Indiana Department of Environmental Management
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Carol S. Comer
Commissioner

NOTICE OF 30-DAY PERIOD
FOR PUBLIC COMMENT

Preliminary Findings Regarding a
Signficant Modification to a
Part 70 Operating Permit

for Honeywell International, Inc. in St. Joseph County

Significant Source Modification No.: 141-36553-00172
Significant Permit Modification No.: 141-36618-00172

The Indiana Department of Environmental Management (IDEM) has received an application from Honeywell International, Inc., located at 3520 Westmoor Street, South Bend, IN 46628, for a significant modification of its Part 70 Operating Permit issued on July 2, 2012. If approved by IDEM's Office of Air Quality (OAQ), this proposed modification would allow Honeywell International, Inc. to make certain changes at its existing source. Honeywell International, Inc. has applied to add a new soil vapor extraction system.

The applicant intends to construct and operate new equipment that will emit air pollutants; therefore, the permit contains new or different permit conditions. In addition, some conditions from previously issued permits/approvals have been corrected, changed, or removed. These corrections, changes, and removals may include Title I changes (e.g. changes that add or modify synthetic minor emission limits). IDEM has reviewed this application and has developed preliminary findings, consisting of a draft permit and several supporting documents, which would allow the applicant to make this change.

A copy of the permit application and IDEM's preliminary findings are available at:

St. Joseph County Public Library
304 South Main St.
South Bend, IN 46607

and

IDEM Northern Regional Office
300 N. Michigan Street, Suite 450
South Bend, IN 46601-1295

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

How can you participate in this process?

The date that this notice is published in a newspaper marks the beginning of a 30-day public comment period. If the 30th day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.

You may request that IDEM hold a public hearing about this draft permit. If adverse comments concerning the **air pollution impact** of this draft permit are received, with a request for a public hearing, IDEM will decide whether or not to hold a public hearing. IDEM could also decide to hold a public meeting instead of, or in addition to, a public hearing. If a public hearing or meeting is held, IDEM will make a separate announcement of the date, time, and location of that hearing or meeting. At a hearing,

you would have an opportunity to submit written comments and make verbal comments. At a meeting, you would have an opportunity to submit written comments, ask questions, and discuss any air pollution concerns with IDEM staff.

Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. If you comment via e-mail, please include your full U.S. mailing address so that you can be added to IDEM's mailing list to receive notice of future action related to this permit. If you do not want to comment at this time, but would like to receive notice of future action related to this permit application, please contact IDEM at the address below. Please refer to permit number SSM 141-36553-00172 and SPM 141-36618-00172 in all correspondence.

Comments should be sent to:

Heath Hartley
IDEM, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(800) 451-6027, ask for extension 2-8217
Or dial directly: (317) 232-8217
Fax: (317) 232-6749 attn: Heath Hartley
E-mail: hhartley@idem.IN.gov

All comments will be considered by IDEM when we make a decision to issue or deny the permit. Comments that are most likely to affect final permit decisions are those based on the rules and laws governing this permitting process (326 IAC 2), air quality issues, and technical issues. IDEM does not have legal authority to regulate zoning, odor, or noise. For such issues, please contact your local officials.

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

What will happen after IDEM makes a decision?

Following the end of the public comment period, IDEM will issue a Notice of Decision stating whether the permit has been issued or denied. If the permit is issued, it may be different than the draft permit because of comments that were received during the public comment period. If comments are received during the public notice period, the final decision will include a document that summarizes the comments and IDEM's response to those comments. If you have submitted comments or have asked to be added to the mailing list, you will receive a Notice of the Decision. The notice will provide details on how you may appeal IDEM's decision, if you disagree with that decision. The final decision will also be available on the Internet at the address indicated above, at the local library indicated above, at the IDEM Regional Office indicated above, and the IDEM public file room on the 12th floor of the Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, Indiana 46204-2251.

If you have any questions, please contact Heath Hartley of my staff at the above address.

Jenny Acker, Section Chief
Permits Branch
Office of Air Quality

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DRAFT

Mr. Justin Finger
Honeywell International, Inc.
3520 Westmoor Street
South Bend, IN 46628

Re: 141-36618-00172
Significant Permit Modification to
Part 70 Renewal No.: T141-26745-00172

Dear Mr. Finger:

Honeywell International, Inc. was issued Part 70 Operating Permit Renewal No. T141-26745-00172 on July 2, 2012 for a stationary aircraft landing systems manufacturing operation located at 3520 Westmoor Street, South Bend, IN 46628. An application to modify the source was received on December 2, 2016. Pursuant to the provisions of 326 IAC 2-7-12, a Significant Permit Modification to this permit is hereby approved as described in the attached Technical Support Document.

Please find attached the entire Part 70 Operating Permit as modified. The permit references the below listed attachment(s). Since these attachments have been provided in previously issued approvals for this source, IDEM OAQ has not included a copy of these attachments with this modification:

Attachment A - National Emission Standards for Hazardous Air Pollutants: Aerospace Manufacturing and Rework Facilities [40 CFR 63, Subpart GG]
Attachment B - National Emission Standards for Hazardous Air Pollutants: Stationary Reciprocating Internal Combustion Engines [40 CFR 63, Subpart ZZZZ]
Attachment C - National Emission Standards for Hazardous Air Pollutants Source Category: Gasoline Dispensing Facilities [40 CFR 63, Subpart CCCCCC]
Attachment D - National Emission Standards for Hazardous Air Pollutants Area Source Standards for Plating and Polishing Operations [40 CFR 63, Subpart WWWWWW]
Attachment E - New Source Performance Standards for Stationary Spark Ignition Internal Combustion Engines [40 CFR 60, Subpart JJJJ]

Previously issued approvals for this source containing these attachments are available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/.

Federal rules under Title 40 of United States Code of Federal Regulations may also be found on the U.S. Government Printing Office's Electronic Code of Federal Regulations (eCFR) website, located on the Internet at: http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40tab_02.tpl.

A copy of the permit is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5.

If you have any questions on this matter, please contact Heath Hartley, of my staff, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251 at 317-232-8217 or 1-800-451-6027, and ask for extension 2-8217.

DRAFT

Sincerely,

Jenny Acker, Section Chief
Permits Branch
Office of Air Quality

Attachments: Modified Permit and Technical Support Document

cc: File - St. Joseph County
St. Joseph County Health Department
U.S. EPA, Region 5
Compliance and Enforcement Branch
IDEM Northern Regional Office

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DRAFT

Part 70 Operating Permit Renewal

OFFICE OF AIR QUALITY

Honeywell International, Inc.
3520 Westmoor Street
South Bend, Indiana 46628

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2 7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13 15 and IC 13 17.

Operation Permit No.: T141-26745-00172	
Issued by: Original Signed by: Jenny Acker, Section Chief Permits Branch, Office of Air Quality	Issuance Date: July 2, 2012 Expiration Date: July 2, 2017

Administrative Amendment No.: 141-32336-00172, issued on October 17, 2012
Administrative Amendment No.: 141-33249-00172, issued on July 30, 2013
Administrative Amendment No.: 141-34133-00172, issued on April 24, 2014
Significant Permit Modification No.: 141-35733-00172, issued on August 24, 2015

Significant Permit Modification No.: 141-36618-00172	
Issued by: Jenny Acker, Section Chief Permits Branch Office of Air Quality	 Issuance Date: Expiration Date: July 2, 2017

TABLE OF CONTENTS

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(14)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary aircraft landing systems manufacturing operation.

Source Address:	3520 Westmoor Street, South Bend, Indiana 46628
General Source Phone Number:	(574) 231-2302
SIC Code:	3728 (Aircraft Parts and Auxiliary Equipment, Not Elsewhere Classified) and 3724 (Aircraft Engines and Engine Parts)
County Location:	St Joseph
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]

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

(a) Four (4) electric Char Furnaces, with a maximum capacity of 137.5 tons of disks per year each, with volatile organic compound emissions controlled by thermal oxidizers. Char furnaces 1 and 2 are controlled by one (1) thermal oxidizer and exhausting through stack 411. Char furnaces 3 and 4 are controlled by one (1) thermal oxidizer and exhausting through stack 407. Construction dates are as follows: No. 1, 1989; No. 2, 1985; No. 3, 1986; and No. 4, 1987.

(b) One (1) Chemical Vapor Deposition (CVD) unit, also known as carbon vapor deposition unit, identified as CVD-1, constructed in 1978, having an estimated batch capacity of 2,400 pounds (initial weight) of brakes and a nominal total reactant gas flow rate of 360 scf per soak hour. One (1) enclosed flare, controlling the soak phase VOC emissions from CVD-1, with a rated capacity of 0.9 MMBtu per hour, natural gas combustion, and exhausting through stack S-FL-1.

(c) Twenty-six (26) Chemical Vapor Deposition (CVD) units, also known as carbon vapor deposition units, identified as CVD-2 through CVD-27, with each unit having an estimated batch capacity of 8,800 pounds (initial weight) of brakes for random fiber process or 5,300 pounds (initial weight) of brakes for non-woven process. Each CVD has a nominal total reactant gas flow of 2,000 scf per soak hour for random fiber process or a nominal total reactant gas flow of 4,200 scf per soak hour for non-woven fiber process. Construction dates are as follows: CVD 2, 1978; CVD 3, 1985; CVD 4, 1988; CVD 5, 1989; CVDs 6 and 7, 1990; CVDs 8 and 9, 1991; CVDs 10 and 11, 1992; CVDs 12 and 13, 1993; CVDs 14 through 21, 1995-2000; CVDs 22 and 23, 2000; CVDs 24 and 25, (approved in 2006 for construction); CVDs 26 and 27 (approved in 2012 for construction). Twenty-six (26) enclosed flares, controlling the soak phase VOC emissions from CVD

units 2-27, each having a rated capacity of 5.5 MMBtu per hour, natural gas combustion, and exhausting through stacks S-FL-2 through S-FL-27, respectively.

(d) One (1) soil vapor extraction system, identified as SVE SCB, approved in 2016 for construction, controlled by a resin adsorption control system consisting of 3 vapor-phase resin adsorbent vessels, identified as V-101, V-102, and V-103, exhausting to stack SVE SCB EP-1, and consisting of the following:

(1) Fifteen (15) soil vapor extraction wells, identified as SVE wells, with a maximum system flow rate of 425 cfm.

(2) One (1) condenser.

(3) One (1) horizontal VOC liquid storage tank, identified as SVE storage tank, with a maximum capacity of 1,500 gallons and a maximum throughput of 39,000 gallons per year.

(4) One (1) truck loading operation, identified as truck loading operation, with a maximum throughput of 39,000 gallons per year. This unit is not controlled by the resin adsorption system.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(a) Two (2) Binks Paint Booths, identified as BPB-1 & BPB-2, installed in 1987, using HVLP spray guns, and controlled by 3-stage HEPA filters, and exhausting through stacks SBPB-1 & SBPB-2, and an electric powered IR curing oven. [40 CFR 63, Subpart GG][326 IAC 6.5-1]

(b) Boilers using natural gas with heat input equal to or less than ten million (10,000,000) British thermal units per hour. [326 IAC 6.5-1]

(1) Seven (7) natural gas-fired boilers with a total heat input capacity of 18.254 MMBtu/hr identified as:

(A) B-1, constructed in 1986, with a maximum rated capacity of 0.9 MMBtu/hr.

(B) B-2, constructed in 1986, with a maximum rated capacity of 0.75 MMBtu/hr.

(C) B-22, constructed in 1991, with a maximum rated capacity of 1.5 MMBtu/hr.

(D) B-21, constructed in 1991, with a maximum rated capacity of 1.5 MMBtu/hr.

(E) B-32, constructed in 1986, with a maximum rated capacity of 1.05 MMBtu/hr.

(F) B2 East, approved for construction in 1994, with a maximum capacity of 6.277 MMBtu/hr.

(G) B1 West, approved for construction in 1994, with a maximum rated capacity of 6.277 MMBtu/hr.

(c) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-2][326 IAC 8-3-8]

(d) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors or electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6.5-1]

(1) Fifteen (15) Friction Material grinding and sanding units, controlled by various fabric filter systems. Unit names and ID#s include:

(A) Five (5) SNC 86 Makino Machines, identified as SNC86-1, SNC86-2, SNC86-3, SNC86-4, and SNC86-5, and exhausting through stacks SV-SNC86-1, SV-SNC86-2, SV-SNC86-3, SV-SNC86-4, and SV-SNC86-5.

(B) One (1) A88 Makino Machine, identified as A88-1, and exhausting through stack SV-A88-1.

(C) One (1) Vertical Okuma Machine, identified as VO-1, and exhausting through stack SV-VO-1.

(D) One (1) Horizontal Okuma Machine, identified as HO-1, and exhausting through stacks SV-HO-1 and SV-HO-2.

(E) One (1) Pratt & Whitney Grinder, identified as P&WG-1, and exhausting through stack SV-P&WG-1

(F) One (1) Gardner Grinder, identified as GG-1, and exhausting through stack SV-GG-1.

(G) One (1) TimeSaver Grinder, identified as TSG-1, and exhausting through stack SV-TSG-1 and SV-TSG-2.

(H) One (1) AEM Grinder, identified as AEMG-1, and exhausting through stack SV-AEMG-1.

(I) One (1) Detroit Grinder, identified as DEG-1, installed in 2012, and exhausting out stack SV-DEG-1.

(J) Two (2) De-Rivet/Grind Stations, each constructed in 2010, identified as De-Rivet/Grind Station #DRG-1E and #DRG-2W, controlled by two (2) Torit dust collectors.

(2) One (1) Horizontal Okuma carbon machining unit, identified as HO-2, approved for construction in 2010, with a maximum throughput of 58 pounds per hour, using a dust collector identified as DC-HO-2 as control, and exhausting through SV-CM-13.

(3) One (1) brake rework plastic bead blasting unit, approved in 2011 for construction, identified as BR-1, with a maximum throughput of 270 pounds of sand per hour, using a dust collector identified as DC-BR-1 as control, and exhausting to stack SV-BR-1.

(4) One (1) Okuma #17 Brass Dry Machining operation, constructed in 2007, identified as BM-1, using dust collectors as control, and exhausting inside.

(5) One (1) Makino #15 Brass Dry Machining operation, constructed in 1990, identified as BM-2, using dust collectors as control, and exhausting inside.

(6) One (1) Machine Shop located in Plant 25, constructed in 2009, consisting of a drill press, band saws, sanders, and grinders, controlled by a Dust Hog, and exhausting through Stack SV-P25.

(e) The following emission units or activities with a potential uncontrolled emission rate for particulate matter with an aerometric diameter less than or equal to ten (10) microns (PM10) of less than or equal to five (5) pounds per hour or twenty-five (25) pounds per day. [326 IAC 2-7-1(21)(B)][326 IAC 6.5-1]

(1) One (1) die cutter operation, identified as DCR, with a maximum capacity of 60 pounds per hour, installed in 1991. The die cutter machine is controlled by a fabric filter dust collector, identified as DC-1, and exhausts through stack S-1.

(2) One (1) El Dynamometer, identified as EID, installed in 1989, controlled by two (2) fabric filter dust collectors, identified as DC-305 and DC-307, and exhausting through stacks S-305 and S-307.

(3) Nine (9) Burr Benches each controlled by a dust collector, and venting inside the building. They are identified as the following:

Torque Tube Burr Bench, identified as TTBB-1
NW Burr Bench Cell, identified as NWBBC-1
Outboard Cell Burr Bench, identified as OCBB-1
NDT Burr Bench, identified as NDTBB-1
Piston Housing Cell Burr Bench, identified as PHCBB-1
Torque Tube Rough Deburr, identified as TTRDB-1
Inboard Deburr Bench, identified as IDB-1, constructed June 2010
Deburr Machine #8, identified as DM-8, constructed December 2009
Magnahelic Room Burr Bench, identified as MRBB-1, constructed in 2002

(4) One (1) Mattison Grinder, identified as MG-1, with a capacity of 230 pounds per hour controlled by dust collector DC-MG-1, and venting inside the building.

(5) One (1) “Shaft” Brake Test Dynamometer, identified as SBD-1, installed in 1978, this shaft dynamometer is vented directly to the atmosphere through two (2) vents in the roof to remove heat and any potential emissions. Particulate emissions were estimated at 50 pounds per year for each vent.

(6) One (1) Wheelabrator plastic bead blasting operation, identified as WPBB-1, with a maximum throughput less than 100 pounds per hour of plastic media blast, controlled by a rotoclone, and exhausting outside the building.

(7) One (1) Tumble Blast abrasive blasting unit, identified as TB-1, unit controlled by a dust collector, DC-TB-1, venting inside the building.

(8) Three (3) Rotor Crew Mills, identified as #33, #37 and #38, uncontrolled and exhausting indoors.

(9) Four (4) Shot Peening units including:

(A) One (1) PTI Shot Peener, identified as PTI Peen-1, installed in 2009, controlled by DC-PTI-1, and is vented inside the building.

(B) One (1) Blast Works abrasive blasting unit, identified as BW-1, controlled by dust collector DC-BW-1, and vented inside the building.

(C) One (1) North Shot Peening unit, identified as NSP-1, controlled by dust collector DC-NSP-1, and vented inside the building.

(D) One (1) South Shot Peening unit, identified as SSP-1, controlled by dust collector DC-SSP-1, and vented inside the building.

(10) Three (3) uncontrolled brake dynamometers

(A) One (1) 120 MI Top Side Brake Dyno, identified as TSBD-1, installed in 1943, uncontrolled.

(B) One (1) Adamson 84 Brake Dyno, identified as A84-1, installed in 1943, uncontrolled.

(C) One (1) FPTM Shaft Brake Dyno, identified as FPTM-1, installed in 1992, uncontrolled.

(11) Two (2) uncontrolled tire dynamometers.

(A) One (1) 96 Roll Dyno, identified as 96RD-1, installed in 1943, uncontrolled.

(B) One (1) 120 Roll Dyno, identified as 120RD-1, installed in 1950, uncontrolled.

(12) One (1) Scatblast plastic bead blaster, identified as SPBB-1, installed in 1998, controlled by a cartridge filter, exhausting to DC-SPBB-1, and venting indoors.

(13) One (1) MI-2 Brake Dyno, identified as MI-2, installed in 1998, uncontrolled.

(14) One (1) 150K Roll Dyno, identified as 150KRD-1, installed in 1994, uncontrolled.

(15) One (1) Trinco Dry Blast abrasive blasting unit, identified as TDB-1, installed in 1993, unit controlled by a dust collector, DC-TDB-1, venting inside the building.

(16) One (1) Vapor Blast Model 2820 abrasive blasting unit, identified as VB2820-1, installed in 1988, unit controlled by a dust collector, DC-VB2820-1, venting inside the building.

(17) One (1) cold jet booth, identified as CJ-1, approved in 2013 for construction, for cleaning the chemical vapor deposition units, with a maximum capacity of 26 cleaning cycles per year, using a cartridge dust collector as control, and exhausting to stack DC-CJ-1.

(18) One (1) Anti-Oxidation spray booth, identified as AO, permitted in 2014, using HVLP spray technology and controlled by dry filters, and exhausting through Stack SB-AO.

(f) A petroleum fuel other than gasoline dispensing facility, having a storage tank capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less, consisting of the following: [40 CFR 63, Subpart CCCCCC]

(1) One (1) double-walled 500 gallon capacity gasoline tank & one (1) double-walled 500 gallon diesel fuel tank, installed in 2006, identified as GAS-1 and DIESEL-1, respectively.

(g) Twenty-eight (28) Anodizing Line storage tanks, including one (1) temporary substitute tank, identified as Tank 18, with constituents from other baths, collectively identified as Anodizing, installed in 1968. [40 CFR 63 Subpart WWWWWW]

(h) Activities associated with emergencies, including emergency generators as follows:

(1) One emergency (1) diesel-fired generator, identified as DG-1, with a maximum capacity of 535 bhp, installed in 2003.

Under NESHAP, Subpart ZZZZ, this unit is considered an existing affected facility.

(2) One (1) emergency natural gas-fired generator, with a maximum capacity of 40 hp, installed in 1977.

Under NESHAP, Subpart ZZZZ, this unit is considered an existing affected facility.

(3) One (1) emergency natural gas-fired generator, with a maximum capacity of 215 hp, installed in 2004.

Under NESHAP, Subpart ZZZZ, this unit is considered an existing affected facility.

(4) One (1) emergency natural gas-fired generator, identified as EMGEN-1, with a maximum capacity of 60 hp, manufactured and installed in 2012.

Under NSPS, Subpart JJJJ, this unit is considered an affected facility.
Under NESHAP, Subpart ZZZZ, this unit is considered a new affected facility.

(5) One (1) emergency natural gas-fired generator, identified as EMGEN-2, with a maximum capacity of 48 hp, manufactured and installed in 2014.

Under NSPS, Subpart JJJJ, this unit is considered an affected facility.
Under NESHAP, Subpart ZZZZ, this unit is considered a new affected facility.

(i) Noncontact cooling tower systems with either natural draft cooling towers not regulated under a NESHAP, or forced and induced draft cooling tower systems not regulated under a NESHAP. [326 IAC 6.5-1-2]

(j) Pursuant to 326 IAC 2-7-1(41)(H), trivial activities performed using hand-held equipment, including: application of hot melt adhesives with no VOC in the adhesive formulation; buffing; carving; cutting, excluding cutting torches; drilling; grinding; machining wood, metal, or plastic; polishing; routing; sanding; sawing; surface grinding; and turning wood, metal, or plastic [326 IAC 6.5-1-2].

A.4 Non- Specifically Regulated Insignificant and Trivial Activities [326 IAC 2-7-1(21) and (41)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

(a) Space heaters and process heaters using natural gas each with a heat input capacity less than or equal to10 MMBtu/hr.

(b) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.

(1) Four (4) 6,000 gallon capacity storage tanks containing Stoddard solvent, JP8, blended fuel. These fuels are not burned, but utilized as a calibration fluid for R & D.

(c) The following VOC and HAP storage containers:

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

(A) Fifty (50) day tanks containing Stoddard solvent, JP8, blended fuel, that range from 250 – 300 gallon maximum capacity. They are used in the calibration procedure for R & D. Only approximately 30 are filled at any one time.

(d) Machining where an aqueous cutting coolant continuously floods the machining interface.

(e) Cleaners and solvents characterized as follows:

(1) Having a vapor pressure equal to or less than 2kPa; 15mm Hg; or 0.3 psi measure at 38 degrees C (100o F); or

(2) Having a vapor pressure equal to or less than 0.7kPa; 5mm Hg; or 0.1 psi measured at 20 degrees C (68o F); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(f) Closed loop heating and cooling systems.

(g) Quenching operations used with heat treating processes.

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

(i) Paved and unpaved roads and parking lots with public access.

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

(k) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kilopascals measured at 38 degrees C.

(l) A laboratory (including appropriate support activities) as defined in 326 IAC 2-7-1(21)(H). The laboratory(s) include but are limited to the following:

(1) A materials lab.

(2) Laboratory oven and press exhaust.

(m) Friction Materials Production processes with an overall nominal production capacity of 125 lbs/hour including the following:

(1) Two (2) electric Preheat Ovens, identified as PreHeat Oven 1 & 2, both installed in 1978.

(2) Four (4) Devolitization / Post Cure Ovens, identified as Devols 1 – 4, all installed in 1987 and identified in 2012 for use as Post Cure Ovens.

(3) Two (2) Auto Pre-Form ovens, identified as APM-1 & APM-2, constructed in 1990, APM-1 exhausts through stack S-5 and APM-2 is controlled by a fabric filter dust collector, identified as DC-4, exhausting through stack S-4.

(4) Fourteen (14) mold presses, identified as Mold Presses 1 – 14, with the following installation dates: Mold Presses 7 & 8 installed in 1988, Mold Presses 9 & 10 installed in 1989, Mold Presses 11 & 12 installed in 1990, and Mold Presses 13 & 14 installed in 1993.

(5) Seven (7) Post Cure ovens, identified as Post Cure 5 – 9, 11 & 13, with installation dates as follows: Post Cures 5 – 7 installed in 1987, Post Cures 8 & 9 installed in 1991, Post Cures 11 & 13 installed in 2013 and 2014, respectively.

(6) An RTM injection molding machine, installed in 2009.

(n) Soil vapor extraction (SVE) and air sparging system identified as Area 14W.

(o) Acid etch operation (in Anodizing Line). The batch utilizes nitric acid to etch aluminum parts. Ammonium biflouride is added to the batch. Calculations show that emission of hydrogen fluoride will not exceed 544 pounds per year and that NOX emissions will not exceed 4.8 tons per year.

(p) Two (2) electric heat treat furnaces (ID Nos. HTT15 and HTT16), each with a maximum capacity of 13.35 pounds per hour of carbon, exhausting through stacks SV-HTT-15 and SV-HTT-16.

(q) Nine (9) HTT 'Pots' (Induction Heat Treat furnaces) ducted through two (2) external discharge stacks.

(r) Two (2) densification tanks, identified as Dense Line Tanks 1 & 5, installed in 1991, where disks for limited special applications are treated at ambient temperature in tanks containing solutions of furfural and furfuryl alcohol and phthalic anhydride which impregnate the disk. The disks are then placed into baths of sulfuric acid and tetra ethylene glycol which cures the coating.

(s) One (1) Zyglo penetrant spray application line, identified as Zyglo Line, installed prior to 1990, with a maximum usage rate of 0.07 gal/hr, exhausting inside the building.

(t) Research and Development Activities (including support activities) as defined in 326 IAC 2-7-1(21)(I) which include but are not limited to:

(1) A 5 ft. CVD unit.

(2) One (1) SECO Box Furnace (research char furnace)

(u) Production testing - Plant 14 - calibration of aircraft fuel controls.

(v) Test cell area sources - Plant 19 - engineer, calibrate and test aircraft fuel systems.

(w) Vessels storing: lubricating oils, hydraulic oils, machining oils, and machining fluids.

(x) Water-related activities, including the following:

(1) Steam traps, vents, leaks, and safety relief valves.

(2) The production of hot water for on-site personal use not related to any industrial or production process.

(A) Fire Water Heater, with a maximum capacity of 0.72 MMBtu/hr.

(B) Two (2) Plant 4 Midway Bathroom Water Heaters, constructed in 2011, with a maximum rated capacity of 0.20 MMBtu/hr, each.

(C) Cafeteria Water Heater #20, with a maximum rated capacity of 0.085 MMBtu/hr.

(y) Electric or steam heated drying ovens and autoclaves, including only the heating emissions and not any associated process emissions.

(z) Activities related to routine fabrication, maintenance and repair of buildings, structures, equipment, or vehicles at the source where air emissions from those activities would not be associated with any commercial production process, including the following: Brazing, soldering and welding operations and associated equipment.

A.5 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

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

B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]

(a) This permit, T141-26745-00172, 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, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

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

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

B.4 Enforceability [326 IAC 2-7-7][IC 13-17-12]

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

B.5 Severability [326 IAC 2-7-5(5)]

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

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

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

B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

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

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

B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

(a) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:

(1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(35), and

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

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

(c) A "responsible official" is defined at 326 IAC 2-7-1(35).

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

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

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

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

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

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

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

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(12)][326 IAC 1-6-3]

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

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

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

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance

causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

B.11 Emergency Provisions [326 IAC 2-7-16]

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

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

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

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

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

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

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

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

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

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

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

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

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

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

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(8) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

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

B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, as well as the federal statutes from the Clean Air Act and the federal rules from 40 CFR, referenced 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 Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

(b) In addition to the nonapplicability determinations set forth in Section D of this permit, the IDEM, OAQ has made the following determination regarding this source:

(1) 40 CFR 63.460, Subpart T - Standards for Halogenated Solvent Cleaning

The degreasing operations are not subject to this rule because there are no halogenated solvents in a total concentration greater than five percent (5%) by weight, as a cleaning and/or drying agent.

(2) 40 CFR 63, Subpart MMMM - Standards for Surface Coating of Miscellaneous Metal Parts and Products
This source is not subject to this rule because the surface coating of metal components of aerospace vehicles meet the applicability criteria for Aerospace Manufacturing and Rework (40 CFR 63, Subpart GG).

(3) 40 CFR 63, Subpart GGGGG - Standards for Site Remediation
This rule is not applicable because the source is taking limits to be a minor source of hazardous air pollutants (HAPs) (less than twenty-five (25) tons per year of combined HAP emissions and less than ten (10) tons per year of single HAP emissions.

(4) 40 CFR 60.40c, Subpart Dc - Standards of Performance of Small Industrial Commercial-Institutional Steam Generating Units:
The seven (7) natural gas fired boilers (B-1, B-2, B-22, B-32, B2 East, B1 West) each have a rated heat input capacity less than 10 MMBtu/hr. Therefore, the requirements of 40 CFR 60 Subpart Dc are not applicable.

(5) 326 IAC 2-2 (Prevention of Significant Deterioration (PSD))
This source is an existing minor source, it was constructed prior to 1986 and it is not one of the 28 listed source categories, therefore, 326 IAC 2-2 is not applicable. See the following Conditions of this permit: D.1.1; D.2.1; D.2.2; and D.5.1.

(6) 326 IAC 2-4.1-1 (New Source Toxics Control)

(A) Each CVD unit (1-27) is independently distinguishable from the other units as a “process or production unit” as defined in 40 CFR 63.41 (incorporated by reference in 326 IAC 2-4.1). The potential to emit (PTE) of combines HAPs for each CVD (1-27) is less than twenty-five (25) tons per year each and the potential to emit (PTE) of any single HAPs for each CVD unit (1-27) is less than ten (10) tons per year each. Therefore, the requirements of this rule do not apply to the CVDs.

(B) There are no other new facilities with potential emissions greater than major thresholds for HAPs (ten (10) tons per year for a single HAP and twenty-five (25) tons per year for combination HAPs) and constructed after July 27, 1997. Therefore, the requirements of this rule do not apply.

(7) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)This rule applies to the portion of St. Joseph County north of Kern Road and east of Pine Road, however the source does not have potential fugitive particulate matter emissions of twenty-five (25) tons per year or more. Therefore, 326 IAC 6-5-1 (Fugitive Particulate Matter Emission Limitations) is not applicable.

(8) 326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitations)

(A) This rule is not applicable to the four (4) char furnaces because the potential to emit (PTE) SO2 is less than twenty-five (25) tons per year.

(B) This rule is not applicable to the seven (7) natural gas-fired boilers because the potential to emit (PTE) SO2 is less than twenty-five (25) tons per year per boiler.

(9) 326 IAC 8-2-9 (Miscellaneous Metal Coating)
The surface coating operations are used solely for the painting of exterior components of airplanes and are not subject to the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating).

(10) The combination of Conditions D.1.2 and D.2.3 plus the potential to emit (PTE) of all other HAP emitting facilities yields single HAPs to less than ten (10) tons per year and combination of HAPs to less than twenty-five (25) tons per year.

(c) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(d) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(e) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(f) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(g) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(h) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

(a) All terms and conditions of permits established prior to T141-26745-00172 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised under 326 IAC 2-7-10.5, or

(3) deleted under 326 IAC 2-7-10.5.

(b) Provided that all terms and conditions are accurately reflected in this combined permit, all previous registrations and permits are superseded by this combined new source review and part 70 operating permit.

B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(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 nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

(1) That this permit contains a material mistake.

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

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.16 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

(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 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(42). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Request for renewal shall be submitted to:

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

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

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

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

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 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 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

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

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

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.18 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

(a) No Part 70 permit revision or notice shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are

explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.19 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b) or (c) without a prior permit revision, if each of the following conditions is met:

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

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

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

(4) The Permittee notifies the:

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

and

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

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

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)(1) and (c)(1). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1) and (c)(1).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(37)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

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

B.20 Source Modification Requirement [326 IAC 2-7-10.5]

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

B.21 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

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 Part 70 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 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 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 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.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

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

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

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19][326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314][326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Opacity [326 IAC 5-1]

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

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

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

C.2 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.3 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.4 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.5 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.

C.6 Asbestos Abatement Projects [326 IAC 14-10][326 IAC 18][40 CFR 61, Subpart M]

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

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

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

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

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

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

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

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(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 2-7-6(1)]

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

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

Indiana Department of Environmental Management

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(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.8 Compliance Requirements [326 IAC 2-1.1-11]

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

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

C.9 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)][40 CFR 64][326 IAC 3-8]

(a) For new units:
Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.

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

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

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

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(c) For monitoring required by CAM, at all times, the Permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(d) For monitoring required by CAM, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

C.10 Instrument Specifications [326 IAC 2-1.1-11][326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

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

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

Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]

C.11 Emergency Reduction Plans [326 IAC 1-5-2][326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.12 Risk Management Plan [326 IAC 2-7-5(11)][40 CFR 68]

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

C.13 Response to Excursions or Exceedances [40 CFR 64][326 IAC 3-8][326 IAC 2-7-5][326 IAC 2-7-6]

(l) Upon detecting an excursion where a response step is required by the D Section, or an exceedance of a limitation, not subject to CAM, 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.

