of nozzle for sand blasting from Table 3 =	0.3125	inch
FR1 = Sand flow rate at nozzle pressure and internal diameter (ID1) from Table 3 =	354	lb/hr
D = Density of actual abrasive =	100	lb/ft3
ID = internal diameter of actual nozzle =	0.3125	inch
FR = Flow rate of actual abrasive (lb/hr) =	357.6	lb/hr (per nozzle)

Potential to Emit Before Control

FR = Flow rate of actual abrasive (lb/hr) =	357.6	lb/hr (per nozzle)
w = fraction of time of wet blasting =	0	%
N = number of nozzles =	1	
EF = PM emission factor for actual abrasive from Table 1 =	0.010	lb PM/ lb abrasive
PM10 emission factor ratio for actual abrasive from Table 1 =	0.70	lb PM10 / lb PM

	PM	PM10	
Potential to Emit (before control) =	**3.576**	**2.503**	**lb/hr**
=	**85.82**	**60.07**	**lb/day**
=	**15.66**	**10.96**	**ton/yr**

Potential to Emit After Control

	PM	PM10	
Emission Control Device Efficiency =	**99.9%**	**99.9%**	
Potential to Emit (after control) =	**3.6E-03**	**2.5E-03**	**lb/hr**
=	**0.086**	**0.060**	**lb/day**
=	**0.016**	**0.011**	**ton/yr**

METHODOLOGY

Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)
There is no PM10 emission factor for the "Other" category in Table 1 - Emission Factors for Abrasives. Therefore, the PM10 emission factor for Grit has been used.
Flow rate of actual abrasive (FR) (lb/hr) = FR1 x (ID/ID1)^2 x (D/D1)
Potential to Emit (before control) = EF x FR x (1 - w/200) x N (where w should be entered in as a whole number (if w is 50%, enter 50))
Potential to Emit (after control) = [Potential to Emit (before control)] * [1 - control efficiency]
Potential to Emit (tons/year) = [Potential to Emit (lbs/hour)] x [8760 hours/year] x [ton/2000 lbs]

326 IAC 6-3-2(e) ALLOWABLE RATE OF EMISSIONS

Unit ID	Process Rate (lbs/hr)	Process Weight Rate * (tons/hr)	Allowable Emissions (lbs/hr)
Shotblasting	398	0.20	**1.39**

Methodology
*Process weight; weight rate: Total weight of all materials introduced into any source operation (326 IAC 1-2-59(a)).
Allowable Emissions (lb/hr) = 4.10(Process Weight Rate (lb/hr)^0.67
Allowable Emissions (tons/yr) = (Allowable Emissions (lb/hr)*8760)/2000

Appendix A: Emission Calculations
Abrasive Blasting - Confined
Shotblast Cabinet 4 - using Plastic Media

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Permit Number: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date: 7/20/2010

Table 1 - Emission Factors for Abrasives

	Emission Factor (EF)	
Abrasive	lb PM / lb abrasive	lb PM10 / lb PM
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other	0.010	NA

Table 2 - Density of Abrasives (lb/ft3)

Abrasive	Density (lb/ft3)
Al oxides	160
Sand	99
Steel	487
Plastic Media	80

Table 3 - Sand Flow Rate (FR1) Through Nozzle (lb/hr)

Flow rate (FR1) of sand through a blasting nozzle as a function of nozzle pressure and internal diameter (ID1)

		Nozzle Pressure (psig)							
Nozzle Type (diameter)	Internal diameter, in	30	40	50	60	70	80	90	100
No. 2 (1/8 inch)	0.125	28	35	42	49	55	63	70	77
No. 3 (3/16 inch)	0.1875	65	80	94	107	122	135	149	165
No. 4 (1/4 inch)	0.25	109	138	168	195	221	255	280	309
No. 5 (5/16 inch)	0.3125	205	247	292	354	377	420	462	507
No. 6 (3/8 inch)	0.375	285	355	417	477	540	600	657	720
No. 7 (7/16 inch)	0.4375	385	472	560	645	755	820	905	940
No. 8 (1/2 inch)	0.50	503	615	725	835	945	1050	1160	1265
No. 10 (5/8 inch)	0.625	820	990	1170	1336	1510	1680	1850	2030
No. 12 (3/4 inch)	0.75	1140	1420	1670	1915	2160	2400	2630	2880
No. 16 (1 inch)	1	2030	2460	2900	3340	3780	4200	4640	5060

CALCULATIONS

Adjusting Flow Rates for Different Abrasives and Nozzle Diameters
Flow Rate (FR) = Abrasive flow rate (lb/hr) of abrasive at nozzle pressure and internal nozzle diameter (ID)

D1 = Density of sand from Table 2 =	99	lb/ft3
ID1 = Internal diameter of nozzle for sand blasting from Table 3 =	0.3125	inch
FR1 = Sand flow rate at nozzle pressure and internal diameter (ID1) from Table 3 =	354	lb/hr
D = Density of actual abrasive =	80	lb/ft3
ID = internal diameter of actual nozzle =	0.3125	inch
FR = Flow rate of actual abrasive (lb/hr) =	286.1	lb/hr (per nozzle)

