



# 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: Oct. 19, 2009

RE: ThyssenKrupp Crankshaft Co. / 045-27768-00013

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

## Notice of Decision: Approval - Effective Immediately

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

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

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

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

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

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

Enclosures  
FNPER.dot12/03/07



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**Federally Enforceable State Operating Permit  
OFFICE OF AIR QUALITY**

**ThyssenKrupp Crankshaft Company  
1291 East 8th Street  
Veedersburg, Indiana 47987**

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

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

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

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

Operation Permit No.: F045-27768-00013	
Issued by:  Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: Oct. 19, 2009  Expiration Date: Oct. 19, 2014

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- D.2.4 Particulate Control

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## SECTION A SOURCE SUMMARY

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

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

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The Permittee owns and operates a stationary steel and iron forging operation.

Source Address:	1291 East 8th Street, Veedersburg, Indiana 47987
Mailing Address:	1291 East 8th Street, Veedersburg, IN 47987
General Source Phone Number:	765-294-0045
SIC Code:	3462
County Location:	Fountain
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

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

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

- (a) One (1) forging press, identified as FP1, constructed in 1995, using 108 lb of graphite lubricant per hour, having a maximum throughput of 24,000 lb of metal/hr, using a wet scrubber to control particulates, exhausting to stack S11.
- (b) One (1) shot blast machine, identified as SC1, constructed in 1995, using SAE S390 steel shot media, having a maximum throughput of 24,000 lb of metal/hr, using a baghouse for control, exhausting inside the building..
- (c) One (1) die shop shot clean machine, identified as SC2, constructed in 1995, using SAE S390 steel shot media, having a maximum throughput of 9,000 lb of metal/hr, using a baghouse for control, exhausting inside the building.
- (d) Degreasing operations that do not exceed 145 gallons of solvent per 12 month period and not subject to 326 IAC 20-6, consisting of:
  - (1) One (1) closed top degreaser, identified as DG1, constructed in 2006, using 0.28 gallon of non-HAP VOC solvent per day, operating at a temperature of 140 °F, with no controls, exhausting inside the building. [326 IAC 8-3-2 and 326 IAC 8-3-5]

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

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This stationary source also includes the following insignificant activities:

- (e) Welding operations consisting of:
  - (1) One (1) metal inert gas welder, identified as DW1, using wire type E308, with a maximum hourly consumption of 0.30 pound of wire, with no controls, and exhausting inside the building. [326 IAC 6-3-2]

- (2) One (1) stick welder, identified as DW1, using electrode type E308, with six (6) electrodes used per hour, with no controls, and exhausting inside the building. [326 IAC 6-3-2]
- (f) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
  - (1) Two (2) natural gas fired heaters, identified as FE17 and FE18, with a maximum heating capacity of 0.32 MMBtu/hr each, with no controls.
  - (2) Two (2) natural gas fired make-up air units, identified as MAU1 and MAU2, with a maximum rated capacity of 7.2 MMBtu/hr each, with no controls.
  - (3) Five (5) natural gas fired AC/heating units, identified as AC1 through AC5, with the maximum rated capacities of units AC2, AC4, and AC5 each being 0.120 MMBtu/hr, and the maximum rated capacities of AC1 and AC3 each being 0.135 MMBtu/hr, with no controls.
  - (4) One (1) natural gas fired air rotation unit, identified as ARU1, with a maximum heating capacity of 3.125 MMBtu/hr, with no controls.
  - (5) One (1) natural gas fired water heater, identified as WH1, with a maximum heating capacity of 0.251 MMBtu/hr, with no controls.
- (g) Machining operations consisting of the following units:
  - (1) Two (2) enclosed high speed machining units, identified as HSM1 & HSM2, with a maximum capacity to process 750 lbs/hr, using 0.17 lb of coolant per hour, using a baghouse for control, and exhausting inside the building. The two HSM units are enclosed and particulate emissions are negligible.
- (h) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]

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

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

## SECTION B GENERAL CONDITIONS

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

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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, F045-27768-00013, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

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

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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. 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.
- (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) 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.
- (b) One (1) certification shall be included, using the attached Certification Form, 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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- (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 the certification 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)]**

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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) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMP) 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.
- (b) A copy of the PMP 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 PMP whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.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 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 the certification 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.

- (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 be referenced by the date of the original report.

**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 F045-27768-00013 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)]**

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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 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]**

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- (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 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]

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- (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 certification 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.17 Permit Renewal [326 IAC 2-8-3(h)]

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- (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 certification 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 in writing by IDEM, OAQ any additional information identified as being needed to process the application.

**B.18 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 shall be certified 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.19 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.20 Source Modification Requirement [326 IAC 2-8-11.1]

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

B.21 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.22 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  
  
The application which shall be submitted by the Permittee does require the certification 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.23 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 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.24 Advanced Source Modification Approval [326 IAC 2-8-4(11)] [326 IAC 2-1.1-9]**

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- (a) The requirements to obtain a permit modification under 326 IAC 2-8-11.1 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2 and A.3.
- (b) Pursuant to 326 IAC 2-1.1-9 any permit authorizing construction may be revoked if construction of the emission unit has not commenced within eighteen (18) months from the date of issuance of the permit, or if during the construction, work is suspended for a continuous period of one (1) year or more.

B.25 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]

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

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

#### C.1 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 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 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 one hundred (100) 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 5-1-3 (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]**

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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]**

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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.

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

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

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

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- (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 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

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

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

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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 75, or other procedures approved by IDEM, OAQ.

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 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 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.9 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.10 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, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance or ninety (90) days of initial start-up, whichever is later. 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 its control, that equipment cannot be installed and operated within ninety (90) days, 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 the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

#### **C.11 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.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]**

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]**

(a) Upon detecting an excursion or exceedance, the Permittee shall 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 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 may include, but are not limited to, the following:

- (1) initial inspection and evaluation;
- (2) recording that operations returned 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.

(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 maintain the following records:

- (1) monitoring data;
- (2) monitor performance data, if applicable; and
- (3) corrective actions 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 take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of

the test results. 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 one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) 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 certification 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]

- (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, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance or ninety (90) days of initial start-up, whichever is later.

#### C.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. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- (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) 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) 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 the 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.

## SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description [326 IAC 2-8-4(10)]:

- (a) One (1) forging press, identified as FP1, constructed in 1995, using 108 lb of graphite lubricant per hour, having a maximum throughput of 24,000 lb of metal/hr, using a wet scrubber to control particulates, exhausting to stack S11.

(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 Particulate [326 IAC 6-3-2][326 IAC 2-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the lubricant used in the forging press shall not exceed 0.58 pounds per hour when operating at a process weight rate of 108 pounds of lubricant per hour.

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:

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

Compliance with these limits, combined with the potential to emit PM from other emission units at the source, shall limit the PM from the entire source to less than 250 tons per twelve (12) consecutive month period and render the requirements of Part 70 (326 IAC 2-7) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

#### D.1.2 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.

### Compliance Determination Requirements

#### D.1.3 Particulate Control

Pursuant to 326 IAC 6-3-2, and in order to comply with Condition D.1.1, the wet scrubber for particulate control shall be in operation and control emissions from the forging press (FP1) at all times the forging press is in operation.

