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

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

*Thomas W. Easterly*
**Commissioner**

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

TO: Interested Parties / Applicant

DATE: September 19, 2008

RE: Nucor Fastener / 033-25880-00038

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 13-17-3-4 and 326 IAC 2, this approval is effective immediately, unless a petition for stay of effectiveness is filed and granted, 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 4-21.5-3-7 and IC 13-15-7-3 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 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-MOD.dot 12/3/07

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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September 19, 2008

Mr. John Harden
Environmental Manager
Nucor Fastener
6730 County Road 60
St. Joe, IN 46785

Re: 033-25880-00038
Minor Source Modification to
Part 70 No.: T 033-20219-00038

Dear Mr. Harden:

Nucor Fastener was issued a Part 70 Operating Permit on October 12, 2007 for a stationary nut and bolt manufacturing operation. A letter requesting changes to this permit was received on January 9, 2008. Pursuant to 326 IAC 2-7-10.5, the following emission units are approved for construction at the source:

(a) One (1) bolt-forming machine, identified as Machine #10, approved for construction in 2008, with emissions controlled by the existing wet Venturi scrubber system, with a maximum processing capacity of 4.38 tons per hour, and a maximum cooling oil usage of 12,575 pounds per year;

(b) One (1) parts waxing line, approved for construction in 2008, for the application of a light coating of wax to product for rust prevention, with a maximum usage of 2,250 gallons of wax per year, and emissions uncontrolled; and

(c) One (1) phosphate and oil line for processing carbon steel fasteners, approved for construction in 2008, with annual throughput of 8,136 gallons of chemicals and 396,000 gallons of water, consisting of the following:

(1) One (1) Degreaser tank, with a storage capacity of 250 gallons;

(2) Seven (7) Rinse Water tanks, each with a storage capacity of 250 gallons;

(3) One (1) De-phosphate tank, with a storage capacity of 350 gallons;

(4) One (1) Sulfuric Acid tank, with a storage capacity of 600 gallons;

(5) One (1) Activator tank, with a storage capacity of 250 gallons;

(6) Two (2) Zinc Phosphate tanks, one with a storage capacity of 600 gallons and one with a storage capacity of 250 gallons;

(7) One (1) Neutralizer tank, with a storage capacity of 250 gallons;

(8) One (1) Dry Oil tank, with a storage capacity of 250 gallons; and

(9) One (1) Wet Oil tank, with a storage capacity of 250 gallons.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13 17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

The source may begin construction and operation when the minor source modification has been issued. Operating conditions shall be incorporated into the Part 70 operating permit as a minor permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12.

For your convenience, the entire Part 70 Operating Permit as modified will be provided at issuance.

This decision is subject to the Indiana Administrative Orders and Procedures Act – IC 4-21.5-3-5. If you have any questions on this matter, please contact Laura Spriggs, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251, or call at (800) 451-6027, and ask for Laura Spriggs or extension (3-5693), or dial (317) 233-5693.

Sincerely,

*Original document signed by*

Donald F. Robin, P.E., Section Chief
Permits Branch
Office of Air Quality

Attachments
DFR/lss

cc: File – DeKalb County
Dekalb County Health Department
U.S. EPA, Region V
Northern Regional Office
Air Compliance Inspector
Compliance Data Section
Permits Administration and Support
Mr. Tom Miller
Nucor Fastener
6730 County Road 60
St. Joe, IN 46785

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# Part 70 Minor Source Modification
# OFFICE OF AIR QUALITY

## Nucor Fastener
## 6730 County Road 60
## St. Joe, Indiana 46785

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

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

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

| Minor Source Modification No.: 033-25880-00038 | |
|---|---|
| Issued by:<br><br>*Original document signed by*<br><br>Donald F. Robin, P.E., Section Chief<br>Permits Branch<br>Office of Air Quality | Issuance Date: September 19, 2008 |

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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, A.3, and A.4 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

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

The Permittee owns and operates a stationary nut and bolt manufacturing operation.

| | |
|---|---|
| Source Address: | 6730 County Road 60, St. Joe, Indiana 46785 |
| Mailing Address: | P.O. Box 6100, St. Joe, Indiana 46785 |
| General Source Phone Number: | (219) 337-1600 |
| SIC Code: | 3452 |
| County Location: | DeKalb |
| Source Location Status: | Attainment for all criteria pollutants |
| Source Status: | Part 70 Operating Permit Program<br>Minor Source, under PSD<br>Minor Source, Section 112 of the Clean Air Act |

### A.2 Part 70 Source Definition [326 IAC 2-7-1(22)]

This source consists of two (2) plants:

(a) Nucor Fastener is located at 6730 County Road 60, St. Joe, Indiana 46785; and

(b) NUCOR Vulcraft Group – St. Joe Division is located at 6610 County Road 60, St. Joe, Indiana 46785.

IDEM has determined that Nucor Fastener and NUCOR Vulcraft Group – St. Joe Division are under the common control of Nucor Corporation. These two plants are considered one source because they are located on adjacent properties, are under common ownership, and belong to the same industrial grouping. Therefore, the term “source” in the Part 70 documents refers to both Nucor Fastener and NUCOR Vulcraft Group – St. Joe Division as one major source, effective from the date of issuance of this Part 70 permit.

Separate Part 70 permits will be issued to Nucor Fastener with Permit No.: T033-20219-00038 and NUCOR Vulcraft Group – St. Joe Division with Permit No.: T033-15749-00027 (issued on July 22, 2003) solely for administrative purposes.

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

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

The source consists of the following permitted emission units and pollution control devices:

(a) One (1) natural gas-fired boiler, constructed in 1994, using liquid propane gas as a backup fuel, with a maximum heat input capacity of 9.807 million British thermal units per hour (mmBtu/hr);

(b) One (1) natural gas-fired belt heat treat furnace, including one (1) hardening furnace and one (1) draw furnace, with a total maximum heat input capacity of 18.35 mmBtu/hr;

(c) One (1) sulfuric acid pickling facility, exhausting to stack EP63, with an acid recovery system, with a maximum capacity of 32.4 tons of steel per hour;

(d) Twenty-two (22) bolt-making machines, with a total maximum capacity of 43.2 tons of steel per hour, using a total of 124,000 pounds of coolant and oil lubricant per year, with emissions from bolt-making machines controlled by three (3) wet Venturi scrubbers, including:

(1) Five (5) bolt-making machines, identified as Machines #1, #7, #10, #11, and #25; and

(2) Seventeen (17) bolt-making machines, which are Insignificant Activities pursuant to 326 IAC 2-7-1(21), identified as Machines #2-#4, #8, #9, #12-#17, #19, #21-#24, and #30;

(e) One (1) nut-forming machine, including coolant usage, with a total maximum capacity of 1.27 tons of steel per hour;

(f) One (1) tumble blaster, exhausting to a baghouse, with a maximum capacity of 1.27 tons of steel per hour;

(g) Seven (7) bolt formers, with a total capacity of 9.5 tons of steel per hour, using a total maximum of 37,500 gallons of lubricant and cooling oil per year, and each equipped with an oil mist collection system, including:

(1) Six (6) bolt formers, identified as Machines #5, #6, #20, and #26-#28; and

(2) One (1) bolt former, which is an Insignificant Activity pursuant to 326 IAC 2-7-1(21), identified as Machine #29; and

(h) One (1) natural gas-fired boiler, identified as EP54, constructed May 26, 2000, using liquid propane gas as a backup fuel, with a maximum heat input capacity of 8.37 mmBtu/hr.

A.4 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired space heaters, with a total maximum capacity of 8.3 mmBtu/hr;

(b) Natural gas-fired air makeup units, with a total maximum capacity of 56.2 mmBtu/hr;

(c) Three (3) natural gas-fired annealing furnaces, each with a maximum heat input capacity of 5.94 mmBtu/hr, and each processing 113,400 pounds of metal per batch;

(d) One (1) natural gas-fired heat treat furnace, including one (1) belt furnace, one (1) hardening furnace, and one (1) draw furnace, with a total maximum heat input capacity of 7.70 mmBtu/hr;

(e) Two (2) natural gas-fired heat treat furnaces, including two (2) belt furnaces, two (2) hardening furnaces, and two (2) draw furnaces, with a total maximum heat input capacity of 18.1 mmBtu/hr;

(f) One (1) wash line, using a maximum of 1,733 gallons of rust preventative per year.