(II)

(a) CAM *Response to excursions or exceedances.*

(1) Upon detecting an excursion or exceedance, subject to CAM, the Permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(2) 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, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

(b) If the Permittee identifies a failure to achieve compliance with an emission limitation, subject to CAM, or standard, subject to CAM, for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the IDEM, OAQ and, if necessary, submit a proposed significant permit modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

(c) Based on the results of a determination made under paragraph (II)(a)(2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a Quality Improvement Plan (QIP). The Permittee shall develop and implement a QIP if notified to in writing by the EPA or IDEM, OAQ.

(d) Elements of a QIP:
The Permittee shall maintain a written QIP, if required, and have it available for inspection. The plan shall conform to 40 CFR 64.8 b (2).

(e) If a QIP is required, the Permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the IDEM, OAQ if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.

(f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(c) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:

(1) Failed to address the cause of the control device performance problems; or

(2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(g) Implementation of a QIP shall not excuse the Permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.

(h) *CAM recordkeeping requirements.*

(1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to paragraph (II)(c) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for

expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

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

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

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

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]

C.15 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), starting in 2004 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

(1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

(2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(33) (“Regulated pollutant, which is used only for purposes of Section 19 of this rule”) from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

The emission statement does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

C.16 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following, where applicable:

(AA) All calibration and maintenance records.
(BB) All original strip chart recordings for continuous monitoring instrumentation.
(CC) Copies of all reports required by the Part 70 permit.

Records of required monitoring information include the following, where applicable:

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

These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

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

C.17 General Reporting Requirements [326 IAC 2-7-5(3)(C)][326 IAC 2-1.1-11] [40 CFR 64][326 IAC 3-8]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

On and after the date by which the Permittee must use monitoring that meets the requirements of 40 CFR Part 64 and 326 IAC 3-8, the Permittee shall submit CAM reports to the IDEM, OAQ.

A report for monitoring under 40 CFR Part 64 and 326 IAC 3-8 shall include, at a minimum, the information required under paragraph (a) of this condition and the following information, as applicable:

(1) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

(2) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

(3) A description of the actions taken to implement a QIP during the reporting period as specified in Section C-Response to Excursions or Exceedances. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

The Permittee may combine the Quarterly Deviation and Compliance Monitoring Report and a report pursuant to 40 CFR 64 and 326 IAC 3-8.

(b) The address for report submittal is:

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

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

(d) 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.

Stratospheric Ozone Protection

C.18 Compliance with 40 CFR 82 and 326 IAC 22-1

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

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(14)]: Electric Furnaces

(a) Four (4) electric Char Furnaces, with a maximum capacity of 137.5 tons of disks per year each, with volatile organic compound emissions controlled by thermal oxidizers. Char furnaces 1 and 2 are controlled by one (1) thermal oxidizer and exhausting through stack 411. Char furnaces 3 and 4 are controlled by one (1) thermal oxidizer and exhausting through stack 407. Construction dates are as follows: No. 1, 1989; No. 2, 1985; No. 3, 1986; and No. 4, 1987.

(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 2-7-5(1)]

D.1.1 VOC Limit [326 IAC 8-1-6][326 IAC 2-3]

Pursuant SPM 141-22380-00172 and to 326 IAC 8-1-6 and in order to render the requirements of 326 IAC 2-3 (Emission Offset) not applicable, the Permittee shall comply with the following:

VOC emissions from each thermal oxidizer shall not exceed 1.2 pounds per hour.

D.1.2 HAP Minor Limit [40 CFR 63.2]

The Permittee shall comply with the following:

(a) Single HAP emissions from each thermal oxidizer shall not exceed 0.4 pounds per hour.

(b) Total HAP emissions from each thermal oxidizer shall not exceed 0.4 pounds per hour.

Compliance with the above limits, combined with the limits in Conditions D.2.3 and the potential to emit single and total HAPs from all other units at the source, limits the source-wide PTE of a single HAP and a combination of HAPs to less than ten (10) and twenty-five (25) tons per twelve (12) consecutive month period, respectively.

D.1.3 Particulate Matter Limitations [326 IAC 6.5-1]

Pursuant to 326 IAC 6.5-1 (Particulate Matter Limitations Except for Lake County), the particulate matter (PM) from each of the electric Char Furnaces shall not exceed seven-hundredths (0.07) gram per dry standard cubic meter (g/dscm) (three-hundredths (0.03) grain per dry standard cubic foot (dscf)).

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for this facility and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements [326 IAC 2-7-5(1)]

D.1.5 Testing Requirements [326 IAC 2-7-6(1), (6)][326 IAC 2-1.1-11]

(a) In order to demonstrate compliance with Condition D.1.1, the Permittee shall conduct a performance test of each of the two (2) thermal oxidizers controlling char furnaces 1, 2, 3, and 4 utilizing methods as approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

(b) In order to demonstrate compliance with Condition D.1.2, not later than 180 days of the end of the month in which it is determined that VOC emissions equal or exceed 1.75 tons for any twelve (12) consecutive month period for any one (1) thermal oxidizer, the Permittee shall perform inlet and outlet HAP testing on the two (2) thermal oxidizers controlling emissions from the char furnaces 1, 2, 3, and 4 (Step #1). Testing shall be done utilizing Method 18 or other methods approved by the Commissioner, for the HAP at the source that has the lowest destruction efficiency, as estimated by the manufacturer and approved by IDEM or using an estimation method approved by IDEM. If the VOC emissions equal or exceed 1.75 tons for any one (1) thermal oxidizer for any twelve (12) consecutive month period more than once in a period of 4.5 years, then a subsequent test shall be conducted not later than 5 years from the date of the last valid compliance demonstration (Step #2). If not later than 4.5 years after the second valid compliance demonstration the VOC emissions do not equal or exceed 1.75 tons for any one (1) thermal oxidizer for any twelve (12) consecutive month period, then the Permittee is not required to repeat inlet and outlet HAP testing until the VOC emissions equal or exceed 1.75 tons for any twelve (12) consecutive month period at which time the Permittee shall repeat Step #1. If not later than 4.5 years after the second valid compliance demonstration the VOC emissions equal or exceed 1.75 tons for any one (1) thermal oxidizer for any twelve (12) consecutive month period, then the Permittee shall repeat Step #2. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

D.1.6 Volatile Organic Compounds (VOC) and HAPs

The Permittee shall operate the thermal oxidizers at all times that process related emissions are being vented from the char furnaces to the thermal oxidizers in order to achieve compliance with Conditions D.1.1 and D.1.2. In addition, the char furnaces shall be closed during operation and not re-opened until the batch cycle is complete in order to ensure one hundred percent (100%) capture.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

D.1.7 Thermal Oxidizer Temperature

(a) A continuous monitoring system shall be operated on the two (2) thermal oxidizers for measuring operating temperature. For the purposes of this condition, continuous means no less often than once per fifteen (15) minutes. The temperature monitoring system shall be operated when the oxidizers are operating and the output of this system shall be recorded as a rolling three (3) hour average.

(b) The Permittee shall determine the three (3) hour average temperature from the most recent valid approved stack test that demonstrates compliance with limits in Conditions D.1.1 and D.1.2.

(c) On and after the date the stack test results are available, the Permittee shall operate each thermal oxidizer at or above the three (3) hour average temperature as observed during the most recent compliant stack test. If the three (3) hour average temperature drops below that temperature observed during the compliant stack test, the Permittee shall take reasonable response step(s). Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A temperature 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.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.1.8 Record Keeping Requirements

(a) To document the compliance status with Conditions D.1.1 and D.1.2, the Permittee shall maintain the continuous temperature records (on a three (3) hour rolling average basis) for the two (2) thermal oxidizers and the rolling three (3) hour average temperature used to demonstrate compliance during the most recent compliance stack test. The Permittee shall include in its continuous record when a temperature reading is not taken and the reason for the lack of a temperature reading, (e.g. the process did not operate that day, or the monitoring device was not functional).

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

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(14)]: CVD Units (1-27)

(b) One (1) Chemical Vapor Deposition (CVD) unit, also known as carbon vapor deposition unit, identified as CVD-1, constructed in 1978, having an estimated batch capacity of 2,400 pounds (initial weight) of brakes and a nominal total reactant gas flow rate of 360 scf per soak hour. One (1) enclosed flare, controlling the soak phase VOC emissions from CVD-1, with a rated capacity of 0.9 MMBtu per hour, natural gas combustion, and exhausting through stack S-FL-1.

(c) Twenty-six (26) Chemical Vapor Deposition (CVD) units, also known as carbon vapor deposition units, identified as CVD-2 through CVD-27, with each unit having an estimated batch capacity of 8,800 pounds (initial weight) of brakes for random fiber process or 5,300 pounds (initial weight) of brakes for non-woven process. Each CVD has a nominal total reactant gas flow of 2,000 scf per soak hour for random fiber process or a nominal total reactant gas flow of 4,200 scf per soak hour for non-woven fiber process. Construction dates are as follows: CVD 2, 1978; CVD 3, 1985; CVD 4, 1988; CVD 5, 1989; CVDs 6 and 7, 1990; CVDs 8 and 9, 1991; CVDs 10 and 11, 1992; CVDs 12 and 13, 1993; CVDs 14 through 21, 1995-2000; CVDs 22 and 23, 2000; CVDs 24 and 25, (approved in 2006 for construction); CVDs 26 and 27 (approved in 2012 for construction). Twenty-six (26) enclosed flares, controlling the soak phase VOC emissions from CVD units 2-27, each having a rated capacity of 5.5 MMBtu per hour, natural gas combustion, and exhausting through stacks S-FL-2 through S-FL-27, respectively.

(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 2-7-5(1)]

D.2.1 BACT Condition [326 IAC 8-1-6][326 IAC 2-3]

Pursuant to 326 IAC 8-1-6 (BACT) and in order to render the requirements of 326 IAC 2-3 (Emission Offset) not applicable, the Permittee shall comply with the following:

(a) Pursuant to SSM 141-13853-00172, issued on September 7, 2001, enclosed flares have been determined as BACT for control of the VOC emissions from CVD units 1-21 and shall achieve an overall control efficiency of 98% with a maximum VOC emission rate of 0.23 pounds of VOC per million British thermal units (MMBtu) of process gas combusted by the flares.

(b) Pursuant to SSM 141-11511-00172, issued on March 8, 2000, an enclosed flare has been determined as BACT for control of the VOC emissions from the CVD units 22-23 and shall achieve an overall destruction efficiency of ninety-eight percent (98%).

(c) Pursuant to SSM 141-22378-000172, issued on April 21, 2006, BACT for the two (2) CVD units, CVD-24 and CVD-25, has been determined to be the use of an enclosed flare at an overall control efficiency of no less than ninety-eight percent (98%).

(d) Pursuant to SSM 141-22378-000172, issued on April 21, 2006, the VOC emission rate from each of the two (2) CVD units, CVD-24 and CVD-25, shall be limited to 0.343 pounds per hour, including combustion emissions from the flare.

(f) Pursuant to SSM 141-31500-00172, issued in 2012, the VOC emissions from each of the two (2) CVD units, CVD-26 and CVD-27, SAF shall be controlled by an enclosed flare at an overall control efficiency of no less than ninety-eight percent (98%).

(g) Pursuant to SSM 141-31500-00172, issued in 2012, the volatile organic compound emissions from each of the two CVD units, CVD-26 and CVD-27, shall not exceed 0.31 pounds per hour, including combustion emissions from the flare.

D.2.2 PSD Minor Limit [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 not applicable, the Permittee shall comply with the following:

The carbon monoxide emissions from the enclosed flares for CVD units 1 through 21, shall not exceed 1.62 pounds per hour, each. The CVDs soak phase operations for the non-woven process shall not exceed 121,800 soak hours per year for the non-woven process in CVDs 1-21, combined.

Compliance with the above limits shall limit the carbon monoxide emissions from the CVDs 1-21 to less than 100 tons per twelve (12) consecutive month period and render the requirements of 326 IAC 2-2 not applicable.

D.2.3 HAP Minor Limit [40 CFR 63.2]

The Permittee shall comply with the following:

(a) Single HAP emissions from each CVD unit flare shall not exceed 0.19 pounds per hour.

(b) Total HAP emissions from each CVD unit flare shall not exceed 0.19 pounds per hour.

Compliance with the above limits, combined with the limits in Condition D.1.2 and the potential to emit single and total HAPs from all other units at the source, limits the source-wide PTE of a single HAP and a combination of HAPs to less than ten (10) and twenty-five (25) tons per twelve (12) consecutive month period, respectively.

D.2.4 Particulate Matter Limitations [326 IAC 6.5-1]

Pursuant to 326 IAC 6.5-1 (Particulate Matter Limitations Except for Lake County), the particulate matter (PM) from each of the CVD units shall not exceed seven-hundredths (0.07) gram per dry standard cubic meter (g/dscm) (three-hundredths (0.03) grain per dry standard cubic foot (dscf)).

D.2.5 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for this facility and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements [326 IAC 2-7-5(1)]

D.2.6 Testing Requirements [326 IAC 2-7-6(1), (6)][326 IAC 2-1.1-11]

(a) In order to demonstrate compliance with Conditions D.2.1 and D.2.2, the Permittee shall perform VOC and CO testing on five (5) of the CVD unit flares for overall control efficiency utilizing methods as approved by the Commissioner. A total of five (5) of the twenty-seven (27) CVD units shall be tested at least once every five years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

(b) Not later than sixty (60) days of achieving maximum capacity, but no later than one hundred eighty (180) days of start-up of CVD-26 or CVD-27, whichever occurs first, in order to demonstrate compliance with Condition D.2.1, the Permittee shall perform a compliance stack test on one (1) of the CVD unit flares, controlling CVD-26 or CVD-27,

for overall control efficiency utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with the provisions of 326 IAC (Source Sampling Procedures). Condition C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

(c) In order to demonstrate compliance with Condition D.2.3, not later than 180 days of the end of the month in which it is determined that VOC emissions equal or exceed 0.83 tons for any twelve (12) consecutive month period for any one (1) CVD unit flare, the Permittee shall perform inlet and outlet HAP testing on all CVD unit flares whose emissions equaled or exceeded 0.83 tons for any twelve consecutive month period (Step #1). Testing shall be done utilizing Method 18 or other methods approved by the Commissioner, for the HAP at the source that has the lowest destruction efficiency, as estimated by the manufacturer and approved by IDEM or using an estimation method approved by IDEM. If the VOC emissions equal or exceed 0.83 tons for any one (1) CVD unit flare for any twelve (12) consecutive month period more than once in a period of 4.5 years, then a subsequent test on five (5) different CVD unit flares shall be conducted not later than 5 years from the date of the last valid compliance demonstration (Step #2). If not later than 4.5 years after the second valid compliance demonstration the VOC emissions do not equal or exceed 0.83 tons for any one (1) CVD unit flare for any twelve (12) consecutive month period, then the Permittee is not required to repeat inlet and outlet HAP testing until the VOC emissions equal or exceed 0.83 tons for any twelve (12) consecutive month period at which time the Permittee shall repeat Step #1. If not later than 4.5 years after the second valid compliance demonstration the VOC emissions equal or exceed 0.83 tons for any one (1) CVD unit flare for any twelve (12) consecutive month period, then the Permittee shall repeat Step #2. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

D.2.7 VOC and HAP Compliance Determination

(a) All exhaust process gas from the soak phase of each CVD unit's batch cycle shall be directed through the enclosed flares for VOC and HAP control.

(b) Each enclosed flare shall operate at all times that the corresponding CVD unit is operating in the soak phase.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

D.2.8 Monitoring

(a) For Conditions D.2.1 and D.2.3:

(1) A thermocouple, UV flame detector or equivalent device shall be installed and operated to monitor the presence of a pilot flame for each flare and to sound an alarm when the pilot flame is not detected during the soak phase of the CVD.

(2) A continuous monitoring system shall be operated on each flare for measuring operating temperature whenever the CVD is in the soak phase. For the purpose of this condition, continuous means no less often than once per fifteen (15) minutes. The output of this system shall be recorded as a three (3) hour rolling average.

(3) The Permittee shall determine the three (3) hour average temperature for compliance monitoring from the most recent valid stack test that demonstrates compliance with limits in Conditions D.2.1 and D.2.3.

(4) On and after the date the stack test results are available, the Permittee shall operate each flare at or above the three (3) hour average temperature as observed during the compliant stack test. If the three (3) hour average temperature drops below that temperature observed during the compliant stack test, the Permittee shall take reasonable response step(s). Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A temperature 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.

(5) Each enclosed flare shall have a pilot flame present and be operating at all times that its respective CVD unit is operating in the soak phase.

The absence of a pilot flame during the soak phase of a CVD unit or the failure to direct all exhaust process gas from the soak phase of a CVD unit through an enclosed flare shall not be a deviation from this permit provided the Permittee takes reasonable response steps whenever a pilot flame is not detected, a valve malfunction, high exhaust gas pressure is detected, the flare velocity seal is not detected, the flare temperature is too high or too low or other conditions cause potential safety risks. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.2.9 Record Keeping Requirements

(a) To document the compliance status with Condition**s** D.2.1, D.2.2, and D.2.3, the Permittee shall maintain the continuous temperature records (on a 3-hour average basis) for the flares and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test. The Permittee shall include in its continuous record when a temperature reading is not taken and the reason for the lack of a temperature reading, (e.g. the process did not operate that day, or the monitoring device was not functional).

(b) To document the compliance status with Condition D.2.2 - PSD Minor Limit, the Permittee shall record the hours per month of soak phase operation.

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

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(14)]: Insignificant Activities: Paint Booths

(a) Two (2) Binks Paint Booths, identified as BPB-1 & BPB-2, installed in 1987, using HVLP spray guns, and controlled by 3-stage HEPA filters, and exhausting through stacks SBPB-1 & SBPB-2, and an electric powered IR curing oven. [40 CFR 63, Subpart GG][326 IAC 6.5-1]

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

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 Particulate Matter Limitations [326 IAC 6.5-1]

Pursuant to 326 IAC 6.5-1 (Particulate Matter Limitations Except for Lake County), the particulate (PM) from the two (2) paint booths shall each be limited to 0.03 grains per dry standard cubic foot of exhaust air.

D.3.2 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for this facility and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements [326 IAC 2-7-5(1)]

D.3.3 Particulate Control [326 IAC 2-7-6(6)]

In order to comply with Condition D.3.1, particulate from the surface coating shall be controlled by dry particulate filters and the Permittee shall operate the control device at all times the two (2) paint booths are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

D.3.4 Parametric Monitoring

As approved by the U.S. EPA on June 1, 2004, pursuant to 40 CFR 63.751(e)(5), the Permittee shall calibrate, maintain, and operate an automated dynamic pressure monitoring system to monitor the dynamic pressure in the exhaust duct work after the filter system for the paint booths. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.3.5 Record Keeping Requirements

(a) To document the compliance status with Condition D.3.4, the Permittee shall maintain the daily record of the strip charts from the automated dynamic pressure monitoring system. The Permittee shall include in its daily record when a strip chart is not available and the reason for the lack of a strip chart (e.g. the process did not operate that day).

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

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(14)]: Insignificant Activities and Trivial Activities

(b) Boilers using natural gas with heat input equal to or less than ten million (10,000,000) British thermal units per hour. [326 IAC 6.5-1]

(1) Seven (7) natural gas-fired boilers with a total heat input capacity of 18.254 MMBtu/hr identified as:

(A) B-1, constructed in 1986, with a maximum rated capacity of 0.9 MMBtu/hr.

(B) B-2, constructed in 1986, with a maximum rated capacity of 0.75 MMBtu/hr.

(C) B-22, constructed in 1991, with a maximum rated capacity of 1.5 MMBtu/hr.

(D) B-21, constructed in 1991, with a maximum rated capacity of 1.5 MMBtu/hr.

(E) B-32, constructed in 1986, with a maximum rated capacity of 1.05 MMBtu/hr.

(F) B2 East, approved for construction in 1994, with a maximum capacity of 6.277 MMBtu/hr.

(G) B1 West, approved for construction in 1994, with a maximum rated capacity of 6.277 MMBtu/hr.

(c) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-2][326 IAC 8-3-8]

(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 2-7-5(1)]

D.4.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2][326 IAC 8-3-8]

(a) The source shall ensure that the following control equipment and operating requirements are met:

(1) Equip the degreaser with a cover.

(2) Equip the degreaser with a device for draining cleaned parts.

(3) Close the degreaser cover whenever parts are not being handled in the degreaser.

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

(5) Provide a permanent, conspicuous label that lists the operating requirements in subdivisions (3), (4), (6), and (7).

(6) Store waste solvent only in closed containers.

(7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

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

(9) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):

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

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

(C) A refrigerated chiller.

(D) Carbon adsorption

(E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.

(10) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated

(11) If used, solvent spray:

(A) Must be a solid fluid stream; and

(B) Shall be applied at a pressure that does not cause excessive splashing.

(b) On and after January 15, 2015, the source shall meet the following material requirements:

(1) No person shall operate a cold cleaner degreaser with a solvent that has a VOC composite partial vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

D.4.2 Particulate Matter Limitations [326 IAC 6.5-1]

Pursuant to 326 IAC 6.5-1-2(b) (Particulate Matter Limitations Except for Lake County), the particulate (PM) from the seven (7) natural gas-fired boilers shall be limited to 0.01 grains per dry standard cubic foot of exhaust air.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.4.3 Record Keeping Requirements [326 IAC 8-3-8]

(a) On and after January 15, 2015, the source shall maintain the following records for each degreaser solvent purchase:

(1) The name and address of the solvent supplier.

(2) The date of purchase (or invoice/bill date of contract servicer indicating service date).

(3) The type of solvent purchased.

(4) The total volume of the solvent purchased

(5) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(b) All records required by section (a) shall be:

(1) Retained on-site or accessible electronically from the site for the most recent three (3) year period, and

(2) Reasonably accessible for an additional two (2) year period.

SECTION D.5 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(14)]: Particulate Facilities Insignificant Activities

(d) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors or electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6.5-1]

(1) Fifteen (15) Friction Material grinding and sanding units, controlled by various fabric filter systems. Unit names and ID#s include:

(A) Five (5) SNC 86 Makino Machines, identified as SNC86-1, SNC86-2, SNC86-3, SNC86-4, and SNC86-5, and exhausting through stacks SV-SNC86-1, SV-SNC86-2, SV-SNC86-3, SV-SNC86-4, and SV-SNC86-5.

(B) One (1) A88 Makino Machine, identified as A88-1, and exhausting through stack SV-A88-1.

(C) One (1) Vertical Okuma Machine, identified as VO-1, and exhausting through stack SV-VO-1.

(D) One (1) Horizontal Okuma Machine, identified as HO-1, and exhausting through stacks SV-HO-1 and SV-HO-2.

(E) One (1) Pratt & Whitney Grinder, identified as P&WG-1, and exhausting through stack SV-P&WG-1

(F) One (1) Gardner Grinder, identified as GG-1, and exhausting through stack SV-GG-1.

(G) One (1) TimeSaver Grinder, identified as TSG-1, and exhausting through stack SV-TSG-1 and SV-TSG-2.

(H) One (1) AEM Grinder, identified as AEMG-1, and exhausting through stack SV-AEMG-1.

(I) One (1) Detroit Grinder, identified as DEG-1, installed in 2012, and exhausting out stack SV-DEG-1.

(J) Two (2) De-Rivet/Grind Stations, each constructed in 2010, identified as De-Rivet/Grind Station #DRG-1E and #DRG-2W, controlled by two (2) Torit dust collectors.

(2) One (1) Horizontal Okuma carbon machining unit, identified as HO-2, approved for construction in 2010, with a maximum throughput of 58 pounds per hour, using a dust collector identified as DC-HO-2 as control, and exhausting through SV-CM-13.

(3) One (1) brake rework plastic bead blasting unit, approved in 2011 for construction, identified as BR-1, with a maximum throughput of 270 pounds of sand per hour, using a dust collector identified as DC-BR-1 as control, and exhausting to stack SV-BR-1.

(4) One (1) Okuma #17 Brass Dry Machining operation, constructed in 2007, identified as BM-1, using dust collectors as control, and exhausting inside.

(5) One (1) Makino #15 Brass Dry Machining operation, constructed in 1990, identified as BM-2, using dust collectors as control, and exhausting inside.

(6) One (1) Machine Shop located in Plant 25, constructed in 2009, consisting of a drill press, band saws, sanders, and grinders, controlled by a Dust Hog, and exhausting through Stack SV-P25.

(e) The following emission units or activities with a potential uncontrolled emission rate for particulate matter with an aerometric diameter less than or equal to ten (10) microns (PM10) of less than or equal to five (5) pounds per hour or twenty-five (25) pounds per day. [326 IAC 2-7-1(21)(B)] [326 IAC 6.5-1]

(1) One (1) die cutter operation, identified as DCR, with a maximum capacity of 60 pounds per hour, installed in 1991. The die cutter machine is controlled by a fabric filter dust collector, identified as DC-1, and exhausts through stack S-1.

(2) One (1) El Dynamometer, identified as EID, installed in 1989, controlled by two (2) fabric filter dust collectors, identified as DC-305 and DC-307, and exhausting through stacks S-305 and S-307.

(3) Nine (9) Burr Benches each controlled by a dust collector, and venting inside the building. They are identified as the following:

Torque Tube Burr Bench, identified as TTBB-1
NW Burr Bench Cell, identified as NWBBC-1
Outboard Cell Burr Bench, identified as OCBB-1
NDT Burr Bench, identified as NDTBB-1
Piston Housing Cell Burr Bench, identified as PHCBB-1
Torque Tube Rough Deburr, identified as TTRDB-1
Inboard Deburr Bench, identified as IDB-1, constructed June 2010
Deburr Machine #8, identified as DM-8, constructed December 2009
Magnahelic Room Burr Bench, identified as MRBB-1, constructed in 2002

(4) One (1) Mattison Grinder, identified as MG-1, with a capacity of 230 pounds per hour controlled by dust collector DC-MG-1, and venting inside the building.

(5) One (1) “Shaft” Brake Test Dynamometer identified as SBD-1, installed in 1978, this shaft dynamometer is vented directly to the atmosphere through two (2) vents in the roof to remove heat and any potential emissions. Particulate emissions were estimated at 50 pounds per year for each vent.

(6) One (1) Wheelabrator plastic bead blasting operation, identified as WPBB-1, with a maximum throughput less than 100 pounds per hour of plastic media blast, controlled by a rotoclone, and exhausting outside the building.

(7) One (1) Tumble Blast abrasive blasting unit, identified as TB-1, unit controlled by a dust collector, DC-TB-1, venting inside the building.

(8) Three (3) Rotor Crew Mills, identified as #33, #37 and #38, uncontrolled and exhausting indoors.

(9) Four (4) Shot Peening units including:

(A) One (1) PTI Shot Peener, identified as PTI Peen-1, installed in 2009, controlled by DC-PTI-1, and is vented inside the building.

(B) One (1) Blast Works abrasive blasting unit, identified as BW-1, controlled by dust collector DC-BW-1, and vented inside the building.

(C) One (1) North Shot Peening unit, identified as NSP-1, controlled by dust collector DC-NSP-1, and vented inside the building.

(D) One (1) South Shot Peening unit, identified as SSP-1, controlled by dust collector DC-SSP-1, and vented inside the building.

(10) Three (3) uncontrolled brake dynamometers

(A) One (1) 120 MI Top Side Brake Dyno, identified as TSBD-1, installed in 1943, uncontrolled.

(B) One (1) Adamson 84 Brake Dyno, identified as A84-1, installed in 1943, uncontrolled.

(C) One (1) FPTM Shaft Brake Dyno, identified as FPTM-1, installed in 1992, uncontrolled.

(11) Two (2) uncontrolled tire dynamometers.

(A) One (1) 96 Roll Dyno, identified as 96RD-1, installed in 1943, uncontrolled.

(B) One (1) 120 Roll Dyno, identified as 120RD-1, installed in 1950, uncontrolled.

(12) One (1) Scatblast plastic bead blaster, identified as SPBB-1, installed in 1998, controlled by a cartridge filter, exhausting to DC-SPBB-1, and venting indoors.

(13) One (1) MI-2 Brake Dyno, identified as MI-2, installed in 1998, uncontrolled.

(14) One (1) 150K Roll Dyno, identified as 150KRD-1, installed in 1994, uncontrolled.

(15) One (1) Trinco Dry Blast abrasive blasting unit, identified as TDB-1, installed in 1993, unit controlled by a dust collector, DC-TDB-1, venting inside the building.

(16) One (1) Vapor Blast Model 2820 abrasive blasting unit, identified as VB2820-1, installed in 1988, unit controlled by a dust collector, DC-VB2820-1, venting inside the building.

(17) One (1) cold jet booth, identified as CJ-1, approved in 2013 for construction, for cleaning the chemical vapor deposition units, with a maximum capacity of 26 cleaning cycles per year, using a cartridge dust collector as control, and exhausting to stack DC-CJ-1.

(18) One (1) Anti-Oxidation spray booth, identified as AO, permitted in 2014, using HVLP spray technology and controlled by dry filters, and exhausting through Stack SB-AO.

(i) Noncontact cooling tower systems with either natural draft cooling towers not regulated under a NESHAP, or forced and induced draft cooling tower systems not regulated under a NESHAP. [326 IAC 6.5-1-2]

(j) Pursuant to 326 IAC 2-7-1(41)(H), trivial activities performed using hand-held equipment, including: application of hot melt adhesives with no VOC in the adhesive formulation; buffing; carving; cutting, excluding cutting torches; drilling; grinding; machining wood, metal, or plastic; polishing; routing; sanding; sawing; surface grinding; and turning wood, metal, or plastic [326 IAC 6.5-1-2].

(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 2-7-5(1)]

D.5.1 PSD Minor Limitations [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the Permittee shall comply with the following:

Unit	PM Limit (lb/hr)	PM_{10} Limit (lb/hr)	$PM_{2.5}$ Limit (lb/hr)
SNC86-1	1.03	1.03	1.03
SNC86-2	1.03	1.03	1.03
SNC86-3	1.03	1.03	1.03
SNC86-4	1.03	1.03	1.03
SNC86-5	1.03	1.03	1.03
A88-1	1.03	1.03	1.03
VO-1	1.03	1.03	1.03
HO-1	1.03	1.03	1.03
P&WG-1	1.03	1.03	1.03
GG-1	1.03	1.03	1.03
TSG-1	1.03	1.03	1.03
AEMG-1	1.03	1.03	1.03
HO-2	1.03	1.03	1.03
BM-1	0.51	0.51	0.51
BM-2	0.41	0.41	0.41
DEG-1	1.03	1.03	1.03

Compliance with the above limits, combined with the potential to emit $PM/PM_{10}/PM_{2.5}$ from other emission units at the source, shall limit the $PM/PM_{10}/PM_{2.5}$ from the entire source to less than 250 tons per twelve (12) consecutive month period, each and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.5.2 Particulate Matter Limitations [326 IAC 6.5-1]

Pursuant to 326 IAC 6.5-1 (Particulate Matter Limitations Except for Lake County), the particulate (PM) from each of the emission units identified above shall each be limited to 0.03 grains per dry standard cubic foot of exhaust air.

D.5.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for this facility and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements [326 IAC 2-7-5(1)]

D.5.4 Testing Requirements [326 IAC 2-7-6(1), (6)][326 IAC 2-1.1-11]

Not later than one hundred eighty (180) days after issuance of T 141-26745-00172, in order to demonstrate compliance with Condition D.5.1, the Permittee shall perform PM/PM10/PM2.5 testing for the TimeSaver Grinder (TSG-1) utilizing methods as approved by the Commissioner at

least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM10 and PM2.5 includes filterable and condensable PM10 and PM2.5.

D.5.5 Particulate Control [326 IAC 2-7-6(6)]

(a) In order to comply with Conditions D.5.1 and D.5.2, the particulate control systems identified above shall be in operation and control emissions from the various controlled facilities at all times that these emission units are 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 2-7-6(1)] [326 IAC 2-7-5(1)]

D.5.6 Visible Emissions Notations [40 CFR 64]

(a) Daily visible emission notations of the TimeSaver Grinder (TSG-1) unit stack exhaust stacks SV-TSG-1 and SV-TSG-2 shall be performed during normal daylight operations. 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 a 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. Failure to take response steps shall be considered a deviation from this permit.

D.5.7 Visible Emissions Notations

(a) Daily visible emission notations of the friction material grinding and sanding and carbon machining units stack exhaust stacks SV-SNC86-1, SV-SNC86-2, SV-SNC86-3, SV-SNC86-4, SV-SNC86-5, SV-A88-1, SV-VO-1, SV-HO-1, SV-HO-2, SV-P&WG-1, SV-GG-1, SV-AEMG-1, and SV-DEG-1 shall be performed during normal daylight operations. 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 a 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. Failure to take response steps shall be considered a deviation from this permit.

D.5.8 Parametric Monitoring

The Permittee shall record the pressure drop across the dust collector used in conjunction with the Okuma #17 Brass Dry Machining operation, at least once per day when the machining operation is in operation. When for any one reading, the pressure drop across a baghouse is outside the normal range, the Permittee shall take a reasonable response. The normal range for this unit is a pressure drop between 0.2 and 6.4 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. 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 replaced at least once every six (6) months.

