



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

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

TO: Interested Parties / Applicant

DATE: April 22, 2010

RE: Grissom Air Reserve Base / 103 - 28974 - 00008

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

## Notice of Decision – Approval

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

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures  
FNPER-AM.dot12/3/07



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Mr. Jeffrey Woodring  
Grissom Air Reserve Base  
7104 Warthog Street  
Grissom Air Reserve Base, IN 46971-5000

April 22, 2010

Re: 103-28974-00008  
Sixth Administrative Amendment to  
F103-21934-00008

Dear Mr. Woodring:

Grissom Air Reserve Base was issued a Federally Enforceable State Operating Permit (FESOP) Renewal No. F103-21934-00008 on December 14, 2007 and owns and operates a military base located at 7104 Warthog Street, Grissom Air Reserve Base, Indiana 46971-5000.

On February 12, 2010, the Office of Air Quality (OAQ) received an application from the source relating to construction and operation of insignificant natural gas combustion unit of the same type which will comply with the same applicable requirements and permit terms and conditions as the existing insignificant natural gas combustion unit identified as unit 643a. The addition of this unit (643b) to the permit is considered an administrative amendment pursuant to 326 IAC 2-8-10(a)(14). Also it was requested that the OAQ permit be updated to indicate that maximum capacity of an insignificant unit has increased. This change to the permit is considered an administrative amendment pursuant to 326 IAC 2-8-10(a)(6), since it is a revision to descriptive information where the revision will not trigger a new applicable requirement or violate a permit term. The entire source will continue to limit VOC and PM10 emissions to less than 100 tons per twelve (12) consecutive month period, individual HAP emissions to less than 10 tons per twelve (12) consecutive month period, and any combination of HAPs emissions to less than 25 tons per twelve (12) consecutive month period rendering the requirements of 326 IAC 2-7 not applicable. The addition of this unit will not cause the source's potential to emit to be greater than the threshold levels specified in 326 IAC 2-2 or 326 IAC 2-3.

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

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

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, propane or liquefied petroleum gas or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British thermal units per hour, including, but not limited to, the following (all boilers are specified):

\*\*\*

- (18) One (1) natural gas-fired boiler, identified as 643(a), constructed in 2002, maximum capacity: 0.1 million British thermal units per hour. [326 IAC 6-2-4]

\*\*\*

- (39) **One (1) natural gas-fired boiler, identified as 643(b), approved for construction in 2010, maximum capacity: 0.075 million British thermal units per hour. [326 IAC 6-2-4]**

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**SECTION D.3 EMISSION UNIT OPERATION CONDITIONS**

**Emission Unit Description: Insignificant Boilers**

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, propane or liquefied petroleum gas or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British thermal units per hour, including, but not limited to, the following (all boilers are specified):

\*\*\*

(18) One (1) natural gas-fired boiler, identified as 643a, constructed in 2002, maximum capacity: 0.1 million British thermal units per hour. [326 IAC 6-2-4]

\*\*\*

(39) One (1) natural gas-fired boiler, identified as 643b, approved for construction in 2010, maximum capacity: 0.075 million British thermal units per hour. [326 IAC 6-2-4]

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**D.3.2 Particulate [326 IAC 6-2-4]**

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), the PM emissions from the insignificant boilers constructed after September 21, 1983 shall be limited as follows:

Year Constructed	Boilers	PM Emission Limitation for each boiler (lbs/MMBtu) (Pt)
1985	597	0.25
1987	591a	0.25
1988	595	0.25
1991	563a	0.25
1992	400, 591b, and 593a	0.25
1993	683 and 715	0.25
1997	B592 and 687	0.25
1998	669	0.25
1999	233 and 641B	0.25
2000	Twenty-eight (28) boilers	0.24
2001	668b	0.40
2002	470, 471, 473, and 643a	0.40
2003	593b	0.40
2003	472, 648A and 648B	0.39
2003	469	0.39
2005/06	427 and 453	0.39
2007	600	0.39
2008	639 RTU1-639 RTU 6	0.39
2009	394 and 474	0.40

Year Constructed	Boilers	PM Emission Limitation for each boiler (lbs/MMBtu) (Pt)
2010	643b	0.80

In addition, IDEM has decided to make the following additional changes to the permit.

1. For clarity, IDEM has changed references to the general conditions: "in accordance with Section B", "in accordance with Section C", or other similar language, to "Section C...contains the Permittee's obligations with regard to the records required by this condition".
2. IDEM has decided that the phrases "no later than" and "not later than" are clearer than "within" in relation to the end of a timeline. Therefore all timelines have been switched to "no later than" or "not later than" except when the underlying rule states "within".
3. IDEM has decided to clarify throughout the permit that a certification needs to meet the requirements of 326 IAC 2-8-5(a)(1). In addition, IDEM has decided to remove the last sentence dealing with the need for certification from the forms because the conditions requiring the forms already addresses this issue.
4. IDEM has decided to clarify the certification requirements in Section B – Duty to Provide Information and Section B – Certification.
5. IDEM has decided to clarify the requirements of Section B – Preventive Maintenance Plan and to add a new paragraph (b) to handle a future situation where the Permittee adds units that need preventive maintenance plans.
6. IDEM has revised Section B – Emergency Provisions to delete paragraph (h). 326 IAC 2-8-4(3)(C)(ii) allows that deviations reported under an independent requirement do not have to be included in the Quarterly Deviation and Compliance Monitoring Report.
7. IDEM has decided that having a separate condition for the reporting of deviations is unnecessary. Therefore, IDEM has removed Section B – Deviation From Permit Requirements and Conditions and added the requirements of that condition to Section C – General Reporting Requirements. Paragraph (d) of Section C – General Reporting Requirements has been removed because IDEM already states the timeline and certification needs of each report in the condition requiring the report.
8. IDEM has revised Section B – Permit Renewal paragraph (c) to state which rule establishes the authority to set a deadline for the Permittee to submit additional information.
9. IDEM has added 326 IAC 5-1-1 to the exception clause of Section C – Opacity, since 326 IAC 5-1-1 does not list exceptions.
10. IDEM has revised Section C – Incineration to more closely reflect the two underlying rules.
11. IDEM has revised the language of the Section C – Asbestos Abatement Projects to change the terminology "Accredited" to "Licensed" in order to match the rule.
12. IDEM has removed the first paragraph of Section C – Performance Testing due to the fact that specific testing conditions elsewhere in the permit will specify the timeline and procedures.

13. IDEM has revised Section C – Compliance Monitoring. The reference to recordkeeping has been removed due to the fact that other conditions already address recordkeeping. The voice of the condition has been changed to clearly indicate that it is the Permittee that must follow the requirements of the condition.
14. IDEM has removed Section C – Monitoring Methods. The conditions that require the monitoring or testing, if required, state what methods shall be used.
15. IDEM has revised Section C – Response to Excursions or Exceedances. The introduction sentence has been added to clarify that it is only when an excursion or exceedance is detected that the requirements of this condition need to be followed. The word “excess” was added to the last sentence of paragraph (a) because the Permittee only has to minimize excess emissions. The middle of paragraph (b) has been deleted as it was duplicative of paragraph (a). The phrase “or are returning” was added to subparagraph (b)(2) as this is an acceptable response assuming the operation or emission unit does return to normal or its usual manner of operation. The phrase “within the indicator range, designated condition, or below the applicable emission limitation or standard; as applicable” was replaced with “normal or usual manner of operation” because the first phrase is just a limited list of the second phrase. The recordkeeping required by paragraph(e) was changed to require only records of the response because the previously listed items are required to be recorded elsewhere in the permit.
16. IDEM has revised Section C - Actions Related to Noncompliance Demonstrated by a Stack Test. The requirements to take response steps and minimize excess emissions have been removed because Section C - Response to Excursions or Exceedances already requires response steps related to exceedances and excess emissions minimization. The start of the timelines was switched from "the receipt of the test results" to "the date of the test." There was confusion if the "receipt" was by IDEM, the Permittee, or someone else. Since the start of the timelines has been moved up, the length of the timelines was increased. The new timelines require action within a comparable timeline; and the new timelines still ensure that the Permittee will return to compliance within a reasonable timeframe.
17. The voice of paragraph (b) of Section C – General Record Keeping Requirements has been changed to clearly indicate that it is the Permittee that must follow the requirements of the paragraph.
18. IDEM has decided to simplify the referencing in Section C - Compliance with 40 CFR 82 and 326 IAC 22-1.
19. IDEM has decided to clarify Section D - Testing Requirements.
20. The word "status" has been added to Section D – Record Keeping Requirements and Section D – Reporting Requirements. The Permittee has the obligation to document the compliance status. The wording has been revised to properly reflect this.
21. The phrase "of this permit" has been added to the paragraph of the Quarterly Deviation and Compliance Monitoring Report Form to match the underlying rule.
22. Condition C.2 (Overall Source Limit) of the permit has been revised to indicate that the potential to emit particulate matter (PM) from the entire source shall be limited to less than 250 tons per twelve (12) consecutive month period.

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

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

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

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. ~~The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~ Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

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

- (a) ~~Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:~~
- (i) **it contains a certification by an "authorized individual", as defined by 326 IAC 2-1.1-1(1), and**
  - (ii) **the certification is based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.**
- (b) ~~One (1) certification shall be included, using~~ **The Permittee may use** the attached Certification Form, **or its equivalent** with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

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

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

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

- (a) ~~If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:~~
- (a) **A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:**

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**The Permittee shall implement the PMPs.**

- (b) **If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety days (90) after initial start-up, whichever is later, including the following information on each facility:**
- (1) **Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;**
  - (2) **A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and**
  - (3) **Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.**

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

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

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

**The Permittee shall implement the PMPs.**

- (b c) **A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs and their submittal do not require the a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).**
- (e d) **To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.**

**B.12 Emergency Provisions [326 IAC 2-8-12]**

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Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance  
Section and Enforcement Branch, or  
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance  
Section and Enforcement Branch)  
Facsimile Number: 317-233-6865

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

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- (h) ~~The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report. Any emergencies that have been previously reported pursuant to paragraph (b)(5) of this condition and certified by an "authorized individual" need only referenced by the date of the original report.~~

~~B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]~~

- (a) ~~Deviations from any permit requirements (for emergencies see Section B—Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:~~

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

~~using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.~~

~~The Quarterly Deviation and Compliance Monitoring Report does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

- (b) ~~A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.~~

~~B.16 15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]~~

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

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~~B.17 16 Permit Renewal [326 IAC 2-8-3(h)]~~

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

individual" as defined by 326 IAC 2-1.1-1(1).

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

**B.18 17** Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

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

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**B.19 18** Operational Flexibility [326 IAC 2-8-15] [326 IAC 2-8-11.1]

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**B.20 19** Source Modification Requirement [326 IAC 2-8-11.1]

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**B.21 20** Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2] [IC 13-17-3-2] [IC13-30-3-1]

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**B.22 21** Transfer of Ownership or Operational Control [326 IAC 2-8-10]

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

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**B.23 22** Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

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

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**B.24 23** Credible Evidence [326 IAC 2-8-4(3)] [326 IAC 2-8-5] [62 FR 8314] [326 IAC 1-1-6]

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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.

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

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

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- (b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.
- (b c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.
- (e-d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.3 Opacity [326 IAC 5-1]

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

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

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

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

C.9 Performance Testing [326 IAC 3-6]

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- (a) ~~All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 5, or other procedures approved by IDEM, OAQ.~~

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

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

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

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

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C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

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

\*\*\*

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

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C.12 ~~Monitoring Methods~~ [326 IAC 3] [40 CFR 60] [40 CFR 63]

~~Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.~~

C.43 **12** Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

C.44 **13** Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

C.45 **14** Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

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

- (a) ~~Upon detecting an excursion or exceedance, the~~ **The** Permittee shall **take reasonable response steps to** restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing **excess** emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction. ~~and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions).~~ **Corrective actions The response may include, but are is not limited to, the following:**

- (1) initial inspection and evaluation
- (2) recording that operations returned **or are returning** to normal without operator action (such as through response by a computerized distribution control system);  
or
- (3) any necessary follow-up actions to return operation to ~~within the indicator range, designated condition, or below the applicable emission limitation or standard,~~ as applicable **normal or usual manner of operation.**

\*\*\*

- (e) The Permittee shall ~~record~~ maintain the following records **the reasonable response steps taken.**
  - (1) ~~monitoring data;~~
  - (2) ~~monitor performance data, if applicable; and~~
  - (3) ~~corrective actions taken.~~

C.16 15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the ~~Permittee shall take appropriate response actions.~~ The Permittee shall submit a description of these ~~its~~ response actions to IDEM, OAQ ~~within no later than thirty (30) days of receipt of the test results~~ **seventy-five (75) days after the date of the test.** ~~The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.~~
- (b) A retest to demonstrate compliance shall be performed ~~within no later than one hundred twenty (120) days of receipt of the original test results~~ **eighty (180) days after the date of the test.** Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred ~~twenty (120)~~ **eighty (180)** days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

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

C.17 16 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

\*\*\*

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

C.18 17 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported **except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.** This report shall be submitted ~~within~~ **not later than** thirty (30) days ~~of~~ **after** the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include ~~the~~ **a certification that meets the requirements of 326 IAC 2-8-5(a)(1)** by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). **A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit**
- (b) ~~The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to~~ **address for report submittal is:**
- \*\*\*
- ~~(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~
- (e d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

C.19 18 Compliance with 40 CFR 82 and 326 IAC 22-1

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

- ~~(a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.~~
- ~~(b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.~~
- ~~(c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.~~

\*\*\*

D.1.7 Record Keeping Requirements

- (a) To document **the compliance status** with Conditions D.1.1(a) and D.1.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.1.1(a) and D.1.2. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

\*\*\*

- (b) To document **the compliance status** with Condition D.1.1(b), the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.1(b). Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

\*\*\*

- (c) To document **the compliance status** with Condition D.1.3, the Permittee shall maintain records of the volume of coatings used each day for each of the following operations:

\*\*\*

- (d) ~~All records shall be maintained in accordance with Section C - General Record Keeping~~  
**Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.**

#### D.1.8 Reporting Requirements

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

\*\*\*

#### D.2.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

~~A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.~~ **Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the Preventive Maintenance Plan required by this condition.**

\*\*\*

#### D.2.5 Filter System Parametric Monitoring

- (a) The Permittee shall record the pressure drop across the air filter system used in conjunction with the one (1) grit blast room at least once per day when the one (1) grit blast room is in operation. When for any one reading, the pressure drop across the filter system is outside the normal range of 1.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response. ~~steps in accordance with Section C - Response to Excursions or Exceedances~~ **contains the Permittee's obligation with regard to the reasonable response steps required by this condition.** A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps ~~in accordance with Section C - Response to Excursions or Exceedances~~ shall be considered a deviation from this permit.