(g) One (1) parts waxing line, approved for construction in 2008, for the application of a light coating of wax to product for rust prevention, with a maximum usage of 2,250 gallons of wax per year, and emissions uncontrolled; and

(h) One (1) phosphate and oil line for processing carbon steel fasteners, approved for construction in 2008, with an annual throughput of 8,136 gallons of chemicals and 396,000 gallons of water, consisting of the following:

(1) One (1) Degreaser tank, with a storage capacity of 250 gallons;

(2) Seven (7) Rinse Water tanks, each with a storage capacity of 250 gallons;

(3) One (1) De-phosphate tank, with a storage capacity of 350 gallons;

(4) One (1) Sulfuric Acid tank, with a storage capacity of 600 gallons;

(5) One (1) Activator tank, with a storage capacity of 250 gallons;

(6) Two (2) Zinc Phosphate tanks, one with a storage capacity of 600 gallons and one with a storage capacity of 250 gallons;

(7) One (1) Neutralizer tank, with a storage capacity of 250 gallons;

(8) One (1) Dry Oil tank, with a storage capacity of 250 gallons; and

(9) One (1) Wet Oil tank, with a storage capacity of 250 gallons.

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

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

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

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

## SECTION B GENERAL CONDITIONS

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

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

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

(a) This permit, 033-20219-00038, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

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

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

### B.4 Enforceability [326 IAC 2-7-7]

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

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

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

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

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

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

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

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

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

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by the "responsible official" 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) the "responsible official" is defined at 326 IAC 2-7-1(34).

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

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent 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 Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

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

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

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

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

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

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

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

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

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

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

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

The PMP extension notification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-7-16.

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

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

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

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

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

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

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

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

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

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

(A) A description of the emergency;

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

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

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

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.

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

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

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

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

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

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

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

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

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

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

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

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

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

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

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

(a) All terms and conditions of permits established prior to T033-20219-00038 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

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

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

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

B.14 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source’s existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

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

Indiana Department of Environmental Management
Compliance Data Section, 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 the "responsible official" as defined by 326 IAC 2-7-1(34).

(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 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

(1) That this permit contains a material mistake.

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

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

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

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

B.17 Permit Renewal [326 IAC 2-7-3] [326 IAC 2-7-4] [326 IAC 2-7-8(e)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12] [40 CFR 72]

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

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

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12(b)(2)]

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

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by U.S. EPA.

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

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

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

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

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

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

and

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

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

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

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

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

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

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

(3) Any change in emissions; and

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

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

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

(d) Alternative Operating Scenarios [326 IAC 2-7-20(c)]

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

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

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

B.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-30-3-1] [IC 13-17-3-2]

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

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

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

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

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

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

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

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

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

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)] [326 IAC 2-1.1-7]

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

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

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

B.25 Credible Evidence [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [62 FR 8314] [326 IAC 1-1-6]

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

**SECTION C SOURCE OPERATION CONDITIONS**

Entire Source

**Emission Limitations and Standards [326 IAC 2-7-5(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 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.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

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

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

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

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

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

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

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

(1) When the amount of affected regulated 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
Asbestos Section, 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 the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

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

**Testing Requirements [326 IAC 2-7-6(1)]**

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

(a) 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 Data Section, 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 the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

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

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

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

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

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

Unless otherwise specified in this permit, all monitoring requirements not already legally required shall be implemented within ninety (90) days of permit issuance. 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 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 the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

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

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

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

C.12 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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

(a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) These ERPs shall be submitted for approval to:

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

within one hundred eighty (180) days after the date of issuance of this permit.

The ERP does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.

(d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.

(e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.

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

C.13 Risk Management Plan [326 IAC 2-7-5(12)] [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 2-7-5] [326 IAC 2-7-6]

(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;

(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 2-7-5] [326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C – Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall 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 the "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.16 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]

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

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

(2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

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

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The emission statement 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.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

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

C.18 General Reporting Requirements [326 IAC 2-7-5(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 the "responsible official" as defined by 326 IAC 2-7-1(34).

(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 Data Section, 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 the "responsible official" as defined by 326 IAC 2-7-1(34).

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

**Stratospheric Ozone Protection**

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

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

(a) One (1) natural gas-fired boiler, constructed in 1994, using liquid propane gas as a backup fuel, with a maximum heat input capacity of 9.807 million British thermal units per hour (mmBtu/hr); and

(b) One (1) natural gas-fired boiler, identified as EP54, constructed May 26, 2000, using liquid propane gas as a backup fuel, with a maximum heat input capacity of 8.37 mmBtu/hr.

(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 2-7-5(1)]**

D.1.1 Particulate [326 IAC 6-2-4]

(a) Pursuant to 326 IAC 6-2-4(a) (Particulate Emission Limitations for Sources of Indirect Heating), the PM from the one (1) boiler constructed in 1994, with a heat input capacity of 9.807 mmBtu/hr, shall be limited to 0.60 pounds per mmBtu heat input.

(b) Pursuant to 326 IAC 6-2-4(a) (Particulate Emission Limitations for Sources of Indirect Heating), the PM from the one (1) boiler EP54 constructed May 26, 2000, and with a heat input capacity of 8.37 mmBtu/hr, shall be limited to 0.51 pounds per mmBtu heat input. This limitation is based on the following equation:

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

Where:

Pt = Pounds of particulate matter emitted per million Btu (lb/mmBtu) heat input.

Q = Total source maximum operating capacity rating in million Btu per hour (mmBtu/hr) heat input. As each new indirect heating facility is added to a plant Q will increase. As a result, the emission limitation for each progressively newer facility will be more stringent until the total plant capacity reaches 10,000 mmBtu/hr. For Q less than 10 mmBtu/hr, Pt shall not exceed 0.6.

## SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

**Emissions Unit Description:**

One (1) sulfuric acid pickling facility, exhausting to stack EP63, with an acid recovery system, with a maximum capacity of 32.4 tons of steel per hour.

(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 2-7-5(1)]

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the sulfuric acid pickling facility shall not exceed 40.6 pounds per hour when operating at a process weight rate of 32.4 tons of steel per hour. The pounds per hour limitation was calculated using the following equation:

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

$E = 55.0 P^{0.11} - 40$ where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

## SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

**Emissions Unit Description:**

Seven (7) bolt formers, with a total capacity of 9.5 tons of steel per hour, using a total maximum of 37,500 gallons of lubricant and cooling oil per year, and each equipped with an oil mist collection system, including:

(1) Six (6) bolt formers, identified as Machines #5, #6, #20, and #26-#28; and

(2) One (1) bolt former, which is an Insignificant Activity pursuant to 326 IAC 2-7-1(21), identified as Machine #29.

(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 2-7-5(1)]**

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rates from Machines #5, #6, #20, and #26-28 shall not exceed the pound per hour emission limitations when operating at maximum process weight rates as specified in the table below:

| Emissions Unit | Process Weight Rate (ton/hr) | 326 IAC 6-3-2 Allowable Particulate Emission Limit (lb/hr) |
|---|---|---|
| Machine #5 | 1.92 | 6.35 |
| Machine #6 | 2.21 | 6.98 |
| Machine #20 | 0.62 | 2.98 |
| Machine #26 | 1.78 | 6.04 |
| Machine #27 | 1.73 | 5.93 |
| Machine #28 | 0.92 | 3.88 |

The pounds per hour limitations were calculated using the following equation:

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

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

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

A Preventive Maintenance Plan, in accordance with Section B – Preventive Maintenance Plan, of this permit, is required for the five (5) bolt forming machines, identified as Machines #20 and #26-#29, and the oil mist collection systems.

**Compliance Determination Requirements**

D.3.3 Particulate Control

Pursuant to MSOP 033-11203-00038, issued on April 4, 2000, and in order to comply with Condition D.3.1, the oil mist collection systems for particulate control shall be in operation and

control emissions from Machines #20 and #26-#29 at all times that the units are in operation.

D.3.4 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

During the period between 30 and 36 months after issuance of this permit, in order to demonstrate compliance with Condition D.3.1, the Permittee shall perform PM testing for the five (5) bolt formers, identified as Machines #20 and #26-#29, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C – Performance Testing.

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

D.3.5 Visible Emissions Notations

(a) Visible emission notations of the exhaust from the five (5) bolt formers, identified as Machines #20 and #26-#29, shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

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

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

D.3.6 Record Keeping Requirements

(a) To document compliance with Condition D.3.5, the Permittee shall maintain records of daily visible emission notations of the exhaust from the five (5) bolt formers, identified as Machines #20 and #26-#29 when exhausting to the atmosphere.

(b) All records shall be maintained in accordance with Section C – General Record Keeping Requirements, of this permit.

## SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

**Emissions Unit Description:**

One (1) nut-forming machine, including coolant usage, with a total maximum capacity of 1.27 tons of steel per hour.

(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 2-7-5(1)]**

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the one (1) nut-forming machine shall not exceed 4.81 pounds per hour when operating at a process weight rate of 1.27 tons of steel per hour. The pounds per hour limitation was calculated using the following equation:

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

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

## SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

**Emissions Unit Description:**

One (1) tumble blaster, exhausting to a baghouse, with a maximum capacity of 1.27 tons of steel per hour.