D.5.9 Dust Collector Inspections

An inspection shall be performed each calendar quarter of the dust collector controlling the Makino #15 Brass Dry Machining operation. Any defective cartridges shall be replaced.

D.5.10 Broken or Failed Bag Detection

(a) For a single compartment baghouses controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. 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 B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the 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 B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.5.11 Record Keeping Requirements

(a) To document the compliance status with Conditions D.5.6 and D.5.7, the Permittee shall maintain daily records of the visible emission notations of the friction material grinding and sanding units 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, (e.g. the process did not operate that day).

(b) To document the compliance status with Condition D.5.8, the Permittee shall maintain daily records of the pressure drop across the dust collector controlling the Okuma #17 Brass Dry Machining operation. 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, (e.g. the process did not operate that day).

(c) To document the compliance status with Condition D.5.9, the Permittee shall maintain records of the results of the inspections required under Condition D.5.9.

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

SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) One (1) soil vapor extraction system, identified as SVE SCB, approved in 2016 for construction, controlled by a resin adsorption control system consisting of 3 vapor-phase resin adsorbent vessels, identified as V-101, V-102, and V-103, exhausting to stack SVE SCB EP-1, and consisting of the following:

(1) Fifteen (15) soil vapor extraction wells, identified as SVE wells, with a maximum system flow rate of 425 cfm.

(2) One (1) condenser.

(3) One (1) horizontal VOC liquid storage tank, identified as SVE storage tank, with a maximum capacity of 1,500 gallons and a maximum throughput of 39,000 gallons per year.

(4) One (1) truck loading operation, identified as SVE truck loading operation, with a maximum throughput of 39,000 gallons per year. This unit is not controlled by the resin adsorption system.

(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 2-7-5(1)]

D.6.1 VOC BACT [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6, the Permittee shall comply with the following:

(a) The VOC emissions from the vapor extraction wells (SVE wells), shall be controlled by the resin adsorption system at all times when the system is in operation.

(b) The VOC emissions from the VOC liquid storage tank (SVE storage tank), shall be controlled by the resin adsorption system at all times when the system is in operation.

(c) At least two (2) of the resin adsorbent vessels (V-010, V-102, and V-103) shall be operated in series for VOC control.

(d) The overall VOC control efficiency (including capture efficiency and adsorption efficiency) for the resin adsorption system shall be greater than or equal to ninety-eight percent (98%), as measured by a comparison of the inlet and outlet concentrations to the resin adsorbent system, or the outlet concentration shall be equal to or less than 30 ppmv.

(e) The total VOC emissions from the soil vapor extraction system (SVE SCB) and VOC liquid storage tank combined shall not exceed 0.87 lb/hr.

(f) When loading at the SVE storage tank and/or loading operation, submerged loading shall be used.

(g) VOC emissions from the loading operation shall not exceed 1.75 lb/kgal.

(h) The SVE storage tank shall be white and maintained in good condition.

D.6.2 HAP Minor Limitation [40 CFR 63.1][326 IAC 2-4.1]

To ensure the Permittee meets the definition of an area source under 40 CFR 63.2 and to render the requirements of 326 IAC 2-4.1 not applicable, the Permittee shall comply with the following:

(a) The HAP emissions from the vapor extraction wells (SVE wells) shall be controlled by the resin adsorption system at all times when the system is in operation.

(b) The HAP emissions from the VOC liquid storage tank (SVE storage tank) shall be controlled by the resin adsorption system at all times when the system is in operation.

(c) Total HAP emissions from SVE wells and SVE storage tank combined shall not exceed 1.5 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(d) Total HAP emissions shall be the sum of the following individual HAPs: 1,1-DCA, Ethylidene dichloride (1,1-Dichloroethane), Ethylbenzene, Methylene Chloride, PCE, Toluene, Methyl chloroform (1,1,1-Trichloroethane), Trichloroethylene (TCE), Vinyl Chloride, and Xylene(s).

(e) Methyl chloroform (1,1,1-Trichloroethane) emissions from the SVE wells and SVE storage tank combined shall not exceed 1.50 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(f) Trichloroethylene (TCE) emissions from the SVE wells and SVE storage tank combined shall not exceed 1.50 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these limits, combined with the potential to emit from all other emission units at the source, shall limit the HAP emissions from the entire source to less than ten (10) tons of any single HAP and less than twenty-five (25) tons of total HAPs per twelve (12) consecutive month period, respectively, and the entire source is rendered an area source of HAP Emissions under Section 112 of the Clean Air Act (CAA).

D.6.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for these facilities and their 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 [326 IAC 2-7-5(1)]

D.6.4 VOC and HAP Control

In order to comply with Conditions D.6.1 and D.6.2, the resin adsorption control device shall be in operation and control emissions from the SVE wells and/or storage tank at all times the SVE wells and/or storage tank are in operation.

D.6.5 Testing Requirements [326 IAC 2-1.1-11]

(a) Not later than 60 days after the startup of the soil vapor extraction system (SVE SCB), the Permittee shall perform VOC (including emission rates, capture efficiency and adsorption efficiency) testing of the soil vapor extraction system (SVE SCB) utilizing methods approved by the commissioner at least once every five years from the date of the most recent valid compliance demonstration.

(b) Not later than 60 days after the startup of the soil vapor extraction system (SVE SCB), the Permittee shall perform Total HAP, Methyl chloroform (1,1,1-Trichloroethane) and Trichloroethylene (TCE) testing (including emission rate, capture efficiency, and adsorption efficiency) of the soil vapor extraction system (SVE SCB) utilizing methods approved by the commissioner at least once every five years from the date of the most recent valid compliance demonstration.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

D.6.6 Hazardous Air Pollutants (HAP)

Compliance with the HAP emission limitations in Condition D.6.2 shall be determined as follows:

(a) 1,1,1-TCA (ton/month(i)) = 1,1,1-TCA (lb/hr) x hours month(i) / 2,000 (lb/ton)

(b) TCE (ton/month(i)) = TCE (lb/hr) x hours month(i) / 2,000 (lb/ton)

(c) Total HAPs (ton/month(i)) = HAPs total (lb/hr) x hours month(i) / 2,000 (lb/ton)

Where:

1,1,1-TCA (lb/hr) = The lb/hr as determined during the most recent IDEM approved stack test. A value of 0.36 lb/hr shall be used until the stack test results are available.

TCE (lb/hr) = The lb/hr as determined during the most recent IDEM approved stack test. A value of 0.22 lb/hr shall be used until the stack test results are available.

HAPs total (lb/hr) = Total lb/hr of all HAPs as determined during the most recent IDEM approved stack test. A value of 0.65 lb/hr shall be used until the stack test results are available.

hours month(i) = hours operated in month(i)
In lieu of reporting the actual operating hours for month(i), the Permittee may report the hours in month (i);e.g., June (30 days x 24 hrs/day) = 720 hrs/month.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

D.6.7 Resin Adsorption System Temperature

(a) A daily monitoring system shall be calibrated, maintained, and operated on the resin adsorption control device for measuring operating temperature. From the date of startup until the stack test results are available, the Permittee shall operate the resin adsorption system at or below the 3-hour average temperature of 125°F.

(b) The Permittee shall determine the 3-hour average temperature from the latest valid stack test that demonstrates compliance with limits in Conditions D.6.1 and D.6.2.

(c) On and after the date the stack test results are available, the Permittee shall operate the resin adsorption system at or below the 3-hour average temperature as observed during the latest compliant stack test.

(d) If the daily temperature is greater than the above mentioned 3-hour average temperature, the Permittee shall take a reasonable response. Section C - Response to Excursions or

Exceedances contains the Permittee's obligation with regard to the response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.6.8 Resin Adsorption System Monitoring

(a) The Permittee shall conduct inspections, at least once per week, of the resin adsorption system control system associated with soil vapor extraction system (SVE SCB) identified in Condition D.6.1(c) when SVE SCB is in operation. Inspections shall be made at both the inlet and outlet of the control system or at the outlet only. If the inspection shows that the outlet concentration is greater than the limit in D.6.1(d), the inspections shall be made at both the inlet and outlet of the control system. The inspections shall be for the detection of VOC by using a portable analyzer or by laboratory analysis. If the inspections indicate that the outlet concentration of VOC is greater than or equal to two percent (2%) of the inlet concentration of VOC and that the outlet concentration is greater than the limit in D.6.1(d), then the Permittee shall take a reasonable response.

Section C - Response to Excursions or Exceedances contains the Permittee's obligations with regard to the reasonable response steps required by this condition. A 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.

After the first four weeks of operation, if each of the four weekly inspections indicate that the outlet concentration of VOC is less than or equal to two percent (2%) of the inlet concentration of VOC or that the outlet concentration is less than the limit in D.6.1(d) and the VOC concentrations are trending downward, these inspections may be performed monthly thereafter.

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

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.6.9 Record Keeping Requirements

(a) To document the compliance status with Condition D.6.7, the Permittee shall maintain daily temperature records for the resin adsorption control device and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.

(b) To document the compliance status with Condition D.6.8, the Permittee shall maintain records of the inspections required under Condition D.6.8. The Permittee shall also maintain the following records:

(1) Dates and results of the inspections required under Condition D.6.8(a)

(2) The normal resin bed changeout/regeneration frequency and any supporting information, including, but not limited to, performance test data, monitoring data, the resin bed adsorption capacity, and pollutant loading;

(3) Resin adsorber monitoring data, pollutant breakthrough data; and

(4) Date(s) of resin bed changeout/replacement/regeneration.

(c) To document the compliance status with Condition D.6.2 and D.6.6, the Permittee shall maintain records of the following:

(1) The lb/hr value from the IDEM approved stack test results for Total HAPs.
(2) The lb/hr value from the IDEM approved stack test results for 1,1,1-TCA.
(3) The lb/hr value from the IDEM approved stack test results for TCE.
(4) Monthly records of the HAPs total emissions.
(5) Monthly records of the 1,1,1-TCA emissions.
(6) Monthly records of the TCE emissions.

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

D.6.10 Reporting Requirements

A quarterly report and a quarterly summary of the information to document the compliance status with D.6.2 shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1(35).

SECTION E.1 NESHAP

Facility Description [326 IAC 2-7-5(14)]

(a) Two (2) Binks Paint Booths, identified as BPB-1 & BPB-2, installed in 1987, using HVLP spray guns, and controlled by 3-stage HEPA filters, and exhausting through stacks SBPB-1 & SBPB-2, and an electric powered IR curing oven. [40 CFR 63, Subpart GG][326 IAC 6.5-1]

Under NESHAP, Subpart GG, these units are considered to be 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 (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.1.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1][40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.1, 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, for the emission unit(s) listed above, except as otherwise specified in 40 CFR 63 Subpart GG.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports 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

E.1.2 Aerospace Manufacturing and Rework Facilities NESHAP [40 CFR Part 63, Subpart GG] [326 IAC 20-15]

(a) The Permittee shall comply with the following provisions of 40 CFR 63, Subpart GG (included as Attachment A to the operating permit), which are incorporated by reference as 326 IAC 20-15, for the emission unit(s) listed above:

(1) 40 CFR 63.741
(2) 40 CFR 63.742
(3) 40 CFR 63.743(a), (d)
(4) 40 CFR 63.744
(5) 40 CFR 63.745(a), (b), (c), (e), (f), (g)
(6) 40 CFR 63.748
(7) 40 CFR 63.749(a), (b), (c), (d), (e), (f), (i)
(8) 40 CFR 63.750(a), (b), (c), (d), (e), (f), (i), (o)
(9) 40 CFR 63.751(a), (c)(1), (e), (f)
(10) 40 CFR 63.752(a), (b), (c), (d)
(11) 40 CFR 63.753(a), (b), (c)
(10) 40 CFR 63, Subpart GG, Table 1;

(b) On June 1, 2004, pursuant to 40 CFR 63.751(e)(5), the U.S. EPA approved the Permittee's use of an automated dynamic pressure monitoring system, which monitors and records dynamic pressure in the exhaust duct work after the filter system for the paint booths, in lieu of monitoring and recording the pressure drop across the dry filter system. The Permittee may use an automated dynamic pressure monitoring system to comply with 40 CFR 63.745(g)(iv), 40 CFR 63.745(g)(3), 40 CFR 63.751(c)(1), 40 CFR 63.749(e), 40 CFR 63.752(d), and 40 CFR 63.753(c).

SECTION E.2 NESHAP

Facility Description [326 IAC 2-7-5(14)]

(h) Activities associated with emergencies, including emergency generators as follows:

(1) One emergency (1) diesel-fired generator, identified as DG-1, with a maximum capacity of 535 bhp, installed in 2003.

Under NESHAP, Subpart ZZZZ, this unit is considered an existing affected facility.

(2) One (1) emergency natural gas-fired generator, with a maximum capacity of 40 hp, installed in 1977.

Under NESHAP, Subpart ZZZZ, this unit is considered an existing affected facility.

(3) One (1) emergency natural gas-fired generator, with a maximum capacity of 215 hp, installed in 2004.

Under NESHAP, Subpart ZZZZ, this unit is considered an existing affected facility.

(4) One (1) emergency natural gas-fired generator, identified as EMGEN-1, with a maximum capacity of 60 hp, manufactured and installed in 2012.

Under NSPS, Subpart JJJJ, this unit is considered an affected facility.
Under NESHAP, Subpart ZZZZ, this unit is considered a new affected facility.

(5) One (1) emergency natural gas-fired generator, identified as EMGEN-2, with a maximum capacity of 48 hp, manufactured and installed in 2014.

Under NSPS, Subpart JJJJ, this unit is considered an affected facility.
Under NESHAP, Subpart ZZZZ, this unit is considered a new 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 (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.2.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1][40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.1, 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, for the emission unit(s) listed above, except as otherwise specified in 40 CFR 63 Subpart ZZZZ.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports 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

E.2.2 Stationary Reciprocating Internal Combustion Engines NESHAP [40 CFR Part 63, Subpart ZZZZ] [326 IAC 20-82]

The Permittee shall comply with the following provisions of 40 CFR 63, Subpart ZZZZ (included as Attachment B to the operating permit), which are incorporated by reference as 326 IAC 20-82, for the emission unit(s) listed above:

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585 (a), (c), (d)
(3) 40 CFR 63.6590 (a)(1)(iii)
(4) 40 CFR 63.6595 (a)(1), (c)
(5) 40 CFR 63.6603 (a)
(6) 40 CFR 63.6605
(7) 40 CFR 63.6625 (e), (f), (h), (i), (j)
(8) 40 CFR 63.6640
(9) 40 CFR 63.6655 except (c)
(10) 40 CFR 63.6665
(11) 40 CFR 63.6670
(12) 40 CFR 63.6670
(13) 40 CFR 63.6675
(14) Table 2d
(15) Table 6
(16) Table 8

E.2.3 Stationary Reciprocating Internal Combustion Engines NESHAP [40 CFR Part 63, Subpart ZZZZ] [326 IAC 20-82]

The Permittee shall comply with the following provisions of 40 CFR 63, Subpart ZZZZ (included as Attachment B to the operating permit), which are incorporated by reference as 326 IAC 20-82, for the emission unit(s) listed above:

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585
(3) 40 CFR 63.6590(a)(2)(iii) and (c)(1)
(4) 40 CFR 63.6595(a)(7)
(5) 40 CFR 63.6665
(6) 40 CFR 63.6670
(7) 40 CFR 63.6675

SECTION E.3 NESHAP

Facility Description [326 IAC 2-7-5(14)]

(f) A petroleum fuel other than gasoline dispensing facility, having a storage tank capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less, consisting of the following: [40 CFR 63, Subpart CCCCCC]

(1) One (1) double-walled 500 gallon capacity gasoline tank, installed in 2006, identified as GAS-1.

Under NESHAP, Subpart CCCCCC, these units are considered to be 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 (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.3.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1][40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.1, 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, for the emission unit(s) listed above, except as otherwise specified in 40 CFR 63 Subpart CCCCCC.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

E.3.2 Source Category: Gasoline Dispensing Facilities NESHAP [40 CFR Part 63, Subpart CCCCCC]

The Permittee shall comply with the following provisions of 40 CFR 63, Subpart CCCCCC (included as Attachment C to the operating permit), for the emission unit(s) listed above:

(1) 40 CFR 63.11110
(2) 40 CFR 63.11111 (a), (b), (e), (f)
(3) 40 CFR 63.11112
(4) 40 CFR 63.11113 (b), (c)
(5) 40 CFR 63.11115
(6) 40 CFR 63.11116
(7) 40 CFR 63.11130
(8) 40 CFR 63.11131
(9) 40 CFR 63.11132
(10) Table 3 - Applicability of General Provisions

SECTION E.4 NESHAP

Facility Description [326 IAC 2-7-5(14)]

(g) Twenty-eight (28) Anodizing Line storage tanks, including one (1) temporary substitute tank, identified as Tank 18, with constituents from other baths, collectively identified as Anodizing, installed in 1968. [40 CFR 63 Subpart WWWWWW]

Under NESHAP, Subpart WWWWWW, these units are considered to be 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 (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.4.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1][40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.1, 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, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 63, Subpart WWWWWW.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

E.4.2 Area Source Standards for Plating and Polishing NESHAP [40 CFR Part 63, Subpart WWWWWW]

The Permittee shall comply with the following provisions of 40 CFR 63, Subpart WWWWWW (included as Attachment D to the operating permit), for the emission unit(s) listed above:

(1) 40 CFR 63.11504
(2) 40 CFR 63.11505 (a)(1), (b), (d), (e)
(3) 40 CFR 63.11506 (a)
(4) 40 CFR 63.11507 (g)
(5) 40 CFR 63.11508 (a), (b), (c), (d)(1), (d)(2), (d)(8)
(6) 40 CFR 63.11509(a)(1), (a)(2), (a)(3), (b), (c), (d), (e), (f)
(7) 40 CFR 63.11510
(8) 40 CFR 63.11511
(9) 40 CFR 63.11512
(10) Table 1 - Applicability of General Provisions to Plating and Polishing Area Sources

SECTION E.5 NSPS

Facility Description [326 IAC 2-7-5(14)]

(h) Activities associated with emergencies, including emergency generators as follows:

(4) One (1) emergency natural gas-fired generator, identified as EMGEN-1, with a maximum capacity of 60 hp, manufactured and installed in 2012.

Under NSPS, Subpart JJJJ, this unit is considered an affected facility.
Under NESHAP, Subpart ZZZZ, this unit is considered a new affected facility.

(5) One (1) emergency natural gas-fired generator, identified as EMGEN-2, with a maximum capacity of 48 hp, manufactured and installed in 2014.

Under NSPS, Subpart JJJJ, this unit is considered an affected facility.
Under NESHAP, Subpart ZZZZ, this unit is considered a new 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 (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.5.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1][40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart JJJJ.

(b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports 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

E.5.2 Stationary Reciprocating Internal Combustion Engines NSPS [40 CFR Part 60, Subpart JJJJ] [326 IAC 12]

The Permittee shall comply with the following provisions of 40 CFR 60, Subpart JJJJ (included as Attachment E to the operating permit), which are incorporated by reference as 326 IAC 12:

(1) 40 CFR 60.4230(a)(4)(iv) and (a)(6) and (c)
(2) 40 CFR 60.4233(d)
(3) 40 CFR 60.4234
(4) 40 CFR 60.4237(c)
(5) 40 CFR 60.4243(b), (d), (e), (f), (g)
(6) 40 CFR 60.4244
(7) 40 CFR 60.4245(a) and (d)
(8) 40 CFR 60.4246
(9) 40 CFR 60.4248
(10) Table 1

(11) Table 2
(12) Table 3

DRAFT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
CERTIFICATION

Source Name: Honeywell International, Inc.
Source Address: 3520 Westmoor Street, South Bend, Indiana 46628
Part 70 Permit No.: T141-26745-00172

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

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify) _____

☐ Report (specify) _____

☐ Notification (specify) _____

☐ Affidavit (specify) _____

☐ Other (specify) _____

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

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

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Honeywell International, Inc.
Source Address: 3520 Westmoor Street, South Bend, Indiana 46628
Part 70 Permit No.: T141-26745-00172

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

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

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

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

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

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

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

Part 70 Quarterly Report

Source Name: Honeywell International, Inc.
Source Address: 3520 Westmoor Street, South Bend, Indiana 46628
Part 70 Permit No.: T141-26745-00172
Facility: SVE wells and SVE storage tank
Parameter: Total HAP emissions
Limits: Shall not exceed 1.5 tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis

Quarter _____ YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

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

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

Part 70 Quarterly Report

Source Name: Honeywell International, Inc.
Source Address: 3520 Westmoor Street, South Bend, Indiana 46628
Part 70 Permit No.: T141-26745-00172
Facility: SVE wells and SVE storage tank
Parameter: 1,1,1-Trichloroethane (1,1,1-TCA) emissions
Limits: Shall not exceed 1.50 tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis

Quarter _____ YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

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

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

Part 70 Quarterly Report

Source Name: Honeywell International, Inc.
Source Address: 3520 Westmoor Street, South Bend, Indiana 46628
Part 70 Permit No.: T141-26745-00172
Facility: SVE wells and SVE storage tank
Parameter: Trichloroethylene (TCE) emissions
Limits: Shall not exceed 1.50 tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis

Quarter _____ YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

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

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

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Honeywell International, Inc.
Source Address: 3520 Westmoor Street, South Bend, Indiana 46628
Part 70 Permit No.: T141-26745-00172

Months: _____ to _____ Year: _____

Page 1 of 2

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

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

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

Page 2 of 2

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

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a
Part 70 Significant Source Modification / Significant Permit Modification

Source Description and Location

Source Name:	Honeywell International, Inc.
Source Location:	3520 Westmoor Street, South Bend, IN 46628
County:	St. Joseph
SIC Code:	3728 (Aircraft Parts and Auxiliary Equipment, Not Elsewhere Classified) and 3724 (Aircraft Engines and Engine Parts)
Operation Permit No.:	T 141-26745-00172
Operation Permit Issuance Date:	July 2, 2012
Significant Source Modification No.:	141-36553-00172
Significant Permit Modification No.:	141-36618-00172
Permit Reviewer:	Heath Hartley

Existing Approvals

The source was issued Part 70 Operating Permit No. 141-26745-00172 on July 2, 2012. The source has since received the following approvals:

(a) Administrative Amendment No. 141-32336-00172, issued on October 17, 2012;
(b) Administrative Amendment No. 141-33249-00172, issued on July 30, 2013;
(c) Administrative Amendment No. 141-34133-00172, issued on April 24, 2014;
(d) Significant Source Modification No. 141-35719-00172, issued on August 5, 2015; and
(e) Significant Permit Modification No. 141-35733-00172, issued on August 24, 2015.

County Attainment Status

The source is located in St. Jospeh County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard.1
$PM_{2.5}$	Unclassifiable or attainment effective April 5, 2005, for the annual $PM_{2.5}$ standard.
$PM_{2.5}$	Unclassifiable or attainment effective December 13, 2009, for the 24-hour $PM_{2.5}$ standard.
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.

[1] Attainment effective October 18, 2000, for the 1-hour ozone standard for the South Bend-Elkhart area, including St. Joseph County, and is a maintenance area for the 1-hour ozone National Ambient Air Quality Standards (NAAQS) for purposes of 40 CFR 51, Subpart X*. The 1-hour standard was revoked effective June 15, 2005.

(a) Ozone Standards

Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) 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 NO_x emissions are considered when evaluating the rule applicability relating to ozone. St. Jospeh County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$
St. Jospeh County has been classified as attainment for $PM_{2.5}$. Therefore, direct $PM_{2.5}$, SO_2, and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

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

Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Source Status - Existing Source

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Pollutant	**Emissions** (ton/yr)
PM	156.84
PM_{10}	159.30
$PM_{2.5}$	159.29
SO_2	0.72
NO_X	107.17
VOC	76.59
CO	138.80
Benzene	5.09
Phenol	4.46
Total HAPs	**22.36**

(a) On June 23, 2014, in the case of *Utility Air Regulatory Group v. EPA*, cause no. 12-1146, (available at http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits for sources "previously classified as 'Major' based solely on greenhouse gas emissions."

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHGs emissions to determine operating permit applicability or PSD applicability to a source or modification.

(b) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no PSD regulated pollutant, excluding GHGs, is emitted at a rate of two hundred fifty (250) tons per year or more and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).

(c) These emissions are based upon Significant Permit Modification 141-35733-00172.

(d) This existing source is not a major source of HAPs, as defined in 40 CFR 63.2, because HAPs emissions are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Honeywell on December 2, 2015, relating to the addition of a new soil vapor extraction system (SVE). The following is a list of the proposed emission units and pollution control device(s):

(a) One (1) soil vapor extraction system, identified as SVE SCB, approved in 2016 for construction, controlled by a resin adsorption control system consisting of 3 vapor-phase resin adsorbent vessels, identified as V-101, V-102, and V-103, exhausting to stack SVE SCB EP-1, and consisting of the following:

(1) Fifteen (15) soil vapor extraction wells, identified as SVE wells, with a maximum system flow rate of 425 cfm.

(2) One (1) condenser.

(3) One (1) storage tank, identified as SVE storage tank, with a maximum capacity of 1,500 gallons and a maximum throughput of 39,000 gallons per year.

(4) One (1) truck loading operation, identified as truck loading operation, with a maximum throughput of 39,000 gallons per year. This unit is not controlled by the resin adsorption system.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

Permit Level Determination – Part 70 Modification to an Existing Source

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

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit. If the control equipment has been determined to be integral, the table reflects the PTE after consideration of the integral control device.

Increase in PTE Before Controls of the Modification	
Pollutant	**Potential To Emit** (ton/yr)
PM	0
PM_{10}	0
$PM_{2.5}$	0
SO_2	0
NO_X	0
VOC	189.9
CO	0
Methyl chloroform (1,1,1-Trichloroethane)	78.3
Trichloroethylene	47.8
Total HAPs	142.8

Appendix A of this TSD reflects the unrestricted potential emissions of the modification.

This source modification is subject to 326 IAC 2-7-10.5(g)(2), since it is a modification subject to 326 IAC 8-1-6 and 326 IAC 2-7-10.5(g)(4), since it is a modification with PTE greater than 25 tons per year of VOC. Additionally, the modification will be incorporated into the Part 70 Operating Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12(d)(1), because involves a case-by-case determination of an emission limitation and significant changes to monitoring, record keeping and reporting.

Permit Level Determination – PSD

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 source and permit modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Project Emissions (ton/yr)						
Process / Emission Unit	**PM**	**PM_{10}**	**$PM_{2.5}$ ***	**SO_2**	**NO_X**	**VOC**	**CO**
SVE System (SVE SCB)	-	-	-	-	-	3.8	-
Tank	-	-	-	-	-		-
Truck loading	-	-	-	-	-	3.41E-02	-
Total for Modification	**0**	**0**	**0**	**0**	**0**	**3.8**	**0**
PSD Major Source Thresholds	250	250	250	250	250	250	250

*$PM_{2.5}$ listed is direct $PM_{2.5}$.

(a) On June 23, 2014, in the case of *Utility Air Regulatory Group v. EPA*, cause no. 12-1146, (available at http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits

for sources "previously classified as 'Major' based solely on greenhouse gas emissions."

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHGs emissions to determine operating permit applicability or PSD applicability to a source or modification.

(b) This modification to an existing minor PSD stationary source is not major because the emissions increase of each PSD regulated pollutant are less than the PSD major source thresholds. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

The table below summarizes the potential to emit, reflecting all limits, of the entire source after the modification.

Process/ Emission Unit	Potential To Emit of the Entire Source After This Modification (tons/year)									
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	GHGs	Total HAPs	Worst Single HAP (Phenol)
Four (4) Char Furnaces with 2 RTOs	0.04	0.15	0.15	0.01	0.94	7.92	1.63	3,173	2.69	1.58
CVDs 1 - 27	1.11	4.46	4.46	0.35	58.66	24.46	114.33	70,817	5.09	-
Two (2) Paint Booths & other solvents	2.87	2.87	2.87	-	-	9.69	-	-	5.19	-
Soil vapor extraction	-	-	-	-	-	0.05	-	-	0.05	-
Combustion	0.26	1.06	1.06	0.08	13.94	0.77	11.71	17,164	0.26	-
Anodizing Tanks	-	-	-	-	21.60	0.05	-	-	1.33	-
Friction Materials	-	-	-	-	-	17.90	-	-	5.60	2.87
Dense Line	-	-	-	-	-	4.40	-	-	0.12	-
Anti-Oxidation Process	2.65	2.65	2.65	-	-	-	-	-	-	-
Zyglo Line	0.58	0.58	0.58	-	-	0.23	-	-	-	-
Insignificant PM Acivities	116.89	116.89	116.89	-	-	-	-	-	-	-
Emergency Generators	0.30	0.30	0.30	0.27	6.25	0.40	0.40	215	3.66E-03	-
Insignificant Acivities (Allocation)	15.00	15.00	15.00	-	5.00	10.00	10.00	-	2.00	-
cold jet blasting CJ-1	2.00	2.00	2.00	-	-	-	-	130	-	-
DEG-1	4.51	4.51	4.51	-	-	-	-	-	-	-
DRG-1E & DRG-2W	0.72	0.72	0.72	-	-	-	-	-	-	-
Machine Shop	3.33	3.33	3.33	-	-	-	-	-	-	-
MRBB-1	0.05	0.05	0.05	-	-	-	-	-	-	-

Process/ Emission Unit	Potential To Emit of the Entire Source After This Modification (tons/year)									
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	GHGs	Total HAPs	Worst Single HAP (Phenol)
EMGEN-1	8.67E-6	1.12E-3	1.12E-3	6.62E-5	0.46	1.33E-2	3.57E-2	15.96	8.06E-3	-
EMGEN-2	6.94E-6	8.99E-4	8.99E-4	5.29E-5	0.37	1.06E-2	2.85E-2	12.77	6.45E-3	-
SVE System (SVE SCB)	**-**	**-**	**-**	**-**	**-**	**3.8**	**-**	**-**	**1.50**	**-**
VOC liquid Storage Tank	**-**	**-**	**-**	**-**	**-**		**-**	**-**		
Truck loading	**-**	**-**	**-**	**-**	**-**	**3.41E-02**	**-**	**-**	**2.56E-02**	**-**
Total PTE of Entire Source	156.8	159.3	159.3	0.7	107.9	~~76.59~~ **79.6**	138.8	91520	~~22.36~~ **23.9**	Phenol 4.46
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 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
**$PM_{2.5}$ listed is direct $PM_{2.5}$.

Federal Rule Applicability Determination

The following federal rules are applicable to the source due to this modification:

NSPS:

(a) The requirements of the New Source Performance Standard for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, 40 CFR 60, Subpart Kb, are not included in this permit since the SVE storage tank has a capacity less than 75 cubic meters.

NESHAP:

(b) The requirements of National Emission Standards for Hazardous Air Pollutants (NESHAP) for National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline) 40 CFR Part 63, Subpart EEEE (326 IAC 20-83) are not included in this permit because the source does not include organic liquids distribution (OLD) (non-gasoline) operations at major sources of HAP. The source has taken limits to be an area source of hazardous air pollutants (HAPs) (less than twenty-five (25) tons per year of combined HAP emissions and less than ten (10) tons per year of single HAP emissions.

(c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Site Remediation, Subpart GGGGG are not included in the permit because the source has taken limits to be an area source of hazardous air pollutants (HAPs) (less than twenty-five (25) tons per year of combined HAP emissions and less than ten (10) tons per year of single HAP emissions.

(d) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:

(1) has a potential to emit before controls equal to or greater than the Part 70 major source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each new or modified emission unit involved:

CAM Applicability Analysis							
Emission Unit	**Control Device Used**	**Emission Limitation** (Y/N)	**Uncontrolled PTE** (ton/yr)	**Controlled PTE** (ton/yr)	**Part 70 Major Source Threshold** (ton/yr)	**CAM Applicable** (Y/N)	**Large Unit** (Y/N)
SVE System (SVE SCB) VOC	Resin adsorption system	Yes	189.8	3.8	100	Yes	No
SVE System (SVE SCB) Methyl chloroform		Yes	78.3	1.6	100	Yes	No
SVE System (SVE SCB) - Trichloroethylene		Yes	47.8	1.0	100	Yes	No

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to SVE remediation system (SVE SCB) for VOC, methyl chloroform and trichloroethylene upon issuance of the Title V Renewal. A CAM plan must be submitted as part of the Renewal application.

State Rule Applicability Determination

The following state rules are applicable to the source due to the modification:

326 IAC 2-2 (PSD)
PSD applicability is discussed under the Permit Level Determination – PSD section.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The operation of this source after this modification will continue to limit emissions to less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-7-6(5) (Annual Compliance Cerification)
The U.S. EPA Federal Register 79 FR 54978 notice does not exempt Title V Permittees from the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D), but the submittal of the Title V annual compliance certification to IDEM satisfies the requirement to submit the Title V annual compliance certifications to EPA. IDEM does not intend to revise any permits since the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D) still apply, but Permittees can note on their Title V annual compliance certification that submission to IDEM has satisfied reporting to EPA per Federal Register 79 FR 54978. This only applies to Title V Permittees and Title V compliance certifications.

