



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: April 21, 2006
RE: Honeywell International / 141-22378-00172
FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision – Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER-AM.dot 03/23/06



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

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Governor

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Indianapolis, Indiana 46204-2251
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Mr. Eric Kloss
Honeywell International, Inc.
3520 Westmoor St.
South Bend, IN 46628-1373

April 21, 2006

Re: **141-22378-00172**
Significant Source Modification to:
Part 70 Operating Permit No.: **T 141-7442-00172**

Dear Mr. Kloss:

Honeywell International, Inc. was issued Part 70 Operating Permit T 141-7442-00172 on April 13, 2004 for a stationary aircraft landing systems manufacturing operation located at 3520 Westmoor Street, South Bend, Indiana. An application to modify the source was received on December 16, 2005. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

Two (2) Chemical Vapor Deposition (CVD) units, also known as carbon vapor deposition units, identified as CVD-24 and CVD-25, 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 fiber process, constructed in 2006, and each equipped with a enclosed flare controlling the soak phase emissions with a rated capacity of 5.5 million British thermal units per hour, natural gas combustion, and exhausting to stacks S-FL-24 and S-FL-25, respectively.

In addition, one (1) Double Headed Sander has been removed from the source, and the fabric filter dust collector that controlled particulate emissions from the sander now controls emissions from one (1) insignificant die cutter operation.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.
6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

This significant source modification authorizes construction of the new emission units. Operating conditions shall be incorporated into the Part 70 Operating Permit as a significant permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12. Operation is not approved until the significant permit modification has been issued.

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 contact CarrieAnn Paukowits, c/o OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46204-2251, at 631-691-3395, ext. 18, or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Nisha Sizemore for:
Paul Dubenetzky, Assistant Commissioner
Office of Air Quality

CAP/MES

Attachments

cc: File - St. Joseph County
St. Joseph County Health Department
Northern Regional Office
Air Compliance Section Inspector - Rick Reynolds
Compliance Branch
Administrative and Development Section
Technical Support and Modeling - Michele Boner
Honeywell International, Inc. - Koben Miceli, Director, Integrated Supply Chain
Keramida Environmental, Inc. - Tom Rarick



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PART 70 OPERATING PERMIT 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. **This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-7-10.5, applicable to those conditions.**

| | |
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| Operation Permit No.: T141-7442-00172 | |
| Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality | Issuance Date: April 13, 2004 Expiration Date: April 13, 2009 |

| | |
|--|---|
| First Significant Source Modification No.: 141-22378-00172 | Sections/Conditions Affected: A.2, A.3, B.12, D.2.1, D.2.2, D.2.4 added (remainder of Section D.2 is renumbered), D.2.6 (previously D.2.5), D.2.9 (previously D.2.8) (All of Section D.2 is shown), and facility description box in D.6 |
| Issued by: Nisha Sizemore for: Paul Dubenetzky, Assistant Commissioner Office of Air Quality | Issuance Date: April 21, 2006 Expiration Date: April 13, 2009 |

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]
[326 IAC 2-7-5(15)]

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

- (a) Two (2) electric Char Furnaces, with a maximum capacity of 137.5 tons of disks per year each, with volatile organic compound emissions controlled by a thermal oxidizer, and exhausting through stack 427. Construction dates are as follows: Nos. 5 and 6, 1988-1989.
- (b) 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.
- (c) 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 2400 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.
- (d) Twenty-four (24) Chemical Vapor Deposition (CVD) units, also known as carbon vapor deposition units, identified as CVD-2 through CVD-25, with each unit having an estimated batch capacity of 8800 pounds (initial weight) of brakes for random fiber process or 5300 pounds (initial weight) of brakes for non-woven process. Each CVD has a nominal total reactant gas flow of 2000 scf per soak hour for random fiber process or a nominal total reactant gas flow of 4200 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, 2006. Twenty-four (24) enclosed flares, controlling the soak phase VOC emissions from CVD units 2-25, each having a rated capacity of 5.5 MMBtu per hour, natural gas combustion, and exhausting through stacks S-FL-2 through S-FL-25, respectively.
- (e) One (1) Chrome Anodizing Tank, identified as 18, with a wetting agent in the tank to control emissions.

A.3 Specifically Regulated Insignificant Activities and Trivial Activities [326 IAC 2-7-1(21)]
[326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

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, installed in 1998, using HVLP spray guns, 3-stage HEPA filters and an electric powered IR curing oven. [40 CFR 63, Subpart GG] [326 IAC 6.5-1]
- (b) Space heaters, process heaters, or boilers using the following fuels:
 - Five (5) natural gas-fired boilers with a total heat input capacity of 10.5 MMBtu/hr. Three (3) boilers constructed in 1986, identified as: Plants 12W, 4W and 4E, exhausting to stacks 226, 484 and 485, respectively. Two (2) boilers constructed in 1991, identified as Plants 4BS and 4BN, both exhausting to stack BS-1. [326 IAC 6.5-1]

- (c) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-5]
- (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 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6.5-1]
 - (1) Two (2) Re-circulating Blast Units, with a capacity of 2500 pounds per hour of blast media, controlled by two (2) dust collectors, and vented inside the building.
 - (2) Grinding and sanding operations controlled by various fabric filter systems.
- (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) Empire Blaster, with a capacity of 10 pounds per hour, controlled by a dust collector, and venting inside the building.
 - (2) 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.
 - (3) Four (4) Needle Machines, identified as NM-3, NM-4, NM-5, and NM-6. NM-3 and NM-4 were constructed in 1998. NM-5 and NM-6 were constructed in 2002. Each machine has a capacity of 15 pounds per hour and all four (4) machines are controlled by a fabric filter dust collector, identified as DC-3, and exhausting within the building.
 - (4) Two (2) Auto Pre-form Machines, identified as APM-1 and APM-2, each with a maximum capacity of 54 pounds per hour. APM-2 was constructed in 1990 and is controlled by a fabric filter dust collector, identified as DC-4, and exhausting through stack S-4.
 - (5) 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.
 - (6) Six (6) Burr Benches each controlled by a dust collector, and venting inside the building.
 - (7) One (1) Mattison Grinder with a capacity of 230 pounds per hour controlled by a dust collector, and venting inside the building.
 - (8) One (1) Little Blaster with a maximum capacity of 20 pounds per hour, controlled by a dust collector venting inside the building.
 - (9) One (1) Brake Test Dynamometer cell controlled by two (2) dust collectors vented to the outside.
 - (10) One (1) Wheelabrator operation with a maximum throughput less than 100 pounds per hour of plastic media blast, controlled by a rotoclone, and exhausting outside the building.