(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 2-7-5(1)]**

D.5.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the tumble blaster shall not exceed 4.81 pounds per hour when operating at a process weight rate of 1.27 tons of steel per hour. The pounds per hour limitation was calculated using the following equation:

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

$E = 4.10\ P^{0.67}$

where E = rate of emission in pounds per hour;
and P = process weight rate in tons per hour

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
# OFFICE OF AIR QUALITY

## PART 70 OPERATING PERMIT
## CERTIFICATION

Source Name: Nucor Fastener
Source Address: 6730 County Road 60, St. Joe, Indiana 46785
Mailing Address: P.O. Box 6100, St. Joe, Indiana 46785
Part 70 Permit No.: T033-20219-00038

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

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)

☐ Report (specify)

☐ Notification (specify)

☐ Affidavit (specify)

☐ Other (specify)

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

| |
|---|
| Signature: |
| Printed Name: |
| Title/Position: |
| Phone: |
| Date: |

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
# OFFICE OF AIR QUALITY

**COMPLIANCE BRANCH**
**100 North Senate Avenue**
**MC 61-53 IGCN 1003**
**Indianapolis, Indiana 46204**
**Phone: 317-233-0178**
**Fax: 317-233-6865**

## PART 70 OPERATING PERMIT
## EMERGENCY OCCURRENCE REPORT

Source Name: Nucor Fastener
Source Address: 6730 County Road 60, St. Joe, Indiana 46785
Mailing Address: P.O. Box 6100, St. Joe, Indiana 46785
Part 70 Permit No.: T033-20219-00038

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

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

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

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

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

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

Form Completed by:

Title / Position:

Date:

Phone:

A certification is not required for this report.

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
# OFFICE OF AIR QUALITY
# COMPLIANCE DATA SECTION

## PART 70 OPERATING PERMIT
### QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Nucor Fastener
Source Address: 6730 County Road 60, St. Joe, Indiana 46785
Mailing Address: P.O. Box 6100, St. Joe, Indiana 46785
Part 70 Permit No.: T033-20219-00038

**Months:** _____ **to** _____ **Year:** _____



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".

☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

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

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

Page 2 of 2

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

Form Completed By:

Title/Position:

Date:

Phone:

Attach a signed certification to complete this report.

# Indiana Department of Environmental Management
# Office of Air Quality

## Technical Support Document (TSD)
## for a Part 70 Minor Source and Minor Permit Modification

### Source Description and Location

| | |
|---|---|
| **Source Name:** | **Nucor Fastener** |
| **Source Location:** | **6730 County Road 60, St. Joe, Indiana 46785** |
| **County:** | **DeKalb** |
| **SIC Code:** | **3452** |
| **Operation Permit Renewal No.:** | **T 033-20219-00038** |
| **Operation Permit Issuance Date:** | **October 12, 2007** |
| **Minor Source Modification No.:** | **033-25880-00038** |
| **Minor Permit Modification No.:** | **033-25882-00038** |
| **Permit Reviewer:** | **Laura Spriggs** |

### Source Definition

This source consists of two (2) plants:

(a) Nucor Fastener is located at 6730 County Road 60, St. Joe, Indiana 46785; and

(b) NUCOR Vulcraft Group – St. Joe Division is located at 6610 County Road 60, St. Joe, Indiana 46785.

IDEM has determined that Nucor Fastener and NUCOR Vulcraft Group – St. Joe Division are under the common control of Nucor Corporation, and will be considered one major source. These two plants are considered one source because they are located on adjacent properties, are under common ownership, and belong to the same industrial grouping. Therefore, the term “source” in the Part 70 documents refers to both Nucor Fastener and NUCOR Vulcraft Group – St. Joe Division as one major source, effective from the date of issuance of Part 70 permit No. 033-20219-00038.

Separate Part 70 permits have been issued to Nucor Fastener with Permit No.: T033-20219-00038 (issued on October 12, 2007) and NUCOR Vulcraft Group – St. Joe Division with Permit No.: T033-15749-00027 (issued on July 22, 2003) solely for administrative purposes.

### Existing Approvals

The source was issued Part 70 Operating Permit No. T033-20219-00038 on October 12, 2007.

### County Attainment Status

The source is located in DeKalb County.

| Pollutant | Designation |
|---|---|
| $SO_2$ | Better than national standards. |
| CO | Unclassifiable or attainment effective November 15, 1990. |
| $O_3$ | Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard.[1] |
| $PM_{10}$ | Unclassifiable effective November 15, 1990. |
| $NO_2$ | Cannot be classified or better than national standards. |
| Pb | Not designated. |
| [1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.<br>Unclassifiable or attainment effective April 5, 2005, for $PM_{2.5}$. | |

(a) Ozone Standards

(1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

(2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, St. Joseph as attainment for the 8-hour ozone standard.

(3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.

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

(b) $PM_{2.5}$

DeKalb County has been classified as attainment for $PM_{2.5}$. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for $PM_{2.5}$ emissions, and the effective date of these rules was July 15, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate $PM_{10}$ emissions as a surrogate for $PM_{2.5}$ emissions until 326 IAC 2-2 is revised.

(c) Other Criteria Pollutants

DeKalb County has been classified as attainment or unclassifiable in Indiana for $PM_{10}$, $SO_2$, $NO_2$, CO, and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(d) Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

## Source Status

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

| Table 1: Source Status PTE | |
|---|---|
| **Pollutant** | **Emissions** (ton/yr) |
| CO | 53.3 |
| $NO_X$ | 71.8 |
| PM | 113.79 |
| $PM_{10}$ | 117.09 |
| $SO_2$ | 6.06 |
| VOC | <250 |

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

(b) The VOC emissions are based upon the PSD Minor limit included in SPM No. 033-22929-00027 for NUCOR Vulcraft Group - St. Joe Division. The emissions of all other regulated pollutants are based on the Technical Support Document for the Part 70 Operating Permit No. T033-20219-00038.

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

| Table 2: Source Status HAP PTE | |
|---|---|
| **HAPs** | **Potential To Emit** (ton/yr) |
| Single HAP (highest) | < 10 |
| **Combined HAPs** | **< 25** |

This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because HAPs emissions are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

## Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2006 OAQ emission data.

| Table 3: Actual Emissions | |
|---|---|
| **Pollutant** | **Actual Emissions** (ton/yr) |
| PM | 7.85 |
| $PM_{10}/PM_{2.5}$ | 7.20 |
| $SO_2$ | 1.37 |
| VOC | 38.63 |
| CO | 39.67 |

| Table 3: Actual Emissions | |
|---|---|
| **Pollutant** | **Actual Emissions** (ton/yr) |
| $NO_X$ | 48.89 |
| HAPs/Total HAPs | Not Reported |

## Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Nucor Fastener on January 9, 2008, relating to the relocation of two (2) bolt-forming machines and the installation of new equipment at the facility.

The following emission unit is proposed for construction:

(a) One (1) bolt-forming machine, identified as Machine #10, approved for construction in 2008, with emissions controlled by the existing wet Venturi scrubber system, with a maximum processing capacity of 4.38 tons per hour, and a maximum cooling oil usage of 12,575 pounds per year.

The following Insignificant Activities are proposed for construction:

(b) One (1) parts waxing line, approved for construction in 2008, for the application of a light coating of wax to product for rust prevention, with a maximum usage of 2,250 gallons of wax per year, and emissions uncontrolled; and

(c) One (1) phosphate and oil line for processing carbon steel fasteners, approved for construction in 2008, with annual throughput of 8,136 gallons of chemicals and 396,000 gallons of water, consisting of the following:

(1) One (1) Degreaser tank, with a storage capacity of 250 gallons;

(2) Seven (7) Rinse Water tanks, each with a storage capacity of 250 gallons;

(3) One (1) De-phosphate tank, with a storage capacity of 350 gallons;

(4) One (1) Sulfuric Acid tank, with a storage capacity of 600 gallons;

(5) One (1) Activator tank, with a storage capacity of 250 gallons;

(6) Two (2) Zinc Phosphate tanks, one with a storage capacity of 600 gallons and one with a storage capacity of 250 gallons;

(7) One (1) Neutralizer tank, with a storage capacity of 250 gallons;

(8) One (1) Dry Oil tank, with a storage capacity of 250 gallons; and

(9) One (1) Wet Oil tank, with a storage capacity of 250 gallons.