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)
This rule applies to facilities located anywhere in the state that were constructed on or after January 1, 1980, and which have potential volatile organic compound (VOC) emissions of 25 tons per year or more. The SVE System (SVE SCB) was constructed after January 1, 1980, and has potential VOC emissions of more than 25 tons per year, therefore it is subject to 326 IAC 8-1-6 (BACT).

Pursuant to 326 IAC 8-1-6, Best Available Control Technology (BACT) for VOC for the SVE System (SVE

SCB) shall be as follows:

(a) The VOC and HAP emissions from the vapor extraction wells (SVE wells), shall be controlled by the resin adsorption system at all times when the system is in operation.

(b) The VOC and HAP emissions from the VOC liquid storage tank (SVE storage tank), shall be controlled by the resin adsorption system at all times when the system is in operation.

(c) At least two (2) of the resin adsorbent vessels (V-010, V-102, and V-103) shall be operated in series for VOC control.

(d) The overall control efficiency (including capture efficiency and adsorption efficiency) for the resin adsorption system shall be greater than or equal to ninety-eight percent (98%), as measured by a comparison of the inlet and outlet concentrations to the resin adsorbent system, or the outlet concentration shall be equal to or less than 30 ppmv.

(e) The total VOC emissions from the soil vapor extraction system (SVE SCB) and VOC liquid storage tank combined shall not exceed 0.87 lb/hr.

(f) When loading at the SVE storage tank and/or loading operation, submerged loading shall be used.

(g) VOC emissions from the loading operation shall not exceed 1.75 lb/kgal.

(h) The SVE storage tank shall be white and maintained in good condition.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

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

The Compliance Determination Requirements applicable to this modification are as follows:

Summary of Testing Requirements				
Emission Unit	**Control Device**	**Timeframe for Testing**	**Pollutant**	**Frequency of Testing**
SVE System (SVE SCB)	Resin adsorption system	Within 60 days after startup of operation	VOC/Total HAPs, 1,1,1-Trichloroethane and TCE	Once every 5 years

The Compliance Monitoring Requirements applicable to this modification are as follows:

Control	Parameter	Frequency	Range	Excursions and Exceedances
Resin adsorption system	Temperature	Daily	Below 125°F or the 3-hour average temperature as observed during the compliant stack test	Response Steps
	VOC detection	Weekly for four weeks; monthly thereafter	VOC outlet concentration greater than or equal to two percent (2%) of inlet concentration, or < 30 ppmv	Response Steps

These monitoring conditions are necessary because the resin adsorption system must be operating properly to ensure compliance with 326 IAC 8-1-6 (VOC BACT), 326 IAC 2-4.1 (HAPs), 40 CFR 64 (CAM) and 326 IAC 2-7 (Part 70).

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T141-26745-00172. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

Modification 1: The soil vapor extraction system is added to the permit.

Modification 2: IDEM, OAQ revised the CAM portion of the Section C.13 Response to Excursions or Exceedances to provide clarity. In paragraph (II)(c), the acronym QIP is being spelled out as Quality Improvement Plan (QIP) because this is the first time it is mentioned in the condition. In paragraphs (II)(f) and (II)(h)(1), the reference to paragraph (II)(a)(2) is being changed to paragraph (II)(c). Referencing paragraph (II)(a)(2) is correct, however IDEM, OAQ believes that referencing paragraph (II)(c) provides clarity.

Modification 3: IDEM, OAQ has decided to clarify the Permittee's responsibility under CAM.

Modification 4: IDEM, OAQ has decided to clarify the applicable citations for the *Compliance Determination Requirements* header. This change is made for each header throughout all D sections.

Modification 5: IDEM revised Sections E.1 to E.5 for clarity.

Compliance Determination Requirements **[326 IAC 2-7-5(1)]**

A.2 Emission Units and Pollution Control Equipment Summary
[326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]

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

(d) One (1) soil vapor extraction system, identified as SVE SCB, approved in 2015 for construction, controlled by a resin adsorption control system consisting of 3 vapor-phase resin adsorbent vessels, identified as V-101, V-102, and V-103, exhausting to stack SVE SCB EP-1, and consisting of the following:

(1) Fifteen (15) soil vapor extraction wells, identified as SVE wells, with a maximum system flow rate of 425 cfm.

(2) One (1) condenser.

(3) One (1) storage tank, identified as SVE storage tank, with a maximum

capacity of 1,500 gallons and a maximum throughput of 39,000 gallons per year.

(4) One (1) truck loading operation, identified as truck loading operation, with a maximum throughput of 39,000 gallons per year. This unit is not controlled by the resin adsorption system.

.....

C.9 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)][40 CFR 64][326 IAC 3-8]

(a) For new units:
Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.

(b) For existing units:

.....

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

.....

C.13 Response to Excursions or Exceedances [40 CFR 64][326 IAC 3-8][326 IAC 2-7-5] [326 IAC 2-7-6]

.....

(II)
.....

(c) Based on the results of a determination made under paragraph (II)(a)(2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a **Quality Improvement Plan (**QIP**)**. The Permittee shall develop and implement a QIP if notified to in writing by the EPA or IDEM, OAQ.

.....

(f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(~~a)(2~~**c**) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:

.....

(h) *CAM recordkeeping requirements.*

(1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to paragraph (II)((~~a)(2~~**c**) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

.....

C.17 General Reporting Requirements [326 IAC 2-7-5(3)(C)][326 IAC 2-1.1-11] [40 CFR 64][326 IAC 3-8]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

On and after the date by which the Permittee must use monitoring that meets the requirements of 40 CFR Part 64 and 326 IAC 3-8, the Permittee shall submit CAM reports to the IDEM, OAQ.

A report for monitoring under 40 CFR Part 64 and 326 IAC 3-8 shall include, at a minimum, the information required under paragraph (a) of this condition and the following information, as applicable:

(1) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

(2) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

(3) A description of the actions taken to implement a QIP during the reporting period as specified in Section C-Response to Excursions or Exceedances. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

The Permittee may combine the Quarterly Deviation and Compliance Monitoring Report and a report pursuant to 40 CFR 64 and 326 IAC 3-8.

.....

SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) One (1) soil vapor extraction system, identified as SVE SCB, approved in 2016 for construction, controlled by a resin adsorption control system consisting of 3 vapor-phase resin adsorbent vessels, identified as V-101, V-102, and V-103, exhausting to stack SVE SCB EP-1, and consisting of the following:

(1) Fifteen (15) soil vapor extraction wells, identified as SVE wells, with a maximum system flow rate of 425 cfm.

(2) One (1) condenser.

(3) One (1) storage tank, identified as SVE storage tank, with a maximum capacity of 1,500 gallons and a maximum throughput of 39,000 gallons per year.

(4) One (1) truck loading operation, identified as truck loading operation, with a maximum throughput of 39,000 gallons per year. This unit is not controlled by the resin adsorption system.

(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 2-7-5(1)]

D.6.1 VOC BACT [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6, the Permittee shall comply with the following:

(a) The VOC emissions from the vapor extraction wells (SVE wells), shall be controlled by the resin adsorption system at all times when the system is in operation.

(b) The VOC emissions from the VOC liquid storage tank (SVE storage tank), shall be controlled by the resin adsorption system at all times when the system is in operation.

(c) At least two (2) of the resin adsorbent vessels (V-010, V-102, and V-103) shall be operated in series for VOC control.

(d) The overall VOC control efficiency (including capture efficiency and adsorption efficiency) for the resin adsorption system shall be greater than or equal to ninety-eight percent (98%), as measured by a comparison of the inlet and outlet concentrations to the resin adsorbent system, or the outlet concentration shall be equal to or less than 30 ppmv.

(e) The total VOC emissions from the soil vapor extraction system (SVE SCB), VOC liquid storage tank and loading operation combined shall not exceed 0.87 lb/hr.

(f) When loading at the SVE storage tank and/or loading operation, submerged loading shall be used.

(g) VOC emissions from the loading operation shall not exceed 1.75 lb/kgal.

(h) The SVE storage tank shall be white and maintained in good condition.

D.6.2 HAP Minor Limitation [40 CFR 63.1][326 IAC 2-4.1]

To ensure the Permittee meets the definition of an area source under 40 CFR 63.2 and to render the requirements of 326 IAC 2-4.1 not applicable, the Permittee shall comply with the following:

(a) The HAP emissions from the vapor extraction wells (SVE wells), shall be controlled by the resin adsorption system at all times when the system is in operation.

(b) The HAP emissions from the VOC liquid storage tank (SVE storage tank) shall be controlled by the resin adsorption system at all times when the system is in operation.

(c) Total HAP emissions from SVE wells and SVE storage tank combined shall not exceed 1.5 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(d) Total HAP emissions shall be the sum of the following individual HAPs: 1,1-DCA, Ethylidene dichloride (1,1-Dichloroethane), Ethylbenzene, Methylene Chloride, PCE, Toluene, Methyl chloroform (1,1,1-Trichloroethane), Trichloroethylene (TCE), Vinyl Chloride, and Xylene(s).

(e) Methyl chloroform (1,1,1-Trichloroethane) emissions from the SVE wells and SVE storage tank combined shall not exceed 1.50 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(f) Trichloroethylene (TCE) emissions from the SVE wells and SVE storage tank combined shall not exceed1.50 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these limits, combined with the potential to emit from all other emission units at the source, shall limit the HAP emissions from the entire source to less than ten (10) tons of any single HAP and less than twenty-five (25) tons of total HAPs per twelve (12) consecutive month period, respectively, and the entire source is rendered an area source of HAP Emissions under Section 112 of the Clean Air Act (CAA).

D.6.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for these facilities and their 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 [326 IAC 2-7-5(1)]

D.6.4 VOC and HAP Control

In order to comply with Conditions D.6.1 and D.6.2, the resin adsorption control device shall be in operation and control emissions from the SVE wells, and/or storage tank at all times the SVE wells, and/or storage tank, are in operation.

D.6.5 Testing Requirements [326 IAC 2-1.1-11]

(a) Not later than 60 days after the startup of the soil vapor extraction system (SVE SCB), the Permittee shall perform VOC (including emission rates, capture efficiency and adsorption control efficiency) testing of the soil vapor extraction system (SVE SCB) utilizing methods approved by the commissioner at least once every five years from the date of the most recent valid compliance demonstration.

(b) Not later than 60 days after the startup of the soil vapor extraction system (SVE SCB), the Permittee shall perform Total HAP, Methyl chloroform (1,1,1-Trichloroethane) and Trichloroethylene (TCE) testing (including emission rate, capture efficiency, and adsorption efficiency) of the soil vapor extraction system (SVE SCB) utilizing methods approved by the commissioner at least once every five years from the date of the most recent valid compliance demonstration.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

D.6.6 Hazardous Air Pollutants (HAP)

Compliance with the HAP emission limitations in Condition D.6.2 shall be determined as follows:

(a) 1,1,1-TCA (ton/month(i)) = 1,1,1-TCA (lb/hr) x hours month(i) / 2,000 (lb/ton)

(b) TCE (ton/month(i)) = TCE (lb/hr) x hours month(i) / 2,000 (lb/ton)

(c) Total HAPs (ton/month(i)) = HAPs total (lb/hr) x hours month(i) / 2,000 (lb/ton)

Where:

1,1,1-TCA (lb/hr) = The lb/hr as determined during the most recent IDEM approved stack test. A value of 0.36 lb/hr shall be used until the stack test results are available.

TCE (lb/hr) = The lb/hr as determined during the most recent IDEM approved stack test. A value of 0.22 lb/hr shall be used until the stack test results are available.

HAPs total (lb/hr) = Total lb/hr of all HAPs as determined during the most recent IDEM approved stack test. A value of 0.65 lb/hr shall be used until the stack test results are available.

hours month(i) = hours operated in month(i)
In lieu of reporting the actual operating hours for month(i), the Permittee may report the hours in month (i);e.g., June (30 days x 24 hrs/day) = 720 hrs/month.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

D.6.7 Resin Adsorption System Temperature

(a) A daily monitoring system shall be calibrated, maintained, and operated on the resin adsorption control device for measuring operating temperature. From the date of startup until the stack test results are available, the Permittee shall operate the resin adsorption system at or below the 3-hour average temperature of 125°F.

(b) The Permittee shall determine the 3-hour average temperature from the latest valid stack test that demonstrates compliance with limits in Conditions D.6.1 and D.6.2.

(c) On and after the date the stack test results are available, the Permittee shall operate the resin adsorption system at or below the 3-hour average temperature as observed during the latest compliant stack test.

(d) If the daily temperature is greater than the above mentioned 3-hour average temperature, the Permittee shall take a reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.6.8 Resin Adsorption System Monitoring

(a) The Permittee shall conduct inspections, at least once per week, of the resin adsorption system control system associated with soil vapor extraction system (SVE SCB) identified in Condition D.6.1(c) when SVE SCB is in operation. Inspections shall be made at both the inlet and outlet of the control system or at the outlet only. If the inspection shows that the outlet concentration is greater than the limit in D.6.1(e), the inspections shall be made at both the inlet and outlet of the control system. The inspections shall be for the detection of VOC by using a portable analyzer or by laboratory analysis. If the inspections indicate that the outlet concentration of VOC is greater than or equal to two percent (2%) of the inlet concentration of VOC and that the outlet concentration is greater than the limit in D.6.1(e), then the Permittee shall take a reasonable response.

Section C - Response to Excursions or Exceedances contains the Permittee's obligations with regard to the reasonable response steps required by this condition. A 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.

After the first four weeks of operation, if each of the four weekly inspections indicate that the outlet concentration of VOC is less than or equal to two percent (2%) of the inlet concentration of VOC and that the outlet concentration is less than the limit in D.6.1(e) and the VOC concentrations are trending downward, these inspections may be performed monthly thereafter.

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

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.6.9 Record Keeping Requirements

(a) To document the compliance status with Condition D.6.7, the Permittee shall maintain daily temperature records for the resin adsorption control device and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.

(b) To document the compliance status with Condition D.6.8, the Permittee shall maintain records of the inspections required under Condition D.6.8. The Permittee shall also maintain the following records:

(1) Dates and results of the inspections required under Condition D.6.8(a)

(2) The normal resin bed changeout/regeneration frequency and any supporting information, including, but not limited to, performance test data, monitoring data, the resin bed adsorption capacity, and pollutant loading;

(3) Resin adsorber monitoring data, pollutant breakthrough data; and

(4) Date(s) of resin bed changeout/replacement/regeneration.

(c) To document the compliance status with Condition D.6.2 and D.6.6, the Permittee shall maintain records of the following:

(1) The lb/hr value from the IDEM approved stack test results for Total HAPs.
(2) The lb/hr value from the IDEM approved stack test results for 1,1,1-TCA.
(3) The lb/hr value from the IDEM approved stack test results for TCE.
(4) Monthly records of the HAPs total emissions.
(5) Monthly records of the 1,1,1-TCA emissions.
(6) Monthly records of the TCE emissions.

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

D.6.10 Reporting Requirements

A quarterly report and a quarterly summary of the information to document the compliance status with D.6.2 shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1(35).

.....

SECTION E.1 **~~NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS: AEROSPACE MANUFACTURING AND REWORK FACILITIES [40 CFR 63, Subpart GG]~~ NESHAP**

Facility Description [326 IAC 2-7-5(14)]

(a) Two (2) Binks Paint Booths, identified as BPB-1 & BPB-2, installed in 1987, using HVLP spray guns, and controlled by 3-stage HEPA filters, and exhausting through stacks SBPB-1 & SBPB-2, and an electric powered IR curing oven. [40 CFR 63, Subpart GG][326 IAC 6.5-1]

Under NESHAP, Subpart GG, these units are considered to be 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 (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.1.1 General Provisions Relating to **National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63** ~~NESHAP GG~~ [326 IAC 20-1][40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.~~743~~**1**, 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 40 CFR Part 63, Subpart GG in accordance with schedule in~~ **for the emission unit(s) listed above, except as otherwise specified in** 40 CFR 63 Subpart GG.

.....

~~and~~

~~United States Environmental Protection Agency, Region V~~
~~Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)~~
~~77 West Jackson Boulevard~~
~~Chicago, Illinois 60604-3590~~

E.1.2 Aerospace Manufacturing and Rework Facilities NESHAP [40 CFR Part 63, Subpart GG] [326 IAC 20-15]

(a) The Permittee ~~which engages in aerospace manufacturing and rework~~ shall comply with the following provisions of 40 CFR 63, Subpart GG (included as Attachment A **to the operating** ~~of this~~ permit), which are incorporated by reference as 326 IAC 20-15**, for the emission unit(s) listed above**:

.....

SECTION E.2 **~~NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS: STATIONAIRY RECIPROCATING INTERNAL COMBUSTION ENGINES [40 CFR 63, Subpart ZZZZ]~~ NESHAP**

Facility Description [326 IAC 2-7-5(14)]

(h) Activities associated with emergencies, including emergency generators as follows:

(1) One emergency (1) diesel-fired generator, identified as DG-1, with a maximum capacity of 535 bhp, installed in 2003.

Under NESHAP, Subpart ZZZZ, this unit is considered an existing affected facility.

(2) One (1) emergency natural gas-fired generator, with a maximum capacity of 40 hp,

installed in 1977.

Under NESHAP, Subpart ZZZZ, this unit is considered an existing affected facility.

(3) One (1) emergency natural gas-fired generator, with a maximum capacity of 215 hp, installed in 2004.

Under NESHAP, Subpart ZZZZ, this unit is considered an existing affected facility.

(4) One (1) emergency natural gas-fired generator, identified as EMGEN-1, with a maximum capacity of 60 hp, manufactured and installed in 2012.

Under NSPS, Subpart JJJJ, this unit is considered an affected facility.
Under NESHAP, Subpart ZZZZ, this unit is considered a new affected facility.

(5) One (1) emergency natural gas-fired generator, identified as EMGEN-2, with a maximum capacity of 48 hp, manufactured and installed in 2014.

Under NSPS, Subpart JJJJ, this unit is considered an affected facility.
Under NESHAP, Subpart ZZZZ, this unit is considered a new 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 (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.2.1 General Provisions Relating to **National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63** ~~NESHAP ZZZZ~~ [326 IAC 20-1][40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.~~6605~~**1**, 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 40 CFR Part 63, Subpart ZZZZ in accordance with schedule in~~ **for the emission unit(s) listed above, except as otherwise specified in** 40 CFR 63 Subpart ZZZZ.

.....

~~and~~

~~United States Environmental Protection Agency, Region V~~
~~Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)~~
~~77 West Jackson Boulevard~~
~~Chicago, Illinois 60604-3590~~

E.2.2 Stationary Reciprocating Internal Combustion Engines NESHAP [40 CFR Part 63, Subpart ZZZZ] [326 IAC 20-82]

The Permittee ~~which operates stationary reciprocating internal combustion engines~~ shall comply with the following provisions of 40 CFR 63, Subpart ZZZZ (included as Attachment B ~~of this~~**to the operating** permit), which are incorporated by reference as 326 IAC 20-82, for the **emission unit(s) listed above**~~existing affected facilities~~:

.....

E.2.3 Stationary Reciprocating Internal Combustion Engines NESHAP [40 CFR Part 63, Subpart ZZZZ] [326 IAC 20-82]

The Permittee ~~which operates stationary reciprocating internal combustion engines~~ shall comply with the following provisions of 40 CFR 63, Subpart ZZZZ (included as Attachment B ~~of this~~ **to**

the operating permit), which are incorporated by reference as 326 IAC 20-82, for the ~~new affected facilities (EMGEN-1 and EMGEN-2)~~ **emission unit(s) listed above**:

.....

SECTION E.3 ~~NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS SOURCE CATEGORY: GASOLINE DISPENSING FACILITIES [40 CFR 63, Subpart CCCCCC]~~ **NESHAP**

Facility Description [326 IAC 2-7-5(14)]

(f) A petroleum fuel other than gasoline dispensing facility, having a storage tank capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less, consisting of the following: [40 CFR 63, Subpart CCCCCC]

(1) One (1) double-walled 500 gallon capacity gasoline tank, installed in 2006, identified as GAS-1.

Under NESHAP, Subpart CCCCCC, these units are considered to be 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 (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.3.1 General Provisions Relating to **National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63** ~~NESHAP CCCCCC~~ [326 IAC 20-1][40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.1~~1130~~, 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~~, a~~s specified in 40 CFR Part 63, Subpart CCCCCC in accordance with schedule in~~ **for the emission unit(s) listed above, except as otherwise specified in** 40 CFR 63 Subpart CCCCCC.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports 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~~

~~and~~

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

E.3.2 Source Category: Gasoline Dispensing Facilities NESHAP [40 CFR Part 63, Subpart CCCCCC]

The Permittee ~~which engages in the dispensing of gasoline~~ shall comply with the following provisions of 40 CFR 63, Subpart CCCCCC (included as Attachment C ~~of this~~ **to the operating** permit), ~~as specified as follows~~ **for the emission unit(s) listed above**:

.....

SECTION E.4 ~~NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS AREA SOURCE STANDARDS FOR PLATING AND POLISHING OPERATIONS [40 CFR 63, Subpart WWWWWW]~~ NESHAP

Facility Description [326 IAC 2-7-5(14)]

(g) Twenty-eight (28) Anodizing Line storage tanks, including one (1) temporary substitute tank, identified as Tank 18, with constituents from other baths, collectively identified as Anodizing, installed in 1968. [40 CFR 63 Subpart WWWWWW]

Under NESHAP, Subpart WWWWWW, these units are considered to be 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 (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.4.1 General Provisions Relating to **National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63** ~~NESHAP WWWWWW~~ [326 IAC 20-1][40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.1~~1510~~, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1~~-1~~, **for the emission unit(s) listed above, except as otherwise** ~~as~~ specified in 40 CFR Part 63, Subpart WWWWWW ~~in accordance with schedule in 40 CFR 63 Subpart WWWWWW~~.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports 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~~

~~and~~

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

E.4.2 Area Source Standards for Plating and Polishing NESHAP [40 CFR Part 63, Subpart WWWWWW]

The Permittee ~~which engages in plating and polishing operations~~ shall comply with the following provisions of 40 CFR 63, Subpart WWWWWW (included as Attachment D ~~of this~~**to the operating** permit), ~~as specified as follows~~ **for the emission unit(s) listed above**:
.....

SECTION E.5 ~~Standards of Performance for Stationary Spark Ignition Internal Combustion Engines [40 CFR 60, Subpart JJJJ]~~ NSPS

Facility Description [326 IAC 2-7-5(14)]

(h) Activities associated with emergencies, including emergency generators as follows:

(4) One (1) emergency natural gas-fired generator, identified as EMGEN-1, with a maximum capacity of 60 hp, manufactured and installed in 2012.

Under NSPS, Subpart JJJJ, this unit is considered an affected facility.
Under NESHAP, Subpart ZZZZ, this unit is considered a new affected facility.

(5) One (1) emergency natural gas-fired generator, identified as EMGEN-2, with a maximum capacity of 48 hp, manufactured and installed in 2014.

Under NSPS, Subpart JJJJ, this unit is considered an affected facility.
Under NESHAP, Subpart ZZZZ, this unit is considered a new 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 (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.5.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1][40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 **for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart JJJJ**.

(b) Pursuant to 40 CFR 60.~~10~~**4**, the Permittee shall submit all required notifications and reports 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

~~and~~

~~United States Environmental Protection Agency, Region V~~
~~Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)~~
~~77 West Jackson Boulevard~~
~~Chicago, Illinois 60604-3590~~

E.5.2 Stationary Reciprocating Internal Combustion Engines NSPS [40 CFR Part 60, Subpart JJJJ] [326 IAC 12]

The Permittee ~~which operates stationary reciprocating internal combustion engines~~ shall comply with the following provisions of 40 CFR 60, Subpart JJJJ (included as Attachment E ~~of this~~**to the operating** permit), which are incorporated by reference as 326 IAC 12~~, as specified as follows~~:

.....

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

Part 70 Quarterly Report

Source Name: **Honeywell International, Inc.**
Source Address: **3520 Westmoor Street, South Bend, Indiana 46628**
Part 70 Permit No.: **T141-26745-00172**
Facility: **SVE wells and SVE storage tank**
Parameter: **Total HAP emissions**
Limits: **Shall not exceed 1.5 tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis**

Quarter _____ YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

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

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

Part 70 Quarterly Report

Source Name: **Honeywell International, Inc.**
Source Address: **3520 Westmoor Street, South Bend, Indiana 46628**
Part 70 Permit No.: **T141-26745-00172**
Facility: **SVE wells and SVE storage tank**
Parameter: **1,1,1-Trichloroethane (1,1,1-TCA) emissions**
Limits: **Shall not exceed 1.50 tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis**

Quarter _____ YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

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

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

Part 70 Quarterly Report

Source Name: **Honeywell International, Inc.**
Source Address: **3520 Westmoor Street, South Bend, Indiana 46628**
Part 70 Permit No.: **T141-26745-00172**
Facility: **SVE wells and SVE storage tank**
Parameter: **Trichloroethylene (TCE) emissions**
Limits: **Shall not exceed 1.50 tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis**

Quarter _____ YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

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

Conclusion and Recommendation

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 141-36553-00172 and Significant Permit Modification No. 141-36618-00172. The staff recommend to the Commissioner that this Part 70 Significant Source Modification and Significant Permit Modification be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Heath Hartley 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) 232-8217 or toll free at 1-800-451-6027 extension 2-8217.

(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 Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

Appendix A: Emission Calculations
PTE Summary

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172
Reviewer: Heath Hartley

.

Uncontrolled Potential to Emit (tons/yr)								
Emission Unit	**PM**	**PM10**	**PM2.5 ***	**SO_2**	**NOx**	**VOC**	**CO**	**Total HAPs**
SVE Wells	-	-	-	-	-	189.82	-	142.7
VOC liquid Storage Tank	-	-	-	-	-	8.90E-02	-	6.68E-02
Truck loading	-	-	-	-	-	3.41E-02	-	2.56E-02
Total	**0**	**0**	**0**	**0**	**0**	**189.9**	**0**	**142.8**

** PM2.5 listed is direct PM2.5*

Potential to Emit after Control (tons/yr)								
Emission Unit	**PM**	**PM10**	**PM2.5 ***	**SO_2**	**NOx**	**VOC**	**CO**	**Total HAPs**
SVE Wells	-	-	-	-	-	3.80	-	2.86
VOC liquid Storage Tank	-	-	-	-	-		-	
Truck loading	-	-	-	-	-	3.41E-02	-	2.56E-02
Total	**0**	**0**	**0**	**0**	**0**	**3.8**	**0**	**2.9**

** PM2.5 listed is direct PM2.5*

Potential to Emit after Issuance (tons/yr)								
Emission Unit	**PM**	**PM10**	**PM2.5 ***	**SO_2**	**NOx**	**VOC**	**CO**	**Total HAPs**
SVE Wells	-	-	-	-	-	3.8	-	1.50
VOC liquid Storage Tank	-	-	-	-	-		-	
Truck loading	-	-	-	-	-	3.41E-02	-	2.56E-02
Total	**0**	**0**	**0**	**0**	**0**	**3.8**	**0**	**1.53**

** PM2.5 listed is direct PM2.5*
Note: The shaded cells indicate where limits are included.

Appendix A: Emission Calculations
Soil Vapor Extraction (SVE) System

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172
Reviewer: Heath Hartley

	Contaminants (SVE Wells)													TOTALS	
Emissions	Chloroethane	1,1-DCA	cis 1,2-DCE	trans 1,2-DCE	Ethylidene dichloride (1,1-Dichloroethane)	Ethylbenzene	Methylene Chloride	PCE	Toluene	Methyl chloroform (1,1,1-Trichloroethane)	Trichloroethylene (TCE)	Vinyl Chloride	Xylene(s)	VOC	HAPs
	SVE Wells														
Emissions before controls (ppmv)	7.0	155.9	1649.9	50.0	47.9	0.2	68.6	28.2	105.4	2060.4	1277.6	282.4	0.5	5734.1	4027.2
Concentration (mg/m3)	18.6	631.1	6541.4	198.1	189.9	1.0	238.2	191.3	397.2	11243.5	6866.2	721.9	2.3	27241	20483
PTE before controls (lbs/hr)	2.96E-02	1.00E+00	1.04E+01	3.15E-01	3.02E-01	1.66E-03	3.79E-01	3.04E-01	6.32E-01	1.79E+01	1.09E+01	1.15E+00	3.66E-03	43.3	32.6
PTE before controls (tpy)	**0.1**	**4.4**	**45.6**	**1.4**	**1.3**	**0.01**	**1.7**	**1.3**	**2.8**	**78.3**	**47.8**	**5.0**	**0.02**	**189.8**	**142.7**
	SVE Storage Tank														
PTE before controls (lbs/hr)	--	6.10E-04	4.88E-03	2.03E-04	--	--	2.03E-04	--	--	8.53E-03	5.28E-03	6.10E-04	--	2.03E-02	1.52E-02
PTE before controls (tpy)	**--**	**2.67E-03**	**2.14E-02**	**8.90E-04**	**--**	**--**	**8.90E-04**	**--**	**--**	**3.74E-02**	**2.31E-02**	**2.67E-03**	**--**	**8.90E-02**	**6.68E-02**
	Total Emissions from the Resin Adsorption System														
PTE After Controls (lbs/hr)	5.92E-04	2.01E-02	2.08E-01	6.31E-03	6.04E-03	3.32E-05	7.58E-03	6.09E-03	1.26E-02	3.58E-01	2.19E-01	2.30E-02	7.32E-05	0.87	0.65
PTE After Controls (tpy)	2.59E-03	8.80E-02	9.12E-01	2.76E-02	2.65E-02	1.45E-04	3.32E-02	2.67E-02	5.54E-02	1.57E+00	9.57E-01	1.01E-01	3.21E-04	3.80	2.86

98%	Required VOC control efficiency (%)
98.00%	Required HAPs control efficiency (%)

HAP

Methodology - SVE Wells

PTE estimates (ppm) from the SVE system assume a 425 cfm system flowrate, 8,760 hours of operation per year, and maximum measured concentrations from a previous pilot test.

Methodology:
Concentration (mg/m3) = ppmv x molec wt (g/mol) / 24.04
AP-42, Appendix A "Conversion Factors for Common Air Pollution Measurements," page A-27 (ppm by volume to mg/m3 = multiply by MW/24.04)
PTE before controls (tpy) = concentration (mg/m3) x 0.0283 (m3/ft3) x 1 lb/453600 mg x cfm x 60 (min/hr) x 8760 (hr/yr) x 1 ton/2000 lb
PTE after controls (tpy) = PTE before controls (tpy) x (1 - control eff.)

Appendix A: Emission Calculations
Tank

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172
Reviewer: Heath Hartley

EPA's Tanks 4.09d was utilized to estimate emissions from storage of organic liquid removed from the resin adsorbent system using the following estimated information:

Annual throughput: 39,000 gallons
Tank capacity: 1,500 gallons (above ground, heated, fixed space tank)

Modeled Contents (vapor % by weight)						
1,1-DCA	cis 1,2-DCE	trans 1,2-DCE	Methylene Chloride	1,1,1-TCA	Trichloroethylene (TCE)	Vinyl Chloride
3%	24%	1%	1%	42%	26%	3%

	Pollutants							TOTALS	
Emissions	1,1-DCA	cis 1,2-DCE	trans 1,2-DCE	Methylene Chloride	1,1,1-TCA	Trichloroethylene (TCE)	Vinyl Chloride	VOC	HAPs
PTE (lbs/yr)	5.34	42.72	1.78	1.78	74.76	46.28	5.34	178.0	133.5
PTE (ton/yr)	2.67E-03	2.14E-02	8.90E-04	8.90E-04	3.74E-02	2.31E-02	2.67E-03	0.1	6.68E-02

HAP

Appendix A: Emissions Calculations
Truck Loading Operation

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172
Reviewer: Heath Hartley

1. Emission Factors: AP-42

According to AP-42, Chapter 5.2 - Transportation and Marketing of Petroleum Liquids (01/95), the VOC emission factors for the truck and rail loading rack can be estimated from the following equation:

$$L = 12.46 \times (SPM)/T$$

where:
L = loading loss (lbs/kgal)
S = a saturation factor (see AP-42, Table 5.2-1)
P = true vapor pressure of the liquid loaded (psia)
M = molecular weight of vapors
T = temperature of the bulk liquid loaded (degree R)

Previous Stored Liquid	S	P (psia)	M (lbs/lb-mole)	T (degree R)	L (lbs/kgal)
Submerged load clean cargo	0.5	1.23	116.2	509.54	1.75

2. Potential to Emit VOC:

Truck Loading Emissions = 39 kgal/yr x 1.75 lbs/kgal x 0.03 ton/yr

TOTAL VOC Emissions (worst case) = 0.03 tons/yr

3. Potential to Emit HAPs:

Truck Loading		
HAP	HAP Fraction	PTE of HAP (tons/yr)
1,1-DCA	3%	1.02E-03
Methylene Chloride	1%	3.41E-04
1,1,1-TCA [Methyl chloroform (1,1,1-Trichloroethane)]	42%	0.01
Trichloroethylene (TCE)	26%	0.01
Vinyl Chloride	3%	1.02E-03
Total	--	**0.026**

HAPs from the modeled contents as used in the Tanks 4.0.9d estimate.