- (11) One (1) Blast Works unit controlled by a dust collector vented inside the building.
- (12) One (1) Thumbl Blast unit controlled by a dust collector venting inside the building.
- (f) Trivial Activities: 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. [326 IAC 6.5-1]

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 ~~is~~ **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 five (5) natural gas-fired boilers, identified as Plants 12W, 4W, 4E, 4BS and 4BN, are not subject to the New Source Performance Standard, 326 IAC 12 (40 CFR 60.40c, Subpart Dc). The three (3) natural gas-fired boilers, identified as Plants 12W, 4W and 4E, were constructed prior to the June 9, 1989 applicability

date and they are rated at less than ten (10) MMBtu/hr. The two (2) natural gas-fired boilers, identified as Plants 4BS and 4BN, were constructed after the June 9, 1989 applicability date but they are rated at less than ten (10) MMBtu/hr. Therefore, 40 CFR 60.40c, Subpart Dc does not apply.

- (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; D.2.3; D.4.7; D.4.8; D.4.10; D.4.13, D.5.2; D.5.4; D.6.1 and D.6.3.
- (6) 326 IAC 2-4.1-1 (New Source Toxics Control)
- (A) Each CVD unit (1-25) 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 combined hazardous air pollutants (HAPs) for each CVD unit (1-25) is less than twenty-five (25) tons per year each and the potential to emit (PTE) of any single hazardous air pollutants (HAPs) for each CVD unit (1-25) is less than ten (10) tons per year each. In addition, most of these CVDs were constructed prior to the July 1997 applicable date. Therefore, the requirements of this rule do not apply.
- (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 6.5-1-1 (formerly 6-1-1) (Nonattainment Area Limitations)
Because the source is located in St. Joseph County, and has the potential to emit (PTE) one hundred (100) tons or more of PM per year this rule applies.
- Because the PM emissions from the CVD units (4-23), Char Furnaces (1, 5 and 6) and Chrome Anodizing Tank 18 are negligible, they are in compliance with 326 IAC 6.5-1-1 (formerly 6-1-1).
- (NOTE: CVD units (1-3) and Char Furnaces (2-4) are not subject to 326 IAC 6.5-1-1 (formerly 6-1-1) because they were constructed prior to 1988)
- (9) 326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitations)
- (A) This rule is not applicable to the six (6) 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 five (5) natural gas-fired boilers because the potential to emit (PTE) SO₂ is less than twenty-five (25) tons per year per boiler.

- (10) 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).
 - (11) 326 IAC 8-3-2 (Cold Cleaner Operation)
The degreaser is located in St. Joseph county and it is at a source which has potential emissions of one hundred (100) tons or greater per year of VOC, however, it was constructed after January 1, 1980, which is the applicability date. Therefore, 326 IAC 8-3-2 (Cold Cleaner Operation) is not applicable.
 - (12) The combination of Conditions D.1.1, D.2.1 and D.2.2 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)]

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: CVD Units (1-25)

- (a) 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 2400 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.
- (b) Twenty-four (24) Chemical Vapor Deposition (CVD) units, also known as carbon vapor deposition units, identified as CVD-2 through CVD-25, with each unit having an estimated batch capacity of 8800 pounds (initial weight) of brakes for random fiber process or 5300 pounds (initial weight) of brakes for non-woven process. Each CVD has a nominal total reactant gas flow of 2000 scf per soak hour for random fiber process or a nominal total reactant gas flow of 4200 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, 2006. Twenty-four (24) enclosed flares, controlling the soak phase VOC emissions from CVD units 2-25, each having a rated capacity of 5.5 MMBtu per hour, natural gas combustion, and exhausting through stacks S-FL-2 through S-FL-25, 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 CP 141-9999-00172, issued on December 14, 1998, SSM 141-11205-00172, issued on October 20, 1999, SSM 141-10759-00172, issued on October 20, 1999, and SSM 141-13853-00172, issued on September 7, 2001, enclosed flares have been accepted 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. Compliance with these requirements renders 326 IAC 2-3 (Emission Offset) not applicable for CVDs 1-21.

D.2.2 BACT Condition [326 IAC 8-1-6] [326 IAC 2-3]

- (a) Pursuant to SSM 141-11511-00172, issued on March 8, 2000, an enclosed flare has been accepted 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%).
- (b) Pursuant to 326 IAC 8-1-6, BACT for the two (2) CVD units constructed in 2006, 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%).
- (c) The VOC emission rate from each of the two (2) CVD units shall be limited to 0.343 pounds per hour, including combustion emissions from the flare. Therefore, the requirements of 326 IAC 2-3, Emission Offset, are not applicable.

D.2.3 PSD Minor Limit [326 IAC 2-2]

Pursuant to SSM 141-13853-00172, issued on September 7, 2001, the carbon monoxide emissions from the enclosed flares for CVD units 1 through 21, shall be limited to 1.62 pounds per hour, each, based on the CVDs estimated soak phase operations per year for the non-woven

process, totaling 121,800 soak hours per year for the non-woven process in CVDs 1-21. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) does not apply to CVDs 1-21.

D.2.4 Particulate Matter (PM) [326 IAC 6.5-1]

Pursuant to 326 IAC 6.5-1(formerly 326 IAC 6-1) (Nonattainment Area Particulate Limitations), 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(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for flares on the CVDs.

Compliance Determination Requirements

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

- (a) Within one hundred eighty (180) days after issuance of T 141-7442-00172, in order to demonstrate compliance with Conditions D.2.1 and D.2.2, the Permittee shall perform a compliance stack test on five (5) of the CVD unit flares for overall control efficiency utilizing methods as approved by the Commissioner. The tests shall be repeated at least once every five years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Condition C - Performance Testing.
- (b) Within one hundred eighty (180) days after issuance of SPM 141-22380-00172, in order to demonstrate compliance with Condition D.2.2(b), the Permittee shall perform a compliance stack test on one (1) of the CVD unit flares constructed in 2006, CVD-24 or CVD-25, for overall control efficiency utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Condition C - Performance Testing.

D.2.7 VOC 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 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.2.2:
 - (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. The output of this system shall be recorded as a three (3) hour rolling average. The Permittee shall take appropriate response steps in accordance with Section C – Compliance Response Plan – Preparation, Implementation, Records and Reports whenever the three (3) hour rolling average temperature of any flare is below the determined temperature for compliance monitoring; initially determined to be one thousand degrees Celsius (1000°C). A three (3) hour rolling average temperature that is below such determined temperature is not a deviation from this

permit. Failure to take response steps in accordance with Section C – Compliance Response Plan – Preparation, Implementation, Records and Reports shall be considered a deviation from this permit. In the event that a breakdown of the monitoring equipment occurs, the Permittee shall supplement monitoring with visual checks once per hour to ensure that a flame is present.