The following are proposed changes to existing emissions units:

(d) Two (2) bolt-forming machines are being relocated from the collection of bolt-forming machines with emissions controlled by three (3) Venturi scrubbers, to the collection of bolt-forming machines with emissions from each unit controlled by Smog Hog oil mist collection systems

Note: The potential to emit from the collection of bolt-forming machines with emissions controlled by

Smog Hog oil mist collection systems has not changed because potential emissions are based on the cooling oil usage and this usage is not expected to change even though two (2) existing units are being relocated to this collection.

(e) It has been determined that the total potential cooling oil usage for the collection of bolt-forming machines with emissions controlled by three (3) Venturi scrubbers has increased from 78,770 pounds per year to 124,000 pounds per year.

(f) The applicability of 326 IAC 6-3-2 has been re-evaluated for the bolt-forming machines from both Sections D.3 and D.4 of the existing permit. This is discussed further in the State Rule Applicability Determination and Proposed Changes sections of this TSD.

## Enforcement Issues

There are no pending enforcement actions related to this modification.

## Emission Calculations

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

## Permit Level Determination – Part 70

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

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

**Table 4: Total PTE Change due to the Modification**

| Pollutant | PTE New Emission Units[1] (ton/yr) | Increase to PTE of Modified Emission Units[2] (ton/yr) | Total PTE for New and Modified Units (ton/yr) |
|---|---|---|---|
| PM | 0.74 | 1.63 | 2.37 |
| $PM_{10}$ | 0.74 | 1.63 | 2.37 |
| $SO_2$ | 0.11 | -- | 0.11 |
| VOC | 3.43 | 8.16 | 11.59 |
| CO | -- | -- | -- |
| $NO_X$ | -- | -- | -- |
| HAPs | -- | -- | -- |

[1] PTE New Emission Units includes the Parts Waxing Line, the Oil and Phosphate Line, and the New Bolt Forming Machine (#10).
[2] Increase to PTE of Modified Emission Units includes the increase in PTE due to increased cooling oil usage for the existing bolt forming machines that are controlled by Venturi scrubbers.

This source modification is subject to 326 IAC 2-7-10.5(d)(3)(B) because the modification has a potential to emit less than twenty-five (25) tons per year and equal to or greater than ten (10) tons per year of VOC. Additionally, the modification will be incorporated into the Part 70 Operating Permit through a Minor Permit Modification issued pursuant to 326 IAC 2-7-12(b) because it does not violate any applicable requirement; it does not involve significant changes to existing monitoring, reporting, or record keeping requirements in the Part 70 permit; it does not require a change in a case-by case determination, a source specific determination for temporary sources of ambient impacts, or visibility or increment analysis; it does not seek to establish or change a Part 70 permit term or condition for which there is no corresponding underlying applicable requirement that the source has assumed to avoid an applicable requirement; it is not a modification under any provisions of Title I of the Clean Air Act; it does not involve the addition of a listed PCP as defined in 326 IAC 2-2-1(ll) or 326 IAC 2-3-1(gg); and it is not required by the Part 70 program to be processed as a significant modification.

IDEM, OAQ has determined that certain Compliance Determination, Compliance Monitoring, and Record Keeping Requirements should not apply to the oil mist collection systems controlling the bolt formers since the control devices are not required to meet emission limitations. The removal of the Compliance Determination, Compliance Monitoring, and Record Keeping permit conditions would involve significant changes to existing monitoring, reporting, and record keeping requirements and the modification would be required to be incorporated into the Part 70 Operating Permit through a Significant Permit Modification pursuant to 326 IAC 2-7-12(d). The Permittee has indicated that the approval to operate the equipment is needed in a timely fashion. Therefore, the Compliance Determination, Compliance Monitoring, and Record Keeping requirements for the oil mist collection systems controlling the bolt formers will remain in the permit, and therefore, the modification will be incorporated as a Minor Permit Modification as discussed above. The Permittee is required to comply with all conditions as specified in the permit. If the Permittee wishes to remove the Compliance Monitoring, Compliance Determination, and Record Keeping Requirements in Section D.3 of this permit at a later date, they will be required to submit a separate application for a Significant Permit Modification to IDEM, OAQ, Permits Branch.

**Permit Level Determination – PSD or Emission Offset**

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

| | **Table 5: Potential to Emit** (ton/yr) | | | | | |
|---|---|---|---|---|---|---|
| **Process / Emission Unit** | **PM** | **$PM_{10}$** | **$SO_2$** | **VOC** | **CO** | **$NO_X$** |
| **Nucor Vulcraft (033-00027) - existing** | 11.67 | 11.67 | -- | 210 | -- | -- |
| **Bolt Formers Using Smog Hog Units - existing** | 71.16 | 71.16 | -- | -- | -- | -- |
| **Bolt Formers Using Venturi Scrubbers - existing and one new unit** | 6.20 | 6.20 | -- | 31 | -- | -- |
| **Oil and Phosphate Line - new** | 0.11 | 0.11 | 0.11 | 0.19 | -- | -- |
| **Parts Waxing Line - new** | -- | -- | -- | 0.1 | -- | -- |
| **Other Existing Units at Nucor Fastener** | 27.29 | 31.19 | 6.16 | 4.37 | 63.4 | 83.9 |
| Total for Combined Source | 116.4 | 120.3 | 6.27 | 245.7 | 63.4 | 83.9 |

| | Table 5: Potential to Emit (ton/yr) | | | | | |
|---|---|---|---|---|---|---|
| **Process / Emission Unit** | **PM** | **$PM_{10}$** | **$SO_2$** | **VOC** | **CO** | **$NO_X$** |
| PSD Major Source Threshold | 250 | 250 | 250 | 250 | 250 | 250 |

This modification to an existing minor stationary source is not major because the emissions increase is less than the PSD major source thresholds. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

## Federal Rule Applicability Determination

**NSPS**

(a) The tanks associated with the new phosphate and oil line are not subject to the New Source Performance Standards (NSPS) for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, since the storage capacity of each tank is less than the applicability threshold of 75 cubic meters.

**NESHAP**

(b) The new phosphate and oil line is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Halogenated Solvent Cleaning (40 CFR 63, Subpart T), since the solvent used does not include any of the halogenated solvents listed under 40 CFR 63.460, and the HAP content is less than the applicability threshold of 5 percent by weight.

(c) The new wax coating line is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Miscellaneous Metal Parts and Products Surface Coating (40 CFR 63, Subpart MMMM), since pursuant to 40 CFR 63. 3981 (Definitions), functional coatings consisting only of protective oils are not considered as "coating" for the purposes of this subpart.

**CAM**

(d) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:

(1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each new or modified emission unit involved:

| Table 6: CAM Applicability Analysis | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Emission Unit** | **Control Device Used** | **Emission Limitation** (Y/N) | **Uncontrolled PTE** (ton/yr) | **Controlled PTE** (ton/yr) | **Major Source Threshold** (ton/yr) | **CAM Applicable** (Y/N) | **Large Unit** (Y/N) |
| Bolt-former | Venturi | Y | 0.63 | 0.01 | 100 | N | N |

| Table 6: CAM Applicability Analysis | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Emission Unit** | **Control Device Used** | **Emission Limitation** (Y/N) | **Uncontrolled PTE** (ton/yr) | **Controlled PTE** (ton/yr) | **Major Source Threshold** (ton/yr) | **CAM Applicable** (Y/N) | **Large Unit** (Y/N) |
| machine (#10) - $PM/PM_{10}$ | Scrubber | | | | | | |

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

## State Rule Applicability Determination

**326 IAC 2-2** (**Prevention of Significant Deterioration - PSD)**
The VOC emissions from the emissions units at NUCOR Vulcraft Group - St. Joe Division (plant ID: 033-00027) are limited as follows: the VOC input to Super Long Span Line, Long Span Line, Middle Span Line, Short Span Line, Combo Line, Bridging Line, and Deck Line, shall not exceed 210 tons, combined, per twelve (12) consecutive month period with compliance determined at the end of each month. This usage limit is structured such that when including the VOC emissions from the insignificant activities and the VOC emissions from Nucor Fastener (plant ID: 033-00038), the source total VOC emissions remain less than 250 tons per year. Compliance with this limit renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

**326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))**
The operation of the proposed emission units will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

**326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)**
326 IAC 7-1.1 does not apply to the phosphate and oil line because the potential to emit sulfur dioxide is less than twenty-five (25) tons per year and less than ten (10) pounds per hour.

**326 IAC 8-2-9 (Miscellaneous Metal Coating)**
The potential to emit of VOC from the wax line, and hence the actual emissions, are less than 15 pounds per day. Therefore, this unit is not subject to 326 IAC 8-2-9.

**326 IAC 8-3 (Organic Solvent Degreasing Operations)**
326 IAC 8-3 does not apply to the phosphate and oil line because the actual emissions of VOC are less than 15 pounds per day.