Methodology
PTE of HAP(tons/yr) = PTE of VOC (tons/yr) x HAP %

Appendix A: Emissions Calculations
Summary Sheet

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

Limited Source Wide PTE Before the Modification (tons/year)

	PM	PM_{10}	$PM_{2.5}$	SO_2	NOx	VOC	CO	CO_2e
Process/emission unit								
Four (4) Char Furnaces with 2 RTOs	0.04	0.15	0.15	0.01	1.94	7.92	1.63	3,173
CVD Units 1-21*	1.11	4.46	4.46	0.35	58.66	19.0	98.7	70,817
CVD Units 22, 23						1.81	5.21	
CVD Units 24, 25						1.81	5.21	
CVD Units 26, 27						1.81	5.21	
Two (2) Paint booths & other solvents	2.87	2.87	2.87	-	-	9.57	-	-
Remediation	-	-	-	-	-	0.05	-	-
Combustion	0.26	1.06	1.06	0.08	13.94	0.77	11.71	17,164
Anodizing tanks	-	-	-	-	21.60	0.05	-	-
Friction Materials	0.55	0.55	0.55	-	-	17.93	-	-
Dense line	-	-	-	-	-	4.40	-	-
Anti-Oxidation Process	2.65	2.65	2.65	-	-	-	-	-
Zyglo Line	0.58	0.58	0.58	-	-	0.23	-	-
PM Sources	116.9	116.9	116.9	-	-	-	-	-
Emergency Generators	0.30	0.30	0.30	0.27	5.97	0.40	1.14	207
Other Insignificant Activities (Allocation)	15.00	15.00	15.00	-	5	10	10	-
Cold Jet Blasting, CJ-1	2.00	2.00	2.00	-	-	-	-	130
BR-1	5.97	4.18	4.18	-	-	-	-	-
Cooling Towers	0.01	4.28E-03	1.43E-05	-	-	-	-	-
DEG-1	4.51	4.51	4.51	-	-	-	-	-
DRG-1E & DRG-2W	0.72	0.72	0.72	-	-	-	-	-
Machine Shop	3.33	3.33	3.33	-	-	-	-	-
MRBB-1	0.05	0.05	0.05	-	-	-	-	-
EMGEN-1	8.67E-06	1.12E-03	1.12E-03	6.62E-05	0.46	1.33E-02	3.57E-02	15.96
EMGEN-2	6.94E-06	8.99E-04	8.99E-04	5.29E-05	0.37	1.06E-02	2.85E-02	12.77
Total Emissions	**156.84**	**159.30**	**159.30**	**0.72**	**107.93**	**75.79**	**138.84**	**91520.3**

*The limited CO emissions from CVD Units 1-21 are higher than potential to emit calculations. Therefore, record keeping, but no report will be required in the permit.

Limited Potential to Emit After Issuance of this Permit (tons/year)

	PM	PM_{10}	$PM_{2.5}$	SO_2	NOx	VOC	CO	CO_2e
Process/emission unit								
Four (4) Char Furnaces with 2 RTOs	0.04	0.15	0.15	0.01	1.94	7.92	1.63	3173
CVD Units 1-21*	1.11	4.46	4.46	0.35	58.66	19.0	98.7	70817
CVD Units 22, 23						1.81	5.2	
CVD Units 24, 25						1.81	5.2	
CVD Units 26, 27						1.81	5.2	
Two (2) Paint booths & other solvents	2.87	2.87	2.87	-	-	9.57	-	-
Remediation	-	-	-	-	-	0.05	-	-
Combustion	0.26	1.06	1.06	0.08	13.94	0.77	11.71	17164
Anodizing tanks	-	-	-	-	21.60	0.05	-	-
Friction Materials	0.55	0.55	0.55	-	-	17.93	-	-
Dense line	-	-	-	-	-	4.40	-	-
Anti-Oxidation Process	2.65	2.65	2.65	-	-	-	-	-
Zyglo Line	0.58	0.58	0.58	-	-	0.23	-	-
PM Sources	116.89	116.89	116.89	-	-	-	-	-
Emergency Generators	0.30	0.30	0.30	0.27	5.97	0.39	1.14	207
Other Insignificant Activities (Allocation)	15.00	15.00	15.00	-	5.00	10.00	10.00	-
Cold Jet Blasting, CJ-1	2.00	2.00	2.00	-	-	-	-	130
BR-1	5.97	4.18	4.18	-	-	-	-	-
Cooling Towers	0.01	4.28E-03	1.43E-05	-	-	-	-	-
DEG-1	4.51	4.51	4.51	-	-	-	-	-
DRG-1E & DRG-2W	0.72	0.72	0.72	-	-	-	-	-
Machine Shop	3.33	3.33	3.33	-	-	-	-	-
MRBB-1	0.05	0.05	0.05	-	-	-	-	-
EMGEN-1	8.67E-06	1.12E-03	1.12E-03	6.62E-05	0.46	1.33E-02	3.57E-02	15.96
EMGEN-2	6.94E-06	8.99E-04	8.99E-04	5.29E-05	3.67E-01	1.06E-02	2.85E-02	12.77
SVE System (SVE SCB)	-	-	-	-	-	3.8	-	-
VOC liquid Storage Tank	-	-	-	-	-		-	-
Truck loading	-	-	-	-	-	3.41E-02	-	-
Total Emissions	**156.8**	**159.3**	**159.3**	**0.7**	**107.9**	**79.6**	**138.8**	**91520**

*The limited CO emissions from CVD Units 1-21 are higher than potential to emit calculations. Therefore, record keeping, but no report will be required in the permit.

Appendix A: Emissions Calculations
HAP Summary Sheet

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Pit ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

Uncontrolled Potential to Emit (tons/yr)

Emission Unit	Formaldehyde	Phenol	Cresol	Benzene	Trichloroethylene (TCE)	MIBK	Xylene	Toluene	Styrene	Chromium Compounds	Hydrogen Fluoride	1,1-DCA	Ethylidene dichloride (1,1-Dichloroethane)	Ethylbenzene	Methylene Chloride	PCE	Methyl chloroform (1,1,1-Trichloroethane)	Vinyl Chloride	Non-defined	Total HAPs (tons/yr)
Four (4) Char Furnaces with 2 RTOs	1.93E-03	16.3	10.9	5.41E-05	-	-	-	8.76E-05	-	3.61E-05									6.00	33.19
CVD Units 1-21	4.40E-02	-	-	159.094	-	-	-	17.62	16.36	8.21E-04									0.00	194.18
CVD Units 22, 23																				
CVD Units 24, 25																				
CVD Units 26, 27																				
Two (2) Paint booths & other solvents	-	-	-	-	-	2.84	0.48	1.86	-	3.47E-03				4.17E-03					0.0	5.19
Remediation	-	-	-	-	0.05	-	-	-	-	-									0.0	0.05
Combustion	1.05E-02	-	-	2.93E-04	-	-	-	4.74E-04	-	1.95E-04									0.25	0.26
Anodizing tanks		-	-	-	-	-	-	-	-	0.07	1.25								0.0	1.33
Friction Materials	2.74	2.87	-	-	-	-	-	-	-	-									0.0	5.61
Dense line	-	-	-	-	-	-	-	-	-	-									0	0.12
Zyglo Line	-	-	-	-	-	-	-	-	-	-										-
PM Sources	-	-	-	-	-	-	-	-	-	-										-
Emergency Generators	1.13E-03	-	-	8.74E-04	-	-	2.67E-04	3.83E-04	-	-									1.01E-03	3.66E-03
Other Insignificant Activities (Allocation)	-	-	-	-	-	-	-	-	-	-										2
Cold Jet Blasting, CJ-1	-	-	-	-	-	-	-	-	-	-										-
BR-1	-	-	-	-	-	-	-	-	-	-										-
Cooling Towers	-	-	-	-	-	-	-	-	-	-										-
DEG-1	-	-	-	-	-	-	-	-	-	-										-
DRG-1E & DRG-2W	-	-	-	-	-	-	-	-	-	-										-
Machine Shop	-	-	-	-	-	-	-	-	-	-										-
MRBB-1	-	-	-	-	-	-	-	-	-	-										-
EMGEN-1	5.94E-03	-	-	4.95E-05	-	-	2.07E-05	4.59E-05	-	-										8.06E-03
EMGEN-2	4.75E-03	-	-	3.96E-05	-	-	1.66E-05	3.67E-05	-	-										6.45E-03
SVE System (SVE SCB)	-	-	-	-	47.8	-	1.60E-02	2.77E+00	-	-	-	4.40	1.32	0.01	1.66	1.33	78.3	5.03		142.73
VOC liquid Storage Tank	-	-	-	-	2.31E-02	-	-	-	-	-	-	2.67E-03	-	-	8.90E-04	-	3.74E-02	2.67E-03		6.68E-02
Truck loading	-	-	-	-	0.01	-	-	-	-	-	-	1.02E-03	-	-	3.41E-04	-	0.01	1.02E-03		2.56E-02
Total Emissions	2.81	19.18	10.89	159.10	47.93	2.84	0.49	22.25	16.36	0.08		4.40	1.32	0.01	1.66	1.33	78.40	5.03	6.25	384.77

Limited Potential to Emit (tons/yr)

Emission Unit	Formaldehyde	Phenol	Cresol	Benzene	Trichloroethylene (TCE)	MIBK	Xylene	Toluene	Styrene	Chromium Compounds	Hydrogen Fluoride	1,1-DCA	Ethylidene dichloride (1,1-Dichloroethane)	Ethylbenzene	Methylene Chloride	PCE	Methyl chloroform (1,1,1-Trichloroethane)	Vinyl Chloride	Non-defined	Total HAPs (tons/yr)
Four (4) Char Furnaces with 2 RTOs	1.93E-03	1.58	1.06	5.41E-05	-	-	-	8.76E-05	-	3.61E-05									4.65E-02	2.69
CVD Units 1-21	0.04	-	-	3.18	-	-	-	0.35	0.33	8.21E-04									1.1	4.97
CVD Units 22, 23																				
CVD Units 24, 25																				
CVD Units 26, 27																				
Two (2) Paint booths & other solvents	-	-	-	-	-	2.84	0.48	1.86	-	3.47E-03									0.0	5.19
Remediation	-	-	-	-	0.05	-	-	-	-	-									0.0	0.05
Combustion	0.01	-	-	2.93E-04	-	-	-	4.74E-04	-	1.95E-04									0.25	0.26
Anodizing tanks	-	-	-	-	-	-	-	-	-	0.07	1.25								0.0	1.33
Friction Materials	2.74	2.87	-	-	-	-	-	-	-	-									0.0	5.61
Dense line	-	-	-	-	-	-	-	-	-	-									0.12	0.12
Zyglo Line	-	-	-	-	-	-	-	-	-	-										-
PM Sources	-	-	-	-	-	-	-	-	-	-										-
Emergency Generators	1.13E-03	-	-	8.74E-04	-	-	2.67E-04	3.83E-04	-	-									1.01E-03	3.66E-03
Other Insignificant Activities (Allocation)	-	-	-	-	-	-	-	-	-	-									2	2
Cold Jet Blasting, CJ-1	-	-	-	-	-	-	-	-	-	-										-
BR-1	-	-	-	-	-	-	-	-	-	-										-
Cooling Towers	-	-	-	-	-	-	-	-	-	-										-
DEG-1	-	-	-	-	-	-	-	-	-	-										-
DRG-1E & DRG-2W	-	-	-	-	-	-	-	-	-	-										-
Machine Shop	-	-	-	-	-	-	-	-	-	-										-
MRBB-1	-	-	-	-	-	-	-	-	-	-										-
EMGEN-1	5.94E-03	-	-	4.95E-05	-	-	2.07E-05	4.59E-05	-	-									2.01E-03	8.06E-03
EMGEN-2	4.75E-03	-	-	3.96E-05	-	-	1.66E-05	3.67E-05	-	-									1.60E-03	6.45E-03
SVE System (SVE SCB)	-	-	-	-	1.50	-	1.50	1.50	-	-	-	1.50	1.32	7.26E-03	1.50	1.33	1.50	1.50	0.0	1.50
VOC liquid Storage Tank	-	-	-	-		-			-	-	-		-	-		-			0.0	
SVE Loading operation	-	-	-	-	8.86E-03	-	-	-	-	-	-	1.02E-03	-	-	3.41E-04	-	1.43E-02	1.02E-03	0.0	0.03
Total Emissions	2.81	4.46	1.06	3.18	1.56	2.84	1.98	3.72	0.33	0.08	1.25	1.50	1.32	0.01	1.50	1.33	1.51	1.50	3.48	23.8

Note: The shaded cells indicate where limits are included.

Appendix A: Emissions Calculations
Char Furnaces Potential to Emit

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

Char Furnace Potential to Emit Calculations

Annual Maximum Hour of Operation	6600	hours
Maximum Batches per year	55	batches per furnace

Uncontrolled PTE

	Emission Factor		Potential Emissions, tpy	Comments
VOC per furnace	0.445	tons/batch	24.48	Uncontrolled factor based on weight loss study showing 356 lbs/ton brackes and 2.5 tons of brakes per batch.
VOCs for 4 Furnaces			97.90	
Phenol per furnace pair	2.47	lbs/hour per furnace	8.15	Assumes 60% of HAPs emited as Phenol.
Phenol for 2 furnace pairs			16.30	
Cresol per furnace pair	1.65	lbs/hour per furnace	5.45	Assunes 40% of HAPs emitted as Cresol.
Cresol for 2 furnace pairs			10.89	
Total HAPs per Furnace pair	4.12	lbs/hour per furnace	13.60	Assumes RTO control efficiency of 90.3% and emission limit of 0.4 lbs/hour per pair of furnaces.
Total HAPs for 2 Furnace Pairs			27.19	

Controlled / Limited PTE

	Emission Factor		Potential Emissions, tpy	Comments
VOC per oxidizer	1.2	lb/hr per oxidizer	3.96	Control factor based on permit limit.
VOCs for 2 oxidizers			7.92	
Phenol per oxidizer	0.24	lbs/hour per oxidizer	0.79	Assumes 60% of HAPs emited as Phenol.
Phenol for 2 oxidizers			1.58	
Cresol per oxidizer	0.16	lbs/hour per oxidizer	0.53	Assumes 40% of HAPs emitted as Cresol.
Cresol for 2 oxidizers			1.06	
Total HAPs per oxiidzer	0.4	lbs/hour per oxidizer	1.32	Control factor based on permit limit.
Total HAPs for 2 oxidizers			2.64	

Appendix A: Emissions Calculations
From Chemical Vapor Deposition (CVD) Units

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

Process Emissions

Unit	VOC Emission Factor (lb/unit/hr)	CO Emission Factor (lb/unit/hr)	Benzene Emission Factor (lb/unit/hr)	Toluene Emission Factor (lb/unit/hr)	Styrene Emission Factor (lb/unit/hr)	Maximum Operating Time for Non-Woven Batch Operation (hrs/yr)	Maximum Operating Time for Random Fiber Batch Operation (hrs/yr)	Uncontrolled VOC Emissions (tons/yr)	Potential CO Emissions (tons/yr)	Uncontrolled Benzene Emissions (tons/yr)	Uncontrolled Toluene Emissions (tons/yr)	Uncontrolled Styrene Emissions (tons/yr)	Uncontrolled Total HAPs Emissions (tons/yr)	Control Efficiency	Controlled VOC Emissions (tons/yr)	Controlled Benzene Emissions (tons/yr)	Controlled Toluene Emissions (tons/yr)	Controlled Styrene Emissions (tons/yr)	Controlled Total HAPs Emissions (tons/yr)
CVD-1	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-2	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-3	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-4	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-5	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-6	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-7	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-8	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-9	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-10	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-11	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-12	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-13	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-14	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-15	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-16	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-17	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-18	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-19	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-20	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-21	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-22	15.62	0.66		0.225	0.209	5800	7900	45.3	2.61	0.00	0.653	0.606	1.26	98.0%	0.91	0.000	0.013	0.012	0.025
CVD-23	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-24	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-25	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-26	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
CVD-27	15.62	0.66	2.11	0.225	0.209	5800	7900	45.3	2.61	6.12	0.653	0.606	7.38	98.0%	0.91	0.122	0.013	0.012	0.148
						Total:		**1223**	**70.389**	**159.1**	**17.62**	**16.36**	**193.1**		**24.46**	**3.18**	**0.35**	**0.33**	**3.86**

Methodology
Uncontrolled Emissions (tons/yr) = Emission Factor (lb/unit/hr) x 1 unit x Maximum Operating Time for this Batch Operation (hrs/yr)
Controlled Emissions (tons/yr) = Uncontrolled Emissions (tons/yr) x (1- Control Efficiency)
Emission Factors for CO is the highest average emission rate from the 2004 stack test, validated by IDEM, OAQ, increased with a safety factor of 10%.
Uncontrolled VOC and Organic HAP emissions are based on historic stack test data for the non-woven process wich has the highest total reactant gas flow rate. As such the potential soak hours for Non-woven process is used.

Appendix A: Emissions Calculations
From Chemical Vapor Deposition (CVD) Units

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

Appendix A: Emissions Calculations
From Chemical Vapor Deposition (CVD) Units (Continued)

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Significant Source Modification No.: 141-35719-00172
Significant Permit Modification No.: 141-35733-00172
Reviewer: Jenny Liljegren

Combustion Emissions

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
148.50	1173

	Pollutant					
	PM*	PM10*	PM2.5*	SO2	NOx	VOC
Emission Factor in lb/MMCF	1.90	7.60	7.60	0.600	100 **see below	5.50
Potential Emission in tons/yr	1.114	4.458	4.458	0.352	58.66	3.226

*PM emission factor is filterable PM only. PM10 and PM2.5 emission factor is filterable and condensable PM10 and PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

	HAPs - Organics					HAPs - Metals					
	Benzene	Dichlorobenzene	Formaldehyd	Hexane	Toluene	Lead	Cadmium	Chromium	Manganese	Nickel	
Emission Factor in lb/MMcf	0.00210	0.00120	0.07500	1.80000	0.00340	0.0005	0.0011	0.0014	0.0004	0.0021	**Total**
Potential Emission in tons/yr	0.001232	0.000704	0.043993	1.055835	0.001994	0.000293	0.000645	0.000821	0.000223	0.001232	**1.107**

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

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 7,900 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	70,389	1	1
Summed Potential Emissions in tons/yr	70,392		
CO2e Total in tons/yr	70,817		

Methodology
The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Total Emissions

	PM	PM10	PM2.5	SO2	NOx	VOC	CO	CO2e
Uncontrolled (tons/yr)	-	-	-	-	-	1223	70,389	-
Controlled (tons/yr)	1.114	4.458	4.458	0.352	58.658	27.69	70,389	70,817

Appendix A: Emissions Calculations
From Chemical Vapor Deposition (CVD) Units

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

The CO Emissions from Combustion are included in the process calculations.

	Benzene	Dichloro-benzene	Formaldehyde	Hexane	Toluene	Lead	Cadmium	Chromium	Manganese	Nickel	Styrene	Total HAPs
Uncontrolled (tons/yr)	159.1	-	-	-	17.62	-	-	-	-	-	16.36	193.1
Controlled (tons/yr)	3.183	0.00070	0.044	1.056	0.354	0.00029	0.00065	0.00082	0.00022	0.00123	0.327	4.968

Note: Combustion emissions are excluded from the uncontrolled emissions because they come from they flares which are the control devices.

Appendix A: Emissions Calculations
Surface Coating Operations

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

Filter Control Efficiency	99%
Paint Transfer Efficiency	75%

"As Applied" Weight %

Material	Trade Name	Product	Coating Density, lbs/gal	VOC	Solids	MIBK 108101	Xylene 1330207	Toluene 108883	Ethyl benzene 100414	Nickel	Manganese	Chromium Compounds	Total Org HAP	VOC, lbs/gal as Applied
79501050	PPG Eco-Prime Yellow	Epoxy	11.8936	0.2376	0.7624	0.0544	0.0208	0.0208	0.0000	0.0000	0.0000	0.1664	0.0960	2.739
79501069	Hentzen Green Epoxy Primer MIL-PRF-23377J, Type I, Class N	Epoxy	11.34	0.2869	0.7049	0.0333	0.0081	0.00015	0.0005	0.0000	0.0000	0.0000	0.0421	2.880
79501090	Desothane HS Gloss White	Polyester	10.645	0.3109	0.6891	0.0785	0.0162	0.0000	0.0000	0.0000	0.0000	0.0000	0.0947	3.309
79501080	Desothane HS Gloss Gray	Polyester	10.235	0.3403	0.6597	0.0817	0.0158	0.0000	0.0000	0.0000	0.0000	0.0000	0.0975	3.483
32101155	Lacquer Thinner	Thinner	7.01	1.0000	0.0000	0.4700	0.0480	0.4400	0.0000	0.0000	0.0000	0.0000	0.9580	
32100083	Odorless Mineral Spirits	Thinner	6.60	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Potential to Emit, tons/year

Material	Trade Name	gal/unit	units/hour	VOC	UnCntrld PM/PM10/PM2.5	Controlled PM/PM10/PM2.5	MIBK 108101	Xylene 1330207	Toluene 108883	Ethyl benzene 100414	Nickel	Manganese	Chromium Compounds	Total HAPs
79501050	Eco-Prime Yellow	0.032	5	1.98	1.59	0.016	0.453	0.173	0.173	0.000	0.00000	0.00000	0.00347	0.804
	Hentzen Green Epoxy Primer MIL-PRF-23377J, Type I, Class N	0.032	5	2.28	1.40	0.014	0.265	0.064	0.001	0.004	0.00000	0.00000	0.00000	0.335
79501090	Desothane HS Gloss White	0.032	5	2.32	1.29	0.013	0.586	0.121	0.000	0.000	0.00000	0.00000	0.00000	0.706
79501080	Desothane HS Gloss Gray	0.032	5	2.44	1.18	0.012	0.586	0.113	0.000	0.000	0.00000	0.00000	0.00000	0.699
32101155	Lacquer Thinner	0.025	5	3.84	0.00	0.00	1.804	0.184	1.689	0.000	0.00000	0.00000	0.00000	3.677
32100083	Odorless Mineral Spirits	0.007	5	1.01	0.00	0.00	0.000	0.000	0.000	0.000	0.00000	0.00000	0.00000	0.000
	Potential to Emit Totals			**9.57**	**2.87**	**0.03**	**2.84**	**0.48**	**1.86**	**4.17E-03**	**0.00E+00**	**0.00E+00**	**3.47E-03**	**5.19**

Prior to Modification 9.69
As part of MSM 141-35719-00172, the green epoxy primer density has been corrected to 11.34 lbs/gal (not 10.072 lbs/gal as indicated in the calculations prior to this modification).

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used
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
Combustion

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

Table A: Natural Gas Emissions

	Pollutant						
	PM*	**PM10***	**direct PM2.5***	**SO2**	**Nox***	**VOC**	**CO**
Emission Factor in lb/MMCF	**1.9**	**7.6**	**7.6**	**0.6**	**100.0**	**5.5**	**84.0**
Emission Unit	**Rated Capacity, MMBtu/hr**	**Potential to Emit, tons/year**					
Boilers / Water Heaters	19.46	0.16	0.64	0.64	0.05	8.36	0.46	7.02
Char Furnace RTOs	6.00	0.04	0.15	0.15	0.01	1.94	0.11	1.63
Space Heating	13.00	0.11	0.42	0.42	0.03	5.58	0.31	4.69
Totals	**38.46**	**0.30**	**1.21**	**1.21**	**0.10**	**15.88**	**0.87**	**13.34**

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100

Potential Throughput - Boilers / Water Heaters & Space Heating
MMCF/yr
284.34

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	17,060	0	0
Summed Potential Emissions in tons/yr	17,061		
CO2e Total in tons/yr	17,164		

Potential Throughput - Char Furnace RTOs
MMCF/yr
52.56

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	3,154	0	0
Summed Potential Emissions in tons/yr	3,154		
CO2e Total in tons/yr	3,173		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emissions Calculations
Combustion

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

Appendix A: Emissions Calculations
Combustion (Continued)

Company Name: **Honeywell International, Inc.**
Address City IN Zip: **3520 Westmoor Street, South Bend, IN 46628**
Significant Source Modification No.: **141-35719-00172**
Significant Permit Modification No.: **141-35733-00172**
Reviewer: **Jenny Liljegren**

Table A: Natural Gas Emissions

		Pollutant																
		Total HAPs	**2-methylnapthalene**	**3-methylchloranthrene**	**7,12-Dimethylbenz(a)anthracene**	**Acenaphthene**	**Acenaphthylene**	**Anthracene**	**Benz(a)anthracene**	**Benzene**	**Benzo(a)pyrene**	**Benzo(b)fluoranthne**	**Benzo(g,h,i)perylene**	**Benzo(k)fluoranthene**	**Chrysene**	**Dibenzo(a,h)anthracene**	**Dichlorobenzene**	**Fluoranthene**
Emission Factor in lb/MMCF		-	2.4E-05	1.8E-06	1.6E-05	1.8E-06	1.8E-06	2.4E-06	1.8E-06	2.1E-03	1.2E-06	1.8E-06	1.2E-06	1.8E-06	1.8E-06	1.2E-06	1.2E-03	3.0E-06
Emission Unit	**Rated Capacity, MMBtu/hr**		**Potential to Emit, Tons/Year**															
Boilers / Water Heaters	19.46	0.158	2.0E-06	1.5E-07	1.3E-06	1.5E-07	1.5E-07	2.0E-07	1.5E-07	1.8E-04	1.0E-07	1.5E-07	1.0E-07	1.5E-07	1.5E-07	1.0E-07	1.0E-04	2.5E-07
Char Furnace RTOs	6.00	0.049	6.2E-07	4.6E-08	4.1E-07	4.6E-08	4.6E-08	6.2E-08	4.6E-08	5.4E-05	3.1E-08	4.6E-08	3.1E-08	4.6E-08	4.6E-08	3.1E-08	3.1E-05	7.7E-08
Space Heating	13.00	0.105	1.3E-06	1.0E-07	8.9E-07	1.0E-07	1.0E-07	1.3E-07	1.0E-07	1.2E-04	6.7E-08	1.0E-07	6.7E-08	1.0E-07	1.0E-07	6.7E-08	6.7E-05	1.7E-07
Totals	**38.46**	**0.312**	**3.96E-06**	**2.97E-07**	**2.64E-06**	**2.97E-07**	**2.97E-07**	**3.96E-07**	**2.97E-07**	**3.47E-04**	**1.98E-07**	**2.97E-07**	**1.98E-07**	**2.97E-07**	**2.97E-07**	**1.98E-07**	**1.98E-04**	**4.95E-07**

Table A: Natural Gas Emissions

		Pollutant																
		Fluorine	**Formaldehyde**	**Hexane**	**Indeno(1,2,3-cd)pyrene**	**Naphthalene**	**Phenanathrene**	**Pyrene**	**Toluene**	**Lead**	**Arsenic**	**Beryllium**	**Cadmium**	**Chromium**	**Cobalt**	**Manganese**	**Mercury**	**Nickel**	**Selenium**
Emission Factor in lb/MMCF		2.8E-06	7.5E-02	1.8E+00	1.8E-06	6.1E-04	1.7E-05	5.0E-06	3.4E-03	5.0E-04	2.0E-04	1.2E-05	1.1E-03	1.4E-03	8.4E-05	3.8E-04	2.6E-04	2.1E-03	2.4E-05
Emission Unit	**Rated Capacity, MMBtu/hr**	**Potential to Emit, Tons/Year**																
Boilers / Water Heaters	19.46	2.3E-07	6.3E-03	1.5E-01	1.5E-07	5.1E-05	1.4E-06	4.2E-07	2.8E-04	4.2E-05	1.7E-05	1.0E-06	9.2E-05	1.2E-04	7.0E-06	3.2E-05	2.2E-05	1.8E-04	2.0E-06
Char Furnace RTOs	6.00	7.2E-08	1.9E-03	4.6E-02	4.6E-08	1.6E-05	4.4E-07	1.3E-07	8.8E-05	1.3E-05	5.2E-06	3.1E-07	2.8E-05	3.6E-05	2.2E-06	9.8E-06	6.7E-06	5.4E-05	6.2E-07
Space Heating	13.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Totals	**38.46**	**4.62E-07**	**1.24E-02**	**2.97E-01**	**2.97E-07**	**1.01E-04**	**2.81E-06**	**8.26E-07**	**5.62E-04**	**8.26E-05**	**3.30E-05**	**1.98E-06**	**1.82E-04**	**2.31E-04**	**1.39E-05**	**6.28E-05**	**4.29E-05**	**3.47E-04**	**3.96E-06**

Methodology
Methodology is the same as previous page.

Appendix A: Emission Calculations
Reciprocating Internal Combustion Engines - Diesel Fuel
Emergency Generator

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

Emissions calculated based on output rating (hp)

Output Horsepower Rating (hp)	535.0
Maximum Hours Operated per Year	500
Potential Throughput (hp-hr/yr)	267,500

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Potential Emission in tons/yr	0.29	0.29	0.29	0.27	4.15	0.34	0.89

*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/hp-hr****	6.53E-06	2.86E-06	2.00E-06	2.74E-07	8.26E-06	5.37E-06	6.48E-07	1.18E-06
Potential Emission in tons/yr	8.74E-04	3.83E-04	2.67E-04	3.66E-05	1.10E-03	7.18E-04	8.66E-05	1.57E-04

***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)
****Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

Potential Emission of Total HAPs (tons/yr)	**3.63E-03**

Green House Gas Emissions (GHG)

	Pollutant		
	CO2	CH4	N2O
Emission Factor in lb/hp-hr	1.15E+00	4.63E-05	9.26E-06
Potential Emission in tons/yr	1.54E+02	6.19E-03	1.24E-03

Summed Potential Emissions in tons/yr	**1.54E+02**
CO2e Total in tons/yr	**1.54E+02**

Methodology
Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2
CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] * [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emission Calculations
Reciprocating Internal Combustion Engines - Natural Gas Fuel
Emergency Generator

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

Emissions calculated based on output rating (hp)

Output Horsepower Rating (hp)	255.0	This is total HP rating for one (1) 40 HP unit installed in 1977 and one (1) 215 HP Unit installed in 2004
Fuel Input Rating, MMBtu/hr	1.785	
Maximum Hours Operated per Year	500	
Potential Throughput (MMCF /year)	0.875	

	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMBtu	0.00991	0.00999	0.00999	0.000588	4.0800	0.118	0.5570
Potential Emission in tons/yr	0.004	0.004	0.004	0.0003	1.821	0.053	0.249

Emission Factors are for 4 stroke lean burn enfines from AP-42 Table 3.2-2
*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.

Hazardous Air Pollutants (HAPs)

	Pollutant									
	Benzene	Toluene	Xylene	Methanol	Formaldehyde	n-hexane	1,3-Butadiene	Acetaldehyde	Acrolein	Total HAPs
Emission Factor in lb/MMBtu	4.40E-04	4.08E-04	1.84E-04	0.0025	0.0528	0.00111	2.67E-04	8.36E-03	5.14E-03	
Potential Emission in tons/yr	1.93E-07	1.79E-07	8.05E-08	1.09E-06	2.31E-05	4.86E-07	1.17E-07	3.66E-06	2.25E-06	3.12E-05

Emission Factors are for 4 stroke lean burn enfines from AP-42 Table 3.2-2
***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

Potential Emission of Total HAPs (tons/yr)	**3.12E-05**

Green House Gas Emissions (GHG)

	Pollutant		
	CO2	CH4	N2O
Emission Factor in lb/MMCF	120000	2.30	2.20
Potential Emission in tons/yr	52.50	0.0010	0.0010

Summed Potential Emissions in tons/yr	**52.50**
CO2e Total in tons/yr	**52.82**

Methodology
Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2
CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] * [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

As part of MSM 141-35719-00172, one (1) of the two (2) 40 HP units was removed from the source. See below for the PTE of the two (2) 40 HP and one (1) 215 HP generators prior to this modification.