\*\*\*

D.2.7 Record Keeping Requirements

- (a) To document **the** compliance **status** with Condition D.2.5, the Permittee shall maintain a daily record of the pressure drop across the filter system controlling the one (1) grit blast room. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the grit blast room did not operate that day).
- (b) ~~All records shall be maintained in accordance with Section C - General Record Keeping Requirements,~~ of this permit **contains the Permittee's obligations with regard to the records required by this condition.**

\*\*\*

FESOP EMERGENCY OCCURRENCE REPORT FORM

~~A signed certification is not required for this report.~~

\*\*\*

FESOP EMERGENCY OCCURRENCE REPORT FORM

~~A signed certification is not required for this report.~~

\*\*\*

FESOP USAGE QUARTERLY REPORT FORM

Facility: One (1) interior parts paint process, identified as P-INT  
Parameter: VOC usage  
Limit: Less than fifteen (15) pounds per day

~~Attach a signed certification to complete this report.~~

\*\*\*

FESOP USAGE QUARTERLY REPORT FORM

Facility: One (1) spray paint booth, identified as P-453  
Parameter: Coating usage  
Limit: Less than 5 gallons per day

~~Attach a signed certification to complete this report.~~

\*\*\*

FESOP USAGE QUARTERLY REPORT FORM

Facility: One (1) interior airplane parts painting process, identified as P-INT  
Parameter: Coating usage  
Limit: Less than 5 gallons per day

~~Attach a signed certification to complete this report.~~

\*\*\*

FESOP USAGE QUARTERLY REPORT FORM

Facility: One (1) airplane exterior painting process, identified as P-EXT  
Parameter: Coating usage  
Limit: Less than 5 gallons per day

~~Attach a signed certification to complete this report.~~

\*\*\*

FESOP USAGE QUARTERLY REPORT FORM

Facility: One (1) spray paint booth, identified as P-453  
Parameter: VOC usage  
Limit: Less than twenty-five (25) tons per twelve (12) consecutive month period, with compliance determined at the end of each month

Attach a signed certification to complete this report.

\*\*\*

FESOP USAGE QUARTERLY REPORT FORM

Facilities: One (1) spray paint room in building 453 (P-453), airplane exterior paint process (P-EXT), the interior parts paint process (P-INT), the one (1) Aerospace Ground Equipment (AGE) painting process (P-AGE) and the insignificant degreasing  
Parameter: Total HAPs usage  
Limit: 17.6 tons of hazardous air pollutants per twelve (12) consecutive month period, total, with compliance determined at the end of each month

Attach a signed certification to complete this report.

\*\*\*

FESOP USAGE QUARTERLY REPORT FORM

Facilities: One (1) spray paint room in building 453 (P-453), airplane exterior paint process (P-EXT), the interior parts paint process (P-INT), the one (1) Aerospace Ground Equipment (AGE) painting process (P-AGE) and the insignificant degreasing  
Parameter: Worst-case Individual HAPs usage  
Limit: Less than 9.00 tons per twelve (12) consecutive month period, with compliance determined at the end of each month

Attach a signed certification to complete this report.

\*\*\*

FESOP USAGE QUARTERLY REPORT FORM

Facilities: One (1) spray paint room in building 453 (P-453), airplane exterior paint process (P-EXT), the interior parts paint process (P-INT), the one (1) Aerospace Ground Equipment (AGE) painting process (P-AGE) and the insignificant degreasing  
Parameter: PM<sub>10</sub> Emissions  
Limit: 42.65 tons per twelve (12) consecutive month period with compliance determined at the end of each month

Attach a signed certification to complete this report.

\*\*\*

FESOP QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT FORM:

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

\*\*\*

Attach a signed certification to complete this report.

\*\*\*

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

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

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Gary Freeman, of my staff, at 317-233-5334 or 1-800-451-6027, and ask for extension 3-5334.

Sincerely,



Alfred C. Dumaul, Ph. D., Section Chief  
Permits Branch  
Office of Air Quality

Attachments: Updated Permit and  
Appendix A calculations

ACD/gkf

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



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

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

## Federally Enforceable State Operating Permit Renewal OFFICE OF AIR QUALITY

### Grissom Air Reserve Base Grissom Air Reserve Base, Indiana 46971-5000

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

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. 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 2-8-11.1, applicable to those conditions.

Operation Permit No.: F 103-21934-00008	
Original signed by Alfred C. Dumauval for Matthew Stuckey, Deputy Branch Chief Permits Branch, Office of Air Quality	Issuance Date: December 14, 2007 Expiration Date: December 14, 2017

- |   |                                 |
|---|---------------------------------|
| First Administrative Amendment No. 103-26453-00008  | Issuance Date: July 11, 2008    |
| Second Administrative Amendment No. 103-27590-00008 | Issuance Date: March 20, 2009   |
| Third Administrative Amendment No. 103-28115-00008  | Issuance Date: June 26, 2009    |
| Fourth Administrative Amendment No. 103-28282-00008 | Issuance Date: August 24, 2009  |
| Fifth Administrative Amendment No. 103-28783-00008  | Issuance Date: December 3, 2009 |

Sixth Administrative Amendment No. 103-28974-00008	
Issued by:  Alfred C. Dumauval, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: April 22, 2010 Expiration Date: December 14, 2017

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## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 through A.3 4 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

---

The Permittee owns and operates a military base.

Source Address:	7104 Warthog Street, Grissom Air Reserve Base, Indiana 46971-5000
Mailing Address:	7207 Grissom Avenue, Grissom Air Reserve Base, Indiana 46971-5000
General Source Phone Number:	(765) 688-4561
SIC Code:	9711
County Location:	Miami
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD Rules Minor Source, Section 112 of the Clean Air Act

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

---

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

- (a) One (1) spray paint booth, located in building 453, identified as P-453, constructed in 1989, using eleven (11) high volume low pressure (HVLP) spray guns, four (4) HVLP stencil mini spray guns and one (1) electrostatic HVLP spray gun, capacity: 1 aircraft panel per hour.
- (b) One (1) interior airplane parts painting process, located in one of the following nose docks (Nose Docks 1 through 6), identified as P-INT, using the HVLP spray guns and Sempen paint pens stored at building 453, used for coating the interior parts of planes that cannot be removed for painting in the spray booth at building 453, with coating operations beginning in the summer of 1996, capacity: 12 planes per year.
- (c) One (1) airplane exterior painting process, located in one of the following nose docks (Nose Docks 1 through 6), identified as P-EXT, using the HVLP spray guns and Sempen paint pens stored at building 453, with coating operations beginning in August of 1995, capacity: 52 airplane exteriors per year.
- (d) One (1) Aerospace Ground Equipment (AGE) painting process, identified as P-AGE, installed in 2002, using HVLP spray guns, HVLP stencil mini spray guns and electrostatic HVLP spray guns stored in building 453, capacity: 1.5 gallons of coating per part, 0.75 gallons of primer per part, 0.19 gallons of isopropyl alcohol per part, one (1) metal part per day and four (4) metal parts per year.
- (e) One (1) grit blast room, located in building 426, constructed in 1989, equipped with an indoor dedicated air filter system, capacity: 767 pounds of grit per hour.
- (f) One (1) bulk petroleum, oils and lubricants (POL) system, constructed in 1990, consisting of the following:

- (1) Six (6) horizontal underground Jet A-1 or JP-8 storage tanks, known as 736-1, 736-2, 736-3, 736-4, 736-5 and 736-6, installed in 1954, capacity: 50,000 gallons, each.
- (2) Three (3) vertical above ground Jet A-1 or JP-8 storage tanks, known as 400, 402 and 403 installed in 1957, capacity: 630,000 gallons, each.
- (3) Two (2) horizontal above ground storage tanks, known as 383 and 384, installed in 1991, capacity: 25,000 gallons of propylene glycol, each.

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

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, propane or liquefied petroleum gas or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British thermal units per hour, including, but not limited to, the following (all boilers are specified):
  - (1) One (1) natural gas-fired boiler, identified as 563b, constructed in 1979, maximum capacity: 0.08 million British thermal units per hour. [326 IAC 6-2-3]
  - (2) One (1) natural gas-fired boiler, identified as 597, constructed in 1985, maximum capacity: 1.611 million British thermal units per hour. [326 IAC 6-2-4]
  - (3) One (1) natural gas-fired boiler, identified as boiler 591a, constructed in 1987, maximum capacity: 2.049 million British thermal units per hour. [326 IAC 6-2-4]
  - (4) One (1) natural gas-fired boiler, identified as 595, constructed in 1988, maximum capacity: 0.40 million British thermal units per hour. [326 IAC 6-2-4]
  - (5) One (1) natural gas-fired boiler, identified as 563a, constructed in 1991, maximum capacity: 0.40 million British thermal units per hour. [326 IAC 6-2-4]
  - (6) One (1) natural gas-fired boiler, identified as 440, constructed in 1992, maximum capacity: 0.151 million British thermal units per hour. [326 IAC 6-2-4]
  - (7) One (1) natural gas-fired boiler, identified as 591b, constructed in 1992, maximum capacity: 0.25 million British thermal units per hour. [326 IAC 6-2-4]
  - (8) One (1) natural gas-fired boiler, identified as 593a, constructed in 1992, maximum capacity: 0.40 million British thermal units per hour. [326 IAC 6-2-4]
  - (9) One (1) natural gas or propane-fired boiler, identified as 683, constructed in 1993, maximum capacity: 0.40 million British thermal units per hour. [326 IAC 6-2-4]
  - (10) One (1) propane-fired boiler, identified as 715, constructed in 1993, maximum capacity: 0.08 million British thermal units per hour. [326 IAC 6-2-4]
  - (11) One (1) natural gas or propane-fired boiler, identified as 687, constructed in 1997, maximum capacity: 1.703 million British thermal units per hour. [326 IAC 6-2-4]
  - (12) One (1) natural gas-fired boiler, identified as B592, constructed in 1997, equipped with a low NO<sub>x</sub> burner, maximum capacity: 5.02 million British thermal units per hour. [326 IAC 6-2-4]

- (13) One (1) natural gas or propane-fired boiler, identified as 669, constructed in 1998, maximum capacity: 0.90 million British thermal units per hour. [326 IAC 6-2-4]
- (14) One (1) natural gas and propane-fired boiler, identified as 233, constructed in 1999, maximum capacity: 0.45 million British thermal units per hour. [326 IAC 6-2-4]
- (15) One (1) natural gas-fired boiler, identified as Boiler 641B, constructed in 1999, located in building 641, maximum capacity: 0.99 million British thermal units per hour. [326 IAC 6-2-4]
- (16) Twenty (20) boilers, constructed in 2000, consisting of the following: [326 IAC 6-2-4]
  - (A) One (1) natural gas-fired boiler, identified as Boiler 100, located in Building 100, maximum capacity: 0.650 million British thermal units per hour.
  - (B) One (1) natural gas-fired boiler, identified as Boiler 209A, located in Building 209, maximum capacity: 3.0 million British thermal units per hour.
  - (C) Four (4) natural gas-fired boilers, located in Building 426, maximum capacity: 0.35 million British thermal units per hour, total.
  - (D) One (1) natural gas-fired boiler, identified as Boiler 430, located in Building 430, maximum capacity: 0.450 million British thermal units per hour.
  - (E) One (1) natural gas-fired boiler, identified as Boiler 435, located in Building 435, maximum capacity: 0.85 million British thermal units per hour.
  - (F) One (1) natural gas-fired boiler, identified as Boiler 431, located in Building 431, maximum capacity: 0.450 million British thermal units per hour.
  - (G) One (1) natural gas-fired boiler, identified as Boiler 448, located in Building 448, maximum capacity: 0.650 million British thermal units per hour.
  - (H) One (1) natural gas-fired boiler, identified as Boiler 596A, located in Building 596, maximum capacity: 1.20 million British thermal units per hour.
  - (I) One (1) natural gas-fired boiler, identified as Boiler 596B, located in Building 596, maximum capacity: 0.040 million British thermal units per hour.
  - (J) One (1) natural gas-fired boiler, identified as Boiler 663, located in Building 663, maximum capacity: 1.8 million British thermal units per hour.
  - (K) One (1) natural gas-fired boiler, identified as Boiler 667, located in Building 667, maximum capacity: 0.6 million British thermal units per hour.