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

#### D.1.4 Visible Emissions Notations

- (a) Visible emission notations of the forging press stack (S11) exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

#### **D.1.5 Scrubber Operation [326 IAC 2-8-4(1)] [326 IAC 2-8-4(3)]**

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- (a) The Permittee shall record the pressure drop and flow rate of the wet scrubber at least once per day when the forging press is in operation.
  - (1) When for any one reading, the pressure drop across wet scrubber is below the minimum pressure drop established by the manufacturer; the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.
  - (2) When for any one reading, the flow rate across wet scrubber is below the minimum flow rate established by the manufacturer; the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

A pressure reading or flow rate that is below the above mentioned minimum 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.

- (b) The instruments used for determining the pressure drop and flow rate shall comply with Section C – Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every twelve (12) months or as recommended by the manufacturer.
- (c) In the event that scrubber failure has been observed, the failed scrubber 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).

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

##### **D.1.6 Record Keeping Requirements**

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- (a) To document compliance with Condition D.1.4(a), the Permittee shall maintain daily records of the visible emission notations required under Condition D.1.4(a). The Permittee shall include in its daily record when a visible emission notation reading is not taken and the reason for the lack of a visible emission notation reading (e.g. the process did not operate that day).
- (b) To document compliance with Condition D.1.5(a), the Permittee shall maintain daily records of the pressure drop and flow rate required under Condition D.1.5(a). The Permittee shall include in its daily record when a pressure drop or flow rate reading is not taken and the reason for the lack of a pressure drop or flow rate reading (e.g. the process did not operate that day).
- (c) All records shall be maintained in accordance with Section C – General Record Keeping Requirements, of this permit.

## SECTION D.2

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

- (b) One (1) shot blast machine, identified as SC1, constructed in 1995, using SAE S390 steel shot media, having a maximum throughput of 24,000 lb of metal/hr, using a baghouse for control, exhausting inside the building.

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

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

#### D.2.1 Particulate [326 IAC 6-3-2] and PSD Minor Limit [326 IAC 2-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the shot blast machine (SC1) shall not exceed 21.7 pounds per hour when operating at a process weight rate of 24,000 pounds per hour.

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:

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

In combination with potential and limited PM emissions from other units at this source, the source-wide PM emissions will be restricted to less than 250 tons per year. Therefore, compliance with this limit will render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable and will comply with the requirements of 326 IAC 6-3-2.

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

Pursuant to 326 IAC 2-8-4, particulate matter less than 10 microns in diameter (PM<sub>10</sub>) emissions from the shot blast machine (SC1) shall not exceed 17.1 pounds per hour.

In combination with potential and limited emissions of PM<sub>10</sub> from other units at this source, the source-wide PM<sub>10</sub> emissions will be restricted to less than one hundred (100) ton per year. Compliance with this limit will satisfy 326 IAC 2-8-4 and render the requirements of Part 70 (326 IAC 2-7) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

#### 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.

### Compliance Determination Requirements

#### D.2.4 Particulate Control

- (a) In order to comply with Conditions D.2.1 through D.2.3, the baghouse for particulate control shall be in operation and control emissions from the shot blast machine (SC1) at all times that the shot blast machine (SC1) is in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also

include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

#### **D.2.5 Parametric Monitoring**

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The Permittee shall perform the following actions on the shot blast machine (SC1) and its baghouse according to the schedule which follows:

The Permittee shall record pressure drop across the baghouse used in conjunction with the shot blast machine (SC1), at least once per day when the process is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 7.0 inches of water or a range established by the manufacturer, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. 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. The instrument used for determining the pressure shall comply with Section C – Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every twelve (12) months or as recommended by the manufacturer.

#### **D.2.6 Broken or Failed Bag Detection**

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- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B – Emergency Provisions).
- (b) For a single compartment baghouses 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 line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B – Emergency Provisions).

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

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

#### **D.2.7 Record Keeping Requirements**

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- (a) To document compliance with Condition D.2.6, the Permittee shall maintain records once per day of the pressure drop during normal operation for shot blast machine (SC1). The Permittee shall include in its record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).
- (b) All records shall be maintained in accordance with Section C – General Record Keeping Requirements, of this permit.

## SECTION D.3

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

- (c) One (1) die shop shot clean machine, identified as SC2, constructed in 1995, using SAE S390 steel shot media, having a maximum throughput of 9,000 lb of metal/hr, using a baghouse for control, exhausting inside the building.

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

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

#### D.3.1 Particulate [326 IAC 6-3-2] and PSD Minor Limit [326 IAC 2-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate (PM) emissions from the die shop shot clean machine (SC2) shall not exceed 11.2 pounds per hour when operating at a process weight rate of 9,000 pounds per hour.

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:

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

In combination with potential and limited PM emissions from other units at this source, the source-wide PM emissions will be restricted to less than 250 tons per year. Therefore, compliance with this limit will satisfy the requirements of 326 IAC 6-3-2 and render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

#### D.3.2 Particulate Matter Less Than 10 Microns In Diameter (PM<sub>10</sub>) [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4, particulate matter less than 10 microns in diameter (PM<sub>10</sub>) emissions from the die shop shot clean machine (SC2) shall not exceed 4.6 pounds per hour.

In combination with potential and limited emissions of PM<sub>10</sub> from other units at this source, the source-wide PM<sub>10</sub> emissions will be restricted one hundred (100) ton per year. Compliance with this limit will satisfy 326 IAC 2-8-4 and render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

#### D.3.3 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.

### Compliance Determination Requirements

#### D.3.4 Particulate Control

- (a) In order to comply with Conditions D.3.1 and D.3.2, the baghouse for particulate control shall be in operation and control emissions from the die shop shot clean machine (SC2) at all times that the die shop shot clean machine (SC2) is in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also

include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

#### **D.3.5 Parametric Monitoring**

---

The Permittee shall perform the following actions on the die shop shot clean machine (SC2) and its baghouse according to the schedule which follows:

The Permittee shall record pressure drop across the baghouse used in conjunction with the die shop shot clean machine (SC2), at least once per day when the process is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 7.0 inches of water or a range recommended by the manufacturer, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. 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. The instrument used for determining the pressure shall comply with Section C – Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every twelve (12) months or as recommended by the manufacturer.

#### **D.3.6 Broken or Failed Bag Detection [40 CFR 64]**

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- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B – Emergency Provisions).
- (b) For a single compartment baghouses 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 line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B – Emergency Provisions).

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

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

#### **D.3.7 Record Keeping Requirements**

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- (a) To document compliance with Condition D.3.5, the Permittee shall maintain records once per day of the pressure drop during normal operation for die shop shot clean machine (SC2). The Permittee shall include in its record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).
- (b) All records shall be maintained in accordance with Section C – General Record Keeping Requirements, of this permit.

## SECTION D.4

## FACILITY CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]: Degreasing Operations

- (d) Degreasing operations that do not exceed 145 gallons of solvent per 12 month period and not subject to 326 IAC 20-6, consisting of:
- (1) One (1) closed top degreaser, identified as DG1, constructed in 2006, using 0.28 gallon of non-HAP VOC solvent per day, operating at a temperature of 140 °F, with no controls, exhausting inside the building. [326 IAC 8-3-2 and 326 IAC 8-3-5]

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

Pursuant to 326 IAC 8-3-2, Cold Cleaner Operation, the owner or operator of the closed top degreaser (DG1), 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.4.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

- (a) Pursuant 326 IAC 8-3-5(a), Cold Cleaner Degreaser Operation and Control, the owner or operator shall ensure that the following control equipment requirements are met for the closed top degreaser (DG1):
  - (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 326 IAC 8-3-5(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 326 IAC 8-3-5(b), the owner or operator shall ensure that the following operating requirements are met for the closed top degreaser (DG1):
- (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.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
CERTIFICATION**

Source Name: ThyssenKrupp Crankshaft Company  
Source Address: 1291 East 8th Street, Veedersburg, Indiana 47987  
Mailing Address: 1291 East 8th Street, Veedersburg, IN 47987  
FESOP Permit No.: F045-27768-00013

**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: ThyssenKrupp Crankshaft Company  
Source Address: 1291 East 8th Street, Veedersburg, Indiana 47987  
Mailing Address: 1291 East 8th Street, Veedersburg, IN 47987  
FESOP Permit No.: F045-27768-00013

**This form consists of 2 pages**

**Page 1 of 2**

- |  |
|--|
| <p><input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12)</p> <ul style="list-style-type: none"><li>• The Permittee must notify the Office of Air Quality (OAQ), within four (4) daytime business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and</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: \_\_\_\_\_

A certification is not required for this report.