Potential to Emit Before Control

FR = Flow rate of actual abrasive (lb/hr) =	286.1	lb/hr (per nozzle)
w = fraction of time of wet blasting =	0	%
N = number of nozzles =	1	
EF = PM emission factor for actual abrasive from Table 1 =	0.010	lb PM/ lb abrasive
PM10 emission factor ratio for actual abrasive from Table 1 =	0.70	lb PM10 / lb PM

	PM	PM10	
Potential to Emit (before control) =	**2.861**	**2.002**	**lb/hr**
=	**68.65**	**48.06**	**lb/day**
=	**12.53**	**8.77**	**ton/yr**

Potential to Emit After Control

	PM	PM10	
Emission Control Device Efficiency =	**99.9%**	**99.9%**	
Potential to Emit (after control) =	**2.9E-03**	**2.0E-03**	**lb/hr**
=	**0.069**	**0.048**	**lb/day**
=	**0.013**	**0.009**	**ton/yr**

METHODOLOGY

Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)
There is no PM10 emission factor for the "Other" category in Table 1 - Emission Factors for Abrasives. Therefore, the PM10 emission factor for Grit has been used.
Flow rate of actual abrasive (FR) (lb/hr) = FR1 x (ID/ID1)^2 x (D/D1)
Potential to Emit (before control) = EF x FR x (1 - w/200) x N (where w should be entered in as a whole number (if w is 50%, enter 50))
Potential to Emit (after control) = [Potential to Emit (before control)] * [1 - control efficiency]
Potential to Emit (tons/year) = [Potential to Emit (lbs/hour)] x [8760 hours/year] x [ton/2000 lbs]

326 IAC 6-3-2(e) ALLOWABLE RATE OF EMISSIONS

Unit ID	Process Rate (lbs/hr)	Process Weight Rate * (tons/hr)	Allowable Emissions (lbs/hr)
Shotblasting	326	0.16	**1.22**

Methodology

*Process weight; weight rate: Total weight of all materials introduced into any source operation (326 IAC 1-2-59(a)).
Allowable Emissions (lb/hr) = 4.10(Process Weight Rate (lb/hr)^0.67
Allowable Emissions (tons/yr) = (Allowable Emissions (lb/hr)*8760)/2000

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

Company Name: Meggitt (Troy), Inc.
Address City IN Zip: 3 Industrial Drive, Troy, IN 47588
Permit No: 123-29484-00011
Reviewer: Hannah L. Desrosiers
Date Submitted: 7/20/2010

Combustion Source	# of units	Heat Input per unit (MMBtu/hr)	Total Heat Input (MMBtu/hr)
Boiler	1	8.00	8.00
Water Heater	1	0.034	0.034
Drying Oven	1	0.001	0.001
Space Heater	2	6.22	12.44
Total	5	14.26	**20.48**

Maximum Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
20.48	179.38

Criteria Pollutant Emissions

	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.170	0.682	0.682	0.054	8.969	0.493	7.534

*PM emission factor is filterable PM only. PM10 and PM2.5 emission factor is filterable and condensable PM10 and PM2.5 combined, respectively.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

HAPs Emissions

	HAPs - Organics				
	Benzene	Dichlorobenzen	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.10E-03	1.20E-03	0.08	1.80	3.40E-03
Potential Emission in tons/yr	1.88E-04	1.08E-04	6.73E-03	0.161	3.05E-04

	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
Potential Emission in tons/yr	4.48E-05	9.87E-05	1.26E-04	3.41E-05	1.88E-04

Worst Single HA P =	0.161	tons/yr
Total HAPs =	0.169	tons/yr

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

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98).
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Nathan Frank
Meggitt (Troy), Inc.
3 Industrial Dr
Troy, IN 47588

DATE: June 10, 2011

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

SUBJECT: Final Decision
MSOP
123-29484-00011

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:
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.

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

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

June 10, 2011

TO: Tell City Perry County Public Library

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

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: **Meggitt (Troy), Inc.**
Permit Number: **123-29484-00011**

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 11/30/07

Mail Code 61-53

IDEM Staff	CDENNY 6/10/2011 Meggitt (Troy), Inc. 123-29484-00011 (final)		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
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2		John Dixon Dir - Site ops Meggitt (Troy), Inc. 3 Industrial Dr Troy IN 47588 *(RO CAATS)*									
3		Perry County Health Department Courthouse Annex Cannelton IN 47520-1251 *(Health Department)*									
4		Mr. Wendell Hibdon Plumbers & Steam Fitters Union, Local 136 2300 St. Joe Industrial Park Dr Evansville IN 47720 *(Affected Party)*									
5		Mr. Ron Hendrich Schwab Corporation 4630 E St Rd 66 Cannelton IN 47520 *(Affected Party)*									
6		Perry County Commissioners Court House, 2219 Payne Street Tell City IN 47586 *(Local Official)*									
7		Tell City Perry County Public Library 2328 Tell Street Tell City IN 47586-1717 *(Library)*									
8		Troy Town Council P.O. Box 57 Troy IN 47588 *(Local Official)*									
9		Mr. John Blair 800 Adams Ave Evansville IN 47713 *(Affected Party)*									
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