- (L) One (1) natural gas-fired boiler, identified as Boiler 668a, located in Building 668, maximum capacity: 0.450 million British thermal units per hour.
  - (M) One (1) natural gas-fired boiler, identified as Boiler 670, located in Building 670, maximum capacity: 0.65 million British thermal units per hour.
  - (N) Three (3) natural gas-fired boilers, located in Building 671, maximum capacity: 0.66 million British thermal units per hour, total.
  - (O) One (1) natural gas-fired boiler, identified as Boiler 641A, located in building 641, maximum capacity: 0.99 million British thermal units per hour.
- (17) One (1) natural gas-fired boiler, identified as 668b, constructed in February 2001, maximum capacity: 0.45 million British thermal units per hour. [326 IAC 6-2-4]
  - (18) One (1) natural gas-fired boiler, identified as 643a, constructed in 2002, maximum capacity: 0.1 million British thermal units per hour. [326 IAC 6-2-4]
  - (19) One (1) natural gas-fired boiler, identified as Boiler 470, constructed in 2002, located in Building 470, maximum capacity: 0.270 million British thermal units per hour. [326 IAC 6-2-4]
  - (20) One (1) natural gas-fired boiler, identified as Boiler 471, constructed in 2002, located in Building 471, maximum capacity: 0.270 million British thermal units per hour. [326 IAC 6-2-4]
  - (21) One (1) natural gas-fired boiler, identified as Boiler 473, constructed in 2002, located in Building 473, maximum capacity: 0.270 million British thermal units per hour. [326 IAC 6-2-4]
  - (22) One (1) natural gas-fired boiler, identified as 593b, constructed in 2003, maximum capacity: 0.65 million British thermal units per hour. [326 IAC 6-2-4]
  - (23) One (1) natural gas-fired boiler, identified as 472, constructed in 2003, maximum capacity: 1.8 million British thermal units per hour. [326 IAC 6-2-4]
  - (24) One (1) natural gas-fired boiler, identified as 648A, constructed in 2003, maximum capacity: 0.10 million British thermal units per hour. [326 IAC 6-2-4]
  - (25) One (1) natural gas-fired boiler, identified as 648B, constructed in 2003, maximum capacity: 0.528 million British thermal units per hour. [326 IAC 6-2-4]
  - (26) One (1) natural gas-fired boiler, identified as 649, constructed in 2003, maximum capacity: 2.136 million British thermal units per hour. [326 IAC 6-2-4]
  - (27) One (1) natural gas-fired boiler, identified as 427, constructed in 2005/2006, maximum capacity: 1.2 million British thermal units per hour. [326 IAC 6-2-4]
  - (28) One (1) natural gas-fired boiler, identified as 453, constructed in 2005/2006, maximum capacity: 0.65 million British thermal units per hour. [326 IAC 6-2-4]
  - (29) One (1) natural gas-fired boiler, identified as 600, constructed in 2007, maximum capacity: 2.065 million British thermal units per hour. [326 IAC 6-2-4]

- (30) Six (6) natural gas fired boilers constructed in 2008 and consisting of the following:
    - (1) One (1) natural gas fired boiler, identified as 639 RTU1, constructed in 2008, maximum capacity 0.08 million British thermal units per hour.
    - (2) One (1) natural gas fired boiler, identified as 639 RTU2, constructed in 2008, maximum capacity 0.15 million British thermal units per hour.
    - (3) One (1) natural gas fired boiler, identified as 639 RTU3, constructed in 2008, maximum capacity 0.08 million British thermal units per hour.
    - (4) One (1) natural gas fired boiler, identified as 639 RTU4, constructed in 2008, maximum capacity 0.13 million British thermal units per hour.
    - (5) One (1) natural gas fired boiler, identified as 639 RTU5, constructed in 2008, maximum capacity 0.08 million British thermal units per hour.
    - (6) One (1) natural gas fired boiler, identified as 639 RTU6, constructed in 2008, maximum capacity 0.08 million British thermal units per hour.
  - (31) One (1) natural gas-fired boiler, identified as 394, constructed in 2009, maximum capacity 0.08 million British thermal units per hour.
  - (32) One (1) natural gas-fired boiler, identified as 474, constructed in 2009, maximum capacity of 0.5 million British thermal units per hour.
  - (33) Four (4) natural gas-fired infrared heaters, identified as 629, constructed in 2005/2006, maximum capacity: 0.1 million British thermal units per hour, each.
  - (34) One-hundred and ten (110) natural gas-fired infrared heaters, maximum capacity: 20.70 million British thermal units per hour, total.
  - (35) One (1) natural gas-fired intake air pre-heater, capacity: 3.602 million British thermal units per hour.
  - (36) Three (3) natural gas-fired heaters, identified as 420-A, 420-B and 420-C, constructed in 2009, maximum capacity: 0.115, 0.115 and 0.075 million British thermal units per hour, respectively.
  - (37) Three (3) natural gas-fired makeup air heaters, identified as 474-1, 474-2 and 474-3, constructed in 2009, maximum capacity: 0.825, 0.825 and 4.9 million British thermal units per hour, respectively.
  - (38) Six (6) natural gas-fired heaters, identified as 475-1, 475-2, 475-3, 645-1, 645-2 and 645-3, constructed in 2009, maximum capacity 0.06 million British thermal units per hour, each.
  - (39) One (1) natural gas-fired boiler, identified as 643b, approved for construction in 2010, maximum capacity: 0.075 million British thermal units per hour.  
[326 IAC 6-2-4]
- (b) Several cold cleaner degreasing units using only non-halogenated solvents, all constructed after 1990, ranging in size from 6 to 165 gallons, each used for a separate process, with a total capacity of 510 gallons, with solvents replaced no more than once per month. [326 IAC 8-3-2][326 IAC 8-3-5]

- (c) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (d) Grinding and machining operations controller with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.
- (e) Activities or categories of activities with HAP emissions greater than 1 pound per day but less than 12.5 pounds per day or 2.5 tons per year of any combination of HAPs:
  - (1) Fuel cell repair
  - (2) Jet A-1 or JP-8 fuel handling
  - (3) Soil and groundwater remediation
- (f) The following activities or categories with emissions below insignificant thresholds:
  - (1) Three (3) media blasters, equipped with bag filters, operating an average of three (3) hours per day. [326 IAC 6-3-2]
  - (2) One (1) firing range bullet trap equipped with dust collector.
  - (3) Two (2) deicing fluid (containing propylene glycol) above ground storage tanks, identified as 381 and 382, constructed in 1991, capacity: 25,000 gallons, each.
  - (4) Two (2) deicing fluid and water (containing propylene glycol) above ground storage tanks for storing used deicing fluid, identified as 703A and 703B, constructed in 1991, capacity: 19,697 gallons, each.
  - (5) One (1) above ground used oil storage tank, identified as AST 593C, capacity: 300 gallons.
  - (6) One (1) above ground used oil storage tank, identified as 420, constructed in 2002, capacity: 500 gallons.
  - (7) One (1) above ground diesel tank, identified as 380, installed in 1991, capacity: 10,000 gallons.
  - (8) One (1) above ground diesel tank, identified as 447, installed in 1995, capacity: 10,000 gallons.
  - (9) One (1) above ground diesel storage tank, identified as 593B, installed in 2001, capacity: 2,000 gallons.
  - (10) Twenty-six (26) above ground diesel storage tanks, capacity: less than or equal to 1,000 gallons, each.
  - (11) One (1) aboveground diesel storage tank, identified as 593A, installed in 2001, capacity: 2,000 gallons.
  - (12) Two (2) Jet A-1 or JP-8 and water above ground storage tanks, identified as 404-2 and 404-3, constructed in 1995, capacity: 500 gallons, each.

- (13) One (1) propane storage tank, capacity: 10,000 gallons.
- (14) Several propane tanks with capacities equal to or less than 1,000 gallons.
- (15) One (1) potassium acetate storage tank with a maximum capacity of 4,400 gallons.
- (g) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 British thermal units per hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 British thermal units per hour.
- (h) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, vehicles, having a storage capacity less than or equal to 10,500 gallons, consisting of one (1) above ground gasoline storage tank, identified as 419-1, constructed in 2004, with a capacity of 10,000 gallons, and one (1) above ground split tank, identified as 419-3, constructed in 2004, used for biogasoline and biodiesel dispensing, with a capacity of 5,000 gallons of biogasoline and 5,000 gallons of biodiesel. [326 IAC 8-4-6]
- (i) Petroleum fuel other than gasoline dispensing facility, having a storage tank capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less, consisting of one (1) above ground diesel storage tank, identified as 419-2, constructed in 2004, with a capacity of 5,000 gallons, and one (1) above ground split tank, identified as 419-3, constructed in 2004, used for biogasoline and biodiesel dispensing, with a capacity of 5,000 gallons of biogasoline and 5,000 gallons of biodiesel.
- (j) VOC and HAP storage tanks with capacities less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
- (k) Groundwater oil and solvent recovery wells.
- (l) Any operation using aqueous solutions containing less than one percent (1%) by weight of VOCs excluding HAPs.
- (m) Stockpiled soils from soil remediation activities that are covered and waiting transport for disposal.
- (n) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]
- (o) Asbestos abatement projects regulated by 326 IAC 14-10.
- (p) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.
- (q) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (r) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (s) On-site fire and emergency response training approved by the department.
- (t) Emergency generators as follows:

Gasoline generators not exceeding 110 horsepower.

Diesel generators not exceeding 1,600 horsepower.

Natural gas turbines or reciprocating engines not exceeding 16,000 horsepower.

- (u) One (1) flightline paint process, identified as P-FL, in use since 2007, using sempen paint pens containing 0.0106 quart of paint, using the same coatings used in paint processes P-453, P-INT, P-AGE, and P-EXT, capacity: 5 sempen paint pens per day.

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

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

## **SECTION B GENERAL CONDITIONS**

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

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

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

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- (a) This permit, F 103-21934-00008, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

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

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

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

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

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

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

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

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

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

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

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- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U.S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

- (a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:
- (i) it contains a certification by an "authorized individual", as defined by 326 IAC 2-1.1-1(1), and
  - (ii) the certification is based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

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

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

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
  - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

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

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

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

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

- (a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

- (b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

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

The Permittee shall implement the PMPs.

- (c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.12 Emergency Provisions [326 IAC 2-8-12]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch, or  
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)  
Facsimile Number: 317-233-6865

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

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

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

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

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

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

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

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

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

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- (a) All terms and conditions of permits established prior to F 103-21934-00008 and issued pursuant to permitting programs approved into the state implementation plan have been either:
  - (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

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

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

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

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
- (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

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

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

Request for renewal shall be submitted to:

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

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

- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

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

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- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
  
Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10 (b)(3)]

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

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- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d) without a prior permit revision, if each of the following conditions is met:
  - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
  - (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
  - (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
  - (4) The Permittee notifies the:  
  
Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

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

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

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

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

- (b) Emission Trades [326 IAC 2-8-15(c)]  
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (c) Alternative Operating Scenarios [326 IAC 2-8-15(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 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

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

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

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

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

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

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

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

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- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

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

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

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

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- (a) The Permittee shall pay annual fees to IDEM, OAQ no later than thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

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

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

## SECTION C

## SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

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

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

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

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

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

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

#### C.3 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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

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

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

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

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

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

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

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using ambient air quality modeling pursuant to 326 IAC 1-7-4.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
- (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

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

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least seventy-five hundredths (0.75) cubic feet on all facility components.
- (f) **Demolition and Renovation**  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

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

#### **C.9 Performance Testing [326 IAC 3-6]**

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- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
  
no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

## **Compliance Requirements [326 IAC 2-1.1-11]**

### **C.10 Compliance Requirements [326 IAC 2-1.1-11]**

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

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

### **C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]**

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

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

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

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

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

### **C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]**

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

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

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

### **C.13 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]**

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

### **C.14 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]**

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

- (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
  - (1) initial inspection and evaluation
  - (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or
  - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
  - (1) monitoring results;
  - (2) review of operation and maintenance procedures and records; and/or
  - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall record the reasonable response steps taken.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ no later than seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

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

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

### **C.16 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]**

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- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

### **C.17 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]**

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- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit
- (b) The address for report submittal is:  
  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

## **Stratospheric Ozone Protection**

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

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

## SECTION D.1

## EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description: Coating and Degreasing

- (a) One (1) spray paint booth, located in building 453, identified as P-453, constructed in 1989, using eleven (11) high volume low pressure (HVLP) spray guns, four (4) HVLP stencil mini spray guns and one (1) electrostatic HVLP spray gun, capacity: 1 aircraft panel per hour.
- (b) One (1) interior airplane parts painting process, located in one of the following nose docks (Nose Docks 1 through 6), identified as P-INT, using the HVLP spray guns and Sempen paint pens stored at building 453, used for coating the interior parts of planes that cannot be removed for painting in the spray booth at building 453, with coating operations beginning in the summer of 1996, capacity: 12 planes per year.
- (c) One (1) airplane exterior painting process, located in one of the following nose docks (Nose Docks 1 through 6), identified as P-EXT, using the HVLP spray guns and Sempen paint pens stored at building 453, with coating operations beginning in August of 1995, capacity: 52 airplane exteriors per year.
- (d) One (1) Aerospace Ground Equipment (AGE) painting process, identified as P-AGE, installed in 2002, using HVLP spray guns, HVLP stencil mini spray guns and electrostatic HVLP spray guns stored in building 453, capacity: 1.5 gallons of coating per part, 0.75 gallons of primer per part, 0.19 gallons of isopropyl alcohol per part, one (1) metal part per day and four (4) metal parts per year.

### Insignificant Activity

- (b) Several cold cleaner degreasing units using only non-halogenated solvents, all constructed after 1990, ranging in size from 6 to 165 gallons, each used for a separate process, with a total capacity of 510 gallons, with solvents replaced no more than once per month. [326 IAC 8-3-2][326 IAC 8-3-5]

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

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

#### D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9] [326 IAC 8-1-6] [326 IAC 2-8-4]

- (a) The VOC usage at the one (1) spray paint booth, identified as P-453, shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period, with compliance determined at the end of each month. This will result in VOC emissions of less than twenty-five (25) tons per year, and render 326 IAC 8-2-9 (Miscellaneous Metal Coating), 326 IAC 8-1-6 (New facilities; General reduction requirements) and 326 IAC 2-7 (Part 70) not applicable.
- (b) The VOC usage at the one (1) interior parts paint process, identified as P-INT, shall be limited to less than fifteen (15) pounds per day. This will result in VOC emissions of less than fifteen (15) pounds per day and twenty-five (25) tons per year, and render 326 IAC 8-2-9 (Miscellaneous Metal Coating) and 326 IAC 2-7 (Part 70) not applicable.

D.1.2 Hazardous Air Pollutants (HAPs) [40 CFR 63, Subparts M MMM, P PPP and Z ZZZ] [326 IAC 2-8-4]

- (a) The total HAPs usage at the one (1) spray paint room in building 453 (P-453), the airplane exterior paint process (P-EXT), the interior parts paint process (P-INT), the one (1) Aerospace Ground Equipment (AGE) painting process (P-AGE), and the insignificant degreasing shall be limited to a combined total of 17.6 tons of HAPs per twelve (12) consecutive month period, with compliance determined at the end of each month. This limits the potential to emit any combination of HAPs from the entire source to less than twenty-five (25) tons per year, and renders the requirements of 326 IAC 2-7, Part 70, and 40 CFR 63, Subparts M MMM, P PPP, and Z ZZZ, not applicable.
- (b) Pursuant to T 103-7426-00008, issued on December 1, 1999, and F 103-13875-00008 issued on September 11, 2001, and as revised by this permit, the combined total usage of each individual HAP at the one (1) spray paint room in building 453 (P-453), the airplane exterior paint process (P-EXT), the interior parts paint process (P-INT), the one (1) Aerospace Ground Equipment (AGE) painting process (P-AGE), and the insignificant degreasing shall be limited to less than 9 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. This limits the potential to emit of each individual HAP to less than ten (10) tons per year from the entire source, and renders the requirements of 326 IAC 2-7, Part 70, and 40 CFR 63, Subparts M MMM, P PPP, and Z ZZZ, not applicable.