**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: ThyssenKrupp Crankshaft Company  
 Source Address: 1291 East 8th Street, Veedersburg, Indiana 47987  
 Mailing Address: 1291 East 8th Street, Veedersburg, IN 47987  
 FESOP Permit No.: F045-27768-00013

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

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, 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".</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
<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>	
<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: \_\_\_\_\_

Attach a signed certification to complete this report.

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

Technical Support Document (TSD)  
for a Title V Transitioning to a  
Federally Enforceable State Operating Permit (FESOP)

<b>Source Description and Location</b>	
--	--

<b>Source Name:</b>	<b>ThyssenKrupp Crankshaft Company</b>
<b>Source Location:</b>	<b>1291 East 8<sup>th</sup> Street Veedersburg, Indiana 47987</b>
<b>County:</b>	<b>Fountain</b>
<b>SIC Code:</b>	<b>3462</b>
<b>Operation Permit No.:</b>	<b>F 045-27768-00013</b>
<b>Permit Reviewer:</b>	<b>Sandra Carr</b>

On April 14, 2009, the Office of Air Quality (OAQ) received an application from ThyssenKrupp Crankshaft Company requesting to transition from a Title V to a FESOP for their existing steel and iron forging operation.

<b>History</b>
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There have been several emission units removed from this source since the issuance of Part 70 Permit No. 045-17584-00013 on January 28, 2005.

- (a) In 2006, the Electric Discharge Machining unit, identified as EDM-1, with a maximum die process weight of 750 lbs/hr, was removed from this location.
- (b) Three (3) hand-held grinding steel forging dies, identified as GB1, GB2, and GB3, with a maximum die process weight of 750 lbs/hr, were removed in 2006.
- (c) One (1) open top degreaser using less than 145 gallons of solvent per year was replaced in 2006 with a closed top degreaser.

The following new emission units have been added at this source since the issuance of the Part 70 Permit No. 045-17584-00013 on January 28, 2005.

- (a) In 2006, two enclosed high speed machining units, identified as HSM1 & HSM2, each with capacity to machine 750 lb of metal per hour, were installed. These two units, HSM1 & HSM2, replaced the machining capacity of EDM-1 and GB1, GB2 & GB3. The two HSM units are enclosed and particulate emissions are negligible.
- (b) One (1) closed top degreaser, identified as DG1, constructed in 2002, using 0.28 gallon of non-HAP VOC solvent per day.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

The following terms and conditions from previous approvals have been removed from or revised in this FESOP:

- (a) While reviewing Appendix A of the previous permit, IDEM determined that emission factors (EF) which more accurately identified the process were available. This EF is from

AP-42, Fabricated Metal Products - Abrasive Blasting of Metal Parts with Sand (SCC 3-09-002-02). Emissions from abrasive blasting were recalculated using the new EF. Since the source has already elected to accept FESOP limits, the increase in potential emissions will not change the permitting level or the limits. The revised emission calculations are shown in Appendix A

- (b) Condition D.1.2 PSD Minor Limit, which limited PM and PM<sub>10</sub> emissions from the forging press (FP1) to less than 21.7 pound per hour pursuant 326 IAC 2-2, has been removed because it is no longer necessary due to changes in the composition of the lubricant. As a result of this action, Conditions D.1.3 through D.1.7 were renumbered as D.1.2 through D.1.6.

The manufacturer of the lubricant decreased the graphite content from 14% to 6% which resulted in a decrease of the maximum potential to emit to 28.37 ton/year for the forging press. This decreased PTE allows the source to comply with 326 IAC 2-2 without limiting emissions from the forging press (FP1).

- (c) Conditions 2.1 and 2.2 have been combined and the 326 IAC 2-2 (PSD) limit for PM<sub>10</sub> has been removed since it is no longer necessary because the source is now required to meet the more stringent source-wide PM<sub>10</sub> limit of 100 tons/yr under 326 IAC 2-8-4 (FESOP). These combined Conditions will be numbered as Condition D.2.1 and will contain only the PM limit. The addition of a new FESOP requirement for PM<sub>10</sub> has been numbered as Condition D.2.2 (see additions to the FESOP shown below).
- (e) Conditions 3.1 and 3.2 have been combined and the 326 IAC 2-2 (PSD) limit for PM<sub>10</sub> has been removed since it is no longer necessary because the source is now required to meet the more stringent source-wide PM<sub>10</sub> limit of 100 tons/yr under 326 IAC 2-8-4 (FESOP). These combined Conditions will be numbered as Condition D.3.1 and will contain only the PM limit. The addition of a new FESOP requirement for PM<sub>10</sub> has been numbered as Condition D.3.2 (see additions to the FESOP shown below).
- (g) In 2006, the open top degreaser was replaced with a closed top degreaser (DG1). As a result, the conditions pertaining to the open top degreaser in Conditions D.4.1 and D.4.2 have been moved to section D.5 and renumbered. The rules applicable to an open top degreaser were replaced with the rules for a closed top degreaser.

The following terms and conditions have been added in this FESOP:

- (a) A new Condition D.2.2 for Particulates under 326 IAC 2-8-4 has been added. This condition adds the requirement for PM<sub>10</sub> emission limitations from the shot blast machine (SC1), which is necessary for FESOP compliance.
- (b) A new Condition D.3.1 for Particulates under 326 IAC 2-8-4 has been added. This condition adds the requirement for PM<sub>10</sub> emissions from the die shop shot clean machine (SC2), which is necessary for FESOP compliance.

<b>Existing Approvals</b>
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The source has been operating under previous approvals including, but not limited to, the following:

- (a) Significant Permit Revision, No. 045-26513-00013, issued on February 11, 2009.
- (b) Significant Permit Revision, No. 045-24281-00013, issued on January 3, 2008.
- (c) Title V Renewal, No. 045-17584-00013, issued on January 28, 2005.

- (d) Reopen Title V, No. 045-13291-00013, issued on January 24, 2002.
- (e) Administrative Amendment, No. 045-10879-00013, issued on June 1, 1999.
- (f) Title V, No. 045-8115-00013, issued on January 19, 1999.

Due to this application, the source is transitioning from a Title V to a FESOP.

<b>County Attainment Status</b>
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The source is located in Fountain County.

Pollutant	Designation
SO <sub>2</sub>	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O <sub>3</sub>	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard. <sup>1</sup>
PM <sub>10</sub>	Unclassifiable effective November 15, 1990.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Not designated.

<sup>1</sup>Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM<sub>2.5</sub>.

