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

Michael R. Pence
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: April 25, 2013

RE: Nucor Vulcraft - St. Joe Division

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

Notice of Decision: Approval - Effective Immediately

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

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

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

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

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

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

Enclosures
FNPER.dot12/03/07

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Tim Jones
Nucor Vulcraft - St. Joe Division
P. O. Box 1000
Saint Joe, IN 46785

April 25, 2013

Re: 033-32598-00027
Significant Source Modification to
Part 70 No.: T033-25285-00027

Dear Mr. Jones:

Nucor Vulcraft - St. Joe Division was issued a Part 70 Operating Permit Renewal on September 10, 2008 for a stationary steel joist and deck fabrication plant located at 6610 County Road 60, St. Joe, Indiana 46785. An application to modify the source was received on November 15, 2012. Pursuant to the provisions of 326 IAC 2-7-12, a significant source modification to this permit is hereby approved as described in the attached Technical Support Document.

Pursuant to 326 IAC 2-7-10.5, the following emission unit is approved for construction at the source:

Two (2) mobile joist fabrication line spray coating operations, approved in 2013 for construction, with a maximum production capacity of 12 tons of steel joists per hour each, to be used at on the Super Long Span, Long Span, Middle Span, Short Span or Combo Joist fabrication line, identified as Spray Coating Unit 1 and Spray Coating Unit 2, using work practice for particulate control.

The following construction conditions are applicable to the proposed modification:

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.

Commenced Construction

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

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

6. Pursuant to 326 IAC 2-7-10.5(m), the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

7. Pursuant to 326 IAC 2-7-10.5(h)(2), this significant source modification authorizes the construction of the new emission unit(s), when the significant source modification has been issued.

   Pursuant to 326 IAC 2-7-12, operation of the new emission unit(s) is not approved until the Permit Renewal No.: T033-32592-00027 has been issued. Operating conditions are incorporated into the Part 70 Permit Renewal No.: T033-32592-00027 in accordance with 326 IAC 2-7-12 (Permit Modification).

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

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 Mehul Sura, OAQ, 100 North Senate Avenue, MC 61-53, Room 1003, Indianapolis, Indiana, 46204-2251, or call at (800) 451-6027, and ask for Mehul Sura or extension (3-6868), or dial (317) 233-6868.

Sincerely,

Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

Attachments:
Updated Permit
Technical Support Document
PTE Calculations

mns

cc: File – DeKalb County
DeKalb County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch
Billing, Licensing and Training Section
Northern Regional Office (NRO)

Mrs. Holly Argiris
ERM, Inc.
11350 N. Merdian, Siute 320
Carmel, IN 46032

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Significant Source Modification to a Part 70 Source
OFFICE OF AIR QUALITY

Nucor Vulcraft - St. Joe Division
6610 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.

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.

Significant Source Modification No.: 033-32598-00027	
Issued by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: April 25, 2013

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SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a stationary stationary steel joist and deck fabrication operation.

Source Address:	6610 County Road 60, St. Joe, Indiana 46785
General Source Phone Number:	(260) 337-1884
SIC Code:	3441 (Fabricated Structural Metal) and 3444 (Sheet Metal Work)
County Location:	DeKalb
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

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

This source consists of two (2) plants:

(a) Nucor Vulcraft Group – St. Joe Division is located at 6610 County Road 60, St. Joe, Indiana 46785 (Plant ID 033-00027); and

(b) Nucor Fastener is located at 6730 County Road 60, St. Joe, Indiana 46785, (Plant ID 033-00038).

On October 11, 2006, in Significant Permit Modification (033-22929-00027), a source determination concluded that Nucor Vulcraft Group – St. Joe Division and Nucor Fastener are under the common control of Nucor Corporation, and will be considered one 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. Nucor Fastener's operations are included as part of Nucor Vulcraft's Part 70 operating source. Therefore, the term "source" in the Part 70 documents refers to both Nucor Vulcraft Group – St. Joe Division and Nucor Fastener as one source.