D.1.3 Particulate [326 IAC 6-3]

The coating usage at each of the following operations shall be limited to less than five (5) gallons per day. Pursuant to 326 IAC 6-3-1(b)(15), this renders the requirements of 326 IAC 6-3 not applicable.

- (a) One (1) spray paint booth, identified as P-453;
- (b) One (1) interior airplane parts painting process, identified as P-INT; and
- (c) One (1) airplane exterior painting process, identified as P-EXT.

D.1.4 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

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

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

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

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements are met:

- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
    - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
    - (B) The solvent is agitated; or
    - (C) The solvent is heated.
  - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
  - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
  - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
  - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
    - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
    - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
    - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of cold cleaning facilities construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
  - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

#### D.1.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the one (1) spray paint room in building 453 (P-453) and for the Nose Docks (covering the airplane exterior paint process (P-EXT), the interior parts paint process (P-INT) and the one (1) Aerospace Ground Equipment (AGE) painting process (P-AGE)).

#### Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

##### D.1.7 Record Keeping Requirements

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- (a) To document the compliance status with Conditions D.1.1(a) and D.1.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.1.1(a) and D.1.2. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (1) The VOC and HAP content of each coating material and solvent used.
  - (2) The amount of coating material and solvent used on monthly basis.
    - (A) Records shall include purchase orders, invoices, coating use logs, and material safety data sheets (MSDS) necessary to verify the type and amount used.
    - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
  - (3) The cleanup solvent usage for each month;
  - (4) The total VOC, individual HAP and total HAP usage for each month; and
  - (5) The weight of VOCs, each individual HAP and total HAPs emitted for each compliance period.
- (b) To document the compliance status with Condition D.1.1(b), the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.1(b). Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (1) The VOC content of each coating material and solvent used at the one (1) interior parts paint process, identified as P-INT.
  - (2) The amount of coating material and solvent used on daily basis at the one (1) interior parts paint process, identified as P-INT.
    - (A) Records shall include purchase orders, invoices, coating use logs, and material safety data sheets (MSDS) necessary to verify the type and amount used.
    - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.

- (3) The cleanup solvent usage for each day at the one (1) interior parts paint process, identified as P-INT;
  - (4) The total VOC usage for each day at the one (1) interior parts paint process, identified as P-INT; and
  - (5) The weight of VOCs emitted at the one (1) interior parts paint process, identified as P-INT for each compliance period.
- (c) To document the compliance status with Condition D.1.3, the Permittee shall maintain records of the volume of coatings used each day for each of the following operations:
- (1) One (1) spray paint booth, located in building 453;
  - (2) One (1) interior airplane parts painting process, located in one of the following nose docks (Nose Docks 1 through 6); and
  - (3) One (1) airplane exterior painting process, located in one of the following nose docks (Nose Docks 1 through 6).
- (d) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

#### D.1.8 Reporting Requirements

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

## SECTION D.2 EMISSION UNIT OPERATION CONDITIONS

### Emission Unit Description: Grit Blast Room

- (e) One (1) grit blast room, located in building 426, constructed in 1989, equipped with an indoor dedicated air filter system, capacity: 767 pounds of grit per hour.

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

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

#### D.2.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the one (1) grit blast room, located in building 426, shall not exceed 5.10 pounds per hour when operating at a process weight rate of two thousand seven hundred sixty-seven (2,767) pounds per hour.

The pounds per hour limitation was calculated with the following equation:

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

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

#### D.2.2 Particulate Matter (PM<sub>10</sub>) [326 IAC 2-8-4]

Pursuant to F 103-13875-00008 issued on September 11, 2001, and as revised by this permit, the PM<sub>10</sub> emissions from the one (1) grit blast room, located in building 426, shall not exceed five and one tenth (5.10) pounds per hour. This will limit the potential to emit PM<sub>10</sub> from this facility to twenty-two and three tenths (22.3) tons per year. Compliance with this limit, in combination the unrestricted potential PM<sub>10</sub> emissions from the surface coating operations and insignificant activities, renders the requirements of 326 IAC 2-7 not applicable with respect to PM<sub>10</sub>.

#### D.2.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

### Compliance Determination Requirements

#### D.2.4 Particulate Control

In order to comply with Conditions D.2.1 and D.2.2, the air filter system for particulate control shall be in operation and control emissions from the one (1) grit blast room at all times that the grit blast room is in operation.

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

#### D.2.5 Filter System Parametric Monitoring

- (a) The Permittee shall record the pressure drop across the air filter system used in conjunction with the one (1) grit blast room at least once per day when the one (1) grit blast room is in operation. When for any one reading, the pressure drop across the filter system is outside the normal range of 1.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is

outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

- (b) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall continue to be used in accordance with the manufacturer instructions to maintain consistent operation.

#### D.2.6 Broken or Failed Filter Detection

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- (a) For a filter system controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For a filter system controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

#### D.2.7 Record Keeping Requirements

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- (a) To document the compliance status with Condition D.2.5, the Permittee shall maintain a daily record of the pressure drop across the filter system controlling the one (1) grit blast room. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the grit blast room did not operate that day).
- (b) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

## SECTION D.3 EMISSION UNIT OPERATION CONDITIONS

### Emission Unit Description: Insignificant Boilers

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, propane or liquefied petroleum gas or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British thermal units per hour, including, but not limited to, the following (all boilers are specified):

\*\*\*

- (18) One (1) natural gas-fired boiler, identified as 643a, constructed in 2002, maximum capacity: 0.1 million British thermal units per hour. [326 IAC 6-2-4]

\*\*\*

- (39) One (1) natural gas-fired boiler, identified as 643b, approved for construction in 2010, maximum capacity: 0.075 million British thermal units per hour. [326 IAC 6-2-4]

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

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

Pursuant to 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating) the PM emissions from the one (1) boiler, identified as 563b, shall be limited to thirteen tenths (0.13) pound per million British thermal units of heat input.

This limitation is based on the following equation:

$$Pt = (C \times a \times h) / (76.5 \times Q^{0.75} \times N^{0.25})$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

C = Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal fifty (50) micrograms per cubic meter for a period not to exceed a sixty (60) minute time period.

N = Number of stacks in fuel burning operation.

a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value sixty-seven tenths (0.67) shall be used for Q less than or equal to one thousand (1,000) million British thermal units per hour heat input.

h = Stack height in feet. If a number of stacks of different heights exist, the average stack height will be computed using a weighted average of stack heights.

**D.3.2 Particulate [326 IAC 6-2-4]**

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), the PM emissions from the insignificant boilers constructed after September 21, 1983 shall be limited as follows:

<b>Year Constructed</b>	<b>Boilers</b>	<b>PM Emission Limitation for each boiler (lbs/MMBtu) (Pt)</b>
1985	597	0.25
1987	591a	0.25
1988	595	0.25
1991	563a	0.25
1992	400, 591b, and 593a	0.25
1993	683 and 715	0.25
1997	B592 and 687	0.25
1998	669	0.25
1999	233 and 641B	0.25
2000	Twenty-eight (28) boilers	0.24
2001	668b	0.40
2002	470, 471, 473, and 643a	0.40
2003	593b	0.40
2003	472, 648A and 648B	0.39
2003	469	0.39
2005/06	427 and 453	0.39
2007	600	0.39
2008	639 RTU1-639 RTU 6	0.39
2009	394 and 474	0.40
2010	643b	0.80

These limitations are based on the following equation:

$$Pt = 1.09/Q^{0.26}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million Btu per hour (mmBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

## SECTION D.4

## EMISSION UNIT OPERATION CONDITIONS

### Emission Unit Description: Insignificant Media Blasters

- (f) The following activities or categories with emissions below insignificant thresholds:
- (1) Three (3) media blasters, equipped with bag filters, operating an average of three (3) hours per day. [326 IAC 6-3-2]

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

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

#### D.4.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the three (3) insignificant media blasters shall not exceed one and three hundredths (1.03) pounds per hour, each, when operating at a process weight rate of two hundred fifty-five (255) pounds per hour, each.

The pounds per hour limitation was calculated with the following equation:

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

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

### Compliance Determination Requirements

#### D.4.2 Particulate Control

In order to comply with Condition D.4.1, the bag filters shall be in operation and control emissions from the media blasters at all times when the media blasters are in operation.

## SECTION D.5

## EMISSION UNIT OPERATION CONDITIONS

### Emission Unit Description: Gasoline Fuel Transfer and Dispensing

- (h) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, vehicles, having a storage capacity less than or equal to 10,500 gallons, consisting of one (1) above ground gasoline storage tank, identified as 419-1, constructed in 2004, with a capacity of 10,000 gallons, and one (1) above ground split tank, identified as 419-3, constructed in 2004, used for biogasoline and biodiesel dispensing, with a capacity of 5,000 gallons of biogasoline and 5,000 gallons of biodiesel. [326 IAC 8-4-6]

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

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

#### D.5.1 Volatile Organic Compounds (VOCs) [326 IAC 8-4-6]

- (a) Pursuant to 326 IAC 8-4-6(b), no owner or operator of a gasoline dispensing facility shall allow the transfer of gasoline, including biogasoline, between any transport and any storage tank unless such tank is equipped with the following:
- (1) A submerged fill pipe.
  - (2) Either a pressure relief valve set to release at no less than seven-tenths (0.7) pounds per square inch or an orifice of five tenths (0.5) inch in diameter.
  - (3) A vapor balance system connected between the tank and the transport, operating according to manufacturer's specifications.
- (b) Pursuant to 326 IAC 8-4-6(c), if the owner or employees of the owner of a gasoline dispensing facility are not present during loading, it shall be the responsibility of the owner or the operator of the transport to make certain the vapor balance system is connected between the transport and the storage tank and is operating according to manufacturer's specifications.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
CERTIFICATION**

Source Name: Grissom Air Reserve Base  
Source Address: 7104 Warthog Street, Grissom Air Reserve Base, Indiana 46971-5000  
Mailing Address: 7207 Grissom Avenue, Grissom Air Reserve Base, Indiana 46971-5000  
FESOP No.: F 103-21934-00008

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

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify) \_\_\_\_\_
- Report (specify) \_\_\_\_\_
- Notification (specify) \_\_\_\_\_
- Affidavit (specify) \_\_\_\_\_
- Other (specify) \_\_\_\_\_

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

Signature:

Printed Name:

Title/Position:

Date:

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

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
EMERGENCY OCCURRENCE REPORT**

Source Name: Grissom Air Reserve Base  
Source Address: 7104 Warthog Street, Grissom Air Reserve Base, Indiana 46971-5000  
Mailing Address: 7207 Grissom Avenue, Grissom Air Reserve Base, Indiana 46971-5000  
FESOP No.: F 103-21934-00008

**This form consists of 2 pages**

**Page 1 of 2**

- |  |
|--|
| <input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12) <ul style="list-style-type: none"><li>• The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance and Enforcement Branch); and</li><li>• The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16</li></ul> |
|--|

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

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

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

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

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

**FESOP Usage Report**  
Submitted Quarterly

Source Name: Grissom Air Reserve Base  
Source Address: 7104 Warthog Street, Grissom Air Reserve Base, Indiana 46971-5000  
Mailing Address: 7207 Grissom Avenue, Grissom Air Reserve Base, Indiana 46971-5000  
FESOP No.: F 103-21934-00008  
Facility: One (1) interior parts paint process, identified as P-INT  
Parameter: VOC usage  
Limit: Less than fifteen (15) pounds per day

Months: \_\_\_\_\_ Year: \_\_\_\_\_

Day				Day			
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16							

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
Deviation has been reported on \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

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

**FESOP Usage Report**  
Submitted Quarterly

Source Name: Grissom Air Reserve Base  
Source Address: 7104 Warthog Street, Grissom Air Reserve Base, Indiana 46971-5000  
Mailing Address: 7207 Grissom Avenue, Grissom Air Reserve Base, Indiana 46971-5000  
FESOP No.: F 103-21934-00008  
Facility: One (1) spray paint booth, identified as P-453  
Parameter: Coating usage  
Limit: Less than 5 gallons per day

Months: \_\_\_\_\_ Year: \_\_\_\_\_

Day				Day			
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16							

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
Deviation has been reported on \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

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

**FESOP Usage Report**  
Submitted Quarterly

Source Name: Grissom Air Reserve Base  
Source Address: 7104 Warthog Street, Grissom Air Reserve Base, Indiana 46971-5000  
Mailing Address: 7207 Grissom Avenue, Grissom Air Reserve Base, Indiana 46971-5000  
FESOP No.: F 103-21934-00008  
Facility: One (1) interior airplane parts painting process, identified as P-INT  
Parameter: Coating usage  
Limit: Less than 5 gallons per day

Months: \_\_\_\_\_ Year: \_\_\_\_\_

Day				Day			
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16							

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
Deviation has been reported on \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

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

**FESOP Usage Report**  
Submitted Quarterly

Source Name: Grissom Air Reserve Base  
Source Address: 7104 Warthog Street, Grissom Air Reserve Base, Indiana 46971-5000  
Mailing Address: 7207 Grissom Avenue, Grissom Air Reserve Base, Indiana 46971-5000  
FESOP No.: F 103-21934-00008  
Facility: One (1) airplane exterior painting process, identified as P-EXT  
Parameter: Coating usage  
Limit: Less than 5 gallons per day

Months: \_\_\_\_\_ Year: \_\_\_\_\_

Day				Day			
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16							

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
Deviation has been reported on \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

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

**FESOP Quarterly Report**

Source Name: Grissom Air Reserve Base  
Source Address: 7104 Warthog Street, Grissom Air Reserve Base, Indiana 46971-5000  
Mailing Address: 7207 Grissom Avenue, Grissom Air Reserve Base, Indiana 46971-5000  
FESOP No.: F 103-21934-00008  
Facility: One (1) spray paint booth, identified as P-453  
Parameter: VOC usage  
Limit: Less than twenty-five (25) tons per twelve (12) consecutive month period, with compliance determined at the end of each month

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

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

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
Deviation has been reported on \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