*(Air Pollution Control Board; 326 IAC 1-4-24; filed Dec 26, 2007, 1:43 p.m.: 20080123-IR-326070308FRA)*

- (a) **Ozone Standards**  
 Volatile organic compound (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Fountain County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) **PM<sub>2.5</sub>**  
 Fountain County has been classified as attainment for PM<sub>2.5</sub>. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM<sub>2.5</sub> emissions, and the effective date of these rules was July 15<sup>th</sup>, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM<sub>10</sub> emissions as a surrogate for PM<sub>2.5</sub> emissions until 326 IAC 2-2 is revised.
- (c) **Other Criteria Pollutants**  
 Fountain County has been classified as attainment or unclassifiable in Indiana for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOC, and CO. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

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

<b>Background and Description of Permitted Emission Units</b>
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The Office of Air Quality (OAQ) has reviewed an application, submitted by ThyssenKrupp Crankshaft Company on April 14, 2009, relating to their request to transition from a Title V operating permit to a

## FESOP.

This existing stationary steel and iron forging operation consists of the following permitted emission units:

- (a) One (1) forging press, identified as FP1, constructed in 1995, using 108 lb of graphite lubricant per hour, having a maximum throughput of 24,000 lb of metal/hr, using a wet scrubber to control particulates, exhausting to stack S11.
- (b) One (1) shot blast machine, identified as SC1, constructed in 1995, using SAE S390 steel shot media, having a maximum throughput of 24,000 lb of metal/hr, using a baghouse for control, exhausting inside the building.
- (c) One (1) die shop shot clean machine, identified as SC2, constructed in 1995, using SAE S390 steel shot media, having a maximum throughput of 9,000 lb of metal/hr, using a baghouse for control, exhausting inside the building.
- (d) Degreasing operations that do not exceed 145 gallons of solvent per 12 month period and not subject to 326 IAC 20-6, consisting of:
  - (1) One (1) closed top degreaser, identified as DG1, constructed in 2002, using 0.28 gallon of non-HAP VOC solvent per day, operating at a temperature of 140 °F, with no controls, exhausting inside the building. [326 IAC 8-3-2 and 326 IAC 8-3-5]

Insignificant activities consisting of the following:

- (e) Welding operations consisting of:
  - (1) One (1) metal inert gas welder, identified as DW1, using type E308 wire, with a maximum hourly consumption of 0.30 pound of wire, with no controls, and exhausting inside the building. [326 IAC 6-3-2]
  - (2) One (1) stick welder, identified as DW1, using E308 electrodes, with a maximum use of six (6) electrodes per hour, with no controls, and exhausting inside the building. [326 IAC 6-3-2]
- (f) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
  - (1) Two (2) natural gas fired heaters, identified as FE17 and FE18, with a maximum heating capacity of 0.32 MMBtu/hr each, with no controls.
  - (2) Two (2) natural gas fired make-up air units, identified as MAU1 and MAU2, with a maximum rated capacity of 7.2 MMBtu/hr each, with no controls.
  - (3) Five (5) natural gas fired AC/heating units, identified as AC1 through AC5, with the maximum rated capacities of units AC2, AC4, and AC5 each being 0.120 MMBtu/hr, and the maximum rated capacities of AC1 and AC3 each being 0.135 MMBtu/hr, with no controls.
  - (4) One (1) natural gas fired air rotation unit, identified as ARU1, with a maximum heating capacity of 3.125 MMBtu/hr, with no controls.
  - (5) One (1) natural gas fired water heater, identified as WH1, with a maximum heating capacity of 0.251 MMBtu/hr, with no controls.
- (g) Machining operations consisting of the following units:

- (1) Two (2) enclosed high speed machining units, identified as HSM1 & HSM2, with a maximum capacity to process 750 lbs/hr, using 0.17 lb of coolant per hour, using no control, and exhausting inside the building. The two HSM units are enclosed and particulate emissions are negligible.

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

**Enforcement Issues**

There are no pending enforcement actions related to this source.

**Emission Calculations**

See Appendix A of this TSD for detailed emission calculations.

**Permit Level Determination – FESOP**

The following table reflects the limited potential to emit (PTE) of the entire source as specified in the Part 70 Operating Permit number 045-17584-00013, issued on January 28, 2005. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of the original Part 70 operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Pollutant	Potential To Emit (ton/year)
PM	418.93
PM <sub>10</sub> <sup>(1)</sup>	217.04
PM <sub>2.5</sub>	47.93
SO <sub>2</sub>	0.05
NO <sub>x</sub>	8.18
VOC	1.00
CO	6.87

(1) Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM<sub>10</sub>), not particulate matter (PM), is considered as a "regulated air pollutant".

HAP	Potential To Emit (ton/year)
Chromium	0.145
Formaldehyde	0.006
Hexane	0.147
Manganese	0.095
<b>TOTAL HAP</b>	<b>0.45</b>

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

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-7-1(29)) of PM<sub>10</sub> is greater than one hundred (100) ton per year. The source is subject to the provisions of 326 IAC 2-7. However, the source has agreed to limit their PM<sub>10</sub> emissions to less than Title V levels, therefore the source will be issued a FESOP.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants are less than 100 ton per year.

- (c) The potential to emit (PTE) (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) ton per year and the PTE of a combination of HAP is less than twenty-five (25) ton per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

**PTE of the Entire Source After Issuance of the FESOP**

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

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of FESOP (ton/year)								
	PM	PM <sub>10</sub> *	PM <sub>2.5</sub>	SO <sub>2</sub>	NOx	VOC	CO	Total HAP	Worst Single HAP
Forging Press (FP1)	2.54 <sup>(3, 4)</sup>	2.54 <sup>(3, 4)</sup>	2.54 <sup>(3, 4)</sup>	-	-	-	-	-	-
shot blast machine (SC1)	94.9 <sup>(1, 3)</sup>	75.0 <sup>(2)</sup>	13.67	-	-	-	-	-	-
die shop shot clean machine (SC2)	49.2 <sup>(3)</sup>	20.0 <sup>(2)</sup>	5.12	-	-	-	-	-	-
High Speed Machining (HSM1, HSM2)	-	-	-	-	-	0.21	-	-	-
Degreasing (DG1)	-	-	-	-	-	0.34	-	-	-
Welding	0.15	0.15	0.15	-	-	-	-	0.29	0.14 (Chromium)
Combustion	0.16	0.62	0.62	negl.	8.18	0.45	6.87	0.15	0.15 (Hexane)
<b>Total PTE of Entire Source</b>	<b>146.95</b>	<b>98.31</b>	<b>22.10</b>	<b>negl.</b>	<b>8.18</b>	<b>1.00</b>	<b>6.87</b>	<b>0.45</b>	<b>0.15 (Hexane)</b>
Title V Major Source Thresholds	NA	100	100	100	100	100	100	25	10
Emission Offset Thresholds	100	NA	100	NA	NA	100	NA	NA	NA
"-" = less than 0.1 ton per year. * Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM <sub>10</sub> ), not particulate matter (PM), is considered as a "regulated air pollutant". (1) = Avoidance limit pursuant to 326 IAC 2-2 (PSD). (2) = Limits pursuant to 326 IAC 2-8 (FESOP). (3) = Limits pursuant 326 IAC 6-3. (4) = For the forging press (FP1), PM = PM <sub>10</sub> .									

- (a) **PSD Minor Source**  
 This existing source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit PM is limited to less than 250 ton per year and the potential to emit all other attainment regulated pollutants are less than 250 ton per year, and this source is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1). Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

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

NOTE: The previous permit included a requirement (see Condition D.1.2 of permit #045-26513-00013) to limit PM and PM<sub>10</sub> emissions from the forging press FP1 to 21.7 lb/hr, each, pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)). This requirement has been removed. (See explanation in the "History" section above.)