**326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)**
326 IAC 8-9 does not apply to the phosphate and oil line storage vessels because the source is not located in Clark, Floyd, Lake, or Porter Counties.

**326 IAC 8-1-6 (VOC - General Reduction Requirements)**
The potential VOC emissions from the proposed emission units are each less than 25 tons per year. Therefore, 326 IAC 8-1-6 does not apply.

**326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)**
326 IAC 6-3 applies to manufacturing processes located anywhere in the state.

(a) The Parts Waxing Line does not have the potential to emit particulate matter (PM); therefore, 326 IAC 6-3-2 does not apply to this unit.

(b) The potential to emit from the Oil and Phosphate Line is less than 0.551 pounds per hour; therefore, pursuant to 326 IAC 6-3-1(b)(14), it is exempt from the requirements of 326 IAC 6-3.

(c) Previous evaluations of 326 IAC 6-3 rule applicability for the bolt forming machines with emissions controlled by the oil mist collection systems (found in Section D.3 of Part 70 Operating Permit No. 033-20219-00037) and for the bolt forming machines with emissions controlled by three (3) wet Venturi scrubbers (found in Section D.4 of Part 70 Operating Permit No. 033-20219-00037) summed together the total process weight rate for all units for determining one (1) particulate emission limitation in each respective D section.

IDEM, OAQ has determined that the bolt former machines process different parts and should each be evaluated separately for 326 IAC 6-3 rule applicability as follows:

(1) Pursuant to 326 IAC 6-3-1(b)(14), manufacturing processes with potential emissions less than 0.551 pounds per hour are exempt from the requirements of 326 IAC 6-3. The following units have potential emissions less than 0.551 pounds per hour and therefore, are exempt from the requirements of IAC 326 6-3-2:

(A) Machine #29, with emissions controlled by an oil mist collection system; and

(B) Machines #1-#4, #7-#17, #19, #21-#25, and #30, with emissions controlled by three (3) wet Venturi scrubbers.

(2) The pound per hour limitations for the units listed in the table below were calculated with the following equation:

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

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

**Table 7: 326 IAC 6-3-2 Emission Limits**

| Process/Unit ID | Process Weight Rate[1] (ton/hr) | 326 IAC 6-3-2 Allowable Emission Limit (lb/hr) | Uncontrolled PM Emissions (lb/hr) | Capable of Compliance Without Control? |
|---|---|---|---|---|
| *Bolt Formers Using Smog Hog Oil Mist Collectors* | | | | |
| #5 | 1.92 | 6.35 | 3.29 | Y |
| #6 | 2.21 | 6.98 | 3.79 | Y |
| #20 | 0.62 | 2.98 | 1.06 | Y |
| #26 | 1.78 | 6.04 | 3.05 | Y |
| #27 | 1.73 | 5.93 | 2.96 | Y |
| #28 | 0.92 | 3.88 | 1.58 | Y |

[1]The process weight rate includes the weight of metal processed and the weight of cooling oil used.

Each unit is capable of complying with its respective 326 IAC 6-3-2 allowable emission limitation based on the given process weight rates.

## Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

There are no new Compliance Determination or Compliance Monitoring Requirements applicable to this modification. Due to the re-evaluation of 326 IAC 6-3 rule applicability for the bolt forming machines with emissions controlled by oil mist collection systems, it was determined that the bolt formers with 326 IAC 6-3-2 allowable particulate emission limits are capable of compliance with the limits without the use of a control device. As such, no Compliance Determination or Compliance Monitoring Requirements are applicable to these units. However, as discussed in the Part 70 Permit Level Determination section, this permit modification is being incorporated into the Part 70 Operating Permit through a Minor Permit Modification for purposes of meeting the Permittee's schedule and the Compliance Monitoring and Compliance Determination Requirements will not be removed from the permit through this modification. The Permittee is required to comply with all conditions as specified in the permit until such a time that they are removed through a Significant Permit Modification or Renewal.

## Proposed Changes

The following changes have been made to the Part 70 Permit No. T033-20219-00038 (**bold** to show additions, and ~~strike-through~~ to show deletions):

**Change No. 1**

The last sentence of Condition C.3 - Open Burning has been removed because the provisions of 326 IAC 4-1-3(a)(2)(A) and (B) are now federally enforceable. The permit has been revised as follows:

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. ~~326 IAC 4-1-3(a)(2)(A) and (B) are not federally enforceable.~~

**Change No. 2**

A sentence has beed added to the end of Conditions C.5 - Fugitive Dust Emissions to indicate the provisions that are not federally enforceable. The permit has been revised as follows:

C.5 Fugitive Dust Emissions [326 IAC 6-4]

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

**Change No. 3**

Condition C.6 - Stack Height has been removed because based on information provided by the Permittee, no exhaust stacks have potential to emit (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide. Subsequent Conditions in Section C have been renumbered accordingly. The permit has been revised as follows:

~~C.6 Stack Height [326 IAC 1-7]~~

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

**Change No. 4**

Paragraph (g) of Condition C.~~7~~**6** - Asbestos Abatement Projects has been revised to reflect the rule language of 326 IAC 14-10-1(a). The permit has been revised as follows:

C.~~7~~**6** Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

* * *

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

**Modification No. 1**

Section A.3 has been revised to include the new and modified emission unit descriptions. Both sets of bolt-making machines, as specified in paragraphs (d) and (g), include machines that are emission units and machines that are considered Insignificant Activities, pursuant to 326 IAC 2-7-1(21). The machines that are considered Insignificant Activities have been kept in Section A.3 (as opposed to being moved to Section A.4) because of the shared pollution control devices in paragraph (d) and because of the shared oil usage in paragraph (g). Section A.4 has been revised to include the unit descriptions of both the new and existing insignificant activities. The permit has been revised as follows:

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

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

* * *

(d) Twenty-~~three~~ **two** (2~~3~~**2**) bolt-making machines, ~~including~~ **with a total maximum capacity of 43.2 tons of steel per hour, using a total of 124,000 pounds of** coolant and oil lubricant ~~usage~~ **per year**, with emissions from bolt-making machines controlled by three (3) wet Venturi scrubbers, ~~with a total maximum capacity of 27.2 tons of steel per hour;~~ **including:**

**(1) Five (5) bolt-making machines, identified as Machines #1, #7, #10, #11, and #25; and**

**(2) Seventeen (17) bolt-making machines, which are Insignificant Activities pursuant to 326 IAC 2-7-1(21), identified as Machines #2-#4, #8, #9, #12-#17, #19, #21-#24, and #30;**

(e) * * *

(f) * * *

(g) ~~Five~~ **Seven** (~~5~~ **7**) bolt formers, **with a total capacity of 9.5 tons of steel per hour,** using **a total maximum of 37,500 gallons of** lubricant and cooling oil **per year**, **and each** equipped with **an** oil mist collection system~~s, with a total maximum usage of 37,500 gallons of oil per year; and~~**, including:**

**(1) Six (6) bolt formers, identified as Machines #5, #6, #20, and #26-#28; and**

**(2) One (1) bolt former, which is an Insignificant Activity pursuant to 326 IAC 2-7-1(21), identified as Machine #29; and**

(h) * * *

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

This stationary source ~~does not currently have any~~ **also consists of the following** insignificant activities, as defined in 326 IAC 2-7-1(21)**:** ~~that have applicable requirements.~~

**(a) Natural gas-fired space heaters, with a total maximum capacity of 8.3 mmBtu/hr;**

**(b) Natural gas-fired air makeup units, with a total maximum capacity of 56.2 mmBtu/hr;**

**(c) Three (3) natural gas-fired annealing furnaces, each with a maximum heat input capacity of 5.94 mmBtu/hr, and each processing 113,400 pounds of metal per batch;**

**(d) One (1) natural gas-fired heat treat furnace, including one (1) belt furnace, one (1) hardening furnace, and one (1) draw furnace, with a total maximum heat input capacity of 7.70 mmBtu/hr;**

**(e) Two (2) natural gas-fired heat treat furnaces, including two (2) belt furnaces, two (2) hardening furnaces, and two (2) draw furnaces, with a total maximum heat input capacity of 18.1 mmBtu/hr;**

**(f) One (1) wash line, using a maximum of 1,733 gallons of rust preventative per year.**

**(g) One (1) parts waxing line, approved for construction in 2008, for the application of a light coating of wax to product for rust prevention, with a maximum usage of 2,250 gallons of wax per year, and emissions uncontrolled; and**

**(h) One (1) phosphate and oil line for processing carbon steel fasteners, approved for construction in 2008, with an annual throughput of 8,136 gallons of chemicals and 396,000 gallons of water, consisting of the following:**