- (3) The Permittee shall determine the three (3) hour average temperature for compliance monitoring from the most recent valid approved stack test that demonstrates compliance with limits in Conditions D.2.1 and D.2.2.
- (4) On and after the forty-fifth (45) day following the Permittee's formal submittal to IDEM, OAQ of the results from an approved stack test, the Permittee shall operate each flare at or above the three (3) hour average temperature as observed during such compliant stack test, or otherwise in accordance with Section C – Compliance Response Plan – Preparation, Implementation, Records and Reports.
- (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 and has VOC emissions resulting from 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 in accordance with Condition C.13 – Compliance Response Plan – Preparation, Implementation, Records and Reports 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.

- (b) The instrument employed to measure temperature shall be calibrated and maintained and have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (2%) of full scale reading.

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 compliance with Condition D.2.8, the Permittee shall maintain flare temperature data for CVD units operating during the soak phase.
- (b) To document compliance with Condition D.2.3, the Permittee shall record the hours per month of soak phase operation.

SECTION D.6

FACILITY OPERATION CONDITIONS

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

Insignificant Activities

- (b) 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 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6.5-1]
- (1) Two (2) Re-circulating Blast Units, with a capacity of 2500 pounds per hour of blast

- media, controlled by two (2) dust collectors, and vented inside the building.
- (2) Grinding and sanding operations controlled by various fabric filter systems.
- (c) 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 5 pounds per hour or 25 pounds per day. [326 IAC 2-7-1(21)(B)][326 IAC 6.5-1]
- (1) One (1) Empire Blaster, with a capacity of 10 pounds per hour, controlled by a dust collector, and venting inside the building.
- (2) 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.
- (3) Four (4) Needle Machines, identified as NM-3, NM-4, NM-5, and NM-6. NM-3 and NM-4 were constructed in 1998. NM-5 and NM-6 were constructed in 2002. Each machine has a capacity of 15 pounds per hour and all four (4) machines are controlled by a fabric filter dust collector, identified as DC-3, and exhausting within the building.
- (4) Two (2) Auto Pre-form Machines, identified as APM-1 and APM-2, each with a maximum capacity of 54 pounds per hour. APM-2 was constructed in 1990 and is controlled by a fabric filter dust collector, identified as DC-4, and exhausting through stack S-4.
- (5) 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.
- (6) Six (6) Burr Benches, each controlled by a dust collector, and venting inside the building.
- (7) One (1) Mattison Grinder with a capacity of 230 pounds per hour controlled by a dust collector, and venting inside the building.
- (8) One (1) Little Blaster with a maximum capacity of 20 pounds per hour, controlled by a dust collector venting inside the building.
- (9) One (1) Brake Test Dynamometer cell controlled by two (2) dust collectors vented to the outside.
- (10) One (1) wheelabrator operation with a maximum throughput less than 100 pounds per hour of plastic media blast, controlled by a rotoclone, and exhausting outside the building.
- (11) One (1) Blast Works unit controlled by a dust collector vented inside the building.
- (12) One (1) Thumbl Blast unit controlled by a dust collector venting inside the building.
- (d) Trivial Activities: 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. [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.)

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

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

Source Description and Location

| | |
|---|---|
| Source Name: | Honeywell International, Inc. |
| Source Location: | 3520 Westmoor Street, South Bend, IN 46228 |
| County: | St. Joseph |
| SIC Code: | 3728 |
| Operation Permit No.: | T 141-7442-00172 |
| Operation Permit Issuance Date: | April 13, 2004 |
| Significant Source Modification No.: | 141-22378-00172 |
| Significant Permit Modification No.: | 141-22380-00172 |
| Permit Reviewer: | CarrieAnn Paukowits |

Existing Approvals

The source was issued a Part 70 Operating Permit T 141-7442-00172 on April 13, 2004. The Operating Permit has been appealed by the Permittee and the resolution is being handled under Appeal Resolution 141-19220-00172. That resolution is pending. The permit modification will contain revised conditions based on issues that have been resolved.

County Attainment Status

The source is located in St. Joseph County.

| Pollutant | Status |
|-------------------|---------------|
| PM ₁₀ | attainment |
| PM _{2.5} | attainment |
| SO ₂ | attainment |
| NO ₂ | attainment |
| 1-hour Ozone | attainment |
| 8-hour Ozone | nonattainment |
| CO | attainment |
| Lead | attainment |

- (a) 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 the ozone standards. St. Joseph County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (b) St. Joseph County has been classified as attainment for PM_{2.5}. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM_{2.5} emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM_{2.5} emissions, it has directed states to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions.

- (c) St. Joseph County has been classified as attainment or unclassifiable in Indiana for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

| |
|----------------------|
| Source Status |
|----------------------|

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 (tons/year) |
|------------------|-----------------------|
| PM | 58.1 |
| PM ₁₀ | 58.4 |
| SO ₂ | 0.315 |
| VOC | 54.9 |
| CO | 106 |
| NO _x | 70.8 |

- (a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no regulated pollutant is emitted at a rate of two hundred and 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(gg)(1).
- (b) This existing source is not a major stationary source, under Emission Offset (326 IAC 2-3), because no nonattainment regulated pollutant is emitted at a rate of one hundred (100) tons per year or more.
- (c) These emissions are based upon the limitations in the permit and updated calculations provided by the applicant and found to be accurate.

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

| HAPs | Potential To Emit (tons/year) |
|-------------|-------------------------------|
| Benzene | 2.82 |
| Toluene | 0.623 |
| Styrene | 0.288 |
| Naphthalene | 0.223 |
| Phenol | 2.38 |
| o-Cresol | 1.58 |
| Chromium | 0.005 |
| Manganese | 0.001 |
| TCE | 8.80 |

| HAPs | Potential To Emit (tons/year) |
|---------------|-------------------------------|
| MIBK | 0.675 |
| Xylene | 1.34 |
| Ethyl benzene | 0.142 |
| Hexane | 0.163 |
| Formaldehyde | 0.007 |
| TOTAL | 18.5 |

This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because HAPs emissions are less than ten (10) tons per year for a single HAP and 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).

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2003 OAQ emission data.

| Pollutant | Actual Emissions (tons/year) |
|------------------|------------------------------|
| PM | Not reported |
| PM ₁₀ | 1.0 |
| SO ₂ | 0.0 |
| VOC | 11.0 |
| CO | 44.0 |
| NO _x | 26.0 |
| HAP (Benzene) | 0.697 |
| HAP (Phenol) | 0.503 |

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Honeywell International, Inc. on December 16, 2005, relating to the addition of two (2) Chemical Vapor Deposition (CVD) units, identified as CVD-24 and CVD-25, at their existing source. The following is a list of the newly proposed emission units and pollution control devices:

Two (2) Chemical Vapor Deposition (CVD) units, also known as carbon vapor deposition units, identified as CVD-24 and CVD-25, 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 fiber process, constructed in 2006, and each equipped with a enclosed flare controlling the soak phase emissions with a rated capacity of 5.5 million British thermal units per hour, natural gas combustion, and exhausting to stacks S-FL-24 and S-FL-25, respectively.