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

**FESOP Quarterly Report**

Source Name: Grissom Air Reserve Base  
 Source Address: 7104 Warthog Street, Grissom Air Reserve Base, Indiana 46971-5000  
 Mailing Address: 7207 Grissom Avenue, Grissom Air Reserve Base, Indiana 46971-5000  
 FESOP No.: F 103-21934-00008  
 Facilities: One (1) spray paint room in building 453 (P-453), airplane exterior paint process (P-EXT), the interior parts paint process (P-INT), the one (1) Aerospace Ground Equipment (AGE) painting process (P-AGE) and the insignificant degreasing  
 Parameter: Total HAPs usage  
 Limit: 17.6 tons of hazardous air pollutants per twelve (12) consecutive month period, total, with compliance determined at the end of each month

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Total HAPs Usage (tons)	Total HAPs Usage (tons)	Total HAPs Usage (tons)
	This Month	Previous 11 Months	12 Month Total

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
 Deviation has been reported on \_\_\_\_\_

Submitted by: \_\_\_\_\_  
 Title/Position: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Phone: \_\_\_\_\_

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

**FESOP Quarterly Report**

Source Name: Grissom Air Reserve Base  
Source Address: 7104 Warthog Street, Grissom Air Reserve Base, Indiana 46971-5000  
Mailing Address: 7207 Grissom Avenue, Grissom Air Reserve Base, Indiana 46971-5000  
FESOP No.: F 103-21934-00008  
Facilities: One (1) spray paint room in building 453 (P-453), airplane exterior paint process (P-EXT), the interior parts paint process (P-INT), the one (1) Aerospace Ground Equipment (AGE) painting process (P-AGE) and the insignificant degreasing  
Parameter: Worst-case Individual HAPs usage  
Limit: Less than 9.00 tons per twelve (12) consecutive month period, with compliance determined at the end of each month

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Worst-case Individual HAPs Usage (tons)	Worst-case Individual HAPs Usage (tons)	Worst-case Individual HAPs Usage (tons)
	This Month	Previous 11 Months	12 Month Total

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
Deviation has been reported on \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

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

**FESOP Quarterly Report**

Source Name: Grissom Air Reserve Base  
Source Address: 7104 Warthog Street, Grissom Air Reserve Base, Indiana 46971-5000  
Mailing Address: 7207 Grissom Avenue, Grissom Air Reserve Base, Indiana 46971-5000  
FESOP No.: F 103-21934-00008  
Facilities: One (1) spray paint room in building 453 (P-453), airplane exterior paint process (P-EXT), the interior parts paint process (P-INT), the one (1) Aerospace Ground Equipment (AGE) painting process (P-AGE) and the insignificant degreasing  
Parameter: PM<sub>10</sub> Emissions  
Limit: 42.65 tons per twelve (12) consecutive month period with compliance determined at the end of each month

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	PM <sub>10</sub> Emissions (tons)	PM <sub>10</sub> Emissions (tons)	PM <sub>10</sub> Emissions (tons)
	This Month	Previous 11 Months	12 Month Total

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
Deviation has been reported on \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

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

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Grissom Air Reserve Base  
Source Address: 7104 Warthog Street, Grissom Air Reserve Base, Indiana 46971-5000  
Mailing Address: 7207 Grissom Avenue, Grissom Air Reserve Base, Indiana 46971-5000  
FESOP No.: F 103-21934-00008

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

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

NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD.

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

Page 2 of 2

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

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_



**Attachment A: Potential Emissions Calculations  
VOC and Particulate  
From Surface Coating Operations**

**Company Name: Grissom Air Reserve Base  
Plant Location: Grissom Air Reserve Base, Grissom, IN 46971-5000  
Administrative Amendment: 103-28974-00008  
Permit Reviewer: Gary Freeman  
Date: March 22,2010**

Material	Density (lb/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/hr)	Flash-off (fraction)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential tons per year	lb VOC /gal solids	Transfer Efficiency
<b>Building 453 (P-453)</b>																
<b>Coating</b>																
Polyurethane Coating C	9.94	39.00%	0.0%	39.0%	0.0%	44.30%	2.00000	1.000	3.88	3.88	7.75	186.08	33.96	13.28	8.75	75%
Epoxy Primer Coating Kit A	11.2	26.89%	0.0%	26.9%	0.0%	54.90%	2.00000	1.000	3.01	3.01	6.02	144.58	26.39	<b>17.93</b>	5.49	75%
Epoxy Primer Coating Kit B	7.71	29.00%	0.0%	29.0%	0.0%	67.90%	2.00000	1.000	2.24	2.24	4.47	107.32	19.59	11.99	3.29	75%
Polyurethane Coating I	8.64	30.34%	0.0%	30.3%	0.0%	65.30%	2.00000	1.000	2.62	2.62	5.24	125.78	22.96	13.18	4.01	75%
Polyurethane Coating J	7.78	52.59%	0.0%	52.6%	0.0%	41.20%	2.00000	1.000	4.09	4.09	<b>8.18</b>	<b>196.29</b>	<b>35.82</b>	8.07	9.93	75%
Enamel Yellow C	8.85	34.92%	0.0%	34.9%	0.0%	57.81%	2.00000	1.000	3.09	3.09	6.18	148.32	27.07	12.61	5.35	75%
							gal/day									
Isopropyl Alcohol	6.66	100.00%	0.0%	100.0%	0.0%	0.00%	1.55000	1.000	6.66	6.66		10.32	1.88	0.00	n/a	75%
<b>Airplane Interior (P-INT)</b>																
<b>Coating</b>																
Polyurethane Coating C	9.94	39.00%	0.0%	39.0%	0.0%	44.30%	1.00000	1.000	3.88	3.88	3.88	93.04	16.98	6.64	8.75	75%
Epoxy Primer Coating Kit A	11.2	26.89%	0.0%	26.9%	0.0%	54.90%	1.00000	1.000	3.01	3.01	3.01	72.29	13.19	<b>8.97</b>	5.49	75%
Epoxy Primer Coating Kit B	7.71	29.00%	0.0%	29.0%	0.0%	67.90%	1.00000	1.000	2.24	2.24	2.24	53.66	9.79	5.99	3.29	75%
Polyurethane Coating I	8.64	30.34%	0.0%	30.3%	0.0%	65.30%	1.00000	1.000	2.62	2.62	2.62	62.89	11.48	6.59	4.01	75%
Polyurethane Coating J	7.78	52.59%	0.0%	52.6%	0.0%	41.20%	1.00000	1.000	4.09	4.09	<b>4.09</b>	<b>98.14</b>	<b>17.91</b>	4.04	9.93	75%
Enamel Yellow C	8.85	34.92%	0.0%	34.9%	0.0%	57.81%	1.00000	1.000	3.09	3.09	3.09	74.16	13.53	6.31	5.35	75%
							gal/day									
Isopropyl Alcohol	6.66	100.00%	0.0%	100.0%	0.0%	0.00%	0.31000	1.000	6.66	6.66		2.06	0.377	0.00	n/a	75%
<b>Airplane Exterior (P-EXT)</b>																
<b>Coating</b>																
Polyurethane Coating C	9.94	39.00%	0.0%	39.0%	0.0%	44.30%	1.00000	1.000	3.88	3.88	3.88	93.04	16.98	<b>6.64</b>	8.75	75%
Epoxy Primer Coating Kit A	11.2	26.89%	0.0%	26.9%	0.0%	54.90%	0.25000	1.000	3.01	3.01	0.75	18.07	3.30	2.24	5.49	75%
Epoxy Primer Coating Kit B	7.71	29.00%	0.0%	29.0%	0.0%	67.90%	0.25000	1.000	2.24	2.24	0.56	13.42	2.45	1.50	3.29	75%
Polyurethane Coating I	8.64	30.34%	0.0%	30.3%	0.0%	65.30%	1.00000	1.000	2.62	2.62	2.62	62.89	11.48	6.59	4.01	75%
Polyurethane Coating J	7.78	52.59%	0.0%	52.6%	0.0%	41.20%	1.00000	1.000	4.09	4.09	<b>4.09</b>	<b>98.14</b>	<b>17.91</b>	4.04	9.93	75%
Enamel Yellow C	8.85	34.92%	0.0%	34.9%	0.0%	57.81%	1.00000	1.000	3.09	3.09	3.09	74.16	13.53	6.31	5.35	75%
							gal/day									
Isopropyl Alcohol	6.66	100.00%	0.0%	100.0%	0.0%	0.00%	0.74000	1.000	6.66	6.66		4.93	0.90	0.00	n/a	75%
												<b>16.4</b>	<b>409.9</b>	<b>74.8</b>	<b>33.5</b>	

Annual Potential Emissions are overestimates because the painting operations in these areas can not operate at full capacity 8,760 hours per year due to space limitations and a primer coating usage constraint for interior coating.

**METHODOLOGY**

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)  
Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)  
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* Flash-off  
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day) \* Flash-off  
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs) \* Flash-off  
Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \*(1 ton/2000 lbs)  
Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids) \* Flash-off  
Total = Worst Coating + Sum of all solvents used  
The values for each coating are based on manufacture's Material Safety Data Sheets (MSDSs)

**Attachment A: Potential Emissions Calculations  
VOC and Particulate  
From Surface Coating Operations**

Company Name: Grissom Air Reserve Base  
Plant Location: Grissom Air Reserve Base, Grissom, IN 46971-5000  
Administrative Amendment: 103-28974-00008  
Permit Reviewer: Gary Freeman  
Date: March 22, 2010

**AGE painting (P-AGE)**

Material	Density (lb/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Material (gal/unit)	Maximum (units/hour)	Maximum (units/day)	Maximum (unit/yr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (lbs/hr)	Potential VOC (lbs/day)	Potential VOC (lbs/yr)	Potential VOC (tons/yr)	Particulate Potential (tons/yr)	Transfer Efficiency
<b>Coating - Polyurethane Coating, Green 24052</b>																		
Part A	9.03	45.66%	0.0%	45.66%	0.0%	42.4%	1.13	0.6667	1.00	4.00	4.12	4.12	3.09	4.64	18.55	0.009	0.001	75%
Part B	9.44	17.86%	0.0%	17.86%	0.0%	75.6%	0.375	0.6667	1.00	4.00	1.69	1.69	0.42	0.63	2.53	0.001	0.000	75%
<b>R-T-S</b>	9.13	38.48%	0.00%	38.48%	0.0%	50.7%	1.50	0.6667	1.00	4.00	3.51	3.51	3.51	5.27	21.1	0.011	0.001	75%
<b>Primer</b>																		
Part A - Epoxy	11.36	27.60%	0.0%	27.60%	0.0%	55.2%	0.56	1.00	1.00	4.00	3.14	3.14	1.76	1.76	7.05	0.004	0.001	75%
Part B - Polyamide	7.83	28.80%	0.0%	28.80%	0.0%	66.9%	0.19	1.00	1.00	4.00	2.26	2.26	0.42	0.42	1.69	0.001	0.000	75%
<b>R-T-S</b>	10.48	27.82%	0.00%	27.82%	0.0%	58.1%	0.75	1.00	1.00	4.00	2.92	2.92	2.19	2.19	8.75	0.004	0.001	75%
Isopropyl Alcohol	6.66	100.00%	0.0%	100.00%	0.0%	0.00%	0.19	1.00	1.00	4.00	6.66	6.66	1.25	1.25	5.00	0.002	0.000	100%
<b>State Potential Emissions</b>													<b>TOTALS:</b>	<b>3.51</b>	<b>8.71</b>	<b>34.8</b>	<b>0.017</b>	<b>0.002</b>

Add worst case coating to all solvents

TOTALS:

METHODOLOGY

RTS Density (lbs/gal) = ((Da\*Va)+(Db\*Vb))/(Va+Vb)

RTS Weight % H2O + Organics = ((Wa\*Da\*Va)+(Wb\*Db\*Vb))/((Da\*Va)+(Db\*Vb))

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)

\*Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/day)

Potential VOC Pounds per Year = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/yr)

Potential VOC Tons per Year = Potential VOC Pounds per Year / 2,000 lbs/ton

Particulate Potential Tons per Year = (units/yr) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)

Total = RTS

\* Primer, coating and cleaner cannot be applied at the same time. Therefore, the pounds per hour potential is the maximum potential to emit when using primer, coating or cleaner in an hour.

The values for each coating are based on manufacture's Material Safety Data Sheets (MSDSs)

**Attachment A: Potential Emissions Calculations  
HAP Emission Calculations  
From Surface Coating Operations**

Company Name: Grissom Air Reserve Base  
Plant Location: Grissom Air Reserve Base, Grissom, IN 46971-5000  
Administrative Amendment: 103-28974-00008  
Permit Reviewer: Gary Freeman  
Date: March 22,2010

Material	Density (lb/gal)	Gal of Mat (gal/hr)	Weight % Xylene	Weight % Toluene	Weight % MIBK	Weight % Glycol Ethers	Weight % Ethyl Benzene	Xylene Emissions (tons/yr)	Toluene Emissions (tons/yr)	MIBK Emissions (tons/yr)	Glycol Ethers Emissions (tons/yr)	Ethyl Benzene Emissions (tons/yr)	Total Emissions (tons/yr)
<b>Building 453 (P-453)</b>													
Polyurethane Coating C	9.94	2.00	1.00%	1.00%	20.00%	0.00%	1.00%	0.87	<b>0.87</b>	<b>17.41</b>	0.00	0.87	<b>20.03</b>
Epoxy Primer Coating Kit A	11.2	2.00	1.00%	0.00%	0.00%	0.00%	1.00%	0.98	0.00	0.00	0.00	<b>0.98</b>	1.96
Epoxy Primer Coating Kit B	7.71	2.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
Polyurethane Coating I	8.64	2.00	1.00%	1.00%	0.00%	5.00%	0.10%	0.76	0.76	0.00	<b>3.78</b>	0.08	5.37
Polyurethane Coating J	7.78	2.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
Enamel Yellow C	8.85	2.00	2.00%	0.00%	0.00%	0.00%	0.00%	<b>1.55</b>	0.00	0.00	0.00	0.00	1.55
<b>Airplane Interior (P-INT)</b>													
<b>Coating</b>													
Polyurethane Coating C	9.94	1.00	1.00%	1.00%	20.00%	0.00%	1.00%	0.44	<b>0.44</b>	<b>8.71</b>	0.00	0.44	<b>10.01</b>
Epoxy Primer Coating Kit A	11.2	1.00	1.00%	0.00%	0.00%	0.00%	1.00%	0.49	0.00	0.00	0.00	<b>0.49</b>	0.98
Epoxy Primer Coating Kit B	7.71	1.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
Polyurethane Coating I	8.64	1.00	1.00%	1.00%	0.00%	5.00%	0.10%	0.38	0.38	0.00	<b>1.89</b>	0.04	2.69
Polyurethane Coating J	7.78	1.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
Enamel Yellow C	8.85	1.00	2.00%	0.00%	0.00%	0.00%	0.00%	<b>0.78</b>	0.00	0.00	0.00	0.00	0.78
<b>Airplane Exterior (P-EXT)</b>													
<b>Coating</b>													
Polyurethane Coating C	9.94	1.00	1.00%	1.00%	20.00%	0.00%	1.00%	0.44	<b>0.44</b>	<b>8.71</b>	0.00	<b>0.44</b>	<b>10.01</b>
Epoxy Primer Coating Kit A	11.2	0.25	1.00%	0.00%	0.00%	0.00%	1.00%	0.12	0.00	0.00	0.00	0.12	0.25
Epoxy Primer Coating Kit B	7.71	0.25	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
Polyurethane Coating I	8.64	1.00	1.00%	1.00%	0.00%	5.00%	0.10%	0.38	0.38	0.00	<b>1.89</b>	0.04	2.69
Polyurethane Coating J	7.78	1.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
Enamel Yellow C	8.85	1.00	2.00%	0.00%	0.00%	0.00%	0.00%	<b>0.78</b>	0.00	0.00	0.00	0.00	0.78
<b>TOTALS:</b>							<b>(tons/yr):</b>	<b>3.10</b>	<b>1.74</b>	<b>34.83</b>	<b>7.57</b>	<b>1.91</b>	<b>49.15</b>

The AGE painting process does not use any HAP-containing materials.