- (1) Particulate matter (PM) emissions from the shot blast machine (SC1) shall not exceed

21.7 pound per hour.

- (2) The amount of PM emitted from the shot blast machine (SC1) shall not exceed ninety-four and nine-tenths (94.9) ton per twelve (12) consecutive month period, with compliance determined at the end of each month.

In order to comply with the requirements of 326 IAC 2-2, the baghouse shall be in operation to control emissions from the shot blast machine (SC1) at all times that SC1 is in operation.

Compliance with these limits, combined with the potential to emit PM from all other emission units at this source, shall limit the source-wide total potential to emit of PM to less than 250 ton per twelve (12) consecutive month period and shall render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

(b) FESOP Status

This existing source is not a Title V major stationary source, because the potential to emit criteria pollutants from the entire source will be limited to less than the Title V major source threshold levels. In addition, this existing source is not a major source of HAP, as defined in 40 CFR 63.41, because the potential to emit HAP is less than ten (10) ton per year for a single HAP and twenty-five (25) ton per year of total HAP. Therefore, this source is an area source under Section 112 of the Clean Air Act and is subject to the provisions of 326 IAC 2-8 (FESOP).

- (1) In order to comply with the requirements of 326 IAC 2-8-4 (FESOP) for PM<sub>10</sub>, the source shall comply with the following:

NOTE: In the previous permit, under Condition D.2.2, emission of PM<sub>10</sub> was limited to 21.7 lb/hr, under the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration). That limit is no longer necessary because PM<sub>10</sub> is subject to a more stringent limit under 326 IAC 2-8-4.

- (A) Particulate matter less than 10 microns in diameter (PM<sub>10</sub>) emissions from the shot blast machine (SC1) shall not exceed seventeen and one-tenths (17.1) pound of PM<sub>10</sub> per hour.
- (B) The amount of PM<sub>10</sub> emitted shall not exceed seventy-five (75) ton per twelve (12) consecutive month period, with compliance determined at the end of each month.

In order to comply with the requirements of 326 IAC 2-8-4, the baghouse shall be in operation to control emissions from the shot blast machine (SC1) at all times that SC1 is in operation.

NOTE: In the previous permit, under Condition D.3.2, emission of PM<sub>10</sub> was limited to 2.13 lb/hr, pursuant to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration). That number was a typographical error and the limit should have been 11.2 pound per hour. That limit is no longer necessary because PM<sub>10</sub> is subject to a more stringent limit under 326 IAC 2-8-4.

- (C) Particulate matter less than 10 microns in diameter (PM<sub>10</sub>) emissions from the die shop shot clean machine (SC2) shall not exceed four and six-tenths (4.6) pound of PM<sub>10</sub> per hour.
- (D) The amount of PM<sub>10</sub> emitted from the die shop shot clean machine (SC2) shall not exceed twenty (20) ton per twelve (12) consecutive month period, with compliance determined at the end of each month.

In order to comply with the requirements of 326 IAC 2-8-4, the baghouse shall be in operation to control emissions from the die shop shot clean machine (SC2) at all times that SC2 is in operation.

Compliance with these limits, combined with the potential to emit PM<sub>10</sub> from all other emission units at this source, shall limit the source-wide total potential to emit of PM<sub>10</sub> to less than 100 ton per twelve (12) consecutive month period, and shall render 326 IAC 2-7 (Part 70 Permits), 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 326 IAC 2-3 (Emission Offset) not applicable.

### Federal Rule Applicability Determination

#### New Source Performance Standards (NSPS)

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit.

#### National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (b) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial Process Cooling Towers, 40 CFR 63.400, Subpart Q, (326 IAC 20-4)), are not included in the permit, since this source does not use a cooling tower that uses chromium-based water treatment program.
- (c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Halogenated Solvent Cleaning, 40 CFR 63.460, Subpart T, (326 IAC 20-6), for open top degreasing operations are not included in the permit, since this source does not use methylene chloride (CAS No. 75-09-2), perchloroethylene (CAS No. 127-18-4), trichloroethylene (CAS No. 79-01-6), 1,1,1-trichloroethane (CAS No. 71-55-6), carbon tetrachloride (CAS No. 56-23-5) or chloroform (CAS No. 67-66-3), or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent.
- (d) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Iron and Steel Foundries Area Sources, 40 CFR 63.10880, Subpart ZZZZZ, are not included in this permit because this source does not melt scrap, ingot, and/or other forms of iron and/or steel and pour the resulting molten metal into molds to produce final or near final shape products for introduction into commerce. Therefore, ThyssenKrupp Crankshaft Company doesn't meet the definition of an *iron and steel foundry* under 40 CFR 63.10906.
- (e) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Area Source Standards for Nine Metal Fabrication and Finishing Source Categories, 40 CFR 63.11514, Subpart XXXXXX, are not included in the permit, since, although this is an area source which is primarily engaged in the type of operations in one of the nine source categories (Iron and Steel Forging), this source does not use materials which contain or have the potential to emit metal HAP.
- (f) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

#### Compliance Assurance Monitoring (CAM)

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

<b>State Rule Applicability Determination</b>
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The following state rules are applicable to the source:

- (a) 326 IAC 2-8-4 (FESOP)  
FESOP applicability is discussed under the "PTE of the Entire Source after Issuance of the FESOP" section above.
- (b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))  
PSD applicability is discussed under the "PTE of the Entire Source after Issuance of the FESOP" section above.
- (c) 326 IAC 2-3 (Emission Offset)  
Emission Offset applicability is discussed under the "PTE of the Entire Source after Issuance of the FESOP" section above.
- (d) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))  
This source is not subject to the requirements of 326 IAC 2-4.1, since the unlimited potential to emit of HAP is less than ten (10) ton per year for any single HAP and less than twenty-five (25) ton per year of a combination of HAP.
- (e) 326 IAC 2-6 (Emission Reporting)  
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than five (5) ton per year. Therefore, 326 IAC 2-6 does not apply.
- (f) 326 IAC 5-1 (Opacity Limitations)  
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
  - (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (g) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)  
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.

Forging

- (h) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)  
Pursuant to 326 IAC 6-3-2, the particulate matter (PM) emissions from the lubricant used in the Forging Press (FP1) shall not exceed 0.58 pound per hour when operating at a process weight rate of 108 pound of lubricant per hour.

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

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pound per hour and  
P = process weight rate in ton per hour

Compliance determination:

The forging press (FP1) has the maximum potential to use 472.9 ton of graphite lubricant per year. The lubricant is 6% graphite by weight. Assuming all of the graphite is emitted as particulate: (472.9 ton/yr x 6% graphite), the forging press (FP1) has a maximum potential to emit (PTE) 28.37 ton per year

Pound per hour Emission Rate = (Maximum PTE (ton/yr) x 2000 (lb/ton))/ 8760 (hours/year)

Emission Rate (lb/hr) = (28.37 x 2000)/8760 = 6.48 lb/hr

6.48 > 0.60

Based on calculations, the wet scrubber is needed to comply with the requirements of 326 IAC 6-3-2.

### Abrasive blasting

- (i) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)  
Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from these operations shall not exceed the pound per hour limit when operating at the specified process weight rate.

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

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

- (1) PM emissions from the shot blast machine SC1 shall not exceed 21.7 pound per hour when operating at a process weight rate of 24,000 pound per hour.