In addition, the one (1) Double Headed Sander, identified as emission unit PM1, has been removed from the source and will be removed from the permit. The fabric filter dust collector that controlled particulate emissions from the sander now controls emissions from one (1) insignificant die cutter

operation, identified as DCR. Emissions from the die cutter were previously controlled by another fabric filter dust collector, identified as DC-3, and located in a room with another dust collector, DC-2, controlling all emissions from that room. Those dust collectors are no longer in operation. The capacity of the die cutter and the potential to emit have not increased as a result of this change, and there are no changes to the permit conditions or applicable rules.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Stack Summary

| Stack ID | Operation | Height (feet) | Diameter (feet) | Flow Rate (acfm) | Temperature (°F) |
|----------|-----------|---------------|-----------------|------------------|------------------|
| S-FI-24 | CVD-24 | 40.0 | 3.25 | 2,890 | 1,832 |
| S-FI-25 | CVD-25 | 40.0 | 3.25 | 2,890 | 1,832 |

Emission Calculations

See Appendix A of this document for detailed emission calculations.

Permit Level Determination – Part 70

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.

Since some pollutants are only emitted after controls, the highest of the before controls and after controls emissions are used in this table.

| Pollutant | Potential To Emit (tons/year) |
|------------------|-------------------------------|
| PM | 0.083 |
| PM ₁₀ | 0.330 |
| SO ₂ | 0.026 |
| VOC | 123 |
| CO | 0.095 |
| NO _x | 4.35 |

| HAPs | Potential To Emit (tons/year) |
|---|-------------------------------|
| Benzene | 16.7 |
| Formaldehyde | 0.003 |
| Hexane | 0.078 |
| Toluene | 1.78 |
| Styrene | 1.65 |
| Dichlorobenzene, Lead, Cadmium, Chromium, Manganese, Nickel | < 0.001, each |
| TOTAL | 20.2 |

This source modification is subject to 326 IAC 2-7-10.5(f)(4) and (6), since the modification has the potential to emit twenty-five (25) tons per year or more of VOC and greater than or equal to ten (10) tons per year of a single hazardous air pollutant. 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).

Permit Level Determination – PSD or Emission Offset

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.

| Process/Emission Unit | Potential to Emit (tons/year) | | | | | | |
|---|-------------------------------|------------------|-----------------|------|-------|-----------------|---|
| | PM | PM ₁₀ | SO ₂ | VOC | CO | NO _x | Other (Worst-case HAPs) |
| One (1) CVD unit (CVD-24) | 0.042 | 0.165 | 0.013 | 1.35 | 0.047 | 2.18 | 0.167 Benzene; 0.242 Total |
| One (1) CVD unit (CVD-25) | 0.042 | 0.165 | 0.013 | 1.35 | 0.047 | 2.18 | 0.167 Benzene; 0.242 Total |
| Total for Modification | 0.083 | 0.330 | 0.026 | 2.70 | 0.095 | 4.35 | 0.333 Benzene; 0.484 Total |
| Entire Source Total After Modification | 58.2 | 58.7 | 0.341 | 57.6 | 106 | 75.2 | 8.80 Worst Case Individual; 19.0 Total |
| Significant Level or Major Source Threshold | 250 | 250 | 250 | 100 | 250 | 100 | N/A |

(a) This modification to an existing minor stationary source is not major because the emission increase is less than the PSD and Emission Offset major source thresholds. Therefore,

pursuant to 326 IAC 2-2, the PSD and Emission Offset requirements do not apply.

- (b) In order for this modification to be a minor modification pursuant to 326 IAC 2-3, Emission Offset, the VOC emission rate shall not exceed 0.343 pounds per hour per CVD unit, which is equivalent to operating the enclosed flares at an overall control efficiency no less than ninety-eight percent (98%) $[(15.62 \text{ lbs VOC/hr} \times (1 - 0.98)) + (0.239 \text{ tons VOC/yr} / 2 \text{ units} / 7,900 \text{ hrs/yr} \times 2,000 \text{ lbs/ton}) = 0.343 \text{ lbs VOC/hr}]$. The applicant agreed to the ninety-eight percent (98%) control efficiency as BACT (see 326 IAC 8-1-6 in the State Rule Applicability Determination section of this document). As a result of this limit, the source will remain a minor source pursuant to 326 IAC 2-3, Emission Offset (see (c) below).
- (c) Based on the limited potential to emit of the proposed modification and the limited potential to emit of the source, the potential to emit of the entire source is still less than the PSD and Emission Offset major source thresholds. Therefore, this source is still not major pursuant to 326 IAC 2-2, PSD, and 326 IAC 2-3, Emission Offset. This is based upon the following:

| Facility | Potential to Emit VOC (tons/yr) | Related Permit Condition |
|---|---------------------------------|--|
| Six (6) char furnaces equipped with three (3) oxidizers | 11.88 | D.1.1(a), 1.2 lbs VOC/hr/oxidizer (6,600 potential hrs of operation/yr) |
| Twenty-three (23) existing CVD units | 31.1 | D.2.1 and D.2.2(a), operate control at no less than 98% control efficiency |
| Two (2) Binks Paint Booths and solvents | 2.63 | Unrestricted |
| Remediation | 8.80 | Unrestricted |
| Combustion | 0.497 | Unrestricted |
| Two (2) proposed CVD units | 2.70 | 0.343 lbs/hr per unit (7,900 potential hrs/yr) |
| Total | 57.6 | |

Federal Rule Applicability Determination

The following federal rules are applicable to the source due to this modification:

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) included in the permit for this proposed modification.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit for this proposed modification.
- (c) 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 or after controls equal to or greater than the 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 applicability criteria, under

40 CFR 64.1, to each new or modified emission unit involved:

| Emission Unit | Control Device Used | Emission Limitation (Y/N) | Uncontrolled PTE (tons/year) | Controlled PTE (tons/year) | Major Source Threshold (tons/year) | CAM Applicable (Y/N) | Large Unit (Y/N) |
|---------------------------|---------------------|---------------------------|------------------------------|----------------------------|------------------------------------|----------------------|------------------|
| One (1) CVD unit (CVD-24) | Flare | Y | 61.5 | 1.35 | 100 | N | N |
| One (1) CVD unit (CVD-25) | Flare | Y | 61.5 | 1.35 | 100 | N | N |

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are not applicable to any of the new units as part of this modification.

| |
|---|
| State Rule Applicability Determination |
|---|

The following state rules are applicable to the source due to the modification:

326 IAC 2-2 and 2-3 (PSD and Emission Offset)

PSD and Emission Offset applicability is discussed under the Permit Level Determination - PSD and Emission Offset section.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