Separate Part 70 renewal permits have been issued to Nucor Vulcraft Group – St. Joe Division and Nucor Fastener, 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(14)]

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

(a) One (1) steel joist fabrication line, identified as Super Long Span Line, with a maximum production capacity of ten (10) tons of steel joists per hour, constructed in August 1991, including the following:

(1) a GMAW welding area and

(b) one (1) dip-and-drain paint tank.

(b) One (1) steel joist fabrication line, identified as Long Span Line, with a maximum production capacity of ten (10) tons of steel joists per hour, including the following:

(1) a GMAW welding area (constructed in September 1974) and

(2) two (2) dip-and drain paint tanks (constructed in September 1974, with the original solvent-based paint dip tanks replaced with water-based paint dip tanks in January 1993).

(c) One (1) steel joist fabrication line, identified as Middle Span Line, with a maximum production capacity of ten (10) tons of steel joists per hour, including the following:

(1) a GMAW welding area (constructed in March 1972) and

(2) a dip-and-drain paint tank (constructed in 2011).

(d) One (1) steel joist fabrication line, identified as Short Span Line, with a maximum production capacity of nine (9) tons of steel joists per hour, including the following:

(1) a GMAW welding area (constructed in March 1972) and

(2) one (1) vacuum-assisted flow coater (constructed in September 1994 by replacing the original paint dip tanks).

(e) One (1) steel joist fabrication line, identified as Combo Line, with a maximum production capacity of twelve (12) tons of steel joists per hour, including the following:

(1) a GMAW welding area (constructed in October 1985), and

(2) two (2) dip-and drain paint tanks (constructed in October 1985, and replaced with water-based paint dip tanks in September 1994).

(f) One (1) steel bridging fabrication line, identified as Bridging Line, with a maximum production capacity of ten (10) tons per hour, including the following:

(1) a GMAW welding area (constructed in March 1972),

(2) one (1) dip-and drain paint tank (constructed in March 1972 and replaced with water-based dip-and drain tank in September 1992), and

(3) one (1) vacuum coater (constructed in December 1992).

(g) One (1) steel deck fabrication line, identified as Deck Line, with a maximum production capacity of forty (40) tons of steel deck per hour, including the following:

(1) three (3) double-side roll coaters (with 2 roll coaters constructed in October 1977 and the third roll coater constructed in February 1998),

(2) three (3) electric infra-red drying ovens,

(3) two (2) airless spray edge coaters (constructed in February 1998) and

(4) Quench water stations.

Under NSPS Subpart TT, the Deck Line's three (3) roll coaters, infra-red curing ovens, and water quench stations are considered an affected metal coil surface coating facility.

(h) Two (2) mobile steel joist fabrication line spray coating operations, identified as Spray Coating Unit 1 and Spray Coating Unit 2, approved in 2013 for construction, with a maximum production capacity of 12 tons of steel joists per hour each, to be used at the Super Long Span, Long Span, Middle Span, Short Span or Combo Joist fabrication line, using work practices for particulate control.

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

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

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

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

(c) Natural gas-fired space heaters with heat input equal to or less than ten million (10,000,000) Btu per hour.

(d) Propane or LPG, or butane-fired space heaters with heat input equal to or less than six million (6,000,000) Btu per hour.

(e) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu/hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hr.

(f) Combustion source flame safety purging on startup.

(g) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles having a storage capacity less than or equal to 10,500 gallons.

(h) The following VOC and HAP storage containers: Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons.

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

(j) Packaging lubricants or greases.

(k) Filling drums, pails or other packaging containers with lubricating oils, waxes, and greases.

(l) Application of oils, greases, lubricants, or nonvolatile materials applied as temporary protective coatings.

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

(n) Cleaners and solvents characterized as follows:

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

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

(o) Infrared cure equipment.

(p) Cutting 200,000 linear feet or less of one (1) inch plate for structural steel and bridge fabrication activities.

(q) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.