In order to comply with the requirements of 326 IAC 6-3-2, the baghouse shall be in operation to control emissions at all times the shot blast machine (SC1) is in operation.

- (2) PM emissions from the die shop shot clean machine SC2 shall not exceed 11.2 pound per hour when operating at a process weight rate of 9,000 pound per hour.

NOTE: This is an increase from the previous limit of 2.13 pound PM per hour.

In order to comply with the requirements of 326 IAC 6-3-2, the baghouse shall be in operation to control emissions from the die shop shot clean machine (SC2) at all times that SC2 is in operation.

### Welding

- (j) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)  
Pursuant to 326 IAC 6-3-1(b)(9), welding activities that consume less than 625 pound of rod or wire per day are exempt from the requirements of 326 IAC 6-3-2. Therefore, as long as the welding activities at this source consume less than 625 pound of rod or wire per day, these welding activities are exempt from the requirements of 326 IAC 6-3-2.

Degreasing operations

- (k) 326 IAC 8-3-2 (Cold Cleaner Operation)  
Pursuant to 326 IAC 8-3-2, the owner or operator of the closed top degreaser (DG1), shall:
- (1) Equip the cleaner with a cover;
  - (2) Equip the cleaner with a facility for draining cleaned parts;
  - (3) Close the degreaser cover whenever parts are not being handled in the cleaner;
  - (4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
  - (5) Provide a permanent, conspicuous label summarizing the operation requirements;
  - (6) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.
- (l) Pursuant 326 IAC 8-3-5(a), the owner or operator shall ensure that the following control equipment requirements are met for the closed top degreaser (DG1):
- (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 326 IAC 8-3-5(b).
  - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
  - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
    - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

- (B) A water cover when solvent is used is insoluble in, and heavier than, water.
- (C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

Pursuant 326 IAC 8-3-5(b), the owner or operator shall ensure that the following operating requirements are met for the closed top degreaser (DG1):

- (1) Close the cover whenever articles are not being handled in the degreaser.
  - (2) Drain cleaned articles for at least fifteen (15) seconds or unit 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.
- (m) There are no other 326 IAC 8 Rules that are applicable to the source.

<b>Compliance Determination, Monitoring and Testing Requirements</b>
--

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

EU ID	Control	Parameter	Frequency	Range	Excursions and Exceedances
FP1	wet scrubber	Water Pressure Drop	Daily	2.0 - 7.0 inches	Response Steps
		Water flow rate		2 - 5 gal/min	
FP1	wet scrubber	Opacity	Daily	Normal/Abnormal	Response Steps
SC1	baghouse	Water Pressure Drop	Daily	2.0 - 7.0 inches	Response Steps
SC2	baghouse	Water Pressure Drop	Daily	2.0 - 7.0 inches	Response Steps

- (b) There are no testing requirements applicable to this source because
- (1) The only emission unit exhausting outside is the forging press (FP1), which uses a wet scrubber for particulate control. The Permittee is required to monitor visible emissions and two scrubber operation parameters. Since emissions from the forging press represent less than 8% of the total potential emissions from this source, these monitoring requirements should be sufficient to ensure compliance with the particulate matter emission limitations specified in this Permit.
  - (2) All baghouses at this source, controlling emissions from the shot blast machine (SC1), and the die shop shot clean machine (SC2), exhaust inside the building. The Permittee is required to monitor the water pressure drop and bag failure requirements have been added that are consistent with current compliance monitoring requirements for FESOP sources. If one of the baghouses malfunctions, the employees working around the unit will notice a decrease in the air quality and will take response steps to repair the malfunction. IDEM has

determined that these requirements should be sufficient to ensure compliance with the particulate matter emission limitations specified in this Permit.

### Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on April 14, 2009.

The operation of this source shall be subject to the conditions of the attached proposed FESOP No. 045-27768-00013. The staff recommends to the Commissioner that this transition from a Title V to a FESOP be approved.

### IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Sandra Carr at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5372 or toll free at 1-800-451-6027 extension 45372.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.idem.in.gov](http://www.idem.in.gov)

**Appendix A: Emission Calculations  
Summary**

**Company Name: ThyssenKrupp Crankshaft Company**  
**Address: 1291 East 8th Street, Veedersburg, Indiana 47987**  
**Permit No.: F045-27768-00013**  
**Reviewer: Sandra Carr**  
**Application Date: April 14, 2009**

**Unlimited PTE**

Emission Unit ID	Potential To Emit (tons/yr)								Highest Individual HAP
	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Total HAP	
Forging Press FP1	28.37	28.37	28.37	-	-	-	-	-	-
Abrasive Blasting SC1	283.82	136.66	13.67	-	-	-	-	-	-
Abrasive Blasting SC2	106.43	51.25	5.12	-	-	-	-	-	-
Machining HSM1, HSM2	-	-	-	-	-	0.21	-	-	-
Degreaser (DG1)	-	-	-	-	-	0.34	-	-	-
Welding	0.15	0.15	0.15	-	-	-	-	0.29	0.14 (Chromium)
Combustion	0.16	0.62	0.62	0.05	8.18	0.45	6.87	0.15	0.15 (Hexane)
<b>Totals</b>	<b>418.93</b>	<b>217.04</b>	<b>47.93</b>	<b>0.05</b>	<b>8.18</b>	<b>1.00</b>	<b>6.87</b>	<b>0.45</b>	<b>0.15 (Hexane)</b>

**Limited PTE**

Emission Unit ID	Potential To Emit (tons/yr)								Highest Individual HAP
	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Total HAP	
Forging Press FP1	2.54	2.54	2.54	-	-	-	-	-	-
Abrasive Blasting SC1	94.9	75.00	13.67	-	-	-	-	-	-
Abrasive Blasting SC2	49.2	20.00	5.12	-	-	-	-	-	-
Machining HSM1, HSM2	-	-	-	-	-	0.21	-	-	-
Degreaser (DG1)	-	-	-	-	-	0.34	-	-	-
Welding	0.15	0.15	0.15	-	-	-	-	0.29	0.14 (Chromium)
Combustion	0.16	0.62	0.62	0.05	8.18	0.45	6.87	0.15	0.15 (Hexane)
<b>Totals</b>	<b>146.95</b>	<b>98.31</b>	<b>22.10</b>	<b>0.05</b>	<b>8.18</b>	<b>1.00</b>	<b>6.87</b>	<b>0.45</b>	<b>0.15 (Hexane)</b>

"-" = less than or equal to 0.10 ton/yr

**Appendix A: Emission Calculations  
PM and PM<sub>10</sub> Emissions from the Forging Press**

**Company Name:** ThyssenKrupp Crankshaft Company  
**Address:** 1291 East 8th Street, Veedersburg, Indiana 47987  
**Permit No.:** F045-27768-00013  
**Reviewer:** Sandra Carr  
**Application Date:** April 14, 2009

**Data:**

- (a) Source reports a maximum of 472.9 tons of graphite die lubricant are consumed on a yearly basis.
- (b) According to MSDS, Graphite Die Lubricant is 6 % graphite by weight.
- (c) Scrubber control efficiency is 97%, as per manufacturer's specifications.
- (d) Process throughput of Forging Press is 24,000 lb of metal/hr, however, no metal is emitted due to operations performed by the forging press.
- (e) Maximum Processing capacity = 210,240,000 lbs/year.
- (f) Limited Processing Capacity = 176,750,000 lbs/year.

**Assumptions:**

- (a) Assume that all graphite becomes airborne particulate and is vented to the scrubber.
- (b) Assume all PM = PM<sub>10</sub> (PM includes filterable and condensable PM).