**(1) One (1) Degreaser tank, with a storage capacity of 250 gallons;**

**(2) Seven (7) Rinse Water tanks, each with a storage capacity of 250 gallons;**

**(3) One (1) De-phosphate tank, with a storage capacity of 350 gallons;**

**(4) One (1) Sulfuric Acid tank, with a storage capacity of 600 gallons;**

**(5) One (1) Activator tank, with a storage capacity of 250 gallons;**

**(6) Two (2) Zinc Phosphate tanks, one with a storage capacity of 600 gallons and one with a storage capacity of 250 gallons;**

**(7) One (1) Neutralizer tank, with a storage capacity of 250 gallons;**

**(8) One (1) Dry Oil tank, with a storage capacity of 250 gallons; and**

**(9) One (1) Wet Oil tank, with a storage capacity of 250 gallons.**

**Modification No. 2**

Section D.3 has been revised to modify the Emission Unit Description. Condition D.3.1 has been revised to reflect the 326 IAC 6-3-2 allowable emission limits for individual bolt formers as discussed in the State Rule Applicability Determination section of this TSD. The Compliance Determination, Compliance Monitoring, and Record Keeping Requirements have not been removed as discussed in the Part 70 Permit Level Determination and Compliance Determination and Compliance Monitoring Requirements sections of this TSD. Conditions D.3.2 through D.3.6 have been revised to reflect the units that were originally required to comply with these limits. The permit has been revised as follows:

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

**Emissions Unit Description:**

~~Five~~ **Seven** (~~5~~ **7**) bolt formers, **with a total capacity of 9.5 tons of steel per hour,** using **a total maximum of 37,500 gallons of** lubricant and cooling oil **per year**, **and each** equipped with **an** oil mist collection system~~s, with a total maximum usage of 37,500 gallons of oil per year; and~~**, including:**

**(1) Six (6) bolt formers, identified as Machines #5, #6, #20, and #26-#28; and**

**(2) One (1) bolt former, which is an Insignificant Activity pursuant to 326 IAC 2-7-1(21), identified as Machine #29.**

(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 2-7-5(1)]**

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the **allowable** particulate emission rate**s** from ~~the combined five (5)~~ **Machines #5, #6, #20, and #26-28** shall not exceed **the pound per hour emission limitations when operating at maximum process weight rates as specified in the table below:**~~12.49 pounds per hour when operating at a process weight rate of 5.27 tons per hour.~~

| Emissions Unit | Process Weight Rate (ton/hr) | 326 IAC 6-3-2 Allowable Particulate Emission Limit (lb/hr) |
|---|---|---|
| **Machine #5** | **1.92** | **6.35** |
| **Machine #6** | **2.21** | **6.98** |
| **Machine #20** | **0.62** | **2.98** |
| **Machine #26** | **1.78** | **6.04** |
| **Machine #27** | **1.73** | **5.93** |
| **Machine #28** | **0.92** | **3.88** |

The pounds per hour limitation**s were** ~~was~~ calculated using the following equation:

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

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

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

A Preventive Maintenance Plan, in accordance with Section B – Preventive Maintenance Plan, of this permit, is required for the five (5) bolt forming ~~line~~ **machines, identified as Machines #20 and #26-#29,** and the oil mist collection systems.

**Compliance Determination Requirements**

D.3.3 Particulate Control

Pursuant to MSOP 033-11203-00038, issued on April 4, 2000, and in order to comply with Condition D.3.1, the oil mist collection systems for particulate control shall be in operation and control emissions from ~~the bolt forming line~~ **Machines #20 and #26-#29** at all times that the ~~facility is~~ **units are** in operation.

D.3.4 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

During the period between 30 and 36 months after issuance of this permit, in order to demonstrate compliance with Condition D.3.1, the Permittee shall perform PM testing for the five (5) bolt formers**, identified as Machines #20 and #26-#29,** utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C – Performance Testing.

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

D.3.5 Visible Emissions Notations

(a) Visible emission notations of the **exhaust from the** five (5) bolt formers**, identified as Machines #20 and #26-#29,** ~~' exhaust~~ shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

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

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

D.3.6 Record Keeping Requirements

(a) To document compliance with Condition D.3.5, the Permittee shall maintain records of daily visible emission notations of the **exhaust from the** five (5) bolt formers**, identified as Machines #20 and #26-#29,** ~~' exhaust~~ when exhausting to the atmosphere.

(b) All records shall be maintained in accordance with Section C – General Record Keeping Requirements, of this permit.

**Modification No. 3**

Section D.4, relating to the collection of bolt-making machines with emissions controlled by three (3) wet Venturi scrubbers has been removed. Based on the re-evaluation of 326 IAC 6-3 rule applicability as discussed in the State Rule Applicability Determination section of this TSD, the bolt-making machines in this section are exempt from the requirements of 326 IAC 6-3-2. There are no other rules applicable to these units; therefore, this section has been removed. Subsequent D sections have been renumbered accordingly. The permit has been revised as follows:

~~**SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS**~~

~~**Emissions Unit Description:**~~

~~Twenty-two (22) bolt-making machines, identified as Machines #1-#4, #7-#17, #19, #21-#25, and #30, including 124,000 pounds per year of coolant and oil lubricant usage, with emissions from bolt-making machines controlled by three (3) wet Venturi scrubbers, with a total maximum capacity of 43.2 tons of steel per hour.~~

~~(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 2-7-5(1)]~~**

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

~~Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the combined twenty-three (23) bolt-making machines shall not exceed 37.5 pounds per hour when operating at a process weight rate of 27.2 tons of steel per hour. The pounds per hour limitation was calculated using the following equation:~~

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

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

## Conclusion and Recommendation

The construction and operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification No. 033-25880-00038 and Minor Permit Modification No. 033-25882-00038, respectively. The staff recommend to the Commissioner that this Part 70 Minor Source and Minor Permit Modification be approved.

**Appendix A: Emission Calculations**
***Summary***

**Company Name:** **Nucor Fastener**
**Address City IN Zip:** **6730 County Road 60, St. Joe, IN 46785**
**MSM No.:** **033-25880-00038**
**MPM No.:** **033-25882-00038**
**Reviewer:** **Laura Spriggs**
**Date:** **August 29, 2008**

***Summary of PTE of New and Modified Units for Part 70 Permit Level Determination***

| | Unit | Uncontrolled PTE (ton/yr) | | | Controlled PTE (ton/yr) |
|---|---|---|---|---|---|
| | | $PM/PM_{10}$ | $SO_2$ | VOC | $PM/PM_{10}$ |
| New Units | Parts Waxing Line | 0 | 0.00 | 0.09 | 0.00 |
| | Phosphate and Oil Line | 0.11 | 0.11 | 0.19 | 0.11 |
| | Bolt Former Machine (#10) | 0.63 | 0.00 | 3.14 | 0.01 |
| | Total | 0.74 | 0.11 | 3.43 | 0.12 |
| Modified Units | PTE Increase Due to Increased Oil Usage for Existing Bolt Formers Using Venturi Scrubbers | 1.63 | 0.00 | 8.16 | 0.03 |
| Total New and Modified | | 2.37 | 0.11 | 11.59 | 0.16 |

***Summary of PTE of Entire Source for Permit Level Determination - PSD or Emission Offset***

| | | Limited PTE (ton/yr) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Status | Process/emission unit | PM | $PM_{10}$ | $SO_2$ | VOC | CO | $NO_X$ | HAP - Highest Single | HAP - Total |
| Existing | Nucor Vulcraft (033-00027)[1] | 11.67 | 11.67 | -- | 210 | -- | -- | 7.14 (Manganese) | 9.59 |
| Existing | Boiler, installed 1994[2] | 0.3 | 0.3 | 1.3 | 0.2 | 3.6 | 8.9 | 0.077 (Hexane) | 0.081 |
| Existing | Boiler, EP54[2] | 0.2 | 0.3 | 1.1 | 0.2 | 3.1 | 7.6 | 0.066 (Hexane) | 0.069 |
| Existing | Space Heaters[2] | 0.1 | 0.3 | 0 | 0.2 | 3.1 | 3.6 | 0.065 (Hexane) | 0.069 |
| Existing | Air Makeup Units[2] | 0.5 | 1.9 | 0.1 | 1.4 | 20.7 | 24.6 | 0.443 (Hexane) | 0.465 |
| Existing | 7 Annealing Furnaces[2] | 0.4 | 1.5 | 0.1 | 1.1 | 16.7 | 19.9 | 0.358 (Hexane) | 0.375 |
| Existing | 4 Heat Treat Furnaces[2] | 0.4 | 1.5 | 0.1 | 1.1 | 16.2 | 19.3 | 0.348 (Hexane) | 0.365 |
| Existing | Sulfuric Acid Pickling Facility[2] | 3.46 | 3.46 | 3.46 | -- | -- | -- | -- | -- |
| Existing | 1 Nut Former[2] | 4.2 | 4.2 | -- | 0.17 | -- | -- | -- | -- |
| Existing | Tumble Blaster[2] | 17.73 | 17.73 | -- | -- | -- | -- | -- | -- |
| Existing | Bolt Formers Using Smog Hog Units[2] | 71.16 | 71.16 | -- | -- | -- | -- | -- | -- |
| Existing/New/ Modified | Bolt Formers Using Venturi Scrubbers[3] | 6.2 | 6.2 | -- | 31 | -- | -- | -- | -- |
| New | Oil and Phosphate Line[3] | 0.11 | 0.11 | 0.11 | 0.19 | -- | -- | -- | -- |
| New | Parts Waxing Line[3] | -- | -- | -- | 0.1 | -- | -- | -- | -- |
| Total | | 116.4 | 120.3 | 6.27 | 245.7 | 63.4 | 83.9 | 7.14 (Manganese) | 11.01 |