The values for each coating are based on manufacture's Material Safety Data Sheets (MSDSs)

**Attachment A: Potential Emissions Calculations  
Particulate Emissions  
From the Grit Blaster**

Company Name: Grissom Air Reserve Base  
Plant Location: Grissom Air Reserve Base, Grissom, IN 46971-5000  
Administrative Amendment: 103-28974-00008  
Permit Reviewer: Gary Freeman  
Date: March 22,2010

**Table 1 - Emission Factors for Abrasives**

Abrasive	Emission Factor	
	lb PM / lb abrasive	lb PM10 / lb PM
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other	0.010	

**Table 2 - Density of Abrasives (lb/ft3)**

Abrasive	Density (lb/ft3)
Al oxides	160
Sand	99
Steel	487

**Table 3 - Sand Flow Rate (FR1) Through Nozzle (lb/hr)**

Flow rate of Sand Through a Blasting Nozzle as a Function of Nozzle pressure and Internal Diameter

Internal diameter, in	Nozzle Pressure (psig)							
	30	40	50	60	70	80	90	100
1/8	28	35	42	49	55	63	70	77
3/16	65	80	94	107	122	135	149	165
1/4	109	138	168	195	221	255	280	309
5/16	205	247	292	354	377	420	462	507
3/8	285	355	417	477	540	600	657	720
7/16	385	472	560	645	755	820	905	940
1/2	503	615	725	835	945	1050	1160	1265
5/8	820	990	1170	1336	1510	1680	1850	2030
3/4	1140	1420	1670	1915	2160	2400	2630	2880
1	2030	2460	2900	3340	3780	4200	4640	5060

**Calculations**

*Adjusting Flow Rates for Different Abrasives and Nozzle Diameters*

Flow Rate (FR) = Abrasive flow rate (lb/hr) with internal nozzle diameter (ID)

FR1 = Sand flow rate (lb/hr) with internal nozzle diameter (ID1) From Table 3 =

D = Density of abrasive (lb/ft3) From Table 2 =

D1 = Density of sand (lb/ft3) =

ID = Actual nozzle internal diameter (in) =

ID1 = Nozzle internal diameter (in) from Table 3 =

1265
60
99
0.5
0.5

**Flow Rate (FR) (lb/hr) = 767 per nozzle**

**Uncontrolled Emissions (E, lb/hr)**

EF = emission factor (lb PM/ lb abrasive) From Table 1 =

FR = Flow Rate (lb/hr) =

w = fraction of time of wet blasting =

N = number of nozzles =

0.010
767
0 %
2

	PM	PM-10
<b>Uncontrolled Emissions =</b>	<b>15.3 lbs/hr</b>	<b>10.7 lbs/hr</b>
	<b>67.2 tons/yr</b>	<b>47.0 tons/yr</b>

**Control Efficiency= 99.0%**

<b>Controlled Emissions =</b>	<b>0.153 lb/hr</b>	<b>0.107 lb/hr</b>
	<b>0.672 ton/yr</b>	<b>0.470 ton/yr</b>

**METHODOLOGY**

Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)

Ton/yr = lb/hr X 8760 hr/yr X ton/2000 lbs

Flow Rate (FR) (lb/hr) = FR1 x (ID/ID1)2 x (D/D1)

E = EF x FR x (1-w/200) x N

w should be entered in as a whole number (if w is 50%, enter 50)

Attachment A: Potential Emissions Calculations  
VOC and HAP Emissions  
From Bulk POL System

Company Name: Grissom Air Reserve Base  
Plant Location: Grissom Air Reserve Base, Grissom, IN 46971-5000  
Administrative Amendment: 103-28974-0008  
Permit Reviewer: Gary Freeman  
Date: March 22, 2010

External Floating Roof Storage Tanks

**Lr**  
**Rim Seal Loss**

Tank ID	Product Stored	Kra	Krb	v	n	D	Pva	Avg. Pressure	Pressure Factor (P*)	Vapor Mol. Weight (Mv) (lb/lb-mole)	Product Factor (Kc)	Rim Seal Loss (lbs/yr)
		zero wind speed rim seal loss (lb-mole/ft-yr)	w.s. dependent rim seal loss (lb-mole/ft-yr)	Avg. wind speed (mph)	wind speed exponent	tank diameter (feet)						
400	JP-8	5.8	0.3	10	2.1	47.5	0.011	0.00019		130	1	50.3
402	JP-8	5.8	0.3	10	2.1	47.5	0.011	0.00019		130	1	50.3
403	JP-8	5.8	0.3	10	2.1	47.5	0.011	0.00019		130	1	50.3

**Lwd, Withdrawal Loss**

Tank ID	Product Stored	Q	C	Wl	D	Nc	Fc	Lwd
		Annual Throughput (bbl/yr)	Shell Clingage Factor (bbl/1000cub.ft.)	Avg. liq. density (lb/gal)	tank diameter (feet)	No. fixed roof columns	Column diameter (feet)	Withdrawal Loss (lbs/yr)
400	JP-8	120.2	0.6	7	47.5	0	0	10.0
402	JP-8	120.2	0.6	7	47.5	0	0	10.0
403	JP-8	120.2	0.6	7	47.5	0	0	10.0

**Lf**  
**Deck Fitting Loss**

Tank ID	Product Stored	Ff	Pva	Pressure Factor (P*)	Vapor Mol. Weight (Mv) (lb/lb-mole)	Product Factor (Kc)	Deck Fitting Loss (lbs/yr)
		Total Deck Fitting Loss factor (lb-mole/yr)	Avg. Pressure				
400	JP-8	0.497	0.011	0.00019	130	1	0.012
402	JP-8	0.497	0.011	0.00019	130	1	0.012
403	JP-8	0.497	0.011	0.00019	130	1	0.012

**Ld**  
**Deck Seam Loss**

Tank ID	Product Stored	Kd	Sd	D	Pva	Pressure Factor (P*)	Vapor Mol. Weight (Mv) (lb/lb-mole)	Product Factor (Kc)	Deck Seam Loss (lbs/yr)
		Deck seam loss per unit seam length factor (lb-mole/ft-yr)	Deck seam length factor (ft/sq.ft.)	tank diameter (feet)	Avg. Pressure				
400	JP-8	0.14	0.2	47.5	0.011	0.00019	130	1	1.54
402	JP-8	0.14	0.2	47.5	0.011	0.00019	130	1	1.54
403	JP-8	0.14	0.2	47.5	0.011	0.00019	130	1	1.54

Tank ID	Product Stored	Lr	Lwd	Lf	Ld	Lt	Total Loss (lbs/yr)
400	JP-8	50.3	10.0	0.012	1.54	61.9	0.031
402	JP-8	50.3	10.0	0.012	1.54	61.9	0.031
403	JP-8	50.3	10.0	0.012	1.54	61.9	0.031
<b>Total VOC emissions:</b>							<b>186 0.093</b>

Fixed Roof Storage Tanks

Tank ID	Product Stored	Vapor Space Volume (Vv) (cf)	Vapor Density (Wv) (lb/cf)	Vapor Space Expansion Factor (Ke)	Vented Vapor Saturation Factor (Ks)	Standing Loss (Ls) (lbs/yr)
381	propylene glycol/water	2147	0.00002	0.067	0.999	1.20
382	propylene glycol/water	2147	0.00002	0.067	0.999	1.20

Tank ID	Product Stored	Vapor Density (Mv) (lb/lb-mol)	Average Vapor Pressure (Pva) (psia)	Annual Throughput (Q) (bbl/yr)	Turnover Factor (Kn)	Working Loss Product Factor (Kp)	Working Loss (Lw) (lbs/yr)
381	propylene glycol/water	76.1	0.0016	317.5	1	1	0.037
382	propylene glycol/water	76.1	0.0016	317.5	1	1	0.037
736-1	JP-8	130	0.01	57767	0.785	1	64.9
736-2	JP-8	130	0.01	57767	0.785	1	64.9
736-3	JP-8	130	0.01	57767	0.785	1	64.9
736-4	JP-8	130	0.01	57767	0.785	1	64.9
736-5	JP-8	130	0.01	57767	0.785	1	64.9
736-6	JP-8	130	0.01	57767	0.785	1	64.9

Tank ID	Product Stored	Standing Loss (Ls) (lbs/yr)	Working Loss (Lw) (lbs/yr)	Total Loss (Lt) (lbs/yr)	Total Loss (Lt) (tons/yr)
381	propylene glycol/water	1.20	0.037	1.24	0.0006
382	propylene glycol/water	1.20	0.037	1.24	0.0006
736-1	JP-8	0.00	64.9	64.9	0.032
736-2	JP-8	0.00	64.9	64.9	0.032
736-3	JP-8	0.00	64.9	64.9	0.032
736-4	JP-8	0.00	64.9	64.9	0.032
736-5	JP-8	0.00	64.9	64.9	0.032
736-6	JP-8	0.00	64.9	64.9	0.032
<b>Total VOC emissions:</b>					<b>392 0.196</b>

Tank ID	Product Stored	Weight Fraction Benzene	Weight Fraction Cumene	Weight Fraction Ethyl benzene	Weight Fraction Toluene	Weight Fraction 2,2,4-Trimethylpentane	Weight Fraction Xylenes
381	propylene glycol/water	0.00	0.000	0.00	0.0000	0.0000	0.0000
382	propylene glycol/water	0.00	0.000	0.00	0.0000	0.0000	0.0000
736-1	JP-8	0.0061	0.0033	0.0027	0.0114	0.0001	0.0188
736-2	JP-8	0.0061	0.0033	0.0027	0.0114	0.0001	0.0188
736-3	JP-8	0.0061	0.0033	0.0027	0.0114	0.0001	0.0188
736-4	JP-8	0.0061	0.0033	0.0027	0.0114	0.0001	0.0188
736-5	JP-8	0.0061	0.0033	0.0027	0.0114	0.0001	0.0188
736-6	JP-8	0.0061	0.0033	0.0027	0.0114	0.0001	0.0188

Tank ID	Product Stored	PTE Benzene (tons/yr)	PTE Cumene (tons/yr)	PTE Ethyl benzene (tons/yr)	PTE Toluene (tons/yr)	PTE 2,2,4-Trimethylpentane (tons/yr)	PTE Xylenes (tons/yr)
381	propylene glycol/water	0.00000	0.00000	0.00000	0.00000	0.000000	0.00000
382	propylene glycol/water	0.00000	0.00000	0.00000	0.00000	0.000000	0.00000
736-1	JP-8	0.00020	0.00011	0.00009	0.00037	0.000003	0.00061
736-2	JP-8	0.00020	0.00011	0.00009	0.00037	0.000003	0.00061
736-3	JP-8	0.00020	0.00011	0.00009	0.00037	0.000003	0.00061
736-4	JP-8	0.00020	0.00011	0.00009	0.00037	0.000003	0.00061
736-5	JP-8	0.00020	0.00011	0.00009	0.00037	0.000003	0.00061
736-6	JP-8	0.00020	0.00011	0.00009	0.00037	0.000003	0.00061
<b>Total</b>		<b>0.00119</b>	<b>0.00064</b>	<b>0.00053</b>	<b>0.00222</b>	<b>0.00002</b>	<b>0.00366</b>

Methodology

Emissions calculated based on AP-42, Chapter 7

External Floating Roof Tanks

$L_r = (K_a + K_r \times v^n) \times D \times P^* \times M_v \times K_c$

$L_{wd} = [(0.943 \times Q \times C \times W_l) / D] \times [1 + (N_c \times F_c / D)]$

$L_f = F_f \times P^* \times M_v \times K_c$

$L_d = K_d \times S_d \times D^2 \times P^* \times M_v \times K_c$

$L_t = L_r + L_{wd} + L_f + L_d$

Fixed Roof Tanks

$L_s = 385 \times V_v \times W_v \times K_e \times K_s$

$L_w = 0.0010 \times M_v \times P_v \times Q \times K_n \times K_p$

$L_t = L_s + L_w$

All variables were calculated based on AP-42 and the data supplied by the applicant

HAP Weight Fraction Data from Table 13.2 of USAF IERA "Air Emissions Inventory Guidance Document for Stationary Sources at Air Force Installations," IERA-RS-BR-SR-1999-0001, May 1999

**Attachment A: Potential Emissions Calculations**  
**Natural Gas Combustion**  
**From Insignificant Boilers and Heaters < 100 MMBtu/hr**

**Company Name: Grissom Air Reserve Base**  
**Plant Location: Grissom Air Reserve Base, Grissom, IN 46971-5000**  
**Administrative Amendment: 103-28974-00008**  
**Permit Reviewer: Gary Freeman**  
**Date: March 22, 2010**