**Potential to Emit of PM and PM<sub>10</sub>:**

472.9 tons/yr Graphite Lube x 6% (weight percent graphite) =	<b>28.37</b>	tons/yr before controls
=	6.48	lb/hr before controls
28.37 tons/yr graphite emissions x (1 - 97% control efficiency) =	<b>0.85</b>	tons/yr after controls
0.85 tons/yr after controls * 2000 (lb/ton) / 8760 (hrs/yr) =	0.19	lbs/hr after controls

**Compliance with 326 IAC 6-3-2:**

Maximum lubricant usage = 9,000 gal/month = 39.4 ton/month = 472.9 ton/yr = 108 lb/hr  
 Process Rate of Forging Press = 24,000 lb of metal/hr  
 P = Process Weight Rate = (108 lb/hr x 1 ton/2000 lb) = 0.05 ton/hr

$$E = 4.10 P^{0.67} \quad \text{Where: } E = \text{Rate of emission in pounds per hour; and} \\ P = \text{Process weight rate in tons per hour.}$$

$$E = 4.10 \times [(0.05)^{0.67}] = \quad \mathbf{0.58} \quad \text{lb/hr allowable emissions or} \quad \mathbf{2.54} \quad \text{tons/yr}$$

Allowable emissions from the lubricant used in the Forging Press are 0.58 pounds per hour and the maximum calculated potential emissions from the Forging Press are 6.48 pounds per hour. The Forging Press will require a control device to comply with 326 IAC 6-3-2.

**Appendix A: Emission Calculations  
VOC Emissions**

**Company Name: ThyssenKrupp Crankshaft Company**  
**Address: 1291 East 8th Street, Veedersburg, Indiana 47987**  
**Permit No.: F045-27768-00013**  
**Reviewer: Sandra Carr**  
**Application Date: April 14, 2009**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/hr)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	Ib VOC /gal solids	Transfer Efficiency
<b>Coolant</b>																
TRIM Microsol 685	8.35	53.04%	24.94%	28.10%	2.08%	48.90%	0.021	1	2.10	2.35	0.05	1.16	0.21	0.21	4.80	40%
<b>Solvent</b>																
Crystal Clean Premium 142*	6.58	100.00%	0.00%	100.00%	0.00%	0.00%	0.012	1	6.58	6.58	0.08	1.84	0.34	0.00	0.00	99%
<b>TOTALS =</b>																

PM Control Efficiency: 97.00%      **VOC (tpy)**      **PM (tpy)**

NOTES: Source reports maximum coolant usage for high speed machining is 15 gal/month.  
Source reports the maximum solvent usage by the degreaser is 8.5 gal/month.

<b>Uncontrolled</b>	0.12	3.00	<b>0.55</b>	<b>0.21</b>
<b>Controlled</b>	0.12	3.00	<b>0.55</b>	<b>0.01</b>

**METHODOLOGY**

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

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

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

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \*(1 ton/2000 lbs)

**Appendix A: Emission Calculations  
Particulate Emissions from Abrasive Blasting**

**Company Name: ThyssenKrupp Crankshaft Company  
Address: 1291 East 8th Street, Veedersburg, Indiana 47987  
Permit No.: F045-27768-00013  
Reviewer: Sandra Carr  
Application Date: April 14, 2009**

**Emissions Calculations:**

Potential To Emit of PM and PM <sub>10</sub> from Shot Blast Machine SC1															
Process Rate (lbs/hr)	Pollutant	* Emission Factor (lb/ton) x 0.10 steel/sand ratio	Control Efficiency (%)	PTE Before Controls (tons/yr)			PTE After Limits (tons/yr)			PTE After Controls (tons/yr)			PTE After Controls (lbs/hr)		
				PM	PM <sub>10</sub>	PM <sub>2.5</sub>	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	PM	PM <sub>10</sub>	PM <sub>2.5</sub>
24,000	PM	54.00	99%	283.8			94.9			0.95			0.22		
24,000	PM <sub>10</sub>	26.00			136.66			75.0			0.75			0.17	
24,000	PM <sub>2.5</sub>	2.60				13.67			13.67			0.14			0.03

\*Emission factors for the abrasive blasting (SC1) are from AP 42, Section 13.2.6 - Fabricated Metal Products-Abrasive Blasting of Metal Parts with Sand (SCC 3-09-002-02). This source uses steel shot. A ratio can be taken of the emission factor for steel shot to the emission factor for sand (0.04/0.41)=0.10

Shot Blast Machine SC1 operates at a maximum process weight of 24,000 lbs/hr.

NOTE: All emissions from SC1 are vented inside the building.

Potential To Emit PM and PM <sub>10</sub> from the Shot Clean Machine SC2															
Process Rate (lbs/hr)	Pollutant	* Emission Factor (lb/ton) x 0.10 steel/sand ratio	Control Efficiency (%)	PTE Before Controls (tons/yr)			PTE After Limits (tons/yr)			PTE After Controls (tons/yr)			PTE After Controls (lbs/hr)		
				PM	PM <sub>10</sub>	PM <sub>2.5</sub>	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	PM	PM <sub>10</sub>	PM <sub>2.5</sub>
9000	PM	54.00	99%	106.4			49.2			1.06			0.24		
9000	PM <sub>10</sub>	26.00			51.25			20.0			0.20			0.05	
9000	PM <sub>2.5</sub>	2.60				5.12			5.12			0.05			0.012

\*Emission factors for the abrasive blasting (SC1) are from AP 42, Section 13.2.6 - Fabricated Metal Products-Abrasive Blasting of Metal Parts with Sand (SCC 3-09-002-02). This source uses steel shot. A ratio can be taken of the emission factor for steel shot to the emission factor for sand (0.04/0.41)=0.10

Shot Clean Machine SC2 operates at a maximum process weight of 9,000 lbs/hr.

NOTE: All emissions from SC2 are vented inside the building.

**Methodology**

PTE for PM/PM<sub>10</sub> Before Control (tons/yr) = Process Rate (lbs/hr) x 1/2000 (ton/lbs) x Emission Factor (lbPM/ton) x 8760 (hr/yr) x 1/2000 (ton/lb)

PTE for PM/PM<sub>10</sub> After Production Limit (tons/yr) = (Production Limit (lbs/yr)/2000 lb/ton) x Emission Factor (lb/ton)/2000 (lb/ton)

PTE for PM/PM<sub>10</sub> After Control (tons/yr) = PTE Before Controls (tons/yr) x (1-control efficiency)

**Compliance with 326 IAC 6-3-2:**

$E = 4.10 P^{0.67}$       Where:      E = Rate of emission in pounds per hour; and  
P = Process weight in tons per hour.

Shot Blast Machine SC1  $E = 4.10 \times [(24,000/2,000)^{0.67}] = 21.7$  lb/hr allowable emissions = **94.9** ton/yr allowable emissions

Shot Clean Machine SC2  $E = 4.10 \times [(9,000/2,000)^{0.67}] = 11.2$  lb/hr allowable emissions = **49.2** ton/yr allowable emissions

Allowable emissions from the Shot Blast Machine SC1 are 21.7 pounds per hour and the controlled potential emissions from the Shot Blast Machine SC1 are 6.48 pounds per hour. By using a control device, the Shot Blast Machine SC1 is able to comply with 326 IAC 6-3-2. Therefore, a baghouse for particulate control shall be operated at all times the Shot Blast Machine SC1 operates.