1 - Limited PTE values were taken from the TSD to Part 70 Operating Permit Renewal No. 033-25285-00027. See Source Definition Section of the TSD for further explanation.
2 - Limited PTE values were taken from the ATSD to Part 70 Operating Permit No. 033-20219-00038.
3 - Limited PTE values are based on calculations performed in this Appendix A to the TSD.

**Appendix A: Emission Calculations**
***Parts Waxing Line and Phosphate and Oil Line***

**Company Name:** **Nucor Fastener**
**Address City IN Zip:** **6730 County Road 60, St. Joe, IN 46785**
**MSM No.:** **033-25880-00038**
**MPM No.:** **033-25882-00038**
**Reviewer:** **Laura Spriggs**
**Date:** **August 29, 2008**

***Parts Waxing Line***

| Unit | Capacity (gal/yr) | Wax Density (lb/gal) | VOC Content (wt. %) | PTE VOC (lb/yr) | PTE VOC (ton/yr) |
|---|---|---|---|---|---|
| Parts Waxing Line | 2250 | 8.42 | 1.0% | 189.45 | 0.1 |

**Methodology**

- Wax density and VOC Content values were provided by the Permittee.
- PTE VOC (lb/yr) = Capacity (gal/yr) * Density (lb/gal) * VOC Content (lb VOC/lb Wax)
- PTE VOC (ton/yr) = PTE VOC (lb/yr) * (1 ton / 2000 lb)

***Phosphate and Oil Line***

| Tank # | Chemical in Tank | Tank Capacity (gal) | Tank Concentration (%) | Chemical Usage Rate (gal/yr) | Density (lb/gal) | VOC Content (wt. %) | PM EF (lb PM/ton $H_2SO_4$) | PTE VOC (ton/yr) | PTE PM / PM10 / $SO_2$* (ton/yr) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Degreaser (NST) | 250 | 5% | 600 | | -- | -- | -- | -- |
| 2 | Rinse Water | 250 | 100% | | | -- | -- | -- | -- |
| 3 | Rinse Water | 250 | 100% | | | -- | -- | -- | -- |
| 4 | Rinse Water | 250 | 100% | | | -- | -- | -- | -- |
| 5 | De-phosphate (GC 390) | 250 | 13% | 1560 | | -- | -- | -- | -- |
| 6 | Sulfuric Acid | 600 | 12% | 7000 | 15.3 | -- | 4.14 | -- | 0.11 |
| 7 | Rinse Water | 250 | 100% | | | -- | -- | -- | -- |
| 8 | Rinse Water | 250 | 100% | | | -- | -- | -- | -- |
| 9 | Activator GL V 6513 | 250 | 10% | 1200 | | -- | -- | -- | -- |
| 10 | Zinc Phosphate (GB Z 3190) | 600 | 12% | 3456 | | -- | -- | -- | -- |
| 11 | Zinc Phosphate (GB Z 3190) | 250 | 12% | 1440 | | -- | -- | -- | -- |
| 12 | Rinse Water | 250 | 100% | | | -- | -- | -- | -- |
| 13 | Rinse Water | 250 | 100% | | | -- | -- | -- | -- |
| 14 | Neutralizer (GL V 6513) | 250 | 12% | 1440 | | -- | -- | -- | -- |
| 15 | Dry Oil (RP 4106) | 250 | 11% | 1320 | | -- | -- | -- | -- |
| 16 | Wet Oil (398LT) | 250 | 15% | 1800 | 8.5 | 2.5% | -- | 0.19 | -- |
| Total | | | | | | | | 0.19 | 0.11 |

**Methodology**

- Chemical Rate Usage, Density, and VOC content were provided by the Permittee.
- The PM EF is based on the uncontrolled emissions from the present pickle line: (0.79 lb PM/hr) * (8760 hr/yr) / (1669.9 tons $H_2SO_4$/yr) = 4.14 lb PM/ton $H_2SO_4$
- The PTE of $PM_{10}$ is assumed to equal the PTE of PM.
- PTE VOC (ton/yr) = Chemical Rate Usage (gal/yr) * Density (lb/gal) * VOC Content (lb VOC/lb Chemical) * (1 ton/2000 lb)
- PTE PM/$PM_{10}$/$SO_2$ (ton/yr) = $H_2SO_4$ Usage (gal/yr) * $H_2SO_4$ Density (lb/gal) * (1 ton / 2000 lb) * PM EF (lb PM/ton $H_2SO_4$) * (1 ton / 2000 lb)

*Since the emissions are sulfuric acid mist, the PTE to emit $SO_2$ is conservatively equal to PM PTE.

**Appendix A: Emission Calculations**
***Bolt-Former Machines***

**Company Name: Nucor Fastener**
**Address City IN Zip: 6730 County Road 60, St. Joe, IN 46785**
**MSM No.: 033-25880-00038**
**MPM No.: 033-25882-00038**
**Reviewer: Laura Spriggs**
**Date: August 29, 2008**

***Bolt Formers Using Smog Hog Oil Mist Collectors for Particulate Control - Proposed Configuration***

| Machine # | Rate of Units Processed (ton/hr) | Cooling Oil Usage (gal/yr) | Density of Cooling Oil (lb/gal) | PM Emitted (lb PM/lb Cooling Oil) | Uncontrolled PTE $PM/PM_{10}$ | | Control Efficiency (%) | Controlled PTE $PM/PM_{10}$ | | Total Process Weight Rate (ton/hr) | 326 IAC 6-3-2 Allowable PM Emissions (lb/hr) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (lb/hr) | (ton/yr) | | (lb/hr) | (ton/yr) | | |
| 5 (Moved from Venturi Units) | 1.92 | 7594.9 | 7.59 | 0.5 | 3.29 | 14.41 | 90.0% | 0.33 | 1.44 | 1.923 | 6.35 |
| 6 (Moved from Venturi Units) | 2.21 | 8742.1 | 7.59 | 0.5 | 3.79 | 16.59 | 90.0% | 0.38 | 1.66 | 2.214 | 6.98 |
| 20 | 0.62 | 2452.5 | 7.59 | 0.5 | 1.06 | 4.65 | 90.0% | 0.11 | 0.47 | 0.621 | 2.98 |
| 26 | 1.78 | 7041.1 | 7.59 | 0.5 | 3.05 | 13.36 | 90.0% | 0.31 | 1.34 | 1.783 | 6.04 |
| 27 | 1.73 | 6843.4 | 7.59 | 0.5 | 2.96 | 12.99 | 90.0% | 0.30 | 1.30 | 1.733 | 5.93 |
| 28 | 0.92 | 3639.2 | 7.59 | 0.5 | 1.58 | 6.91 | 90.0% | 0.16 | 0.69 | 0.922 | 3.88 |
| 29* | 0.30 | 1186.7 | 7.59 | 0.5 | 0.51 | 2.25 | 90.0% | 0.05 | 0.23 | 0.301 | N/A - exempt |
| Total | | 37500.0 | | | 16.25 | 71.16 | | 1.62 | 7.12 | | |

**This is an Insignificant Activity as defined in 326 IAC 2-7-1(21).*

**Methodology**

- Cooling Oil Usage is based on a total potential usage of 37,500 gal/yr for all the bolt formers using Smog Hog oil mist collection systems for particulate control. The Permittee estimates that the rate of oil to each individual bolt former will be approximately proportionate to rate of units processed by each machine.
- Density of Cooling Oil, PM Emitted, and Control Efficiency values are based off of calculations performed in Appendix A to the TSD of Part 70 Operating Permit No. T033-20219-00038.
- The PTE of $PM_{10}$ is assumed to equal the PTE of PM.
- Uncontrolled PTE $PM/PM_{10}$ (lb/hr) = Cooling Oil Usage (gal/yr) * Density of Cooling Oil (lb/gal) * PM Emitted (lb PM/lb Cooling Oil) * (1 yr / 8760 hr)
- Controlled PTE $PM/PM_{10}$ (lb/hr) = Uncontrolled PTE $PM/PM_{10}$ (lb/hr) * (1 - Control Efficiency)
- PTE (ton/yr) = PTE (lb/hr) * (8760 hr/yr) * (1 ton / 2000 lb)
- Total Process Weight Rate (ton/hr) = Rate of Units Processed (ton/hr) + [ Cooling Oil Rate (gal/yr) * Density of Cooling Oil (lb/gal) * (1 yr/8760 hr) * (1 ton / 2000 lb) ]
- 326 IAC 6-3-2 Allowable PM Emissions (lb/hr) = 4.10 * [Process Weight Rate (ton/hr)] $^{0.67}$
- Pursuant to 326 IAC 6-3-1(b)(14), manufacturing processes with potential emissions less than 0.551 pounds per hour are exempt from 326 IAC 6-3.