(r) Any operation using aqueous solutions containing less than 1% by weight of VOCs, excluding HAPs.

(s) Process vessel degassing and cleaning to prepare for internal repairs.

(t) Purging gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.

(u) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.

(v) On-site fire and emergency response training approved by the department.

(w) Natural gas turbines or reciprocating engines not exceeding 16,000 horsepower,

(x) Stationary fire pumps, and

(y) Activities with emissions equal to or less than the following thresholds: 5 tons per year PM or PM10, 10 tons per year SO2, NOx, or VOC, 0.2 tons per year Pb, 1.0 tons per year of a single HAP, or 2.5 tons per year of any combination of HAPs:

(1) Two (2) storage tanks, each capable of holding 6,000 gallons of water-based paint, associated with the Deck Line.

(2) Two (2) underground storage tanks, each capable of holding 12,000 gallons of diesel fuel, associated with the Truck Maintenance building.

(z) Aerosol Touch-Up operation, approved in 2013 for construction, using less than 5 gallons of coating per day, no control, exhausting inside the building.

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, T033-25285-00027, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

and

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

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

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

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

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

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

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

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

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

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

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

The Permittee shall implement the PMPs.

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

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

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

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

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

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

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

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

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

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

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

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

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

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

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

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

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

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

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

(A) A description of the emergency;

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

(C) Corrective actions taken.

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

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

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

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

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

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

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

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

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed 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 the U.S. EPA under Section 303 of the Clean Air Act;

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

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

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

(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 T033-25285-00027 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 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit.

[326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

(1) That this permit contains a material mistake.

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

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

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

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

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

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Request for renewal shall be submitted to:

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

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

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

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

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if,

subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(4) The Permittee notifies the:

Indiana Department of Environmental Management

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

and

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

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

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

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

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 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 5-1-1 (Applicability) and 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

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

C.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 asbestos containing material increases or decreases by at least twenty percent (20%); or

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

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

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

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

All required notifications shall be submitted to:

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

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

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

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

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

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

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

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

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

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

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

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

C.12 Risk Management Plan [326 IAC 2-7-5(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.13 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

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

(a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to normal or usual manner of operation.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall record the reasonable response steps taken.

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

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

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

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

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

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

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

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

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

(2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(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 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

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

Records of required monitoring information include the following:

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

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

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

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

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

(b) The address for report submittal is:

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

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

(d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

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

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) One (1) steel joist fabrication line, identified as Super Long Span Line, with a maximum production capacity of ten (10) tons of steel joists per hour, constructed in August 1991, including the following:

(1) a GMAW welding area and

(b) one (1) dip-and-drain paint tank.

(b) One (1) steel joist fabrication line, identified as Long Span Line, with a maximum production capacity of ten (10) tons of steel joists per hour, including the following:

(1) a GMAW welding area (constructed in September 1974) and

(2) two (2) dip-and drain paint tanks (constructed in September 1974, with the original solvent-based paint dip tanks replaced with water-based paint dip tanks in January 1993).

(c) One (1) steel joist fabrication line, identified as Middle Span Line, with a maximum production capacity of ten (10) tons of steel joists per hour, including the following:

(1) a GMAW welding area (constructed in March 1972) and

(2) a dip-and-drain paint tank (constructed in 2011).

(d) One (1) steel joist fabrication line, identified as Short Span Line, with a maximum production capacity of nine (9) tons of steel joists per hour, including the following:

(1) a GMAW welding area (constructed in March 1972) and

(2) one (1) vacuum-assisted flow coater (constructed in September 1994 by replacing the original paint dip tanks).

(e) One (1) steel joist fabrication line, identified as Combo Line, with a maximum production capacity of twelve (12) tons of steel joists per hour, including the following:

(1) a GMAW welding area (constructed in October 1985), and

(2) two (2) dip-and drain paint tanks (constructed in October 1985, and replaced with water-based paint dip tanks in September 1994).