Allowable emissions from the Shot Clean Machine SC2 are 11.2 pounds per hour and the controlled potential emissions from the Shot Clean Machine SC2 are 2.43 pounds per hour. By using a control device, the Shot Clean Machine SC2 is able to comply with 326 IAC 6-3-2. Therefore, a baghouse for particulate control shall be operated at all times the Shot Clean Machine SC2 operates.

**Appendix A: Emissions Calculations  
Welding Emissions**

**Company Name: ThyssenKrupp Crankshaft Company**  
**Address: 1291 East 8th Street, Veedersburg, Indiana 47987**  
**Permit No.: F045-27768-00013**  
**Reviewer: Sandra Carr**  
**Application Date: April 14, 2009**

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAP (lbs/hr)	
			PM = PM <sub>10</sub>	Mn	Ni	Cr	PM = PM <sub>10</sub>	Mn	Ni	Cr		
WELDING												
Metal Inert Gas (MIG)(E308)	1	0.3	0.0054	0.00346	0.00184	0.00524	0.002	0.001	0.001	0.002	0.003	
Stick (E308 electrode)	1	6.0	0.0054	0.00346	0.00184	0.00524	0.032	0.021	0.011	0.031	0.063	
<b>EMISSION TOTALS</b>												
							Potential Emissions lbs/hr =					0.07
							Potential Emissions lbs/day =					1.59
							Potential Emissions tons/year =					<b>0.29</b>

\*Emission Factors are values for E308 from AP-42, Table 12.19-1, for SCC code 3-03-09-052-12.

NOTE: All emissions from the welding operations are vented inside the building.

**Highest Single HAP (Chromium) = 0.14**

**METHODOLOGY**

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

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

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

Pursuant to 326 IAC 6-3-1(b)(9), welding activities that consume less than 625 pounds of rod or wire per day are exempt from the requirements of 326 IAC 6-3-2. Therefore, since the welding activities at this source consume less than 175 pounds of rod or wire per day, the welding activities are exempt from the requirements of 326 IAC 6-3-2.

**Appendix A: Emissions Calculations  
Natural Gas Combustion Only  
MM BTU/HR <100**

**Company Name: ThyssenKrupp Crankshaft Company**  
**Address: 1291 East 8th Street, Veedersburg, Indiana 47987**  
**Permit No.: F045-27768-00013**  
**Reviewer: Sandra Carr**  
**Application Date: April 14, 2009**

Description	Emission Unit ID	Heat Input Capacity	Max. Potential Throughput
Two (2) Space Heaters	FE17, FE18	0.64	5.50
Two (2) Makeup Air Units	MAU-1, MAU-2	14.4	124
Two (2) AC/Heaters	AC-1, AC-3	0.27	2.32
Three (3) AC/Heaters	AC-2, AC-4, AC-5	0.36	3.09
One (1) Air Rotation Unit	ARU-1	3.13	26.8
One (1) Water Heater	WH-1	0.25	2.16

Heat Input Capacity

MMBtu/hr

19.0

Potential Throughput

MMCF/yr

163.6

Emission Factor in lb/MMCF	PTE Pollutant (ton/yr)						
	PM*	PM <sub>10</sub> *	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
	1.9	7.6	7.6	0.6	100	5.5	84
					**see below		
FE17, FE18	0.01	0.02	0.02	0.002	0.27	0.02	0.23
MAU-1, MAU-2	0.12	0.47	0.47	0.04	6.18	0.34	5.20
AC-1, AC-3	0.002	0.01	0.01	0.001	0.12	0.01	0.10
AC-2, AC-4, AC-5	0.003	0.012	0.012	0.001	0.155	0.009	0.13
ARU-1	0.03	0.10	0.10	0.01	1.34	0.07	1.13
WH-1	0.002	0.008	0.008	0.001	0.108	0.006	0.09
<b>Totals =</b>	<b>0.16</b>	<b>0.62</b>	<b>0.62</b>	<b>0.05</b>	<b>8.18</b>	<b>0.45</b>	<b>6.87</b>

\*PM emission factor is filterable PM only. PM<sub>10</sub> emission factor is filterable and condensable PM<sub>10</sub> combined.

\*\*Emission Factors for NO<sub>x</sub>: Uncontrolled = 100, Low NO<sub>x</sub> Burner = 50, Low NO<sub>x</sub> Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

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

See page 2 for HAP emissions calculations.

**Appendix A: Emissions Calculations  
 Natural Gas Combustion Only  
 MM BTU/HR <100  
 HAP Emissions**

**Company Name: ThyssenKrupp Crankshaft Company**  
**Address: 1291 East 8th Street, Veedersburg, Indiana 47987**  
**Permit No.: F045-27768-00013**  
**Reviewer: Sandra Carr**  
**Application Date: April 14, 2009**

<b>HAP - Organics</b>					
Emission Factor in lb/MMCF Potential Emission in ton/yr	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
	<b>1.718E-04</b>	<b>9.816E-05</b>	<b>0.006</b>	<b>0.147</b>	<b>2.781E-04</b>

<b>HAP - Metals</b>					
Emission Factor in lb/MMCF Potential Emission in ton/yr	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
	<b>4.090E-05</b>	<b>8.998E-05</b>	<b>1.145E-04</b>	<b>3.108E-05</b>	<b>1.718E-04</b>

Methodology is the same as page 1.  
 The five highest organic and metal HAP emission factors are provided above.  
 Additional HAP emission factors are available in AP-42, Chapter 1.4.

**Total HAP = 0.154**  
**Highest Individual HAP = 0.147 (Hexane)**



# 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: Mark Hennis  
ThyssenKrupp Crankshaft Co.  
1291 E. 8th St.  
Veedersburg IN 47987

DATE: Oct. 19, 2009

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

SUBJECT: Final Decision  
FESOP  
045-27768-00013

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:  
Axel Mueller Div. Mgr. ThyssenKrupp Crankshaft Co.  
Mack Overton Astbury Environmental Engineering  
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



# 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)

Oct. 19, 2009

TO: Veedersburg Public Library

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

Subject: **Important Information for Display Regarding a Final Determination**

**Applicant Name: ThyssenKrupp Crankshaft Co.**  
**Permit Number: 045-27768-00013**

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures  
Final Library.dot 11/30/07

# Mail Code 61-53

IDEM Staff	BMILLER 10/19/2009 ThyssenKrupp Crankshaft Company 045-27768-00013 (final)		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	 Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail:  <b>CERTIFICATE OF MAILING ONLY</b>	

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		Mark Hennis ThyssenKrupp Crankshaft Company 1291 E 8th St Veedersburg IN 47987 (Source CAATS) <i>Via Confirmed Delivery</i>									
2		Axel Mueller Div Mgr ThyssenKrupp Crankshaft Company 1000 Lynch Spur Rd Danville IL 61834 (RO CAATS)									
3		Fountain-Warren County Health Department 210 S. Perry St Attica IN 47918-1352 (Health Department)									
4		Fountain County Commissioners 301 Fourth Street Covington IN 47932 (Local Official)									
5		Veedersburg Public Library 408 North Main Street Veedersburg IN 47987 (Library)									
6		Sanctuary Homeowners 3511 Pintail Drive Lafayette IN 47905 (Affected Party)									
7		Mr. Mack Overton Astbury Environmental Engineering 5645 W. 79th Street Indianapolis IN 46278 (Consultant)									
8		Mr. Robert Kelley 2555 S 30th Street Lafayette IN 44909 (Affected Party)									
9		Veedersbrug Town Council 100 S. Main St. Veedersburg IN 47987 (Local Official)									
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