***Bolt Formers Using the Venturi Scrubber Systems for Particulate Control - Proposed Configuration***

| Machine # | Rate of Units Processed (tons/hr) | Cooling Oil Usage (lb/yr) | VOC Content (lb VOC/lb Cooling Oil) | PM Emitted (lb PM/lb Cooling Oil) | PTE VOC (ton/yr) | Uncontrolled PTE $PM/PM_{10}$ | | Control Efficiency (%) | Controlled PTE $PM/PM_{10}$ | | Total Process Weight Rate (ton/hr) | 326 IAC 6-3-2 Allowable PM Emissions (lb/hr) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | (lb/hr) | (ton/yr) | | (lb/hr) | (ton/yr) | | |
| 1 | 6.33 | 18174 | 0.5 | 0.1 | 4.543 | 0.207 | 0.909 | 98.0% | 0.00415 | 0.0182 | 6.33 | N/A - exempt |
| 2* | 1.49 | 4278 | 0.5 | 0.1 | 1.069 | 0.049 | 0.214 | 98.0% | 0.00098 | 0.0043 | 1.49 | N/A - exempt |
| 3* | 1.53 | 4393 | 0.5 | 0.1 | 1.098 | 0.050 | 0.220 | 98.0% | 0.00100 | 0.0044 | 1.53 | N/A - exempt |
| 4* | 3.42 | 9819 | 0.5 | 0.1 | 2.455 | 0.112 | 0.491 | 98.0% | 0.00224 | 0.0098 | 3.42 | N/A - exempt |
| 7 | 4.38 | 12575 | 0.5 | 0.1 | 3.144 | 0.144 | 0.629 | 98.0% | 0.00287 | 0.0126 | 4.38 | N/A - exempt |
| 8* | 1.85 | 5311 | 0.5 | 0.1 | 1.328 | 0.061 | 0.266 | 98.0% | 0.00121 | 0.0053 | 1.85 | N/A - exempt |
| 9* | 1.19 | 3417 | 0.5 | 0.1 | 0.854 | 0.039 | 0.171 | 98.0% | 0.00078 | 0.0034 | 1.19 | N/A - exempt |
| 10 (new) | 4.38 | 12575 | 0.5 | 0.1 | 3.144 | 0.144 | 0.629 | 98.0% | 0.00287 | 0.0126 | 4.38 | N/A - exempt |
| 11 | 4.02 | 11542 | 0.5 | 0.1 | 2.885 | 0.132 | 0.577 | 98.0% | 0.00264 | 0.0115 | 4.02 | N/A - exempt |
| 12* | 1.52 | 4364 | 0.5 | 0.1 | 1.091 | 0.050 | 0.218 | 98.0% | 0.00100 | 0.0044 | 1.52 | N/A - exempt |
| 13* | 0.59 | 1694 | 0.5 | 0.1 | 0.423 | 0.019 | 0.085 | 98.0% | 0.00039 | 0.0017 | 0.59 | N/A - exempt |
| 14* | 0.51 | 1464 | 0.5 | 0.1 | 0.366 | 0.017 | 0.073 | 98.0% | 0.00033 | 0.0015 | 0.51 | N/A - exempt |
| 15* | 0.77 | 2211 | 0.5 | 0.1 | 0.553 | 0.025 | 0.111 | 98.0% | 0.00050 | 0.0022 | 0.77 | N/A - exempt |
| 16* | 0.84 | 2412 | 0.5 | 0.1 | 0.603 | 0.028 | 0.121 | 98.0% | 0.00055 | 0.0024 | 0.84 | N/A - exempt |
| 17* | 0.54 | 1550 | 0.5 | 0.1 | 0.388 | 0.018 | 0.078 | 98.0% | 0.00035 | 0.0016 | 0.54 | N/A - exempt |
| 19* | 0.30 | 861 | 0.5 | 0.1 | 0.215 | 0.010 | 0.043 | 98.0% | 0.00020 | 0.0009 | 0.30 | N/A - exempt |
| 21* | 0.22 | 632 | 0.5 | 0.1 | 0.158 | 0.007 | 0.032 | 98.0% | 0.00014 | 0.0006 | 0.22 | N/A - exempt |
| 22* | 0.35 | 1005 | 0.5 | 0.1 | 0.251 | 0.011 | 0.050 | 98.0% | 0.00023 | 0.0010 | 0.35 | N/A - exempt |
| 23* | 0.13 | 373 | 0.5 | 0.1 | 0.093 | 0.004 | 0.019 | 98.0% | 0.00009 | 0.0004 | 0.13 | N/A - exempt |
| 24* | 2.44 | 7005 | 0.5 | 0.1 | 1.751 | 0.080 | 0.350 | 98.0% | 0.00160 | 0.0070 | 2.44 | N/A - exempt |
| 25 | 4.64 | 13322 | 0.5 | 0.1 | 3.330 | 0.152 | 0.666 | 98.0% | 0.00304 | 0.0133 | 4.64 | N/A - exempt |
| 30* | 1.75 | 5024 | 0.5 | 0.1 | 1.256 | 0.057 | 0.251 | 98.0% | 0.00115 | 0.0050 | 1.75 | N/A - exempt |
| Total for Proposed Configuration | | 124000 | | | 31.00 | 1.42 | 6.20 | | 0.03 | 0.12 | | |
| Total for Previous Configuration (per T033-20219-00038) | | 78770 | 0.5 | 0.1 | 19.693 | 0.899 | 3.939 | | 0.018 | 0.079 | | |
| Total Increase in PTE (including new and modified configuration) | | | | | 11.308 | 0.516 | 2.262 | | 0.010 | 0.045 | | |
| Increase to PTE due to New Unit | | | | | 3.144 | 0.144 | 0.629 | | 0.003 | 0.013 | | |
| Increase to PTE due to Modified Configuration | | | | | 8.164 | 0.373 | 1.633 | | 0.007 | 0.033 | | |

**Insignificant Activity as defined in 326 IAC 2-7-1(21).*

**Methodology**

- Cooling Oil Usage is based on a total potential usage of 124,000 lb/yr for all the bolt formers using the Venturi scrubbers for particulate control. This usage represents an increase in total potential usage from 78,770 pounds per year. The Permittee estimates that the rate of oil to each individual bolt former will be approximately proportional to the rate of units processed by each machine.
- VOC Content, PM Emitted, and Control Efficiency values are based off of calculations performed in Appendix A to the TSD of Part 70 Operating Permit No. T033-20219-00038.
- PTE VOC (ton/yr) = Cooling Oil Usage (lb/yr) * VOC Content (lb VOC/lb Cooling Oil) * (1 ton / 2000 lb)
- The PTE of $PM_{10}$ is assumed to equal the PTE of PM.
- Uncontrolled PTE $PM/PM_{10}$ (lb/hr) = Cooling Oil Usage (lb/yr) * PM Emitted (lb PM/lb Cooling Oil) * (1 yr / 8760 hr)
- Controlled PTE $PM/PM_{10}$ (lb/hr) = Uncontrolled PTE $PM/PM_{10}$ (lb/hr) * (1 - Control Efficiency)
- PTE (ton/yr) = PTE (lb/hr) * (8760 hr/yr) * (1 ton / 2000 lb)
- Total Process Weight Rate (ton/hr) = Rate of Units Processed (ton/hr) + [ Cooling Oil Rate (lb/yr) * (1 yr/8760 hr) * (1 ton / 2000 lb) ]
- Pursuant to 326 IAC 6-3-1(b)(14), manufacturing processes with potential emissions less than 0.551 pounds per hour are exempt from 326 IAC 6-3.