PM	PM10	PM2.5	SO2	NOx	VOC	CO	CO2e
0.0051	0.0052	0.0052	0.0003	2.1063	0.0609	0.2876	61.10

Appendix A: Emissions Calculations
Insignificant Activities - Particulate Emissions

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Pl ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

PM/PM10/PM2.5 Emissions

	Installation Date(s)	Unit ID	cfm	Allowable lbs/hour @0.03 gr/dscf	Rated Capacity pounds/ hour *	% of Processed Material Removed**	% emitted to atmosphere	PTE pounds/hour uncontrolled	PTE pounds/day uncontrolled	PTE Tons/year Uncontrolled	PTE Tons/year Controlled	Limited PTE Tons/year***	326 IAC 6.5 PTE Tons/year****
Rework Abrasive Blaster	2011	BR-1	600	0.15	As Per Page 6			1.36	32.73	5.97	0.12	5.97	0.68
Skatblast Plastic Bead Blaster	1998	SPBB-1	300	0.08	350	0.50%	100%	1.75	42.00	7.67	0.15	7.67	0.34
Trinco Drv Blast	1993	TDB-1	90	0.02	125	0.10%	100%	0.13	3.00	0.55	0.01	0.55	0.10
Vapor Blast Model 2820	1988	VB2820-1	120	0.03	150	0.10%	100%	0.15	3.60	0.66	0.01	0.66	0.14
North Shot Peening		NSP-1	2000	0.51	85	0.40%	100%	0.34	8.16	1.49	0.03	1.49	2.25
South Shot Peening		SSP-1	2000	0.51	85	0.40%	100%	0.34	8.16	1.49	0.03	1.49	2.25
PTI Shot Peener	2009	PTI-1	1500	0.39	160	0.40%	100%	0.64	15.36	2.80	0.06	2.80	1.69
Blast Works (Glass Works)		BW-1	1500	0.39	20	0.40%	100%	0.08	1.92	0.35	0.01	0.35	1.69
SNC 86 Makino #1		SNC-1	4000	1.03	All carbon machining emissions for uncontrolled particulate matter are based upon actual collections.			3.64	87.40	15.95	0.32	4.51	4.51
SNC 86 Makino #2		SNC-2	4000	1.03				3.64	87.40	15.95	0.32	4.51	4.51
SNC 86 Makino #3		SNC-3	4000	1.03				3.64	87.40	15.95	0.32	4.51	4.51
SNC 86 Makino #4		SNC-4	4000	1.03				3.64	87.40	15.95	0.32	4.51	4.51
SNC 86 Makino #5		SNC-5	4000	1.03				3.64	87.40	15.95	0.32	4.51	4.51
A88 Makino #1		A88-1	4000	1.03				8.33	200.00	36.50	0.73	4.51	4.51
Vertical Okuma #1		VO-1	4000	1.03				0.71	17.00	3.10	0.06	4.51	4.51
Horizontal Okuma #1		HO-1	4000	1.03				8.33	200.00	36.50	0.73	4.51	4.51
Pratt & Whitney Grinder #1		P&WG-1	4000	1.03				6.67	160.00	29.20	0.58	4.51	4.51
Gardner Grinder #1		GG-1	4000	1.03				10.00	240.00	43.80	0.88	4.51	4.51
TimeSaver Grinder #1		TSG-1	4000	1.03				23.75	570.00	104.03	2.08	4.51	4.51
AEM Grinder #1		AEMG-1	4000	1.03				0.83	20.00	3.65	0.07	4.51	4.51
Carbon Machining HO-2	2011	HO-2	4000	0.25				8.41	201.84	36.85	0.74	4.51	1.10
Die Cutter w/ air separator (Large	1991	DCR	9000	2.31	60	1.00%	100%	0.60	14.40	2.63	0.05	2.63	10.14
Needle Room (Large Fibers)	1998	NM	7600	1.95	60	1.00%	100%	0.60	14.40	2.63	0.05	2.63	8.56
Auto Preform Machine #1		APM-1	30500	7.84	54	1.00%	100%	0.54	12.96	2.37	0.05	2.37	34.35
Auto Preform Machine #2		APM-2	30500	7.84	54	1.00%	100%	0.54	12.96	2.37	0.05	2.37	34.35
EI Dynamometer	1989	EID	10,000	2.57	8.33	1.00%	100%	0.08	2.00	0.36	0.01	0.36	11.26
Kitty Litter Use on EI Dyno					0.50	2.00%	100%	0.01	0.24	0.04	-	0.04	-
Torque Tube Burr Bench		TTBB-1	3500	0.90	62.5	1.00%	100%	0.63	15.00	2.74	0.05	2.74	3.94
NW Burr Bench Cell		NWBBW-1	3500	0.90	12.5	1.00%	100%	0.13	3.00	0.55	0.011	0.55	3.94
Outboard Cell Burr Bench		OCBB-1	3500	0.90	25	1.00%	100%	0.25	6.00	1.10	0.022	1.10	3.94
NDT Burr Bench		NDTBB-1	3500	0.90	20	1.00%	100%	0.20	4.80	0.88	0.018	0.88	3.94
Inboard Deburr Bench	2010	IDB-1	3500	0.90	20	1.00%	100%	0.20	4.80	0.88	0.018	0.88	3.94
Deburr Bench #8	2009	DM-8	3500	0.90	20	1.00%	100%	0.20	4.80	0.88	0.018	0.88	3.94
Piston Housing Cell Burr Bench		PHCBB-1	3500	0.90	40	1.00%	100%	0.40	9.60	1.75	0.035	1.75	3.94
Torq Tube Rough Deburr		TTRDB-1	3500	0.90	12.5	1.00%	100%	0.13	3.00	0.55	0.011	0.55	3.94
120 MI Top Side Brake Dyno		TSBD-1		Unctrld	8.33	1.00%	100%	0.08	2.00	0.36	0.41	0.36	-
Kitty Litter Use on 120 MI Dyno	1943				0.5	2.00%	100%	0.01	0.24	0.04	-	0.04	-
MI-2 Brake Dyno		MI-2		Unctrld	8.33	1.00%	100%	0.08	2.00	0.36	0.37	0.36	-
Kitty Litter Use on MI-2 Dyno	1998				0.05	2.00%	100%	0.00	0.02	0.004	-	0.004	-
Adamson 84 Brake Dyno		A84-1		Unctrld	8.33	1.00%	100%	0.08	2.00	0.36	0.41	0.36	-
Kitty Litter Use on Adamson 84 Dyno	1943				0.50	2.00%	100%	0.01	0.24	0.04	-	0.04	-
FPTM Shaft Dyno	1992	FPTM-1		Unctrld	8.33	1.00%	100%	0.08	2.00	0.36	0.36	0.36	-
Shaft Dyno	1978	SBD-1		Unctrld	8.33	1.00%	100%	0.08	2.00	0.36	0.36	0.36	-
150K Roll Dyno		150KRD-1		Unctrld	7.5	1.00%	100%	0.08	1.80	0.329	0.331	0.33	-
Talc Use on 150K Roll Dyno	1994				0.05	1.00%	100%	0.00	0.01	0.002	-	0.002	-
120 Roll Dyno	1950	120RD-1		Unctrld	7.5	1.00%	100%	0.08	1.80	0.329	0.329	0.33	-
96 Roll Dyno	1943	96RD-1		Unctrld	7.5	1.00%	100%	0.08	1.80	0.329	0.329	0.33	-
Plastic Media Blaster (Wheelabrator)		WPBB-1	2000	0.51	10	0.40%	100%	0.04	0.96	0.18	0.004	0.18	2.25
Tumb Blaster		TB-1	600	0.15	10	1.00%	100%	0.10	2.40	0.44	0.01	0.44	0.68
Okuma #17 Brass Dry Machining	1990	BM-1	2000	0.51	600	1.00%	100%	6.00	144.00	26.28	0.53	2.25	2.25
Makino #15 Brass Dry Machining	2010	BM-2	1600	0.41	600	1.00%	100%	6.00	144.00	26.28	0.53	1.80	1.80
Mattison Grinder		MG-1	1200	0.31	230	1.00%	100%	2.30	55.20	10.07	0.20	10.07	1.36
								Sub Total	2516.27	459.23	12.45	116.89	168.48

Grain Loading Limit 0.03 gr/dscf per 326 IAC 6.5-1-2

* For most processes this represents the pounds per hour of material processed. For the plastic media blasting operations it represents the pounds per hour of blast media used.
** This % of material lost is based on judgment which gives a more conservative PTE than the closest matching AP-42 emission factor from Table 12.10-7 of 17 lbs/ton. In the case of blasting operations it is based on a factor of 0.004 pounds of PM/pound of shot media per STAPPA/ALAPCO permit document.
***Limited PTE is the PSD minor limit (326 IAC 2-2). Not all units have limits under 326 IAC 2-2 for those units the uncontrolled PTE is listed.
**** 326 IAC 6.5 PTE is the limit pursuant to 326 IAC 6.5-1-2 in tons/year. Uncontrolled units must meet 0.03 gr/dscf.

MSM 141-35719-00172 new units listed below

	Installation Date(s)	Unit ID	cfm	Allowable lbs/hour @0.03 gr/dscf	Rated Capacity pounds/ hour *	% of Processed Material Removed**	% emitted to atmosphere	PTE pounds/hour uncontrolled	PTE pounds/day uncontrolled	PTE Tons/year Uncontrolled	Limited PTE Tons/year***	PTE Tons/year Controlled	326 IAC 6.5 PTE Tons/year****
Detroit Grinder #1		DEG-1	4000	1.03	All carbon machining emissions for uncontrolled particulate matter are based upon actual collections.			10.00	240.00	43.80	4.51	0.88	4.51
Magnahelic Room Roto-Clone		MRBB-1						0.011	0.26	0.05			-
								Sub Total	240.26	43.85	4.55	0.88	4.51

Grain Loading Limit 0.03 gr/dscf per 326 IAC 6.5-1-2

* For most processes this represents the pounds per hour of material processed. For the plastic media blasting operations it represents the pounds per hour of blast media used.
** This % of material lost is based on judgment which gives a more conservative PTE than the closest matching AP-42 emission factor from Table 12.10-7 of 17 lbs/ton. In the case of blasting operations it is based on a factor of 0.004 pounds of PM/pound of shot media per STAPPA/ALAPCO permit document.
***Limited PTE is the PSD minor limit (326 IAC 2-2). Not all units have limits under 326 IAC 2-2 for those units the uncontrolled PTE is listed.
**** 326 IAC 6.5 PTE is the limit pursuant to 326 IAC 6.5-1-2 in tons/year. Uncontrolled units must meet 0.03 gr/dscf.

Methodology

Magnahelic Room Roto-Clone

0.5	Cup Metal from each Part
0.52159	Pounds = 1 Cup
50%	Metal Emitted

	Parts/Shift	Shifts/Day	Parts/Day	Pounds Metal/Part	Pounds Metal/Day	Pounds Metal Emitted/Day as PM	PM (lb/hr)	PM (tpy)
	2	1	2	0.2608	0.522	0.2608	0.01087	0.04760

Appendix A: Emissions Calculations
Insignificant Activities - Particulate and Greenhouse Gas Emissions

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

PM/PM10/PM2.5 Emissions

	Installation Date(s)	Unit ID	cfm	Allowable lbs/hour @ 0.03 gr/dscf	lb PM/cycle[1]	PTE pounds/hour uncontrolled	PTE Tons/year Uncontrolled	Control Efficiency	PTE Tons/year Controlled	Limited PTE Tons/year
Cold jet blasting	2013	CJ-1	14000	3.6	154	0.46	2.00	95%	0.10	2.00

All particulate matter assumed to be PM_{10} and $PM_{2.5}$

Greenhouse Gases

Dry ice usage, provided by source	500	lb/tote x	20	totes/cycle =	10,000	lb/cycle
PTE	26	cycles/yr =			130	**tons CO_2/yr**

Notes:
1. Source provided weight of material removed from CVD furnace parts in 14 day cycle

Appendix A: Emissions Calculations
BR-1

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

Table 1 - Emission Factors for Abrasives

	Emission Factor	
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	

Table 2 - Density of Abrasives (lb/ft3)

Abrasive	Density (lb/ft3)
Al oxides	160
Sand	99
Steel	487
glass bead	100
plastic bead	50

Table 3 - Sand Flow Rate (FR1) Through Nozzle (lb/hr)
Flow rate of Sand Through a Blasting Nozzle as a Function of Nozzle pressure and Internal Diameter

	Nozzle Pressure (psig)							
Internal diameter,	30	40	50	60	70	80	90	100
1/8	28	35	42	49	55	63	70	77
3/16	65	80	94	107	122	135	149	165
1/4	109	138	168	195	221	255	280	309
5/16	205	247	292	354	377	420	462	507
3/8	285	355	417	477	540	600	657	720
7/16	385	472	560	645	755	820	905	940
1/2	503	615	725	835	945	1050	1160	1265
5/8	820	990	1170	1336	1510	1680	1850	2030
3/4	1140	1420	1670	1915	2160	2400	2630	2880
1	2030	2460	2900	3340	3780	4200	4640	5060

Calculations ***Flow Rate @ 45 psig (avg of 247 & 292) = 270***

Adjusting Flow Rates for Different Abrasives and Nozzle Diameters

Flow Rate (FR) = Abrasive flow rate (lb/hr) with internal nozzle diameter (ID)

FR1 = Sand flow rate (lb/hr) with internal nozzle diameter (ID1) From Table 3 =	270
D = Density of abrasive (lb/ft3) From Table 2 =	50
D1 = Density of sand (lb/ft3) =	99
ID = Actual nozzle internal diameter (in) =	0.3125
ID1 = Nozzle internal diameter (in) from Table 3 =	0.3125

Flow Rate (FR) (lb/hr) = 136.364 per nozzle

Uncontrolled Emissions (E, lb/hr)

EF = emission factor (lb PM/ lb abrasive) From Table 1 =	0.010
FR = Flow Rate (lb/hr) =	136.364
w = fraction of time of wet blasting =	0 %
N = number of nozzles =	1

	PM Emissions		PM10 Emissions		PM2.5 Emissions	
Uncontrolled Emissions =	**1.36**	**lb/hr**	**0.95**	**lb/hr**	**0.95**	**lb/hr**
	5.97	**ton/yr**	**4.18**	**ton/yr**	**4.18**	**ton/yr**
Controlled Emissions =	**0.03**	**lb/hr**	**0.02**	**lb/hr**	**0.02**	**lb/hr**
(Assumes dust control is 98%)	**0.12**	**ton/yr**	**0.08**	**ton/yr**	**0.08**	**ton/yr**

METHODOLOGY
PM10 = PM2.5
Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)
Ton/yr = lb/hr X 8760 hr/yr X ton/2000 lbs
Flow Rate (FR) (lb/hr) = FR1 x (ID/ID1)2 x (D/D1)
E = EF x FR x (1-w/200) x N

Emissions Calculations
Friction Materials Production Processes

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

Process: fibers are formed into disks (brakes).

Max weight of disks processed through the friction materials line (lbs/hr)	Maximum potential weight of disks processed (tons/year)	Uncontrolled PM/PM10/PM2.5 (tons/yr)	Uncontrolled VOC (tons/yr)	Uncontrolled HAP -- Formaldehyde-- (tons/yr)	Uncontrolled HAP -- Phenol--(tons/yr)	% solids by weight	% VOC by weight	% formaldehyde by weight	% phenol by weight
125	547.5	**0.55**	**17.93**	**2.74**	**2.87**	0.1%	3%	0.5%	1%

Methodology
Provided by the source:
The Friction Materials Production processes constitute a “line” and the overall production rate is limited by the two pre-form machines to a total of 125 lbs/hour (50 lbs/hour for pre-form oven APM-1 and 75 lbs/hr for pre-form oven APM-2).

The raw materials used in the process consist of: carbon fiber, 50%; Phenolic Resin, 40%; Phenol, 3.5%; Para phenyl phenol, 3%; Methyl Ethyl Ketone (MEK), 3%; and Formaldehyde, 0.5%. These estimates are based on the MSDS sheets for the two predominant molding compounds used in the process; Karbon 647 and Karbon 477 C. Honeywell performed a mass balance analysis in order to obtain a more quantitative assessment of the potential emissions from the friction material line.

The weight loss assessment involved 190 disks and the average weight loss was 3.6%. The potential weight of brakes processed through the friction materials line can be determined using 125 lbs per hour of material formed in the two pre-form machines. At 8760 hours of operation (a very conservative assumption given the batch nature of these processes), this would equate to 548 tons of disks processed. The 3.6% weight loss would therefore equate to a potential weight loss of 19.7 tons/year. The breakdown by individual weight loss constituents from these processes is conservatively estimated to be comprised of: formaldehyde (assumed to be 100% volatilized); MEK (assumed to be 75% volatilized); phenol of which 15% would be emitted and 85% consumed in reactions or retained in the product; solid material lost in the handling of the parts; and water which is produced as a by-product of the chemical reactions. Emissions of para-phenyl phenol were assumed to be negligible due to its high molecular weight and high boiling point. Based on the weight loss data, and process knowledge, the potential weight loss of 19.7 tons/year for the entire process would be comprised of:

- 2.7 tons/year of formaldehyde (0.5% x 548 tons/year).
- 12.3 tons/year of MEK (3% x 75% x 548 tons/year)
- 2.9 tons/year phenol (3.5% x 0.15% x 548 tons/year).
- 0.5 ton per year of solid material (0.1% x 548 tons/year), and.
- 1.3 tons/year of water (Balance of the weight loss).

The total VOC loss (formaldehyde, MEK and phenol) would be 17.9 tons per year across the entire process and much smaller for each of the individual process units.

Appendix A: Emissions Calculations
Anodizing Tanks

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

Potential Emissions From Anodizing Line Tanks (PTE)

Tank #	Bath Contents	Emits Regulated Pollutant(s)?	VOC (ton/yr)	Ammonia (ton/yr)	Sulfuric Acid Mist (ton/yr)	Hydrogen Fluoride (ton/yr)	Nitrogen Oxides (ton/yr)	Chromium Compounds (ton/yr)
1	Empty	NO						
2	Daraclean 282GF @ 5-15%	YES	0.05					
3	Water	NO						
4	Nitric Acid @ 35-50%	YES					8.57	
5	Water	NO						
6	water	NO						
7	Alutone/Chem Alum350 @ 3.0-3.5%	YES		0.25		0.63	0.18	
8	Water	NO						
9	Water	NO						
10	Sulfuric Acid @ 165g/L	YES			1.33E-05			
11	Sulfuric Acid @ 165g/L	YES			1.33E-05			
12	Water	NO						
13	Water	NO						
14	Sodium Bicarbonate @ 50 g/L	NO						
15	Empty	NO						
16	Empty	NO						
17	Water	NO						
18	Temporary Substitute Tank (Constituents From Other Baths)	Depends on Bath Chemistry						
19	Nitric Acid @ 15-20% & 1 oz/gal NH_4HF_2	YES				0.63	4.28	
20	Water	NO						
21	Water	NO						
22	Nitric Acid @ 35-50%	YES					8.57	
23	Dichromate Sealer @ 4.5 - 6.0%	YES						0.02
24	Dichromate Sealer @ 4.5 - 6.0%	YES						0.02
25	Chromic / Phosphoric Acid @ 15-30 g/L & 30 g/L	YES						0.02
26	Water	NO						
27	Water	NO						
28	Water	NO						
29	Water	NO						
30	Empty	NO						
TOTAL ANODIZING POTENTIAL EMISSIONS			**0.05**	**0.25**	**2.66E-05**	**1.25**	**21.60**	**0.07**
			Criteria	112 (r)	PSD	HAP	Criteria	HAP
						TOTAL HAPs		**1.33**

Appendix A: Emissions Calculations
Anodizing Tank 2

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

VOC From Tank 2, Daraclean 282 GF Potential Emissions (PTE)

Assumptions:
Theoretical Maximum Number of 26 Bath Dumps Per Year Used
All potential VOC emitted in Method 24 as per MSDS will be emitted.
Dragout will be estimated at a maximum of 12% loss.
Maximum Bath Concentration is 15% Daraclean (which equates to 165 gallons/bath)
Bath Temperatures normally range from 120F to 140F
Bath holds a maximum of 1100 gallons
Method 24 heats solution to 230F as basis of loss.
Vapor Pressure of Concentrate: 18 mm Hg @ 20 deg C

VOC (lb/bath) = 165 gal soln./bath x 12% (wt.) evaporative loss x 0.2 lb/gal VOC =	3.96	lb/bath
VOC (lb/hr) = 3.96 lb VOC/bath x 1 bath/336 hour lifespan =	0.012	lb/hr
VOC (lb/year) = 3.96 lb/bath x 26 baths/year =	102.96	lb/year
VOC (ton/year) = 102.96 lb/year x 1 ton/ 2000 lb =	0.051	ton/yr

Appendix A: Emissions Calculations
Anodizing Tank 7

Company Name:	Honeywell International, Inc.
Address City IN Zip:	3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID:	SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer:	Heath Hartley

Ammonia Emissions From Tank 7, Alutone / Chem Alum 350 Non Chrome Deoxidizer (PTE)

Assumptions:

880 gallons is the maximum volume for Tank 7
Urea $(NH_2)_2CO$ has weight of 60 lb per lb-mole and is 46.67% Nitrogen
* 1 mole urea will react to produce 2 moles ammonia
Maximum of 30.8 gal/batch of Chem Alum 350 used per bath
Maximum of 10% of Chem Alum 350 is Urea
Urea density is 11.00 lb/gal
Ammonia weighs 17 lb per lb-mole
Maximum of 26 bath changes per year

Urea (lb/bath) = 30.8 gal/bath soln. x 10% Urea max. x 11.00 lb/gal =	33.88	lb/bath
Urea (moles/bath) = 33.88 lb/bath x 1 mole Urea/60 lb per lb-mole =	0.56	moles/bath
Ammonia (moles /bath) = 0.56 moles/bath Urea x 2 =	1.13	moles/bath
Ammonia (lb/bath) = 1.13 moles Ammonia x 17 lb per lb-mole =	19.20	lb/bath
Ammonia (lb/year) = 19.2 lb/bath x 26 baths/year =	499.17	lb/year
Ammonia (ton/year) = 499.17 lb/year x 1 ton/2000 lb =	0.25	ton/year

* $(NH_2)_2CO + H_2O \leftrightarrow 2\ NH3 + CO2$

Appendix A: Emissions Calculations
Anodizing Tanks 10 & 11

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

Tanks 10 & 11, Sulfuric Acid Dip Tanks

Partial Pressure Calcs

Process Tank / Make-Up	Constituent of Chemical	CAS #	Tank Volume (L)	% Bath MakeUp	Specific Gravity (kg/L)	Mass of Primary Chemical in Tank (kg)	Gram Molecular Weight (GMW)	Moles of Primary Chemical	Total Moles per Bath	Mole Fraction per Bath	Vapor Pressure (atm) of Pure Primary Chemical at STP	Partial Vapor Pressure (atm)	Comments
#10 Sulfuric Acid	Sulfuric Acid	7664-93-9	*4164*	4.00%	1.83	304.80	98.080	3,107.72		0.014	8.13E-08	1.12291E-09	Only PSD Pollutant
	Water	NA	*4164*	96.00%	1.00	3,997.44	18.015	221,895.09	225,002.80				Not HAP
#11 Sulfuric Acid	Sulfuric Acid	7664-93-9	*4164*	4.00%	1.83	304.80	98.080	3,107.72		0.014	8.13E-08	1.12291E-09	Only PSD Pollutant
	Water	NA	*4164*	96.00%	1.00	3,997.44	18.015	221,895.09	225,002.80				Not HAP

Evaporative Loss Emissions Based Upon USEPA Aloha Algorithm

Process Tank / Make-Up	CAS #	U=Air Velocity (m/hr)	Do=Diameter Uncovered Area (m)	Dm = Molecular Diffusivity	Sc = Scheidt Number	A = Bath Area (m^2)	PPvap = Partial Vapor Pressure	Gram Molecular Weight (GMW)	R = .00008206 atm $m^{3/}$ gmol K	T = Temp. Kelvin (degrees)	H_2SO_4 (gr/hr)	H_2SO_4 (lb/hr)	H_2SO_4 (ton/yr)
#10 Sulfuric Acid Dip	7664-93-9	*54,864*	3.79	1.0286E-05	1.5429	4.05	1.12E-09	98.08	0.00008206	297	1.38E-03	3.03E-06	1.33E-05
#11 Sulfuric Acid Dip	7664-93-9	*54,864*	3.79	1.0286E-05	1.5429	4.05	1.12E-09	98.08	0.00008206	297	1.38E-03	3.03E-06	1.33E-05
Totals												6.07E-06	2.66E-05

Evaporative Emissions (g/hr) = 0.0292 $U^{0.76}$ $Do^{-0.11}$ $Sc^{-0.67}$ A Pvap MW / RT
where
U = Air velocity above bath (m/hr)
Do = Equivalent diameter of uncovered area (m)
Sc = Scheidt number
A = Bath area (m2)
PPvap = Partial Vapor pressure (atm)
MW = molecular weight
R = .00008206 atm m3 /gmol K
T = temperature of bath (K)

Sc = Scheidt number = v / Dm
v = kinematic viscosity of air = 1.5 x 10^{-5} m^2/s
Dm = molecular Diffusivity = D_{H20} x $(MW_{H2O} / MWx)^{0.5}$
D_{H2O} = molecular diffusivity of water = 2.4 x 10 -5 m^2/s
MW_{H2O} = 18
MW x = Per Chemical

Appendix A: Emissions Calculations
Anodizing Tanks 7 & 19

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

Tank 19, Hydrogen Fluoride PTE From Nitric Acid Bath

Assumptions: Ammonium Bifluoride is added to the acid bath at 1 oz/gallon neat chemical per bath
Chem Symbol = NH_4HF_2
One lb mole of NH_4HF_2 weighs 57.04 lbs.
GMW of HF is 20.01
NH_4HF_2 reacts with water to form 2 moles of hydrogen fluoride (HF) for every mole of ammonium bifluoride
Maximum of 26 bath changes per year

Max NH_4HF_2 (lb/bath) =	1 oz/gallon x 1 lb/16 oz x 1100 gal/bath =	68.75	lb/bath
Max NH_4HF_2 (lb/yr) =	68.75 lb/bath x 26 baths/yr =	1787.50	lb/yr
Lb-moles NH_4HF_2 / yr =	1787.50 lb/yr x 1 lb mole / 57.04 lb	31.34	lb-moles /yr
Lb-moles HF / yr =	31.34 lb-moles/yr NH_4HF_2 x 2 =	62.68	lb-moles /yr
HF (lb/yr) =	62.68 lb-moles/yr HF x 20.01 lb/lb-mole HF =	1254.13	lb/yr HF
HF (ton/yr) =	1254.13 lb/yr HF x 1 ton/2000 lb =	0.63	ton/yr HF

This is the theoretical maximum amount of fluoride that can be formed from the amount of ammonium bifluoride that is added.

An excerpt from a report on the website of **Australia's National Industrial Chemicals Notification and Assessment Scheme**.
NICNAS scientifically assesses industrial chemicals for their health and environmental effects and makes recommendations for safe use.
"**Ammonium bifluoride** (NH4HF2) is very soluble in water ... a 2.8g/100g solution of NH4HF2 would produce a ... 1.7g/100 g solution of hydrofluoric acid (HF) at pH 1, with 85% of the fluorine atoms in the form of HF. At higher concentrations or higher pH a significant amount of the HF2-- ion is present ... acidified fluorides can produce substantial quantities of HF in solution."
This statement verifies the worst case stoichiometric transfer of 1 mole ammonium bifluoride converts to 2 moles hydrogen fluoride.
The NICNAS ratio of 85% by weight direct conversion from NH_4HF_2 to HF is slightly below the stoichiometric ratio of 87% by weight.

Tank 7, Hydrogen Fluoride PTE From Alutone/Chem Alum Deox 350 Bath

Assumptions: Ammonium Bifluoride is added to the acid bath at 1 oz/gallon neat chemical per bath
Chem Symbol = NH_4HF_2
One lb mole of NH_4HF_2 weighs 57.04 lbs.
GMW of HF is 20.01
NH_4HF_2 reacts with water to form 2 moles of hydrogen fluoride (HF) for every mole of ammonium bifluoride
Maximum of 26 bath changes per year

Max NH_4HF_2 (gal/bath) =	880 gal/bath volume x 3.5% neat chemical x 10% NH_4HF_2 =	3.08	gal/bath	NH_4HF_2
Max NH_4HF_2 (lb/bath) =	3.08 gal/bath Ammonium Bifluoride x 12.50 lb/gal =	38.50	lb/bath	NH_4HF_2
Max NH_4HF_2 (lb/yr) =	38.5 lb/bath x 26 baths/yr =	1001.00	lb/yr	NH_4HF_2
Lb-moles NH_4HF_2 / yr =	1001.00 lb/yr x 1 lb mole / 57.04 lb	17.55	lb-moles /yr	NH_4HF_2
Lb-moles HF / yr =	17.55 lb-moles/yr NH_4HF_2 x 2 =	35.10	lb-moles /yr	HF
HF (lb/yr) =	35.10 lb-moles/yr HF x 20.01 lb/lb-mole HF =	702.31	lb/yr HF	
HF (ton/yr) =	702.31 lb/yr HF x 1 ton/2000 lb =	0.35	ton/yr HF	

Appendix A: Emissions Calculations
Anodizing Tank 7

Company Name:	Honeywell International, Inc.
Address City IN Zip:	3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID:	SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer:	Heath Hartley

Tank 7 Chem Alum/Alutone NOx

Assumptions:

Dilute concentrations of nitric acid are suspected to create higher levels of NOx per volume of nitric acid than from concentrated baths as above when reacting with aluminum based on general chemical principles.

This reaction prefers to produce NO over NO_2, so it will be assumed all emissions are based on NO as the primary pollutant within the NOx general category.

One lb mole of nitric acid (HNO_3) weighs 63.01 lbs.

One lb mole of Nitrogen Oxide (NO) is 30.01

* 4 moles of nitric acid reacts with aluminum in water to form 1 mole of NO

Specific Gravity of Nitric Acid = 12.58 lb/gal

Maximum of 26 bath changes per year

Max HNO_3 (gal/bath) =	30.8 gal neat chemical/bath x 30% (max. vol.) HNO_3 =	9.24	gal/bath
Max HNO_3 (lb/bath) =	9.24 gal/bath x 12.58 lb/gal =	116.24	lb/bath
Lb - moles HNO_3 / bath =	116.24 lb/bath x 1 lb mole / 63.01 lb	1.84	lb-moles/bath HNO_3
Lb - moles NO_2 / bath =	1 mole NO_2 x 1.84 lb-moles/bach /4 moles HNO_3 =	0.46	lb-moles /bath NO
NO (lb/batch) =	0.46 lb-moles/bath NO_2 x 30.01 lb/lb-mole NO_2 =	13.84	lb/bath NO
NO (lb/year) =	13.84 lb/bath NO_2 x 26 bath/year =	359.85	lb/year NO
NO (ton/year) =	551.71 lb/yr NO_2 x 1 ton/2000 lb =	0.18	ton/year NO

This is the theoretical maximum amount of NOx that can be formed from the amount of HNO_3 that is added.

* Dilute Nitric Acid Reaction with Aluminum in Water = $Al + 4HNO_3 \rightarrow Al(NO_3)_3 + NO + 2H_2O$

Appendix A: Emissions Calculations
Anodizing Tanks 4, 22, & 19

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

Tank 4 & 22 Nitric Acid Baths @ 50% by Volume (880 gallon tanks)
Assumptions:
One lb mole of nitric acid (HNO_3) weighs 63.01 lbs.
One lb mole of Nitrogen Oxide (NO) is 30.01
* 4 moles of nitric acid reacts with aluminum in water to form 1 mole of NO
Specific Gravity of Nitric Acid = 12.58 lb/gal
Maximum of 26 bath changes per year

Max HNO_3 (gal/bath) =	880 gal mixture/bath x 50% (max. vol.) HNO_3 =	440.00	gal/bath
Max HNO_3 (lb/bath) =	440.0 gal/bath x 12.58 lb/gal =	5,535.20	lb/bath
Lb - moles HNO_3 / bath =	5535.2 lb/bath x 1 lb mole / 63.01 lb	87.85	lb-moles/bath HNO_3
Lb - moles NO_2 / bath =	1 mole NO x 87.85 lb-moles/bath /4 moles HNO_3 =	21.96	lb-moles /bath NO
NO (lb/batch) =	21.96 lb-moles/bath NO x 30.01 lb/lb-mole NO =	659.07	lb/bath NO
NO (lb/year) =	659.07 lb/bath NO x 26 bath/year =	17,135.75	lb/year NO
NO (ton/year) =	27,417.20 lb/yr NO_2 x 1 ton/2000 lb =	8.57	ton/year NO

This is the theoretical maximum amount of NOx that can be formed from the amount of HNO_3 that is added.
* Concentrated Nitric Acid Reaction with Aluminum in Water = $Al + 4HNO_3 \rightarrow Al(NO_3)_3 + NO + 2H_2O$

Tank 19 Nitric Acid Bath @ 20% by Volume (1100 gallon tank)
Assumptions:
One lb mole of nitric acid (HNO_3) weighs 63.01 lbs.
One lb mole of Nitrogen Oxide (NO) is 30.01
* 4 moles of nitric acid reacts with aluminum in water to form 1 mole of NO
Specific Gravity of Nitric Acid = 12.58 lb/gal
Maximum of 26 bath changes per year

Max HNO_3 (gal/bath) =	1100 gal mixture/bath x 20% (max. vol.) HNO_3 =	220.00	gal/bath
Max HNO_3 (lb/bath) =	220 gal/bath x 12.58 lb/gal =	2,767.60	lb/bath
Lb - moles HNO_3 / bath =	2767.6 lb/bath x 1 lb mole / 63.01 lb	43.92	lb-moles/bath HNO_3
Lb - moles NO_2 / bath =	1 mole NO x 43.92 lb-moles/bath /4 moles HNO_3 =	10.98	lb-moles /bath NO
NO (lb/batch) =	21.96 lb-moles/bath NO x 30.01 lb/lb-mole NO =	329.53	lb/bath NO
NO (lb/year) =	659.07 lb/bath NO x 26 bath/year =	8,567.88	lb/year NO
NO (ton/year) =	27,417.20 lb/yr NO_2 x 1 ton/2000 lb =	4.28	ton/year NO

This is the theoretical maximum amount of NOx that can be formed from the amount of HNO_3 that is added.
* Concentrated Nitric Acid Reaction with Aluminum in Water = $Al + 4HNO_3 \rightarrow Al(NO_3)_3 + NO + 2H_2O$

Appendix A: Emissions Calculations
Anodizing Tanks 23, 24, & 18

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

Chromium Compound Emissions From Tanks 23 & 24
As per guidance by EPA-450/2-89-002, dated August 1989, "Locating and Estimating Air Emissions From Sources of Chromium, Page 21, Section 3.1.2.2, Chromic Acid Anodizing Operations", it states, " ...an estimate of the amount of hexavalent chromium emissions was made by performing a mass balance on a scrubber used to control emissions from a chromic acid anodizing operation. Outlet scrubber water grab samples were analyzed to determine the amount of hexavalent chromium in the sample, and a mass balance was performed on the scrubber to determine the inlet hexavalent chromium emission rate. The results of this mass balance indicate that an uncontrolled emission factor of 6.0 x 10-4 kg of hexavalent chromium/hr/m2 of tank surface area (1.2 x 10-4 lb/hr/ft2 tank surface area) is appropriate to characterize emissions from chromic acid anodizing."