Each Chemical Vapor Deposition (CVD) unit 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 unrestricted potential HAP emissions from each of the two (2) CVD units, identified as CVD-24 and CVD-25, are 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 2-6 (Emission Reporting)

Since this source is required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, this source is subject to 326 IAC 2-6 (Emission Reporting). In accordance with the compliance schedule in 326 IAC 2-6-3, an emission statement must be submitted triennially. The first report was due no later than July 1, 2004, and subsequent reports are due every three (3) years thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 8-1-6 (New facilities; General reduction requirements)

The potential VOC emissions from each of the two (2) CVD units, identified as CVD-24 and CVD-25, are greater than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 are applicable and a Best Available Control Technology (BACT) analysis was provided for this modification. Control technologies considered are the following:

- (a) Carbon Adsorbers - Carbon adsorption is used to remove VOCs from low to medium concentration gas streams when a stringent outlet concentration must be met or when recovery of VOC is desired.
- (b) Condensors - Condensation is a separation technique in which one or more volatile components of a vapor are separated from the mixture through saturation and phase change.
- (c) Gas scrubbers - This is a process where one or more soluble components of a gas mixture are dissolved in a liquid in a wet scrubber, packed tower or bubble tower.
- (d) Thermal Oxidizer - Thermal incineration involves burning of the organic materials present in

the gas stream using high temperature combustion.

- (e) Enclosed Flare - An enclosed flare also involves burning the organic materials present in the gas stream.

Carbon adsorbers, condensers and gas scrubbers are typically designated to function with gas streams with much lower VOC concentrations than found in this type of process. Therefore, only thermal oxidation or enclosed flares are considered technically feasible for this type of process. The maximum control efficiency for this process with any of the control devices reviewed would be ninety-eight percent (98%).

The applicant also reviewed previous BACT determinations for CVD operations. They are as follows:

Honeywell International, Inc., T 141-7442-00172, issued on April 13, 2004

- (a) Pursuant to CP 141-9999-00172, issued on December 14, 1998, SSM 141-11205-00172, issued on October 20, 1999, SSM 141-10759-00172, issued on October 20, 1999, and SSM 141-13853-00172, issued on September 7, 2001, enclosed flares have been accepted 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. Compliance with these requirements renders 326 IAC 2-1.1-5 (NSR Nonattainment) not applicable for CVDs 1-21.
- (b) Pursuant to SSM 141-11511-00172, issued on March 8, 2000, an enclosed flare has been accepted 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%).

The existing CVD units are identical to the proposed units. There were no other similar sources in the BRLC database.

Therefore, BACT for the two (2) proposed CVD units will be the use of enclosed flares and an overall control efficiency no less than ninety-eight percent (98%). No cost analysis was required because the applicant chose a control device with the highest (best) rate of control.

326 IAC 6.5-1-2 (Particulate emission limitations)

This source is in St. Joseph County and it has been determined that actual particulate emissions may be greater than ten (10) tons per year. Therefore, this source is subject to the requirements of 326 IAC 6.5-1-2 (formerly 326 IAC 6-1-2). Pursuant to 326 IAC 6.5-1-2(a), particulate matter emissions from each of the two (2) CVD units, identified as CVD-24 and CVD-25, 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)).

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:

1. The two (2) proposed CVD units, identified as CVD-24 and CVD-25, have applicable compliance determination conditions as specified below:
 - (a) Within 180 days of issuance of this modification, in order to demonstrate compliance with Condition D.2.2(b), the Permittee shall perform a compliance stack test on one (1) of the proposed CVD unit flares, CVD-24 or CVD-25, for overall control efficiency utilizing methods as approved by the Commissioner. A total of five (5) of the twenty-five (25) CVD units shall be tested at least once every five years.
 - (b) All exhaust process gas from the soak phase of each CVD unit's batch cycle shall be directed through the enclosed flares for VOC control.
 - (c) Each enclosed flare shall operate at all times that the corresponding CVD unit is operating in the soak phase.

The compliance monitoring requirements applicable to this modification are as follows (these conditions are still being resolved under Appeal Resolution 141-19220-00172 and may be changed in the near future):

2. The two (2) proposed CVD units, identified as CVD-24 and CVD-25, have applicable compliance monitoring conditions as specified below:
 - (a) 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.
 - (b) A continuous monitoring system shall be operated on each flare for measuring operating temperature whenever the CVD is in the soak phase. The output of this system shall be recorded as a three (3) hour rolling average. The Permittee shall take appropriate response steps in accordance with Section C – Compliance Response Plan – Preparation, Implementation, Records and Reports whenever the three (3) hour rolling average temperature of any flare is below the determine temperature for compliance monitoring; initially determined to be one thousand degrees Celsius (1000°C). A three (3) hour rolling average temperature that is below such determined temperature is not a deviation from this permit. Failure to take response steps in accordance with Section C – Compliance Response Plan – Preparation, Implementation, Records and Reports shall be considered a deviation from this permit. In the event that a breakdown of the monitoring equipment occurs, the Permittee shall supplement monitoring with visual checks once per hour to ensure that a flame is present.
 - (c) The Permittee shall determine the three (3) hour average temperature for compliance monitoring from the most recent valid approved stack test that demonstrates compliance with the limits in Conditions D.2.1 and D.2.2.
 - (d) On and after the forty-fifth (45) day following the Permittee's formal submittal to

IDEM, OAQ of the results from an approved stack test, the Permittee shall operate each flare at or above the three (3) hour average temperature as observed during such compliant stack test, or otherwise in accordance with Section C – Compliance Response Plan – Preparation, Implementation, Records and Reports.

- (e) 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 and has VOC emissions resulting from 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 in accordance with Condition C.13 - Compliance Response Plan – Preparation, Implementation, Records and Reports 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.

- (f) The instrument employed to measure temperature shall be calibrated and maintained and have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (2%) of full scale reading.

These monitoring conditions are necessary because the flares must operate properly in order for the CVD units to comply with the BACT requirements of 326 IAC 8-1-6 (New facilities; General reduction requirements) and 326 IAC 2-7 (Part 70) and to remain a minor source pursuant to 326 IAC 2-3, Emission Offset.

| |
|-------------------------|
| Proposed Changes |
|-------------------------|

The changes listed below have been made to Part 70 Operating Permit No. 141-7442-00172. Additional changes have been made as a result of Appeal Resolution 141-19220-00172. Those changes are not discussed in this document. Deleted language appears as ~~strike throughs~~ and new language appears in **bold**:

Change 1:

The IDEM, OAQ, address has been updated in all places in the permit, as follows:

100 North Senate Avenue, ~~P. O. Box 6015~~
Indianapolis, Indiana ~~46206-6015~~ **46204-2251**

Change 2:

The responsible official has been revised in Section A.1 of the permit. In addition, St. Joseph County has been designated as nonattainment for the 8-hour ozone standard. Therefore, Section A.1 has been revised as follows:

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

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

Responsible Official: ~~Vice President/General Manager~~ **Director, Integrated Supply Chain**

Source Address: 3520 Westmoor Street, South Bend, Indiana 46628

Mailing Address: 3520 Westmoor Street, South Bend, Indiana 46628

General Source Phone Number: (574) 231-2302

SIC Code: 3724, 3728

County Location: St. Joseph

Source Location Status: ~~Maintenance Attainment~~ **Nonattainment for Ozone based on the 8-hour standard**

Source Status: Attainment for all other criteria pollutants
Part 70 Permit Program
Minor Source, under PSD **and Emission Offset**
Minor Source, Section 112 of the Clean Air Act

Change 3:

IDEM has clarified the Condition B.20 (Operational Flexibility) as follows:

B.20 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), (c), or (e), 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 ~~emissions allowable under~~ **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
Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana ~~46206-6015~~ **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, ~~on a rolling five (5) year basis~~, all such changes and emissions trading **trades** that are subject to 326 IAC 2-7-20(b), (c), or (e). ~~and makes~~ **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), (c)(1), and (e)(2).

- (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(36)) 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 the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade **emissions** increases and decreases ~~in emissions in~~ 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.**

Change 4:

The name of the appropriate IDEM, OAQ, section has been revised in Condition B.24, as follows:

B.24 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, ~~IM & Billing~~, **Licensing and Training** Section), to determine the appropriate permit fee.

Change 5:

Indiana was required to incorporate credible evidence provisions into state rules consistent with the SIP call published by U.S. EPA in 1997 (62 FR 8314). Indiana has incorporated the credible evidence provision in 326 IAC 1-1-6. This rule is effective March 16, 2005; therefore, Condition B.25 reflecting this rule will be incorporated into the proposed permit as follows:

B.25 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.

Change 6:

326 IAC 6-1 has been re-designated as 326 IAC 6.5-1. Therefore, Conditions D.4.8, D.4.13, D.5.2, D.6.1 and D.6.3 have been revised as follows:

D.4.8 Particulate Matter (PM) [~~326 IAC 6-1~~] [326 IAC 6.5-1]

Pursuant to **326 IAC 6.5-1 (formerly 326 IAC 6-1)** (Nonattainment Area Particulate Limitations), the particulate (PM) from the two (2) paint booths shall be limited to 0.03 grains per dry standard cubic foot of exhaust air.

D.4.13 Particulate Control [~~326 IAC 6-1~~] [326 IAC 2-7-6(6)]

In order to comply with Condition D.4.8, pParticulate 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.

D.5.2 Particulate Matter (PM) [~~326 IAC 6-1~~] [326 IAC 6.5-1]

Pursuant to **326 IAC 6.5-1-2(b) (formerly 326 IAC 6-1-2(b))** (Nonattainment Area Particulate Limitations), the particulate (PM) from the five (5) natural gas-fired boilers shall be limited to 0.01 grains per dry standard cubic foot of exhaust air.

D.6.1 Particulate Matter (PM) [~~326 IAC 6-1~~] [326 IAC 6.5-1]

Pursuant to **326 IAC 6.5-1 (formerly 326 IAC 6-1)** (Nonattainment Area Particulate Limitations), the particulate (PM) from each of the ~~one (1) double headed sander, one (1) die cutter room, four (4) needle machines, two (2) auto pre-form machines and one (1) EI dynamometer~~ **emission units identified above** shall each be limited to 0.03 grains per dry standard cubic foot of exhaust air.

D.6.3 Particulate Control [~~326 IAC 6-1~~] [326 IAC 2-7-6(6)]

In order to comply with Condition D.6.1, the ~~dust collectors for the particulate control shall be in operation and control emissions from the one (1) double headed sander, one (1) die cutter room, four (4) needle machines, two (2) auto pre-form machines and one (1) EI dynamometer at all times that the one (1) double headed sander, one (1) die cutter room, four (4) needle machines, two (2) auto pre-form machines and one (1) EI dynamometer are in operation~~ **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.**

Change 7:

The 8-hour ozone nonattainment designations in 69 FR 23858 have been incorporated in 326 IAC 1-4-1 effective December 12, 2004. Therefore, provisions of 326 IAC 2-3 are applicable in these areas. IDEM has deleted the Nonattainment NSR term from the permit and replaced it with 326 IAC 2-3,

Emission Offset, as follows:

D.1.1 VOC and HAP Limits [326 IAC 8-1-6] ~~[326 IAC 2-1.1-5]~~ [326 IAC 2-3]

- (a) VOC emissions from each thermal oxidizer shall not exceed 1.2 pounds per hour.
- (b) HAP emissions from each thermal oxidizer shall not exceed 0.4 pounds per hour.

D.2.1 BACT Condition [326 IAC 8-1-6] ~~[326 IAC 2-1.1-5]~~ [326 IAC 2-3]

Pursuant to CP 141-9999-00172, issued on December 14, 1998, SSM 141-11205-00172, issued on October 20, 1999, SSM 141-10759-00172, issued on October 20, 1999, and SSM 141-13853-00172, issued on September 7, 2001, enclosed flares have been accepted 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. Compliance with these requirements renders ~~326 IAC 2-1.1-5 (NSR Nonattainment)~~ **326 IAC 2-3 (Emission Offset)** not applicable for CVDs 1-21.

Change 8:

The following changes have been made to Sections A.2 and D.2 due to the proposed addition of the two (2) Chemical Vapor Deposition (CVD) units, also known as carbon vapor deposition units, identified as CVD-24 and CVD-25. Conditions D.2.4 through D.2.8 have been renumbered as Conditions D.2.5 through D.2.9 due to the addition of a new D.2.4. The specific changes to conditions are as follows:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]
[326 IAC 2-7-5(15)]

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

- (a) Two (2) electric Char Furnaces, with a maximum capacity of 137.5 tons of disks per year each, with volatile organic compound emissions controlled by a thermal oxidizer, and exhausting through stack 427. Construction dates are as follows: Nos. 5 and 6, 1988-1989.
- (b) 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.
- (c) 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 2400 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.
- (d) ~~Twenty-two (22)~~ **Twenty-four (24)** Chemical Vapor Deposition (CVD) units, also known as carbon vapor deposition units, identified as CVD-2 through CVD-~~23~~ **25**, with each unit having an estimated batch capacity of 8800 pounds (initial weight) of brakes for random fiber process or 5300 pounds (initial weight) of brakes for non-woven process. Each CVD has a nominal total reactant gas flow of 2000 scf per soak hour for random fiber process or a nominal total reactant gas flow of 4200 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, 2006.** ~~Twenty-~~

~~two (22)~~ **Twenty-four (24)** enclosed flares, controlling the soak phase VOC emissions from CVD units 2-~~23~~**25**, each having a rated capacity of 5.5 MMBtu per hour, natural gas combustion, and exhausting through stacks S-FL-2 through ~~S-FL-23~~ **S-FL-25**, respectively.