(f) One (1) steel bridging fabrication line, identified as Bridging Line, with a maximum production capacity of ten (10) tons per hour, including the following:

(1) a GMAW welding area (constructed in March 1972),

(2) one (1) dip-and drain paint tank (constructed in March 1972) and

(3) one (1) vacuum coater (constructed in December 1992).

(g) One (1) steel deck fabrication line, identified as Deck Line, with a maximum production

capacity of forty (40) tons of steel deck per hour, including the following:

(1) three (3) double-side roll coaters (with 2 roll coaters constructed in October 1977 and the third roll coater constructed in February 1998),

(2) three (3) electric infra-red drying ovens,

(3) two (2) airless spray edge coaters (constructed in February 1998) and

(4) Quench water stations.

Under NSPS Subpart TT, the Deck Line's three (3) roll coaters, infra-red curing ovens, and water quench stations are considered an affected metal coil surface coating facility.

(h) Two (2) mobile steel joist fabrication line spray coating operations, identified as Spray Coating Unit 1 and Spray Coating Unit 2, approved in 2013 for construction, with a maximum production capacity of 12 tons of steel joists per hour each, to be used at the Super Long Span, Long Span, Middle Span, Short Span or Combo Joist fabrication line, using work practices for particulate control.

Insignificant Activities

(z) Aerosol Touch-Up operation, approved in 2013 for construction, using less than 5 gallons of coating per day, no control, exhausting inside the building.

(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 VOC PSD Minor Limit [326 IAC 2-2]

In order to render 326 IAC 2-2 not applicable, the VOC input, including coatings, dilution solvents, and cleaning solvents, to the Super Long Span Line, Long Span Line, Middle Span Line, Short Span Line, Combo Line, Bridging Line, Deck Line, Spray Coating Unit 1, Spray Coating Unit 2 and Aerosol Touch-Up Operation shall not exceed 210 tons, combined, per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with the above limit, in conjunction with the potential to emit VOC from other emission units at the source, shall limit the source-wide PTE of VOC from the entire source (Nucor Vulcraft Group – St. Joe Division and Nucor Fastener) to less than 250 tons per twelve (12) consecutive month period and renders the source minor under 326 IAC 2-2, PSD.

D.1.2 PM, PM10 and PM2.5 PSD Minor Limits [326 IAC 2-2]

In order to render 326 IAC 2-2 not applicable,

(a) The spray coatings applied at the Spray Coating Units 1 and 2 shall be limited such that the total PM emissions from Spray Coating Unit 1 and 2 shall not exceed 142 tons per twelve consecutive month period with compliance determined at the end of each month.

(b) The spray coatings applied at Spray Coating Units 1 and 2 shall be limited such that total PM10 emissions from Spray Coating Units 1 and 2 shall not exceed 142 tons per twelve consecutive month period with compliance determined at the end of each month.

(c) The spray coatings applied at Spray Coating Units 1 and 2 shall be limited such that total PM2.5 emissions from Spray Coating Units 1 and 2 shall not exceed 142 tons per twelve consecutive month period with compliance determined at the end of each month.

Compliance with the above limits, in conjunction with the potential to emit PM, PM10 and PM2.5 from other emission units at the source, shall limit the source-wide PTE of VOC from the entire source (Nucor Vulcraft Group – St. Joe Division and Nucor Fastener) to less than 250 tons per twelve (12) consecutive month period, each, and renders the source minor under 326 IAC 2-2, PSD.

D.1.3 Volatile Organic Compound (VOC) (Miscellaneous Metal Coating) [326 IAC 8-2-9]

(a) Pursuant to 326 IAC 8-2-9(c)(2), the VOC content of the primer coatings delivered to the applicators of the Super Long Span Line, Long Span Line, Middle Span Line, Short Span Line, Combo Line, Spray Coating Unit 1 and Spray Coating Unit 2 shall be limited to 3.5 pounds of VOC per gallon of coating less water, for forced warm air dried coatings.