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.90	7.60	0.600	100	5.50	84.0
				**see below		

\*PM emission factor is filterable PM only. PM-10 emission factor is filterable and condensable PM-10 combined.  
\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Equipment	Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Potential Emission in tons/yr					
			PM*	PM10/PM2.5*	SO2	NOx	VOC	CO
Boiler 233, const. 1999*	0.450	3.942	0.004	0.015	0.001	0.197	0.011	0.166
Boiler 669, const. 1998*	0.900	7.884	0.007	0.030	0.002	0.394	0.022	0.331
Boiler 683, const. 1993*	0.400	3.504	0.003	0.013	0.001	0.175	0.010	0.147
Boiler 687, const. 1997*	1.703	14.91828	0.014	0.057	0.004	0.746	0.041	0.627
Twenty-eight (28) boilers and seven (7) water heaters, const. 2000	26.690	233.8044	0.222	0.888	0.070	11.690	0.643	9.820
Boiler 668b, const. 2/2001	0.450	3.942	0.004	0.015	0.001	0.197	0.011	0.166
Boiler 440, const. 1992	0.151	1.32276	0.001	0.005	0.000	0.066	0.004	0.056
Boiler 591b, const. 1992	0.250	2.19	0.002	0.008	0.001	0.110	0.006	0.092
Boiler 563a, const. 1991	0.400	3.504	0.003	0.013	0.001	0.175	0.010	0.147
Boiler 563b, const. 1979	0.080	0.7008	0.001	0.003	0.000	0.035	0.002	0.029
Boiler 593a, const. 1992	0.400	3.504	0.003	0.013	0.001	0.175	0.010	0.147
Boiler 595, const. 1988	0.400	3.504	0.003	0.013	0.001	0.175	0.010	0.147
Boiler 597, const. 1985	1.611	14.11236	0.013	0.054	0.004	0.706	0.039	0.593
Boiler B592, const. 1997	5.020	43.9752	0.042	0.167	0.013	2.199	0.121	1.847
Boiler 591a, const. 1987	2.049	17.94924	0.017	0.068	0.005	0.897	0.049	0.754
Boiler 641B, const. 1999	0.990	8.6724	0.008	0.033	0.003	0.434	0.024	0.364
Boiler 643a, const. 2002	0.100	0.876	0.001	0.003	0.000	0.044	0.002	0.037
Boiler 593b, const. 2003	0.650	5.694	0.005	0.022	0.002	0.285	0.016	0.239
Boiler 472, const. 2003	1.800	15.768	0.015	0.060	0.005	0.788	0.043	0.662
Boiler 648A, const. 2003	0.100	0.876	0.001	0.003	0.000	0.044	0.002	0.037
Boiler 648B, const. 2003	0.528	4.62528	0.004	0.018	0.001	0.231	0.013	0.194
Boiler 649, const. 2003	2.136	18.71136	0.018	0.071	0.006	0.936	0.051	0.786
Boiler 470, const. 2002	0.270	2.3652	0.002	0.009	0.001	0.118	0.007	0.099
Boiler 471, const. 2002	0.270	2.3652	0.002	0.009	0.001	0.118	0.007	0.099
Boiler 473, const. 2002	0.270	2.3652	0.002	0.009	0.001	0.118	0.007	0.099
Boiler 427, const. 2005/6	1.200	10.512	0.010	0.040	0.003	0.526	0.029	0.442
Boiler 453, const. 2005/6	1.200	10.512	0.010	0.040	0.003	0.526	0.029	0.442
Boiler 600, const. 2007	2.065	18.0894	0.017	0.069	0.005	0.904	0.050	0.760
Boiler 643b, const. 2010	0.075	0.657	0.001	0.002	0.000	0.033	0.002	0.028
One hundred and ten (110) Infrared heaters	20.700	181.332	0.172	0.689	0.054	9.067	0.499	7.616
Intake air pre-heater	3.602	31.55352	0.030	0.120	0.009	1.578	0.087	1.325
Four (4) infrared heaters, identified as 629	0.400	3.504	0.003	0.013	0.001	0.175	0.010	0.147
Six (6) boilers, const. 2008	0.600	5.256	0.005	0.020	0.002	0.263	0.014	0.221
<b>Total</b>	<b>74.46</b>	<b>682</b>	<b>0.648</b>	<b>2.59</b>	<b>0.205</b>	<b>34.12</b>	<b>1.88</b>	<b>28.66</b>

\*these unit can also burn propane

NOx emissions from Boiler B592 after control by the low NOx burner = 1.10 tons/yr

Emission Factor in lb/MMcf	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
	0.0021	0.0012	0.0750	1.8000	0.0034
Potential Emission in tons/yr	0.0007	0.0004	0.026	0.614	0.0012

Emission Factor in lb/MMcf	HAPs - Metals					Total HAPs
	Lead	Cadmium	Chromium	Manganese	Nickel	
	0.0005	0.0011	0.0014	0.0004	0.0021	
Potential Emission in tons/yr	0.0002	0.0004	0.0005	0.0001	0.0007	<b>0.644</b>

**Methodology**

All emission factors are based on normal firing.  
MMBtu = 1,000,000 Btu  
MMCF = 1,000,000 Cubic Feet of Gas  
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 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

**Attachment A: Potential Emissions Calculations  
Natural Gas Combustion  
From Insignificant Boilers and Heaters < 100 MMBtu/hr**

**Company Name:** Grissom Air Reserve Base  
**Plant Location:** Grissom Air Reserve Base, Grissom, IN 46971-5000  
**Administrative Amendment:** 103-28974-00008  
**Permit Reviewer:** Gary Freeman  
**Date:** March 22,2010

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.90	7.60	0.600	100 **see below	5.50	84.0

\*PM emission factor is filterable PM only. PM-10 emission factor is filterable and condensable PM-10 combined.  
 \*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Equipment	Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Potential Emission in tons/yr					
			PM*	PM10/PM2.5*	SO2	NOx	VOC	CO
Boiler 394, const. 2009	0.080	0.7008	0.001	0.003	0.000	0.035	0.002	0.029
Furnace 420-A, const. 2009	0.115	1.0074	0.001	0.004	0.000	0.050	0.003	0.042
Furnace 420-B, const. 2009	0.115	1.0074	0.001	0.004	0.000	0.050	0.003	0.042
Furnace 420-C, const. 2009	0.075	0.657	0.001	0.002	0.000	0.033	0.002	0.028
Boiler 474, const. 2009	0.500	4.38	0.004	0.017	0.001	0.219	0.012	0.184
Makeup air heater 474-1, const. 2009	0.825	7.227	0.007	0.027	0.002	0.361	0.020	0.304
Makeup air heater 474-2, const. 2009	0.825	7.227	0.007	0.027	0.002	0.361	0.020	0.304
Makeup air heater 472-3, const. 2009	4.900	42.924	0.041	0.163	0.013	2.146	0.118	1.803
Heater 475-1, const. 2009	0.060	0.5256	0.000	0.002	0.000	0.026	0.001	0.022
Heater 475-2, const. 2009	0.060	0.5256	0.000	0.002	0.000	0.026	0.001	0.022
Heater 475-3, const. 2009	0.060	0.5256	0.000	0.002	0.000	0.026	0.001	0.022
Boiler 643b, const 2010	0.075	0.657	0.001	0.002	0.000	0.033	0.002	0.028
Heater 645-1, const. 2009	0.060	0.5256	0.000	0.002	0.000	0.026	0.001	0.022
Heater 645-2, const. 2009	0.060	0.5256	0.000	0.002	0.000	0.026	0.001	0.022
Heater 645-3, const. 2009	0.060	0.5256	0.000	0.002	0.000	0.026	0.001	0.022
<b>Total</b>	<b>7.87</b>	<b>69</b>	<b>0.065</b>	<b>0.26</b>	<b>0.021</b>	<b>3.45</b>	<b>0.19</b>	<b>2.90</b>

Emission Factor in lb/MMcf	Benzene 0.0021	Dichlorobenzene 0.0012	Formaldehyde 0.0750	Hexane 1.8000	Toluene 0.0034
Potential Emission in tons/yr	7.24E-05	4.14E-05	2.59E-03	6.20E-02	1.17E-04

Emission Factor in lb/MMcf	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	Total HAPs
	0.0005	0.0011	0.0014	0.0004	0.0021	
Potential Emission in tons/yr	1.72E-05	3.79E-05	4.83E-05	1.31E-05	7.24E-05	<b>0.065</b>

**Methodology**

All emission factors are based on normal firing.  
 MMBtu = 1,000,000 Btu  
 MMCF = 1,000,000 Cubic Feet of Gas  
 Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 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

**Attachment A: Potential Emissions Calculations  
Propane Combustion  
From Insignificant Boilers and Heaters < 100 MMBtu/hr**

**Company Name: Grissom Air Reserve Base  
Plant Location: Grissom Air Reserve Base, Grissom, IN 46971-5000  
Administrative Amendment: 103-28974-00008  
Permit Reviewer: Gary Freeman  
Date: March 22,2010**

S = Weight % Sulfur

0.500

Emission Factor in lb/kgal	Pollutant					
	PM*	PM10	SO2	NOx	VOC	CO
	0.6	0.6	1.30 (0.10S)	19.0	0.5 **TOC value	3.2

Equipment	Heat Input Capacity MMBtu/hr	Potential Throughput kgals/yr	Potential Emission in tons/yr					
			PM*	PM10	SO2	NOx	VOC	CO
Boiler 233, const. 1999	0.450	43.08	0.013	0.013	0.028	0.409	0.011	0.069
Boiler 669, const. 1998	0.900	86.16	0.026	0.026	0.056	0.819	0.022	0.138
Boiler 683, const. 1993	0.400	38.30	0.011	0.011	0.025	0.364	0.010	0.061
Boiler 687, const. 1997	1.703	163.04	0.049	0.049	0.106	1.549	0.041	0.261
Boiler 715, const. 1993 (only fuel)	0.080	7.66	0.002	0.002	0.005	0.073	0.002	0.012
<b>Total</b>	<b>3.53</b>	<b>129</b>	<b>0.039</b>	<b>0.039</b>	<b>0.084</b>	<b>1.23</b>	<b>0.032</b>	<b>0.207</b>

\*PM emission factor is filterable PM only. PM10 emission factor is assumed to be the same as PM based on a footnote in Table 1.5-1, therefore PM10 is filterable only as well.

\*\*The VOC value given is TOC (total organic compounds). The methane emission factor is 0.2 lb/kgal.

**Methodology**

1 gallon of propane has a heating value of 91,500 Btu (use this to convert emission factors to an energy basis for propane)

(Source - AP-42 (Supplement B 10/96) page 1.5-1)

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.0915 MMBtu

Emission Factors are from AP42 (Supplement B 10/96), Table 1.5-1 (SCC #1-02-010-02)

Emission (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal) / 2,000 lb/ton

**Attachment A: Potential Emissions Calculations  
Miscellaneous Insignificant Activities**

P.

**Company Name: Grissom Air Reserve Base  
Plant Location: Grissom Air Reserve Base, Grissom, IN 46971-5000  
Administrative Amendment: 103-28974-00008  
Permit Reviewer: Gary Freeman  
Date: March 22, 2010**

**Cutting coolants**

Name	Density (lb/gal)	Usage rate (gal/yr)	VOC content		Weight % HAPs	PTE VOC (tons/yr)	PTE HAPs
Band-Ade		0.0625	0	lb/gal	0	0.0000	0.0000
Safetap 71912	8.4133	0.125	0.09	lb/gal	0	0.000006	0.0000
9150 Trim SC210	8.7465	0.0625	50	%	0	0.014	0.0000
<b>Total</b>						<b>0.014</b>	<b>0.0000</b>

Firing Range			Before Control			After Control	
Bullets Fired (lbs/1.5 yrs)	Dust in Drum (lbs/1.5 yrs)	Control Efficiency	Total Dust Generated (lbs/1.5yrs)	PTE PM and PM10 (tons/yr)	PTE Lead (tons/yr)	PTE PM and PM10 (tons/yr)	PTE Lead (tons/yr)
919.5	118	99.90%	118	0.039	0.039	3.94E-05	3.94E-05

	PM (tons/yr)	PM10 (tons/yr)
<b>Woodworking</b>	0.18524	0.17042

provided by the applicant

**Degreasing**

Material	Capacity (gallons)	Inputs per year	Weight % VOC	Density (lbs/gal)	Weight % HAPs	PTE VOC (tons/yr)	PTE HAPs (tons/yr)	HAP
Gold Solvent	391	12	100.0%	6.7	0.10%	15.7	0.016	Toluene
Immersion Solvent	6	12	92.0%	7.9	6.00%	0.262	0.017	Napthalene
<b>Total:</b>						<b>16.0</b>	<b>0.033</b>	

**Methodology**

PTE (tons/yr) = Plant-wide Capacity (gallons) x Inputs per year x Weight % VOC/HAP x Density (lbs/gal) x 1 ton/2,000 lbs

Emission calculations for degreasing are conservative because most of the solvent delivered is still present when the new solvent is delivered. This is the worst-case potential to emit VOC and HAPs assuming all VOC and HAP delivered is emitted.

The HAP for the Gold Solvent is Toluene and the HAP from the Immersion Solvent is Napthalene.

**Above Ground Storage tanks**

VOC (tons/yr)	Weight Fraction Xylene	PTE of Xylene (tons/yr)	Weight Fraction Toluene	PTE of Toluene (tons/yr)
1.00	0.091	0.091	0.081	0.081

Conservatively estimated based upon Tanks 4.09. Worst-case HAP weight fractions based on gasoline vapors.