- (e) One (1) Chrome Anodizing Tank, identified as 18, with a wetting agent in the tank to control emissions.
- ~~(f) One (1) Double Headed Sander, identified as emission unit PM1, with a maximum capacity of 300 pounds per hour, constructed in 1987, controlled by a fabric filter dust collector, identified as DC-1, and exhausting through stack S-1.~~

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 ~~is~~ **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 M - 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 G - 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 five (5) natural gas-fired boilers, identified as Plants 12W, 4W, 4E, 4BS and 4BN, are not subject to the New Source Performance Standard, 326 IAC 12 (40 CFR 60.40c, Subpart Dc). The three (3) natural gas-fired boilers, identified as Plants 12W, 4W and 4E, were constructed prior to the June 9, 1989 applicability date and

they are rated at less than ten (10) MMBtu/hr. The two (2) natural gas-fired boilers, identified as Plants 4BS and 4BN, were constructed after the June 9, 1989 applicability date but they are rated at less than ten (10) MMBtu/hr. Therefore, 40 CFR 60.40c, Subpart Dc does not apply.

- (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; D.2.3; D.4.7; D.4.8; D.4.10; D.4.13, D.5.2; D.5.4; D.6.1 and D.6.3.
- (6) 326 IAC 2-4.1-1 (New Source Toxics Control)
- (A) Each CVD unit ~~(4-23)~~ **(1-25)** 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 combined hazardous air pollutants (HAPs) for each CVD unit ~~(4-23)~~ **(1-25)** is less than twenty-five (25) tons per year each and the potential to emit (PTE) of any single hazardous air pollutants (HAPs) for each CVD unit ~~(4-23)~~ **(1-25)** is less than ten (10) tons per year each. In addition, most of these CVDs were constructed prior to the July 1997 applicable date. Therefore, the requirements of this rule do not apply.
- (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 **6.5-1-1 (formerly 6-1-1)** (Nonattainment Area Limitations)
Because the source is located in St. Joseph County, and has the potential to emit (PTE) one hundred (100) tons or more of PM per year this rule applies.
- Because the PM emissions from the CVD units (4-23), Char Furnaces (1, 5 and 6) and Chrome Anodizing Tank 18 are negligible, they are in compliance with 326 IAC **6.5-1-1 (formerly 6-1-1)**.
- (NOTE: CVD units (1-3) and Char Furnaces (2-4) are not subject to 326 IAC **6.5-1-1 (formerly 6-1-1)** because they were constructed prior to 1988)
- (9) 326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitations)
- (A) This rule is not applicable to the six (6) 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 five (5) natural gas-fired boilers because the potential to emit (PTE) SO₂ is less than twenty-five (25) tons per year per boiler.

- (10) 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).
 - (11) 326 IAC 8-3-2 (Cold Cleaner Operation)
The degreaser is located in St. Joseph county and it is at a source which has potential emissions of one hundred (100) tons or greater per year of VOC, however, it was constructed after January 1, 1980, which is the applicability date. Therefore, 326 IAC 8-3-2 (Cold Cleaner Operation) is not applicable.
 - (12) The combination of Conditions D.1.1, ~~D.1.12~~ **D.2.1** and D.2.2 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)]

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: CVD Units (1-25)

- (a) 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 2400 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.
- (b) ~~Twenty-two (22)~~ **Twenty-four (24)** Chemical Vapor Deposition (CVD) units, also known as carbon vapor deposition units, identified as CVD-2 through CVD-~~23~~ **25**, with each unit having an estimated batch capacity of 8800 pounds (initial weight) of brakes for random fiber process or 5300 pounds (initial weight) of brakes for non-woven process. Each CVD has a nominal total reactant gas flow of 2000 scf per soak hour for random fiber process or a nominal total reactant gas flow of 4200 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, 2006**. ~~Twenty-two (22)~~ **Twenty-four (24)** enclosed flares, controlling the soak phase VOC emissions from CVD units 2-~~23~~ **25**, each having a rated capacity of 5.5 MMBtu per hour, natural gas combustion, and exhausting through stacks S-FL-2 through ~~S-FL-23~~ **S-FL-25**, respectively.

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

D.2.2 BACT Condition [326 IAC 8-1-6] ~~[326 IAC 2-1.1-5]~~ [326 IAC 2-3]

- (a) Pursuant to SSM 141-11511-00172, issued on March 8, 2000, an enclosed flare has been accepted 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%).
- (b) Pursuant to 326 IAC 8-1-6, BACT for the two (2) CVD units constructed in 2006, 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%).
- (c) The VOC emission rate from each of the two (2) CVD units shall be limited to 0.343 pounds per hour, including combustion emissions from the flare. Therefore, the requirements of 326 IAC 2-3, Emission Offset, are not applicable.

D.2.4 Particulate Matter (PM) [326 IAC 6.5-1]

Pursuant to 326 IAC 6.5-1 (formerly 326 IAC 6-1) (Nonattainment Area Particulate Limitations), 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.2.56 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) Within one hundred eighty (180) days after issuance of ~~T 141-7442-00172~~ this permit, in order to demonstrate compliance with Conditions D.2.1 and D.2.2, the Permittee shall perform a compliance stack test on **five (5)** of the CVD unit flares for overall control efficiency utilizing methods as approved by the Commissioner. The tests shall be repeated at least once every five years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Condition C - Performance Testing.
- (b) **Within one hundred eighty (180) days after issuance of SPM 141-22380-00172, in order**

to demonstrate compliance with Condition D.2.2(b), the Permittee shall perform a compliance stack test on one (1) of the CVD unit flares constructed in 2006, CVD-24 or CVD-25, for overall control efficiency utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Condition C - Performance Testing.

D.2.89 Record Keeping Requirements

- (a) To document compliance with Condition ~~D.2.7~~ **D.2.8**, the Permittee shall maintain flare temperature data for CVD units operating during the soak phase.
- (b) To document compliance with Condition D.2.3, the Permittee shall record the hours per month of soak phase operation.