If Dichromate Sealer were to be dissolved in water, no electricity would be conducted in the bath and, therefore, Honeywell can say that conservatively the dichromate sealer emissions would be no more than a chrome anodizing bath. Most likely, the potential emissions would be far less than that, but as a maximum, the following uncontrolled potential emissions would exist for a dichromate sealer bath:

Emissions Unit	Bath Surface Area (ft^2)	Emission Factor (lb/hr/ft2)	Cr Cmpd Emissions (lb/hr)	Cr Cmpd Emissions (ton/yr)
Dichromate Sealer Bath	45	0.00012	0.0054	0.024

Tank 18 Acid Strip Tank (Chromic Acid @ 30 gram/liter & Phosphoric Acid @ 60 gram/liter) PTE
If Chromic Acid @ 30 g/l and Phosphoric Acid @ 60 g/l were to be dissolved in water, no electricity would be conducted in the bath and, therefore, Honeywell can say that conservatively the chromic and phosphoric acid emissions would be no more than a chrome anodizing bath. Most likely, the potential emissions would be far less than that, but as a maximum, the following uncontrolled potential emissions would exist for a chromic acid/phosphoric acid bath:

Emissions Unit	Bath Surface Area (ft^2)	Emission Factor (lb/hr/ft2)	Cr Cmpd Emissions (lb/hr)	Cr Cmpd Emissions (ton/yr)
Chromic/Phosphoric Acid Bath 18	45	0.00012	0.0054	0.024

Appendix A: Emissions Calculations
Zyglo Line

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

Zyglo Line PTE

Transfer Efficiency	75%

			"As Applied" Fraction		
Trade Name	**Product**	**Coating Density, lbs/gal**	**VOC**	**Solids**	**VOC, lbs/gal as Applied**
Zyglo Penetrant ZL-67	Penetrant	8.26	0.09	0.91	0.743

	Uncontrolled Potential to Emit (ton/year)		
Trade Name	**gal/hr**	**VOC**	**PM/PM10/PM2.5**
Zyglo Penetrant ZL-67	0.07	0.23	0.58

Appendix A: Emissions Calculations
Dense Line

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

Dense Line PTE

"As Applied" Weight %

Trade Name	*Product*	*Coating Density, lbs/gal*	*VOC (% by wt.)*	*VOC, lbs/gal*	Phthalic Acid (% by wt.)
		Bath #1			
Butylated Hydroxytoluene	Inhibitor	8.43	100.00%	8.43	
Denseline Solution	Inpregnation Fluid	9.59	100.00%	9.59	5.00%
		Bath #5			
Tetraethylene Glycol	Penetrant	9.39	100.00%	9.39	

	Usage	Max # of Baths Per Year	Evaporative Loss Per Batch	PTE VOC	PTE Phthalic Acid
Trade Name	*gal/bath*		*(%)*	*(ton/year)*	*(ton/year)*
		Bath #1			
Butylated Hydroxytoluene	1.00	12.00	12.00%	0.006	
Denseline Solution	350.00	12.00	12.00%	2.42	0.12
		Bath #5			
Tetraethylene Glycol	350.00	12.00	10.00%	1.97	
Total Dense Line VOC/HAP (ton/yr)				***4.40***	***0.12***

Baths #2 & #4 are rinse tanks. Bath #3 is a 5% sulfuric acid dip tank. These tanks do not emit any regulated pollutants, and therefore, are not included in this emission inventory.

Emissions Calculations
Cooling Towers

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

						PM		PM_{10}		$PM_{2.5}$	
Unit ID	Size (tons)	Capacity (GPM)	Total Dissolved Solids (ppm)	Drift Loss (%)	Drift Mass Emission Rate (lb/hr)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
CT-1	36	108	2000	0.0005%	0.270	0.0000540	0.0002367	0.0000343	0.0001503	0.0000001	0.0000005
CT-2	36	108	2000	0.0005%	0.270	0.0000540	0.0002367	0.0000343	0.0001503	0.0000001	0.0000005
CT-3	36	108	2000	0.0005%	0.270	0.0000540	0.0002367	0.0000343	0.0001503	0.0000001	0.0000005
CT-4	36	108	2000	0.0005%	0.270	0.0000540	0.0002367	0.0000343	0.0001503	0.0000001	0.0000005
CT-5	36	108	2000	0.0005%	0.270	0.0000540	0.0002367	0.0000343	0.0001503	0.0000001	0.0000005
CT-6	36	108	2000	0.0005%	0.270	0.0000540	0.0002367	0.0000343	0.0001503	0.0000001	0.0000005
CT-7	36	108	2000	0.0005%	0.270	0.0000540	0.0002367	0.0000343	0.0001503	0.0000001	0.0000005
CT-8	36	108	2000	0.0005%	0.270	0.0000540	0.0002367	0.0000343	0.0001503	0.0000001	0.0000005
CT-9	36	108	2000	0.0005%	0.270	0.0000540	0.0002367	0.0000343	0.0001503	0.0000001	0.0000005
CT-10	36	108	2000	0.0005%	0.270	0.0000540	0.0002367	0.0000343	0.0001503	0.0000001	0.0000005
CT-11	36	108	2000	0.0005%	0.270	0.0000540	0.0002367	0.0000343	0.0001503	0.0000001	0.0000005
CT-12	36	108	2000	0.0005%	0.270	0.0000540	0.0002367	0.0000343	0.0001503	0.0000001	0.0000005
CT-13	36	108	2000	0.0005%	0.270	0.0000540	0.0002367	0.0000343	0.0001503	0.0000001	0.0000005
CT-14	36	108	2000	0.0005%	0.270	0.0000540	0.0002367	0.0000343	0.0001503	0.0000001	0.0000005
CT-15	36	108	2000	0.0005%	0.270	0.0000540	0.0002367	0.0000343	0.0001503	0.0000001	0.0000005
CT-16	36	108	2000	0.0005%	0.270	0.0000540	0.0002367	0.0000343	0.0001503	0.0000001	0.0000005
CT-17	36	108	2000	0.0005%	0.270	0.0000540	0.0002367	0.0000343	0.0001503	0.0000001	0.0000005
CT-18	36	108	2000	0.0005%	0.270	0.0000540	0.0002367	0.0000343	0.0001503	0.0000001	0.0000005
CT-19	36	108	2000	0.0005%	0.270	0.0000540	0.0002367	0.0000343	0.0001503	0.0000001	0.0000005
CT-20	36	108	2000	0.0005%	0.270	0.0000540	0.0002367	0.0000343	0.0001503	0.0000001	0.0000005
CT-21	36	108	2000	0.0005%	0.270	0.0000540	0.0002367	0.0000343	0.0001503	0.0000001	0.0000005
CT-22	36	108	2000	0.0005%	0.270	0.0000540	0.0002367	0.0000343	0.0001503	0.0000001	0.0000005
CT-23	36	108	2000	0.0005%	0.270	0.0000540	0.0002367	0.0000343	0.0001503	0.0000001	0.0000005
CT-24	36	108	2000	0.0005%	0.270	0.0000540	0.0002367	0.0000343	0.0001503	0.0000001	0.0000005
CT-25	80	240	2000	0.0005%	0.600	0.0001201	0.0005260	0.0000763	0.0003340	0.0000003	0.0000011
CT-26	80	240	2000	0.0005%	0.600	0.0001201	0.0005260	0.0000763	0.0003340	0.0000003	0.0000011

	PM		PM_{10}		$PM_{2.5}$	
	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
TOTALS	0.00154	0.0067	0.00098	0.00428	0.000003	0.000014

Cooling Water Capacity = 3 gallons per minute per ton of cooling = Size x 3

Drift mass Emission rate (lbs/hr) = Circulation rate (GPM) x 8.34 lbs/Gal x 60 min/hr X 0.0005%

PM Emission Rate (lbs/hour) = Drift Mass Rate x TDS (PPM) / 10^6

PM10 fraction of PM = 63.5%
PM2.5 Fraction of PM = 0.213%

Reference: J.Reisman & G. Frisbie, Calculating Realistic PM10 Emissions from Cooling Towers, Presented at AWMA Annual Conference. (June 2001)

Appendix A: Emissions Calculations
Anti-Oxidation Process

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

Emission Unit	grams/part	lb/part	parts/yr	parts/hr	lb/yr	Transfer Efficiency	Control Efficiency	Uncontrolled PM/PM10/PM2.5	Controlled PM/PM10/PM2.5
						%	%	tpy	tpy
Anti-Oxidation Process (AO)	40	0.0881849	200000	22.8	17636.98	70%	95%	2.65	0.13

Powder Coating contains no VOC

Methodology

lb/part=(grams/part)*(1lb/453.4924 grams)
parts/hr=(parts/year)/8760
lb/yr=(lb/part)*(parts/yr)
Uncontrolled PM/PM10/PM2.5 (tpy)=(lb/yr)x (1- transfer efficiency (%))/2000
Controlled PM/PM10/PM2.5 (tpy)=Uncontrolled PM/PM10/PM2.5 (tpy)*(1-Control Efficiency)

Appendix A: Emission Calculations
Reciprocating Internal Combustion Engines - Natural Gas
4-Stroke Lean-Burn (4SLB) Engines

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

Maximum Output Horsepower Rating (hp)	60
Brake Specific Fuel Consumption (BSFC) (Btu/hp-hr)	7500
Maximum Hours Operated per Year (hr/yr)	500
Potential Fuel Usage (MMBtu/yr)	225
High Heat Value (MMBtu/MMscf)	1020
Potential Fuel Usage (MMcf/yr)	0.22

	Pollutant						
Criteria Pollutants	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Emission Factor (lb/MMBtu)	7.71E-05	9.99E-03	9.99E-03	5.88E-04	4.08E+00	1.18E-01	3.17E-01
Potential Emissions (tons/yr)	0.0000	0.00	0.00	0.000	0.46	0.01	0.04

*PM emission factor is for filterable PM-10. PM10 emission factor is filterable PM10 + condensable PM.
PM2.5 emission factor is filterable PM2.5 + condensable PM.

Hazardous Air Pollutants (HAPs)

Pollutant	Emission Factor (lb/MMBtu)	Potential Emissions (tons/yr)
Acetaldehyde	8.36E-03	0.001
Acrolein	5.14E-03	0.001
Benzene	4.40E-04	0.000
Biphenyl	2.12E-04	0.000
1,3-Butadiene	2.67E-04	0.000
Formaldehyde	5.28E-02	0.006
Methanol	2.50E-03	0.000
Hexane	1.10E-03	0.000
Toluene	4.08E-04	0.000
2,2,4-Trimethylpentane	2.50E-04	0.000
Xylene	1.84E-04	0.000
	Total	**0.01**

HAP pollutants consist of the eleven highest HAPs included in AP-42 Table 3.2-2.

Methodology
Emission Factors are from AP-42 (Supplement F, July 2000), Table 3.2-2
Potential Fuel Usage (MMBtu/yr) = [Maximum Output Horsepower Rating (hp)] * [Brake Specific Fuel Consumption (Btu/hp-hr)] * [Maximum Hours Operated per Year (hr/yr)] / [1000000 Btu/MMBtu]
Potential Emissions (tons/yr) = [Potential Fuel Usage (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2000 lb/ton]

	Greenhouse Gas (GHG)		
Greenhouse Gases (GHGs)	CO2	CH4	N2O
Emission Factor in lb/MMBtu*	110	1.25	
Emission Factor in lb/MMcf**			2.2
Potential Emission in tons/yr	12.38	0.14	0.00
Summed Potential Emissions in tons/yr	12.52		
CO2e Total in tons/yr	15.96		

Methodology
*The CO2 and CH4 emission factors are from Emission Factors are from AP-42 (Supplement F, July 2000), Table 3.2-2
**The N2O emission factor is from AP 42, Table 1.4-2. The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
For CO2 and CH4: Emission (tons/yr) = [Potential Fuel Usage (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2,000 lb/ton]
For N2O: Emission (tons/yr) = [Potential Fuel Usage (MMCF/yr)] * [Emission Factor (lb/MMCF)] / [2,000 lb/ton]
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
SO2 = Sulfur Dioxide
NOx = Nitrous Oxides
VOC - Volatile Organic Compounds
CO = Carbon Monoxide
CO2 = Cabon Dioxide
CH4 = Methane
N2O = Nitrous Oxide
CO2e = CO2 equivalent emissions

Appendix A: Emission Calculations
Reciprocating Internal Combustion Engines - Natural Gas
4-Stroke Lean-Burn (4SLB) Engines

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

Maximum Output Horsepower Rating (hp)	48
Brake Specific Fuel Consumption (BSFC) (Btu/hp-hr)	7500
Maximum Hours Operated per Year (hr/yr)	500
Potential Fuel Usage (MMBtu/yr)	180
High Heat Value (MMBtu/MMscf)	1020
Potential Fuel Usage (MMcf/yr)	0.18

	Pollutant						
Criteria Pollutants	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Emission Factor (lb/MMBtu)	7.71E-05	9.99E-03	9.99E-03	5.88E-04	4.08E+00	1.18E-01	3.17E-01
Potential Emissions (tons/yr)	0.0000	0.00	0.00	0.000	0.37	0.01	0.03

*PM emission factor is for filterable PM-10. PM10 emission factor is filterable PM10 + condensable PM.
PM2.5 emission factor is filterable PM2.5 + condensable PM.

Hazardous Air Pollutants (HAPs)

Pollutant	Emission Factor (lb/MMBtu)	Potential Emissions (tons/yr)
Acetaldehyde	8.36E-03	0.001
Acrolein	5.14E-03	0.000
Benzene	4.40E-04	0.000
Biphenyl	2.12E-04	0.000
1,3-Butadiene	2.67E-04	0.000
Formaldehyde	5.28E-02	0.005
Methanol	2.50E-03	0.000
Hexane	1.10E-03	0.000
Toluene	4.08E-04	0.000
2,2,4-Trimethylpentane	2.50E-04	0.000
Xylene	1.84E-04	0.000
	Total	**0.01**

HAP pollutants consist of the eleven highest HAPs included in AP-42 Table 3.2-2.

Methodology
Emission Factors are from AP-42 (Supplement F, July 2000), Table 3.2-2
Potential Fuel Usage (MMBtu/yr) = [Maximum Output Horsepower Rating (hp)] * [Brake Specific Fuel Consumption (Btu/hp-hr)] * [Maximum Hours Operated per Year (hr/yr)] / [1000000 Btu/MMBtu]
Potential Emissions (tons/yr) = [Potential Fuel Usage (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2000 lb/ton]

	Greenhouse Gas (GHG)		
Greenhouse Gases (GHGs)	CO2	CH4	N2O
Emission Factor in lb/MMBtu*	110	1.25	
Emission Factor in lb/MMcf**			2.2
Potential Emission in tons/yr	9.90	0.11	0.00
Summed Potential Emissions in tons/yr		10.01	
CO2e Total in tons/yr		12.77	

Methodology
*The CO2 and CH4 emission factors are from Emission Factors are from AP-42 (Supplement F, July 2000), Table 3.2-2
**The N2O emission factor is from AP 42, Table 1.4-2. The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
For CO2 and CH4: Emission (tons/yr) = [Potential Fuel Usage (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2,000 lb/ton]
For N2O: Emission (tons/yr) = [Potential Fuel Usage (MMCF/yr)] * [Emission Factor (lb/MMCF)] / [2,000 lb/ton]
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
SO2 = Sulfur Dioxide
NOx = Nitrous Oxides
VOC - Volatile Organic Compounds
CO = Carbon Monoxide
CO2 = Cabon Dioxide
CH4 = Methane
N2O = Nitrous Oxide
CO2e = CO2 equivalent emissions

Emissions Calculations
DRG-1E & DRG-2W

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

De-Rivet/Grind Stations 1E and 2W									
0.2	Inches Wide (Rivet)								
0.1	Inches Deep (Rivet)								
0.00314159	Cubic Inches								
1.81805E-06	Cubic Feet								
557.7	Pounds/Cubic Foot								
0.001013926	Pounds/Rivet								
ID	Description	Shifts/Day	Disks/Shift	Rivets/Disk	Rivets/ Day	PM Pound/ Rivet	PM Pound/ Day	PM Pound/ Hour	PM Tons/Year
DRG-1E	De-Rivet/Grind Station 1E	1	45	44	1980.0000	0.001	1.9800	0.08250	0.36135
DRG-2W	De-Rivet/Grind Station 2W	1	45	44	1980.0000	0.001	1.9800	0.08250	0.36135
						Totals	**3.9600**	**0.1650**	**0.7227**

Methodology
Rivet dimensions, shifts/day, disks/shift, rivets/disk, and PM pound/rivet provided by the source.
Rivets/day = shifts/day * disks/shift * rivets/disk
PM pound/day = rivets/day * PM pound/rivet
PM pound/hour = PM pound/day / 24
PM tons/year = PM pound/ hour * 8760 hours per year /2000 tons per pound

Emissions Calculations
Machine Shop in Plant 25

Company Name: Honeywell International, Inc.
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628
Permit No./Plt ID: SSM 141-36553-00172 and SPM 141-36618-00172
Reviewer: Heath Hartley

Machine Shop in Plant 25				
12	Drums of Dust Accumulated Annually			
55	Gallons (Size of Drums)			
99%	Control Efficiency			
10	Density of Dust (Pound/Gallon)			
Gallons Dust/Year	Potential Gallons Dust/Year	Potential Uncontrolled Lbs Dust/Year	PTE Uncontrolled Pound/Hour	PTE Uncontrolled PTE, Tons/Year
660	666.7	6666.7	0.761	3.33

Methodology
Drums of Dust Accumulated Annually, Size of Drums (gallons), Control Efficiency, and Density of Dust provided by the source.
Gallons of Dust per year = drums of dust collected annually * size of drums (gallons)
Uncontrolled pounds of dust per year = gallons of dust per year * density of dust (lbs/gal)
Uncontrolled pounds per hour = pounds of dust per year / 8760 hrs per year
Uncontrolled pounds tons per year = pounds per hour * 8760 hrs per year / 2000 lbs per ton

Indiana Department of Environmental Management
Office of Air Quality

Appendix B – BACT Analyses
Technical Support Document (TSD)

Source Background and Description

Source Name:	Honeywell International, Inc.
Source Location:	3520 Westmoor Street, South Bend, IN 46628
County:	St. Joseph
SIC Code:	3728 (Aircraft Parts and Auxiliary Equipment, Not Elsewhere Classified) and 3724 (Aircraft Engines and Engine Parts)
Operation Permit No.:	T 141-26745-00172
Operation Permit Issuance Date:	July 2, 2012
Significant Source Modification No.:	141-36553-00172
Significant Permit Modification No.:	141-36618-00172
Permit Reviewer:	Heath Hartley

Requirement for Best Available Control Technology (BACT)

Pursuant to 326 IAC 8-1-6 (New Facilities; General Reduction Requirements), Best Available Control Technology (BACT) is required for all facilities constructed after January 1, 1980 that have potential VOC emissions equal to or greater than twenty-five (25) tons per year and are not regulated by other provisions in 326 IAC 8, 326 IAC 20-48, or 326 IAC 20-56.

The following emission units have the potential to emit VOC greater than twenty-five (25) tons per year and are not regulated by other provisions in 326 IAC 8, 326 IAC 20-48, or 326 IAC 20-56; therefore, a Best Available Control Technology analysis for VOC was performed for the following units:

(a) One (1) soil vapor extraction system, identified as SVE SCB, approved in 2016 for construction, controlled by a resin adsorption control system consisting of 3 vapor-phase resin adsorbent vessels, identified as V-101, V-102, and V-103, exhausting to stack SVE SCB EP-1, and consisting of the following:

(1) Fifteen (15) soil vapor extraction wells, identified as SVE wells, with a maximum system flow rate of 425 cfm.

(2) One (1) condenser.

(3) One (1) horizontal VOC liquid storage tank, identified as SVE storage tank, with a maximum capacity of 1,500 gallons and a maximum throughput of 39,000 gallons per year.

(4) One (1) truck loading operation, identified as truck loading operation, with a maximum throughput of 39,000 gallons per year. This unit is not controlled by the resin adsorption system.

The VOC PTE from the 1,500 gallon VOC liquid storage tank is less than 25 tons per year (0.09 tpy). The VOC PTE from the loading operation is less than 25 tons per year (0.03 tpy). However, since these units are considered part of the soil vapor extraction operation, they are included in the BACT evaluation.

Summary of the Best Available Control Technology (BACT) Process

BACT is an emission limitation or equipment standard based on the maximum degree of pollution reduction of emissions, which is determined to be achievable on a case-by-case basis. BACT analysis takes into account the energy, environmental, and economic impacts on the source. These reductions may be determined through the application of available control techniques, process design, work practices, and operational limitations.

Federal guidance on BACT requires an evaluation that follows a "top down" process. In this approach, the applicant identifies the best-controlled similar source on the basis of controls required by regulation or permit, or controls achieved in practice. The highest level of control is then evaluated for technical feasibility.

The five (5) basic steps of a top-down BACT analysis used by the Office of Air quality (OAQ) to make BACT determination are listed below:

Step 1: Identify Potential Control Technologies
The first step is to identify potentially "available" control options for each emission unit and for each pollutant under review. Available options should consist of a comprehensive list of those technologies with a potentially practical application to the emissions unit in question. The list should include lowest achievable emission rate (LAER) technologies, innovative technologies, and controls applied to similar source categories.

Step 2: Eliminate Technically Infeasible Options
The second step is to eliminate technically infeasible options from further consideration. To be considered feasible, a technology must be both available and applicable. It is important in this step that any presentation of a technical argument for eliminating a technology from further consideration be clearly documented based on physical, chemical, engineering, and source-specific factors related to safe and successful use of the controls. Innovative control means a control that has not been demonstrated in a commercial application on similar units. Innovative controls are normally given a waiver from the BACT requirements due to the uncertainty of actual control efficiency. A control technology is considered available when there are sufficient data indicating that the technology results in a reduction in emissions of regulated pollutants.

Step 3: Rank the Remaining Control Technologies by Control Effectiveness
The third step is to rank the technologies not eliminated in Step 2 in order of descending control effectiveness for each pollutant of concern. The ranked alternatives are reviewed in terms of environmental, energy, and economic impacts specific to the proposed modification. If the analysis determines that the evaluated alternative is not appropriate as BACT due to any of the impacts, then the next most effective is evaluated. This process is repeated until a control alternative is chosen as BACT. If the highest ranked technology is proposed as BACT, it is not necessary to perform any further technical or economic evaluation, except for the environmental analyses.

Step 4: Evaluate the Most Effective Controls and Document the Results
The fourth step entails an evaluation of energy, environmental, and economic impacts for determining a final level of control. The evaluation begins with the most stringent control option and continues until a technology under consideration cannot be eliminated based on adverse energy, environmental, or economic impacts.

For the technologies determined to be feasible, there may be several different limits that have been set as BACT for the same control technology. The permitting agency has to choose the most stringent limit as BACT unless the applicant demonstrates in a convincing manner why that limit is not feasible. BACT must, at a minimum, be no less stringent than the level of control required by any applicable New Source Performance Standard (NSPS) and National Emissions Standard for Hazardous Air Pollutants (NESHAP) or state regulatory standards applicable to the emission units included in the permits.

Step 5: Select BACT

The Office of Air Quality (OAQ) makes final BACT determinations by following the five steps identified above

VOC BACT Analysis

Step 1: Identify Potential Control Technologies

The volatile organic compounds (VOC) emissions can be controlled by the following emission control systems:

(1) Destruction Processes;

(2) Reclamation Processes; and/or

(3) Combination of Reclamation and Destruction Technologies.

Destruction technologies reduce VOC concentration by high temperature oxidation into carbon dioxide and water vapor. Reclamation is the capture of VOCs for reuse or disposal. A further description of these types of control technologies follows:

Destruction Control Methods

The destruction of organic compounds usually requires temperatures ranging from 1200°F to 2200°F for direct thermal oxidizers or 600°F to 1200°F for catalytic systems. Combustion temperature depends on the chemical composition and the desired destruction efficiency. Carbon dioxide and water vapor are the typical products of complete combustion. Turbulent mixing and combustion chamber retention times of 0.5 to 1.0 seconds are needed to obtain high destruction efficiencies.

Fume oxidizers typically need supplemental fuel. Concentrated VOC streams with high heat contents obviously require less supplementary fuel than more dilute streams. VOC streams sometimes have a heat content high enough to be self-sustaining, but a supplemental fuel-firing rate equal to about 5% of the total oxidizer heat input is usually needed to stabilize the burner flame. Natural gas is the most common fuel for VOC oxidizers, but fuel oil is an option in some circumstances.

Destruction control methods include:

(a) Thermal Oxidizer:

Thermal oxidation is the process of oxidizing VOC in a waste gas stream by raising the temperature above the VOC's auto-ignition point in the presence of oxygen for sufficient time to completely oxidize the organic contaminants to carbon dioxide and water. The residence time, temperature, flow velocity and mixing, and the oxygen concentration in the combustion chamber affect the oxidation rate and destruction efficiency. Thermal oxidizers operating costs are relatively high, since they typically require combustion of an auxiliary fuel (e.g., natural gas) to maintain combustion chamber temperature high enough to completely oxidize the contaminant gases. In general, thermal oxidizers are less efficient at treating waste gas streams with highly variable flowrates, since the variable flowrate results in varying residence times, combustion chamber temperature, and poor mixing. In addition, thermal oxidizers are also not generally cost-effective for low-concentration, high-flow organic vapor streams.

Thermal oxidizers can achieve 95-98+% VOC control efficiency and can be used over a wide range of organic vapor concentrations, but perform best at inlet concentrations of around 1,500-3,000 ppmv. Thermal oxidizers are typically designed to have a residence time of 0.3 to 1.0 second and combustion chamber temperatures between 1,200 and 2,000°F. In order to meet 98% or greater control or a 10 parts per million by volume (ppmv) compound exit concentration of non-halogenated organics, thermal oxidizers should typically be operated at a residence time of at least 0.75 seconds, a combustion chamber temperature of at least 1600°F, and with proper mixing. While thermal oxidation provides efficient VOC control, other pollutants such as nitrogen oxides and carbon monoxide are formed from the combustion process.

Thermal oxidizers are not generally recommended for controlling gases containing halogen- or sulfur-containing compounds, because of the formation of hydrogen chloride, hydrogen fluoride gas, sulfur dioxide, and other highly corrosive acid gases. It may be necessary to install a post-oxidation acid gas treatment system in such cases, depending on the outlet concentration. This would likely make incineration an uneconomical option. For halogenated VOC streams, a combustion temperature of 2000°F, a residence time of 1.0 second, and use of an acid gas scrubber on the outlet is recommended.

The three types of thermal oxidation systems include direct flame, recuperative, and regenerative thermal oxidizers, which are differentiated by the type of heat recovery equipment used.

(1) Direct Flame Thermal Oxidizer

A direct flame thermal oxidizer is comprised of a combustion chamber and does not include any heat recovery of exhaust air by a heat exchanger.

(2) Recuperative Thermal Oxidizer

A recuperative thermal oxidizer is comprised of the combustion chamber, a heat exchanger for preheating the untreated VOC gas stream, and, if cost-effective, a secondary energy recovery heat exchanger. In a recuperative thermal oxidizer, the untreated VOC gas stream entering the oxidizer is preheated using the heat content of the treated gas stream exiting the oxidizer using a heat exchanger, resulting in improved oxidizer efficiency and reduced auxiliary fuel usage. Recuperative thermal oxidizers usually are more economical than direct flame thermal oxidizers because they typically recover 40 to 70% of the waste heat from the exhaust gases.

(3) Regenerative Thermal Oxidizer

A regenerative thermal oxidizer typically consists of a set of 2 or 3 packed ceramic beds that are used to recover heat from hot combustion gases that are generated during combustion of the VOC gas stream and auxiliary fuel, resulting in improved oxidizer efficiency and reduced auxiliary fuel usage. An "inlet" bed is used to pre-heat the untreated VOC gas stream, an "outlet" bed is used to recover heat from the treated gas stream, and one bed is in a purge cycle. The purge cycle is needed to prevent emission spikes each time the gas flow is redirected. The oxidizer is operated on a rotating schedule, where the gas flow through the ceramic beds is redirected periodically using a set of gas flow dampers. Once the heat energy of the "inlet" ceramic bed has been depleted, the flow through the system is redirected so that the untreated VOC gas stream entering the oxidizer is directed through the previously heated "outlet" ceramic bed. Regenerative thermal oxidizers have much higher heat recovery efficiencies than recuperative thermal oxidizers, recovering 85 to 95% of the heat from the treated gas stream, and therefore have lower auxiliary fuel requirements. However, compared to direct flame and recuperative thermal oxidizers, regenerative thermal oxidizers typically have higher capital (equipment and installation) costs, are larger and heavier, and have higher maintenance costs.

(b) Catalytic Oxidizer:

Catalytic oxidation is the process of oxidizing organic contaminants in a waste gas stream within a heated chamber containing a catalyst bed in the presence of oxygen for sufficient time to completely oxidize the organic contaminants to carbon dioxide and water. The catalyst is used to lower the activation energy of the oxidation reaction, enabling the oxidation to occur at lower reaction temperatures compared to thermal oxidizers. The residence time, temperature, flow velocity and mixing, the oxygen concentration, and type of catalyst used in the combustion chamber affect the oxidation rate and destruction efficiency. Catalytic oxidizers typically require combustion of an auxiliary fuel (e.g., natural gas) to maintain combustion chamber temperature high enough to completely oxidize the contaminant gases. Catalytic oxidizers operate at lower temperatures and require less fuel than thermal oxidizers, they have a smaller footprint, and they need little or no insulation. The catalyst bed is usually composed of the following: (1) the substrate, typically ceramic or metal honeycombs, grids, mesh pads, or beads; (2) the carrier, a high surface area inorganic material such as alumina that is bonded to the substrate that contains a complex pore structure; and (3) the catalyst, a thin layer of material deposited onto the carrier. The most widely used catalysts for VOC oxidation are noble metals, such as platinum, palladium and rhodium or mixtures thereof. Base metal catalysts, such as oxides of chromium, cobalt, copper, manganese, titanium, and vanadium may also be used for VOC oxidation. Similar to thermal oxidizers, catalytic oxidizers may use regenerative or recuperative heat recovery to reduce auxiliary fuel requirements, where the untreated VOC gas stream entering the catalytic oxidizer is preheated using the heat content of the treated gas stream exiting the catalytic oxidizer.

Catalytic oxidizers can achieve 90-98% VOC control efficiency, depending on the oxidizer design and waste stream characteristics. Catalytic oxidizers are typically designed to have a residence time of 0.5 seconds or less and combustion chamber temperatures between 600 and 1,200°F. Catalytic oxidation is most suited to waste gas streams with little variation in the flow rate and type and concentration of VOC to be treated. In addition, catalytic oxidizers should not be used for waste gas streams that have a high concentration of particles, silicone, sulfur, halogen compounds, and/or heavy hydrocarbons that can cause fouling or masking of the catalyst, and for waste gas streams that contain metals such as mercury, phosphorus, arsenic, antimony, bismuth, lead, zinc, and/or tin that can cause catalyst poisoning.