**Fuel Cell Maintenance**

	PTE VOC (tons/yr)	Weight Fraction Benzene	Weight Fraction Cumene	Weight Fraction Ethyl benzene	Weight Fraction Toluene	Weight Fraction 2,2,4- Trimethylpentane	Weight Fraction Xylenes
JP8	1.64	0.0061	0.0033	0.0027	0.0114	0.0001	0.0188

	PTE Benzene (tons/yr)	PTE Cumene (tons/yr)	PTE Ethyl benzene (tons/yr)	PTE Toluene (tons/yr)	PTE 2,2,4- Trimethylpentane (tons/yr)	PTE Xylenes (tons/yr)
JP8	0.0100	0.0054	0.0044	0.0187	0.0002	0.0308

VOC emissions (tons) = 0.0023 lb/cf x Total volume of cells (cf) x 2 x 1 ton/2,000 lbs

Total Volume of Cells = 713,044

**Attachment A: Potential Emissions Calculations  
Insignificant Welding and Cutting**

**Company Name: Grissom Air Reserve Base  
Plant Location: Grissom Air Reserve Base, Grissom, IN 46971-5000  
Administrative Amendment: 103-28974-00008  
Permit Reviewer: Gary Freeman  
Date: March 22,2010**

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)		EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
WELDING												
Submerged Arc	1	26.04		0.036	0.011			0.938	0.286	0.000		0.286
FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)**				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Oxymethane	1	1	56.67	0.0815	0.0002		0.0002	0.277	0.000	0.000	0.000	0.0001
<b>EMISSION TOTALS</b>												
Potential Emissions lbs/hr								1.21	0.29	0.00	0.00	0.29
Potential Emissions lbs/day								29.15	6.88	0.00	0.00	6.88
Potential Emissions tons/year								5.32	1.25	0.00	0.00	1.25

**METHODOLOGY**

\*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.

\*\*Emission Factor for plasma cutting from American Welding Society (AWS). Trials reported for wet cutting of 8 mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted). Therefore, the emission factor for plasma cutting is for 8 mm thick r

Using AWS average values: (0.25 g/min)/(3.6 m/min) x (0.0022 lb/g)/(39.37 in./m) x (1,000 in.) = 0.0039 lb/1,000 in. cut, 8 mm thick

Plasma cutting emissions, lb/hr: (# of stations)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 8 mm thick)

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" t

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lb

**Attachment A: Potential Emissions Calculations  
Particulate Emissions  
From Three (3) Insignificant Media Blasters**

Company Name: Grissom Air Reserve Base  
Plant Location: Grissom Air Reserve Base, Grissom, IN 46971-5000  
Administrative Amendment: 103-28974-00008  
Permit Reviewer: Gary Freeman  
Date: March 22,2010

**Table 1 - Emission Factors for Abrasives**

Abrasive	Emission Factor	
	lb PM / lb abrasive	lb PM10 / lb PM
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other	0.010	

**Table 2 - Density of Abrasives (lb/ft3)**

Abrasive	Density (lb/ft3)
Al oxides	160
Sand	99
Steel	487

**Table 3 - Sand Flow Rate (FR1) Through Nozzle (lb/hr)**

Flow rate of Sand Through a Blasting Nozzle as a Function of Nozzle pressure and Internal Diameter

Internal diameter, in	Nozzle Pressure (psig)							
	30	40	50	60	70	80	90	100
1/8	28	35	42	49	55	63	70	77
3/16	65	80	94	107	122	135	149	165
1/4	109	138	168	195	221	255	280	309
5/16	205	247	292	354	377	420	462	507
3/8	285	355	417	477	540	600	657	720
7/16	385	472	560	645	755	820	905	940
1/2	503	615	725	835	945	1050	1160	1265
5/8	820	990	1170	1336	1510	1680	1850	2030
3/4	1140	1420	1670	1915	2160	2400	2630	2880
1	2030	2460	2900	3340	3780	4200	4640	5060

**Calculations**

*Adjusting Flow Rates for Different Abrasives and Nozzle Diameters*

Flow Rate (FR) = Abrasive flow rate (lb/hr) with internal nozzle diameter (ID)  
FR1 = Sand flow rate (lb/hr) with internal nozzle diameter (ID1) From Table 3 =  
D = Density of abrasive (lb/ft3) From Table 2 =  
D1 = Density of sand (lb/ft3) =  
ID = Actual nozzle internal diameter (in) =  
ID1 = Nozzle internal diameter (in) from Table 3 =

420
60
99
0.375
0.375

**Flow Rate (FR) (lb/hr) = 255 per nozzle**

**Uncontrolled Emissions (E, lb/hr)**

EF = emission factor (lb PM/ lb abrasive) From Table 1 =  
FR = Flow Rate (lb/hr) =  
w = fraction of time of wet blasting =  
N = number of nozzles =

0.010
255
0
3

	PM	PM-10
<b>Uncontrolled Emissions =</b>	<b>7.64 lbs/hr</b>	<b>5.35 lbs/hr</b>
	<b>33.4 tons/yr</b>	<b>23.4 tons/yr</b>
<b>Control Efficiency=</b>	<b>99.0%</b>	
<b>Controlled Emissions =</b>	<b>0.076 lb/hr</b>	<b>0.053 lb/hr</b>
	<b>0.334 ton/yr</b>	<b>0.234 ton/yr</b>

**METHODOLOGY**

Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)  
Ton/yr = lb/hr X 8760 hr/yr X ton/2000 lbs  
Flow Rate (FR) (lb/hr) = FR1 x (ID/ID1)2 x (D/D1)  
E = EF x FR x (1-w/200) x N  
w should be entered in as a whole number (if w is 50%, enter 50)

**Attachment A: Potential Emissions Calculations  
Combustion Emissions  
Insignificant Internal Combustion Engines**

Company Name: Grissom Air Reserve Base  
Plant Location: Grissom Air Reserve Base, Grissom, IN 46971-5000  
Administrative Amendment: 103-28974-00008  
Permit Reviewer: Gary Freeman  
Date: March 22, 2010

**Non-emergency Internal Combustion Engines (JP-8)**

Input capacity MM Btu/hr		Pollutant					
1.0		PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMBtu		0.31	0.31	0.29	4.41	0.35	0.95
Potential Emission in tons/yr		1.36	1.36	1.27	19.32	1.53	4.16

HAP	Emission Factor Diesel Engines (lb/MMBtu)	Potential to Emit (tons/yr)
Benzene	9.33E-04	0.00003
Toluene	4.09E-04	0.00001
Xylenes	2.85E-04	0.00001
Propylene	2.58E-03	0.00008
1,3-Butadiene	3.91E-05	0.00000
Formaldehyde	1.18E-03	0.00004
Acetaldehyde	7.67E-04	0.00002
Acrolein	9.25E-05	0.00000
Total PAH	1.68E-04	0.00001
<b>Total HAPs:</b>	<b>6.45E-03</b>	<b>0.0002</b>

**Emergency Generators**

Output Rating Horsepower (hp)		Potential Throughput hp-hr/yr		Pollutant					
3852.0		1926000.0		PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr		0.0022	0.0022	0.0021	0.0310	0.0025	0.0067		
Potential Emission in tons/yr		2.12	2.12	1.97	29.85	2.42	6.43		

HAP	Emission Factor Diesel Engines (lb/MMBtu)	Potential to Emit (tons/yr)
Benzene	9.33E-04	0.006
Toluene	4.09E-04	0.003
Xylenes	2.85E-04	0.002
Propylene	2.58E-03	0.017
1,3-Butadiene	3.91E-05	0.000
Formaldehyde	1.18E-03	0.008
Acetaldehyde	7.67E-04	0.005
Acrolein	9.25E-05	0.001
Total PAH	1.68E-04	0.001
<b>Total HAPs:</b>	<b>6.45E-03</b>	<b>0.044</b>

**Methodology**

Potential Throughput (hp-hr/yr) = hp \* 8760 hr/yr  
Diesel Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2  
JP-8 Emission Factors are from WEBFIRE. The diesel Efs for HAPs were used.  
Emission (tons/yr) = [Heat input rate (MMBtu/hr) x Emission Factor (lb/MMBtu)] \* (8760 or 500 for emergency) hr/yr / (2,000 lb/ton)

**Emergency Generator**

Four stroke Rich Burn Engines  
Heat Input Capacity

MM Btu/hr		Pollutant					
0.003		PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMBtu		9.50E-03	1.94E-02	5.88E-04	2.21E+00	2.96E-02	3.72E+00
Potential Emission in tons/yr		0.000007	0.000015	0.0000004	0.001658	0.000022	0.002790

HAP	Emission Factor Four stroke rich burn (lb/MMBtu)	Potential to Emit (tons/yr)
1,1,2,2-Tetrachloroethane	2.53E-05	1.90E-08
1,1,2-Trichloroethane	1.53E-05	1.15E-08
1,3-Butadiene	6.63E-04	4.97E-07
1,3-Dichloropropene	1.27E-05	9.53E-09
2,2,4-Trimethylpentane	0.00E+00	0.00E+00
Acetaldehyde	2.79E-03	2.09E-06
Acrolein	2.63E-03	1.97E-06
Benzene	1.58E-03	1.19E-06
Biphenyl	0.00E+00	0.00E+00
Carbon Tetrachloride	1.77E-05	1.33E-08
Chlorobenzene	1.29E-05	9.68E-09
Chloroethane	0.00E+00	0.00E+00
Chloroform	1.37E-05	1.03E-08
Ethylbenzene	2.48E-05	1.86E-08
Ethylene Dibromide	2.13E-05	1.60E-08
Formaldehyde	2.05E-02	1.54E-05
Methanol	3.06E-03	2.30E-06
Methylene Chloride	4.12E-05	3.09E-08
n-Hexane	0.00E+00	0.00E+00
Naphthalene	9.71E-05	7.28E-08
Phenol	0.00E+00	0.00E+00
Styrene	1.19E-05	8.93E-09
Toluene	5.58E-04	4.19E-07
Vinyl Chloride	7.18E-06	5.39E-09
Xylene	1.95E-04	1.46E-07
<b>Total HAPs:</b>	<b>0.00002</b>	

**Methodology**

Emission Factors are from AP 42 Tables 3.2-1, 3.2-2 and 3.2-3, revised July 200  
Emission (tons/yr) = [Heat input rate (MMBtu/hr) x Emission Factor (lb/MMBtu)] \* 8760 hr/yr / (2,000 lb/ton)  
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

**Attachment A: Potential Emissions Calculations  
Fuel Handling and Dispensing**

**Company Name: Grissom Air Reserve Base  
Plant Location: Grissom Air Reserve Base, Grissom, IN 46971-5000  
Administrative Amendment: 103-28974-00008  
Permit Reviewer: Gary Freeman  
Date: March 22,2010**

**Gasoline Storage and Dispensing**

Standing Losses			Working Losses					
Source		Tank Size (gallons)	VOC Emissions (lbs/yr)	VOC Emissions (tons/yr)		Annual Throughput (gallons)	VOC Emissions (lbs/yr)	VOC Emissions (tons/yr)
Gasoline Storage		10000	801.08	0.401		31200	193.79	0.10
Biogasoline Storage		5000	440.03	0.220		3276	68	0.03

**Methodology**

VOC emissions from Tanks 4.09

**Vehicle Refueling**

Source	Displ. Emission Factor (lbs/1000gal)	Annual Throughput (gallons)	VOC Emissions (lbs/yr)	VOC Emissions (tons/yr)	Spill Emission Factor (lbs/1000gal)	Annual Throughput (gallons)	VOC Emissions (lbs/yr)	VOC Emissions (tons/yr)
Gasoline Dispensing	11.0	31200	343	0.172	0.7	31200	22	0.011

**Methodology**

VOC emission factors from AP-42, Chapter 5

**Total VOC Emissions (tons/yr) = 0.680**

**Diesel**

Standing Losses			Working Losses					
Source		Tank Size (gallons)	VOC Emissions (lbs/yr)	VOC Emissions (tons/yr)		Annual Throughput (gallons)	VOC Emissions (lbs/yr)	VOC Emissions (tons/yr)
Diesel Storage		5000	0.62	0.0003		17412	0.27	0.00014
Biodiesel Storage		5000	0.62	0.0003		20952	0.09	0.00005

**Methodology**

VOC emissions from Tanks 4.09

**Vehicle Refueling**

Source	Emission Factor (lbs/1000gal)	Annual Throughput (gallons)	VOC Emissions (lbs/yr)	VOC Emissions (tons/yr)
Diesel Dispensing	0.03	23352	0.7	0.0004

**Methodology**

VOC emission factors from AP-42, Chapter 5

**Total VOC Emissions (tons/yr) = 0.935**

**HAPs Emissions**

HAP	Worst-case Weight Fraction Gasoline or Biogasoline	Weight Fraction Diesel	Unrestricted PTE Gasoline (tons/yr)	Unrestricted PTE Diesel (tons/yr)	Total PTE (tons/yr)
Benzene	0.0320	0.072	0.030	0.00008	0.02997
Cumene	0.0002	0.004	0.000	0.00000	0.00019
Ethylbenzene	0.0270	0.007	0.025	0.00001	0.02523
Hexane	0.005	0.023	0.005	0.00003	0.00470
Toluene	0.135	0.041	0.126	0.00005	0.12615
2,2,4-Trimethylpentane	0.007	0	0.007	0.00000	0.00654
Xylenes	0.135	0.025	0.126	0.00003	0.12614
<b>Total</b>			<b>0.319</b>	<b>0.0002</b>	<b>0.319</b>



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
**Governor**

*Thomas W. Easterly*  
**Commissioner**

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

## **SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED**

**TO:** Jeffrey Woodring  
Grissom Air Reserve Base  
7104 Warthog St  
Grissom Air Reserve Base, IN 46971-5000

**DATE:** April 22, 2010

**FROM:** Matt Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

**SUBJECT:** Final Decision  
FESOP - Administrative Amendment  
103 - 28974 - 00008

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:  
Air Fueling Wing Commander  
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at [jbrush@idem.IN.gov](mailto:jbrush@idem.IN.gov).

Final Applicant Cover letter.dot 11/30/07

# Mail Code 61-53

IDEM Staff	LPOGOST 4/22/2010 Grissom Air Reserve Base 103 - 28974 - 00008 final)		Type of Mail:  <b>CERTIFICATE OF MAILING ONLY</b>	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Jeffrey Woodring Grissom Air Reserve Base 7104 Warthog St Grissom Air Reserve Base IN 46971-5000 (Source CAATS) Via confirmed delivery										
2		Air Fueling Wing Commander Grissom Air Reserve Base 7207 Grissom Ave Grissom Air Reserve Base IN 46971-5000 (RO CAATS)										
3		Bunker Hill Town Council 280 W. Broadway Bunker Hill IN 46914 (Local Official)										
4		Miami County Board of Commissioners Miami County Courthouse Peru IN 46970 (Local Official)										
5		Miami County Health Department Courthouse, Room 110 Peru IN 46970-2245 (Health Department)										
6		Kurt Brandstatter Central Paving, Inc. P.O. Box 357 Logansport IN 46947 (Affected Party)										
7												
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9												
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