Change 9:

The double headed sander has been removed from Section A.2 as shown in Change 8 and from the facility description box in Section D.6, as follows:

~~One (1) Double Headed Sander, identified as emission unit PM1, with a maximum capacity of 300 pounds per hour, constructed in 1987, controlled by a fabric filter dust collector, identified as DC-1, and exhausting through stack S-1.~~

Change 10:

The control device for the one (1) insignificant die cutter operation has been revised in Section A.3 and the facility description box in Section D.6, as follows:

A.3 Specifically Regulated Insignificant Activities and Trivial Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

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, installed in 1998, using HVLP spray guns, 3-stage HEPA filters and an electric powered IR curing oven. [40 CFR 63, Subpart GG] [326 IAC 6.5-1]
- (b) Space heaters, process heaters, or boilers using the following fuels:
 - (+) Five (5) natural gas-fired boilers with a total heat input capacity of 10.5 MMBtu/hr. Three (3) boilers constructed in 1986, identified as: Plants 12W, 4W and 4E, exhausting to stacks 226, 484 and 485, respectively. Two (2) boilers constructed in 1991, identified as Plants 4BS and 4BN, both exhausting to stack BS-1. [326 IAC 6.5-1]
- (c) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-5]
- (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 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6.5-1]
 - (1) Two (2) Re-circulating Blast Units, with a capacity of 2500 pounds per hour of blast media, controlled by two (2) dust collectors, and vented inside the building.

- (2) Grinding and sanding operations controlled by various fabric filter systems.
- (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) Empire Blaster, with a capacity of 10 pounds per hour, controlled by a dust collector, and venting inside the building.
 - (2) 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-3~~ **DC-1**, and **exhausts through stack S-1.** ~~the die cutter room is controlled by a fabric filter dust collector, identified as DC-2, both exhausting within the building.~~
 - (3) Four (4) Needle Machines, identified as NM-3, NM-4, NM-5, and NM-6. NM-3 and NM-4 were constructed in 1998. NM-5 and NM-6 were constructed in 2002. Each machine has a capacity of 15 pounds per hour and all four (4) machines are controlled by a fabric filter dust collector, identified as DC-3, and exhausting within the building.
 - (4) Two (2) Auto Pre-form Machines, identified as APM-1 and APM-2, each with a maximum capacity of 54 pounds per hour. APM-2 was constructed in 1990 and is controlled by a fabric filter dust collector, identified as DC-4, and exhausting through stack S-4.
 - (5) One (1) EI 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.
 - (6) Six (6) Burr Benches each controlled by a dust collector, and venting inside the building.
 - (7) One (1) Mattison Grinder with a capacity of 230 pounds per hour controlled by a dust collector, and venting inside the building.
 - (8) One (1) Little Blaster with a maximum capacity of 20 pounds per hour, controlled by a dust collector venting inside the building.
 - (9) One (1) Brake Test Dynamometer cell controlled by two (2) dust collectors vented to the outside.
 - (10) One (1) Wheelabrator operation with a maximum throughput less than 100 pounds per hour of plastic media blast, controlled by a rotoclone, and exhausting outside the building.
 - (11) One (1) Blast Works unit controlled by a dust collector vented inside the building.
 - (12) One (1) Thumbt Blast unit controlled by a dust collector venting inside the building.
- (f) Trivial Activities: 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. [326 IAC 6.5-1]

Conclusion and Recommendation

The construction and operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 141-22378-00172 and Significant Permit Modification No. 141-22380-00172. The staff recommends to the Commissioner that this Part 70 Significant Source and Significant Permit Modification be approved.

**Appendix A: Emissions Calculation:
From Chemical Vapor Deposition (CVD) Units**

Company Name: Honeywell International, Inc
Address City IN Zip: 3520 Westmoor Street, South Bend, IN 46628-1372
Source Modification Number: SSM 141-22378-00172
Permit Modification Number: SPM 141-22380-00172
Permit Reviewer: CarrieAnn Paukowitz
Application Date: December 16, 2005

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 This Batch Operation (hrs/yr) | Uncontrolled VOC Emissions (tons/yr) | Uncontrolled 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-24 | 15.62 | 0.012 | 2.11 | 0.225 | 0.209 | 7900 | 61.7 | 0.047 | 8.33 | 0.889 | 0.826 | 10.0 | 98.0% | 1.23 | 0.167 | 0.018 | 0.017 | 0.201 |
| CVD-25 | 15.62 | 0.012 | 2.11 | 0.225 | 0.209 | 7900 | 61.7 | 0.047 | 8.33 | 0.889 | 0.826 | 10.0 | 98.0% | 1.23 | 0.167 | 0.018 | 0.017 | 0.201 |
| Total: | | | | | | | 123 | 0.095 | 16.7 | 1.78 | 1.65 | 20.1 | | 2.47 | 0.333 | 0.036 | 0.033 | 0.402 |

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 VOC and CO are the highest average emission rate from the 2004 stack test, validated by IDEM, OAQ, increased with a safety factor of 10%.

Combustion Emissions

Heat Input Capacity Potential Throughput
 MMBtu/hr MMCF/yr

11.00 87

| Emission Factor in lb/MMCF | Pollutant | | | | | |
|-------------------------------|-----------|-------|-------|--------------------|-------|----------------|
| | PM* | PM10* | SO2 | NOx | VOC | CO |
| | 1.90 | 7.60 | 0.600 | 100 **see below | 5.50 | Included Above |
| Potential Emission in tons/yr | 0.083 | 0.330 | 0.026 | 4.35 | 0.239 | |

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
 **Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

| Emission Factor in lb/MMcf | HAPs - Organics | | | | | HAPs - Metals | | | | | Total |
|-------------------------------|-----------------|-----------------|--------------|----------|----------|---------------|----------|----------|-----------|----------|--------------|
| | Benzene | Dichlorobenzene | Formaldehyde | Hexane | Toluene | Lead | Cadmium | Chromium | Manganese | Nickel | |
| | 0.00210 | 0.00120 | 0.07500 | 1.80000 | 0.00340 | 0.0005 | 0.0011 | 0.0014 | 0.0004 | 0.0021 | |
| Potential Emission in tons/yr | 0.000091 | 0.000052 | 0.003259 | 0.078210 | 0.000148 | 0.000022 | 0.000048 | 0.000061 | 0.000017 | 0.000091 | 0.082 |

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

Total Emissions

| | PM | PM10 | SO2 | NOx | VOC | CO | Benzene | Dichloro-benzene | Formaldehyde | Hexane | Toluene | Lead | Cadmium | Chromium | Manganese | Nickel | Styrene | Total HAPs |
|------------------------|-------|-------|-------|-------|------|-------|---------|------------------|--------------|--------|---------|---------|---------|----------|-----------|---------|---------|------------|
| Uncontrolled (tons/yr) | 0.000 | 0.000 | 0.000 | 0.00 | 123 | 0.095 | 16.7 | 0.00005 | 0.003 | 0.078 | 1.78 | 0.00002 | 0.00005 | 0.00006 | 0.00002 | 0.00009 | 1.65 | 20.2 |
| Controlled (tons/yr) | 0.083 | 0.330 | 0.026 | 4.345 | 2.71 | 0.095 | 0.333 | 0.00005 | 0.003 | 0.078 | 0.036 | 0.00002 | 0.00005 | 0.00006 | 0.00002 | 0.00009 | 0.033 | 0.484 |

The CO Emissions from Combustion are included in the process calculations.