(c) Flare:

Flaring is the process of oxidizing VOC in a waste gas stream by piping the waste gas to a remote, usually elevated location and burning it in a flame using a specially designed burner tip, auxiliary fuel, and steam or air to promote mixing. Flares are generally categorized in two ways: (1) by the height of the flare tip (i.e., ground or elevated), and (2) by the method of enhancing mixing at the flare tip (i.e., steam-assisted, air-assisted, pressure-assisted, or non-assisted). Flares can be used to control almost any VOC stream, and can typically handle large fluctuations in VOC concentration, flow rate, heating value, and inert species content. Flaring is appropriate for continuous, batch, and variable flow vent stream applications, but the primary use is that of a safety device used to control a large volume of pollutant resulting from upset conditions. Flares have primarily been used in petroleum production, petroleum refineries, and chemical plants to control waste gas streams containing low molecular weight VOC with high heating values.

A properly operated flare can achieve 98+% VOC control efficiency when controlling emission streams with heat contents greater than 300 British thermal units per standard cubic foot (Btu/scf). If the waste gas stream has a heat content less than 300 Btu/scf, auxiliary fuel must be introduced in sufficient quantity to make up the difference. The VOC destruction efficiency of a flare depends upon the waste gas characteristics (density, flammability, heating value, and VOC component autoignition temperatures) and the combustion zone conditions (temperature, residence time, mixing, and available oxygen). While flares can provide efficient VOC control,

other pollutants such as nitrogen oxides (NOx) and carbon monoxide (CO) are formed from the combustion process. Flares are not generally recommended for controlling gases containing halogen- or sulfur-containing compounds, because of the formation of hydrogen chloride, hydrogen fluoride gas, sulfur dioxide, and other highly corrosive acid gases.

Reclamation Control Methods

Organic compounds may be reclaimed by one of three possible methods: adsorption, absorption (scrubbing), or condensation. In general, the organic compounds are separated from the emission stream and reclaimed for reuse or disposal. Depending on the nature of the contaminant and the inlet concentration of the emission stream, recovery technologies can reach efficiencies of 98%.

Reclamation control methods include:

(d) Carbon Adsorption Unit:

Carbon adsorption is a process where VOCs are removed from a waste gas stream when it is passed through a bed containing activated carbon particles, which have a highly porous structure with a large surface-to-volume ratio. Carbon adsorption systems usually operate in two phases: adsorption and desorption. During adsorption, the majority of the VOC molecules migrate from the gas stream to the surface of the activated carbon (through the activated carbon pores) where it is lightly held to the surface by weak intermolecular forces known as van der Waals' forces. As the activated carbon bed approaches saturation with VOC, its control efficiency drops, and the bed must be taken offline to be replaced or regenerated. Typically, two activated carbon beds are utilized on a rotating schedule, where a second bed (containing fresh or previously regenerated activated carbon) is brought online to continue controlling the VOC gas stream while the first bed is being replaced or regenerated. In regenerative systems, most VOC gases can be desorbed and removed from the activated carbon bed by heating the bed to a sufficiently high temperature, usually via steam or hot air, or by reducing the pressure within the bed to a sufficiently low value (vacuum desorption). The regenerated activated carbon can be reused and the VOCs that are removed from the bed can be reclaimed or destroyed.

Carbon adsorber size and purchase cost depend primarily on the gas stream volumetric flow rate, temperature, pressure, VOC composition, VOC mass loading, and moisture and particulate contents. The adsorptive capacity of an activated carbon bed for a VOC gas tends to increase with the VOC gas phase concentration, molecular weight, diffusivity, polarity, and boiling point. Carbon adsorption systems can be used for VOC gas concentrations from less than 10 ppm to approximately 10,000 ppm. Carbon adsorption systems (in general) are usually limited to waste gas streams with VOC compounds having a molecular weight of more than 50 and less than approximately 200 lb/lb-mole, since low molecular weight organics usually do not adsorb sufficiently and high molecular weight compounds are difficult to desorb and remove during the desorption cycle. Industrial applications of adsorption systems include control for dry cleaning, degreasing, paint spraying, solvent extraction, metal foil coating, paper coating, plastic film coating, printing, pharmaceuticals, rubber, linoleum, and transparent wrapping.

Carbon adsorption systems can achieve 95-99% VOC control efficiency. Carbon adsorption system control efficiency increases with reduced VOC gas stream temperatures. Therefore, high temperature VOC gas streams are typically cooled prior to entry into the activated carbon bed. Particulate matter and high moisture concentrations present in the gas stream compete with the VOC for pore space within the activated carbon and thereby reduce the VOC adsorptive capacity and control efficiency of the carbon adsorption systems. In addition, particulate matter and moisture can become entrained within the carbon bed, causing operating problems such as increased pressure drop across the bed.

(e) Resin (Polymer) Adsorption

The resin adsorption process is similar to carbon adsorption; however instead of carbon, a polymeric resin is used instead (in this case, DOWEX OPTIPORE V503 adsorbent). This adsorbent can be used to adsorb reactive solvents without catalyzing their decomposition. Reactive solvents such as acetone, methylethyl ketone, cyclohexanone and styrene have been adsorbed and desorbed without measurable change in composition. With most activated carbons however, measurable solvent degradation occurs. In extreme cases, solvent degradation on carbon beds can lead to an uncontrollable exotherm and subsequent bed fire. The lack of catalytic decomposition when using DOWEX OPTIPORE V503 adsorbent may be attributed to its extremely low mineral ash content. Also, low moisture uptake means that water does not compete for adsorption sites and reduce capacity, energy is not wasted to desorb the water and less water is subsequently recovered with the product solvent.

(f) Gas Absorption (wet scrubber):

A wet scrubber is an absorption system in which a waste gas stream is interacted with a scrubbing fluid inside a contact chamber in order to strip particulate or gaseous pollutants from the waste gas stream through the processes of diffusion and dissolution. In many cases, an additive such as an acid, a base, or a VOC oxidizing agent is dissolved in the scrubbing fluid so that the dissolved gaseous pollutant chemically reacts with the scrubbing fluid to form a non-volatile or soluble product, thereby allowing additional gaseous pollutant to be absorbed by the scrubbing fluid. The four types of wet scrubber systems include packed towers, plate (or tray) columns, venturi scrubbers, and spray chambers. Gas and liquid flow through an absorber may be countercurrent, crosscurrent, or cocurrent. When used as an emission control technique, wet scrubbers are typically used for controlling particulate, acid gases, halogen gases, and highly soluble gases such as sulfur dioxide and ammonia.

If a wet scrubber is used for VOC control, the scrubbing fluid chosen should have a high solubility for the VOC gas, a low vapor pressure, a low viscosity, and should be relatively inexpensive. Water is the most commonly used scrubbing fluid for absorbing highly water-soluble (hydrophilic) VOC compounds such as methanol, ethanol, isopropanol, butanol, acetone, and formaldehyde. Other scrubbing fluid such as mineral oils, nonvolatile hydrocarbon oils, and aqueous solutions containing surfactants or amphiphilic block copolymers may be used for absorbing water-insoluble (hydrophobic) VOC compounds. Physical absorption is typically enhanced by lower temperatures, greater scrubbing fluid contacting time and surface area, higher scrubbing fluid to VOC ratio, and higher VOC concentrations in the gas stream.

Wet scrubber systems can achieve 70-99% VOC control efficiency, depending on the VOC solubility in the scrubbing fluid, the VOC-scrubbing fluid temperature, the scrubbing fluid contacting time and surface area, the scrubbing fluid to VOC ratio, the VOC concentration in the gas stream, and whether the scrubbing fluid contains a VOC oxidizing agent. Wet scrubber absorption system control efficiency increases with reduced VOC gas stream temperatures. Therefore, high temperature VOC gas streams are typically cooled prior to entry into the wet scrubber. When used to control VOC, the spent scrubbing fluid must be regenerated, treated, or shipped offsite for proper disposal.

(g) Condensation Unit:

Condensation is the separation of VOCs from an emission stream through a phase change, by either increasing the system pressure or, more commonly, lowering the system temperature below the dew point of the VOC vapor. Three types of condensers are used for air pollution Controls: (1) conventional non-refrigeration systems (such as cold-water direct contact condensers similar to wet scrubbers and cold-water indirect heat exchangers); (2) refrigeration systems (including mechanical compression refrigeration using chlorofluorocarbons (CFCs) and hydrofluorocarbons (HFCs) and Reverse Brayton Cycle refrigeration); and (3) cryogenic systems that utilize liquid nitrogen (including direct contact condensers and indirect heat exchangers).

Condensation units control VOC more efficiently when they are used for gas streams containing high concentrations of VOC and with low exhaust volumes. Condensation units are typically utilized at sources where there is a significant cost benefit to recovering the organic liquid for reuse, where the recovered organic liquids do not contain multiple organic compounds or water that require separation, and where the heat content of gas stream will not overload the refrigeration system. In addition, condensation units are typically used only on gas streams that have little or no particulate contamination, which can cause fouling within the condensation equipment and reduced heat transfer efficiency. Some industrial applications where refrigerated condensers are used include the dry cleaning industry, degreasers using VOC or halogenated solvents, transfer of volatile organic liquid or petroleum products, and vapors from storage vessels.

Cold-water (non-refrigeration) condensation systems can achieve 80-99% VOC control efficiency, depending on the vapor pressures of the specific compounds. Condensation units using mechanical compression refrigeration (using CFC or HFC) can achieve 90+% VOC control efficiency, condensation units using Reverse Brayton Cycle refrigeration can achieve 98% VOC control efficiency, and condensation units using cryogenic (liquid nitrogen) cooling can achieve 99+% VOC control efficiency.

Step 2: Eliminate Technically Infeasible Options

The test for technical feasibility of any control option is whether it is both available and applicable in reducing VOC emissions. Below is a discussion of the technical feasibility of the various VOC control options:

Table 2. VOC BACT Control Technology Analysis

Technology	BACT Evaluation
Regenerative / Recuperative Thermal Oxidizers (RTO) Technically Feasible – **Yes**	Regenerative and Recuperative Thermal Oxidizers are technically feasible for controlling VOC emissions from the soil vapor extraction system. However, since chlorinated VOCs are present in the gas stream, thermal oxidation can generate hydrochloric acid (HAP).
Catalytic Incinerators Technically Feasible – **Yes**	Catalytic thermal oxidation is technically feasible for controlling VOC emissions from the soil vapor extraction system.
Flare Technically Feasible - **Yes**	A flare is technically feasible. However, the VOC concentration in the gas stream is low and will decrease over time. Significant supplemental fuel would need to be added, therefore, a flare is a less desirable control option.
Carbon Adsorption Technically Feasible – **Yes**	Carbon adsorption is technically feasible for controlling VOC emissions from the soil vapor extraction system.

Table 2. VOC BACT Control Technology Analysis	
Technology	**BACT Evaluation**
Resin Adsorption Technically Feasible – **Yes**	Resin adsorption is technically feasible for controlling VOC emissions from the soil vapor extraction system. This particular resin (DOWEX OPTIPORE V503) has a higher adsorptive capacity for the chemicals of concern in this gas stream and a shorter empty bed contact time, versus other adsorbent materials like carbon. The average control efficiency of the resin system is estimated to be at least equivalent to that of thermal oxidation for the given constituents and concentrations of this operation. Carbon has a lower adsorption efficiency for the given constituents and concentrations than resins in this particular application. There are some lower boiling point constituents that will reduce the adsorbent capabilities of carbon and those particular contaminants would dictate the carbon control efficiency and usage rate. The resin has a higher affinity to lower boiling point compounds.
Gas Absorbers (wet scrubber) Technically Feasible – **Yes**	Absorption is technically feasible for controlling VOC emissions from the soil vapor extraction system. However, actual anticipated control efficiency for wet scrubbing for chlorinated organics is less than 50%.
Condensation Unit Technically Feasible – **Yes**	Condensation is technically feasible for controlling VOC emissions from the soil vapor extraction system. However, actual anticipated control efficiency for condensation for this application will likely be 75% - 80%.

Step 3: Rank the Remaining Control Technologies by Control Effectiveness

Control Option	Expected Control Efficiency
Resin Adsorption	98%
Thermal Oxidation	98%
Catalytic Oxidation	98%
Carbon Adsorption	95%
Condenser	75% - 80%
Absorption	<50%

Step 4: Evaluate the Most Effective Controls and Document the Results

The following table summarizes other BACT determinations at similar sources or for similar processes that were identified in the EPA's RACT/BACT/LAER Clearinghouse (RBLC):

Table 4-1: RBLC Data on Vapor Recovery Systems:

Company	RBLC ID	Source	Permit Issuance Date	Technology	VOC Limit(s)
Proposed BACT for Honeywell International, Inc.		Remediation System (SVE SCB)	Pending	Resin adsorption system	98% overall control by the adsorption system, 30 ppmv and 0.87 lb/hr VOC from the adsorption system

Company	RBLC ID	Source	Permit Issuance Date	Technology	VOC Limit(s)
Existing BACT Determinations					
Nellis Air Force Base	NV-0047	Ground Water and Soil Remediation	2/26/2008	Thermal/Catalytic Oxidizer	0.18 lb/hr 99% CE
Consolidated Terminals and Logistics Company	IN-0131	Submerged Ethanol Barge Loadout Operations	02/07/2011	Adsorption/ Absorption Hydrocarbon Vapor Recovery System	98% capture / removal on the adsorber
The overall VOC control efficiency for the carbon adsorption/absorption hydrocarbon vapor recovery system (including the capture efficiency and removal efficiency) shall be no less than 98%.					
Eli Lilly and Company - Clinton Labs	IN-0144	EV1001 Evaporator	10/01/2009	Narasin Recovery Carbon Adsorption System	98% Control Efficiency or a volumetric concentration of 30 parts per million (ppmv) based on a 24 - hour block average.
Control used to recover amyl alcohol. Efficiency as measured by a comparison of the inlet and outlet concentrations to the carbon adsorber. BACT for any fugitive emissions is Auditory, Visual, and Olfactory (AVO) Monitoring program / LDAR.					
M&L Commodities	CA-1170	Commodity Methyl Bromide Fumigation	06/25/2008	Carbon Adsorption with on-site re-activation using chemical scrubber	81% overall methyl bromide control
This control efficiency is for the carbon adsorption system including re-activation process.					
Navajo Refining Company LLC	NM-0050	Truck Loadout Rack	08/01/2008	Carbon Adsorption System	10 MG/L
This unit is also subject to MACT Subparts R and CC.					
Arizona Clean Fuels Yuma LLC	AZ-0046	Catalyst Regenerator V-05008	04/14/2005	None	**
**Daily average ratio of perchloroethylene feed rate to catalyst circulation rate (max) to be established during the performance test. The limit does not apply during depressuring and purging operations when the reactor vent pressure is 5 lbs/in^2 or less.					

Table 4-2: RBLC Data on Vapor Loading Racks:

Company	RBLC ID	Source	Permit Issuance Date	Technology	VOC Limit(s)
Proposed BACT for Honeywell International, Inc.		Loading Rack (miscellaneous VOCs and VHaps)	Pending	Submerged loading	1.75 lb/kgal
Existing BACT Determinations					
Navajo Refining Company LLC	NM-0050	Truck Loadout Rack	08/01/2008	Carbon Adsorption System	10 MG/L
This unit is also subject to MACT Subparts R and CC.					
Countrymark	IN-0231 (6/30/15)	Truck loading diesel	6/30/15	Leak prevention measures	VOC: 0.014 lb/kgal

Company	RBLC ID	Source	Permit Issuance Date	Technology	VOC Limit(s)
Castleton Commodities (CCI)	TX-0756 (6/22/15)	Truck loading diesel	6/22/15	None	VOC: 1.99 lb/hr (4.53 tpy)
Chevron Phillips	TX-0722 (3/14/14)	Loading - products vapor press < 0.5 psia	3/14/14	Submerged fill	0.01 lb/kgal
Colonial Pipeline	NJ-0083 (3/11/14)	Loading rack - light products	3/11/14	VRU	40 CFR 63, Subpart R and 6B VOC: 0.42 lb/hr (1 mg/L) 95% CE
Galena Park Terminal	TX-0682 (6/12/13)	Loading	6/12/13	VCU (If vapor pressure > 0.1 psia)	If vapor pressure > 0.1 psia, then vacuum loading rqd. Leak check 99.8% DRE 500 ppmv
Transmontaigne Operating Company LP Transmontaigne Norfolk Terminal	VA-0313 (4/22/10)	Storage and Loading of Petroleum products Loading rack emissions from loading racks LR-1 and LR-2 - LR-1: Gasoline/ TransMix: 400,000,000 gal/yr LR-1 & LR-2: Distillate Oil/Residual Oil/Lubricating Oil: 680,000,000 gal/yr Additives: 4,000,000 gal/yr	4/22/10	Vapor Combustion Unit w/ 10 mg/L VOC limit for Gasoline and Denatured Ethanol loading	10 mg/L Gasoline/ ethanol 24.7 ton/yr
Gulf Crossing Pipeline	LA-0232	Truck loading - condensate	6/24/08	Submerged loading and dedicated service	26.1 lb/hr 1.31 tpy
Nellis AFB	NV-0047	Fuel tanks/loading racks/fuel dispensing	2/26/08	Stage 1 and stage 2 vapor recovery systems and limit RVP < 10 psi	0.0033 lb/gal 1650 lb/mo.
Marathon Pipeline-Zachary Station	LA-0212 (2/1/07)	Loading rack	2/1/07	VCU (products with vapor press >1.5 psia)	10 mg/L
Natgasoline Beaumont gas to gasoline plant	TX-0657	Railcar and truck loading	5/16/14	VCU	99% DRE 4.47 tpy
ETC Texas Pipeline - Jackson County gas plant	TX-0663	Loading Rack	5/25/12	Submerged Fill	0.03 tpy
Valero Refining	LA-0213	Petroleum product loading docks	11/17/09	Comply with LAC 33:III.2108 for loading materials w/ vapor pressure > 1.5 psia	687 lb/hr 160.25 tpyq
Sunoco	OH-0308	Propylene-Propane loading rack	2/23/09	Pressurized loading	0.0935 lb/kgal 1.6 tpy
Ohio River Clean Fuels, LLC	OH-0317	Loading Rack for diesel and naphtha fuels	11/20/2008	vapor recovery system, submerged fill	99.5% control, 1.70 tpy, 0.01 lb/kgal diesel, 0.06 lb/kgal naphtha

Table 4-3: RBLC Data on VOC Liquid Storage Tanks:

Company	RBLC ID	Source	Permit Issuance Date	Technology	VOC Limit(s)
Proposed BACT for Honeywell International, Inc.		VOC Liquid Storage Tank 1,500 gallon capacity	Pending	Resin adsorption system, submerged loading and tank shall be white and maintained in good condition	98% overall control by the adsorption system, 30 ppmv and 0.87 lb/hr VOC from the adsorption system (absorber also controls SVE)
Existing BACT Determinations					
Union County Lumbar Company El Dorado Sawmill	AR-0124	Gasoline Storage Tank SN-16	08/03/2015	Light Color Tank	0.0220 lb/MBF and 7.600 lb/MMSCF
		11 Oil Storage Tanks SN-14		Enclosed, Light Colored Tanks	0.300 lb/hr
		3 Diesel Storage Tanks SN-15		Light Color Tank	0.400 lb/hr
Storage Tanks of various sizes.					
Anadarko Petroleum Corporation - EGOM	FL-0347	Storage Tanks	09/16/2014	Use of good maintenance practices to minimize fugitive emissions, including minimizing the release of emissions from valves, pump seals, and connectors.	0.71 tons per 12 month
		Condensate Tank		Use of good maintenance practices to minimize fugitive emissions, including minimizing the release of emissions from valves, pump seals, and connectors.	9.26 tons per 12 month
Ohio Valley Resources, LLC	IN-0179	Diesel exhaust fluid tank	09/25/2013	White tank shell, submerged fill	-
		3 UAN day tanks		White tank shell, submerged fill	-
		2 UAN storage tanks		White tank shell, submerged fill	-
KM Liquids Terminals LLC Galena Park Terminal	TX-0682	Storage tanks - A combination of IFR tanks, fixed roof tanks and frac tanks will be used at the facility	06/12/2013	Vapor space degassing will be directed to control until VOC level in the tank is less than 5,000 ppmv (2,000 if vented to atmosphere).	5000 ppmv
St Joseph Energy Center, LLC	IN-0158	6 6,800 gal. Turbine lube oil storage tanks (TK01-TK06)	12/03/2012	Good combustion practice and fuel specification.	None
Enterprise Products Operating LLC Enterprise Mont Belvieu Complex	TX-0684	Tanks	11/14/2012	Proper design and operation of tanks.	0.76 lb/hr and 0.10 ton/yr

Company	RBLC ID	Source	Permit Issuance Date	Technology	VOC Limit(s)
The new tanks that will be put in service will only store very low vapor pressure(<0.00001psia) VOC liquids and wastewater containing trace amounts of VOC. Fixed roof tanks and low annual throughput are the only means of control due to the negligible quantity of emissions from these tanks					
ETC Texas Pipeline, LTD. Jackson County Gas Plant	TX-0663	Fixed roof tanks - 9000 gallons Store amine, glycol, slop oil, lube oil or waste oil with pressures less than 0.5 psia at 95 °F	05/25/2012	White tank, submerged fill	0.01 ton/yr
		Produced water tanks - 13,000 gallons Store produced water with VOC vapor pressure less than 0.5 psia at 95 F		White tank, submerged fill	0.01 ton/yr
ENI U.S. Operating Company, Inc. - Holy Cross Drilling Project	FL-0328	Diesel Storage tanks - sized from 50 - 610,000 gal.	10/27/2011	Use of good maintenance practices based on the current manufacturer's specifications for each tank	0.27 ton per 12 months
Valero Refining - Texas LP Corpus Christi East Refinery	TX-0595	Temporary Tanks - Frac Tanks used to support MSS activities	08/19/2010	Submerge filled white tanks with<25,000 gallon capacity	64.00 lb/hr and 1.70 tpy
Valero Refining - Texas LP Corpus Christi West Refinery	TX-0592	Temporary Tanks - Frac Tanks used to support MSS	03/29/2010	Submerged filled, white tanks <25,000 gallon capacity	64.00 lb/hr and 2.10 tpy
Valero Refining - New Orleans, LLC St. Charles Refinery	LA-0213	16 Tanks for benzene, xylene, sulfolane, parex, intermediate	11/17/2009	Equipped with internal floating roofs followed by thermal oxidizers	-
Navajo Refining Company LLC Artesia Refinery	NM-0050	20,000 BBL Sour Water Tank	12/14/2007	external floating roof equipped with double seals	-
ADM Corn Processing - Clinton ADM Polymers	IA-0084	86,000 gal. BDO storage tank	11/30/2006	none	0.01 tpy
		3 1,200 ft^3 LAIGID tanks		none	80 tpy and 3500 ppmd
Arizona Clean Fuels Yuma LLC	AZ-0046	Group A Storage Tanks	04/14/2005	Vapor compression system with emissions routed to the refinery fuel gas system	No emissions permitted except equipment leaks.

Honeywell International, Inc. has proposed the use of a resin adsorption system with control efficiency of 98% and a VOC limit of 0.87 lb/hr for the soil vapor extraction system (SVE SCB). Although Nellis Air Force Base is listed as having a control with a higher control efficiency, this control efficiency has not been verified in the RBLC. Also, as mentioned previously, the use of an oxidizer will produce additional emissions.

IDEM is aware that that the above control technologies may be able to periodically achieve control efficiencies that exceed 98% under certain operating conditions. However, BACT must be achievable on a consistent basis under normal operational conditions. BACT limitations do not necessarily reflect the highest possible control efficiency achievable by the technology on which the emission limitation is based. The permitting authority has the discretion to base the emission limitation on a control efficiency that is somewhat lower than the optimal level. There are several reasons why the permitting authority might choose to do this. One reason is that the control efficiency achievable through the use of the technology may fluctuate, so that it would not always achieve its optimal control efficiency. In that case, setting the emission limitation to reflect the highest control efficiency would make violations of the permit unavoidable. To account for this possibility, a permitting authority must be allowed a certain degree of discretion to set the emission limitation at a level that does not necessarily reflect the highest possible control efficiency, but will allow the Permittee to achieve compliance consistently. While we recognize that greater than 98% may be achievable as an average during testing, IDEM allows for sources to include a safety factor, or margin of error, to allow for minor variations in the operation of the emission units and the control device.

Therefore, the proposed control of 98% is considered the top BACT for this operation.

Honeywell International, Inc. has proposed the use of submerged loading and a resin adsorption system with control efficiency of 98%. Note: The resin adsorption system controls the soil vapor extraction system and the tank; therefore a VOC limit of 0.87 lb/hr is a combined limit for these units. A review of the RBLC found that there are no listings for loading operations with a similar material type and/or volume of material loaded.

Step 5: Select BACT

Pursuant to 326 IAC 8-1-6 (New Facilities, General Reduction Requirements), IDEM has established the following BACT for VOC:

(a) The VOC emissions from the vapor extraction wells (SVE wells), shall be controlled by the resin adsorption system at all times when the system is in operation.

(b) The VOC emissions from the VOC liquid storage tank (SVE storage tank), shall be controlled by the resin adsorption system at all times when the system is in operation.

(c) At least two (2) of the resin adsorbent vessels (V-010, V-102, and V-103) shall be operated in series for VOC control.

(d) The overall control efficiency (including capture efficiency and adsorption efficiency) for the resin adsorption system shall be greater than or equal to ninety-eight percent (98%), as measured by a comparison of the inlet and outlet concentrations to the resin adsorbent, or the outlet concentration shall be equal to or less than 30 ppmv.

(e) The total VOC emissions from the soil vapor extraction system (SVE SCB) and VOC liquid storage tank combined shall not exceed 0.87 lb/hr.

(f) When loading at the SVE storage tank and/or loading operation, submerged loading shall be used.

(g) VOC emissions from the loading operation shall not exceed 1.75 lb/kgal.

(h) The SVE storage tank shall be white and maintained in good condition.

Indiana Department of Environmental Management
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Michael R. Pence
Governor

Carol S. Comer
Commissioner

March 10, 2016

Mr. Justin Finger
Honeywell International, Inc.
3520 Westmoor Street
South Bend, Indiana 46628

Re: Public Notice
Honeywell International, Inc.
Permit Level: Significant Permit Modification
Permit Number: 141-36618-00172
Permit Level: Significant Source Modification
Permit Number: 141-36553-00172

Dear Mr. Finger:

Enclosed is a copy of your draft Significant Permit Modification and Significant Source Modification, Technical Support Documents, emission calculations, and the Public Notice which will be printed in your local newspaper.

The Office of Air Quality (OAQ) has prepared two versions of the Public Notice Document. The abbreviated version will be published in the newspaper, and the more detailed version will be made available on the IDEM's website and provided to interested parties. Both versions are included for your reference. The OAQ has requested that the South Bend Tribune in South Bend, Indiana publish the abbreviated version of the public notice no later than March 14, 2016. You will not be responsible for collecting any comments, nor are you responsible for having the notice published in the newspaper.

OAQ has submitted the draft permit package to the St. Joseph County Public Library, 304 S. Main Street in South Bend, Indiana. As a reminder, you are obligated by 326 IAC 2-1.1-6(c) to place a copy of the complete permit application at this library no later than ten (10) days after submittal of the application or additional information to our department. We highly recommend that even if you have already placed these materials at the library, that you confirm with the library that these materials are available for review and request that the library keep the materials available for review during the entire permitting process.

Please review the enclosed documents carefully. This is your opportunity to comment on the draft permit and notify the OAQ of any corrections that are needed before the final decision. Questions or comments about the enclosed documents should be directed to Heath Hartley, Indiana Department of Environmental Management, Office of Air Quality, 100 N. Senate Avenue, Indianapolis, Indiana, 46204 or call (800) 451-6027, and ask for extension 2-8217 or dial (317) 232-8217.

Sincerely,

Vicki Biddle

Vicki Biddle
Permits Branch
Office of Air Quality

Enclosures
PN Applicant Cover letter 2/17/2016

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ATTENTION: PUBLIC NOTICES, LEGAL ADVERTISING

March 10, 2016

South Bend Tribune
225 Colfax Avenue
South Bend, Indiana 46626

Enclosed, please find one Indiana Department of Environmental Management Notice of Public Comment for Honeywell International, Inc., St. Joseph County, Indiana.

Since our agency must comply with requirements which call for a Notice of Public Comment, we request that you print this notice one time, no later than March 14, 2016.

Please send a notarized form, clippings showing the date of publication, and the billing to the Indiana Department of Environmental Management, Accounting, Room N1345, 100 North Senate Avenue, Indianapolis, Indiana, 46204.

To ensure proper payment, please reference account # 100174737.

We are required by the Auditor's Office to request that you place the Federal ID Number on all claims. If you have any conflicts, questions, or problems with the publishing of this notice or if you do not receive complete public notice information for this notice, please call Vicki Biddle at 800-451-6027 and ask for extension 3-6867 or dial 317-233-6867.

Sincerely,

Vicki Biddle

Vicki Biddle
Permit Branch
Office of Air Quality

Permit Level: Significant Source Modification and Significant Permit Modification
Permit Number: 141-36553-00172 and 141-36618-00172

Enclosure

PN Newspaper.dot 2/17/2016

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Michael R. Pence
Governor

Carol S. Comer
Commissioner

March 10, 2016

To: St. Joseph County Public Library

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

Subject: **Important Information to Display Regarding a Public Notice for an Air Permit**

Applicant Name: Honeywell International, Inc.
Permit Number: 141-36553-00172 and 141-36618-00172

Enclosed is a copy of important information to make available to the public. This proposed project is regarding a source that may have the potential to significantly impact air quality. Librarians are encouraged to educate the public to make them aware of the availability of this information. The following information is enclosed for public reference at your library:

- Notice of a 30-day Period for Public Comment
- Request to publish the Notice of 30-day Period for Public Comment
- Draft Permit and Technical Support Document

You will not be responsible for collecting any comments from the citizens. Please refer all questions and request for the copies of any pertinent information to the person named below.

Members of your community could be very concerned in how these projects might affect them and their families. **Please make this information readily available until you receive a copy of the final package.**

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. Questions pertaining to the permit itself should be directed to the contact listed on the notice.

Enclosures
PN Library.dot 2/17/2016

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Carol S. Comer
Commissioner

Notice of Public Comment

March 10, 2016
Honeywell International, Inc.
141-36553-00172 and 141-36618-00172

Dear Concerned Citizen(s):

You have been identified as someone who could potentially be affected by this proposed air permit. The Indiana Department of Environmental Management, in our ongoing efforts to better communicate with concerned citizens, invites your comment on the draft permit.

Enclosed is a Notice of Public Comment, which has been placed in the Legal Advertising section of your local newspaper. The application and supporting documentation for this proposed permit have been placed at the library indicated in the Notice. These documents more fully describe the project, the applicable air pollution control requirements and how the applicant will comply with these requirements.

If you would like to comment on this draft permit, please contact the person named in the enclosed Public Notice. Thank you for your interest in the Indiana's Air Permitting Program.

Please Note: *If you feel you have received this Notice in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at PPEAR@IDEM.IN.GOV. If you have recently moved and this Notice has been forwarded to you, please notify us of your new address and if you wish to remain on the mailing list. Mail that is returned to IDEM by the Post Office with a forwarding address in a different county will be removed from our list unless otherwise requested.*

Enclosure
PN AAA Cover.dot 2/17/2016

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Carol S. Comer
Commissioner

AFFECTED STATE NOTIFICATION OF PUBLIC COMMENT PERIOD
DRAFT INDIANA AIR PERMIT

March 10, 2016

A 30-day public comment period has been initiated for:

Permit Number: **141-36553-00172 and 141-36618-00172**
Applicant Name: **Honeywell International, Inc.**
Location: **South Bend, St. Joseph, County, Indiana**

The public notice, draft permit and technical support documents can be accessed via the **IDEM Air Permits Online** site at:
http://www.in.gov/ai/appfiles/idem-caats/

Questions or comments on this draft permit should be directed to the person identified in the public notice by telephone or in writing to:

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

Questions or comments regarding this email notification or access to this information from the EPA Internet site can be directed to Chris Hammack at chammack@idem.IN.gov or (317) 233-2414.

Mail Code 61-53

IDEM Staff	VBIDDLE 3/10/2016 141-36553-00172 Honeywell International Inc 141-36618-00172 DRAFTS			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee / Remarks
1		Justin Finger Honeywell International Inc 3520 Westmoor St South Bend IN 46628 (Source CAATS)									
2		Dean Palmer Integrated Supply Chain Leader Honeywell International Inc 3520 Westmoor St South Bend IN 46628 *(RO CAATS)*									
3		Mr. Wayne Falda South Bend Tribune 255 W Colfax Ave South Bend IN 46626 *(Affected Party)*									
4		South Bend City Council / Mayors Office 227 W. Jefferson Blvd. South Bend IN 46601 *(Local Official)*									
5		St. Joseph County Board of Commissioners 227 West Jefferson Blvd, South Bend IN 46601 *(Local Official)*									
6		St. Joseph County Health Department 227 W Jefferson Blvd, Room 825 South Bend IN 46601-1870 *(Health Department)*									
7		St. Joseph County Public Library 304 South Main Street South Bend IN 46601 *(Library)*									
8		Ms. Kimberly Pesenko Amec Foster Wheeler 8745 W. Higgins Road, Suite 300 Chicago IN 60631 *(Consultant)*									
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