(b) Pursuant to 326 IAC 8-2-9(c)(2), the VOC content of the primer coatings delivered to the applicators of the Bridging Line shall be limited to 3.5 pounds of VOC per gallon of coating less water, for forced warm air dried coatings.

(c) Pursuant to 326 IAC 8-2-9(c)(1), the VOC content of the clear coatings delivered to the applicators of the Deck Line edge coaters shall be limited to 4.3 pounds of VOC per gallon of coating less water.

(d) Pursuant to 326 IAC 8-2-9(f), the Work practices shall include the following:

(1) Store all VOC containing coatings, thinners, coating related waste, and cleaning materials in closed containers.

(2) Ensure that mixing and storage containers used for VOC containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials.

(3) Minimize spills of VOC containing coatings, thinners, coating related waste, and cleaning materials.

(4) Convey VOC containing coatings, thinners, coating related waste, and cleaning materials from one (1) location to another in closed containers or pipes.

(5) Minimize VOC emissions from the cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

D.1.4 Volatile Organic Compound (VOC) [326 IAC 8-2-4]

Pursuant to IAC 8-2-4 (Coil Coating Operations), the volatile organic compound (VOC) content of coatings applied to any flat metal sheets or strips that are delivered in rolls or coils to the Deck Line's three (3) roll coaters, infra-red curing ovens, and water quench stations shall be limited to 2.6 pounds of VOC per gallon of coating, excluding water.

D.1.5 Particulate [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), the particulate emissions from Spray Coating Unit 1 and Spray Coating Unit 2 shall be controlled by a dry particulate filter, waterwash, or an equivalent control device. The Permittee shall use following work practices as equivalent control for Spray Coating Unit 1 and Spray Coating Unit 2:

(a) Conduct all spray coating operations within an enclosed building.

(b) Close main doors, overhead doors and powered vents located within 100 feet of the spray equipment, and keep them closed during spray operations.

(c) Collect coating overspray on drip boards or disposable media such as cardboard or plastic sheets, and/or collect dry-fall paint on floor surfaces.

(d) Contain and dispose dry-fall paint from drip boards, disposable media and floor surfaces to prevent re-entrainment to exhaust air.

D.1.6 Preventative Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan (PMP) is required for these facilities. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.1.7 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]

Compliance with the VOC content and usage limitations contained in Conditions D.1.1, D.1.3 and D.1.4 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the “as supplied” and “as applied” VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.1.8 Particulate Matter (PM/PM10) Emissions Determination [326 IAC 2-2]

In order to comply with Condition D.1.2, the PM, PM10 and PM2.5 emissions from Spray Coating Unit 1 and Spray Coating Unit 2 shall be determined as follows:

$$PM/PM10/PM2.5 = (\sum CU \times D \times W\%S) \times (1-TE/100) \times (1-CE/100) \times 1/2000$$

Where:

PM/PM10/PM2.5 =		The total PM/PM10/PM2.5 emissions (ton/month) for all coatings.
CU	=	The total coating use (gal coating/month) of each coating.
D	=	The density (lb coating/gal coating) of each coating.
W%S	=	The weight percent solids (lb solids/lb coating) of each coating.
TE	=	The transfer efficiency (%) of the spray applicators. This value shall equal 60% unless an IDEM approved test is conducted, in which case the value shall equal that determined from the most recent IDEM approved test.

Compliance Monitoring Requirements

D.1.9 Monitoring

Weekly observations shall be made of the overspray from the Spray Coating Unit 1 and

Spray Coating Unit 2 while these units are in operation. If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

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

D.1.10 Record Keeping Requirements

(a) To document compliance with Conditions D.1.1 and D.1.3, the Permittee shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) shall be taken as indicated below and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.1.1 and D.1.3.

(1) VOC and HAP content of each coating material and solvent used;

(2) The amount of coating material and solvent used less water on daily basis.

(A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.

(3) The cleanup solvent usage for each month;

(4) The total VOC usage for each month; and

(5) The weight of VOCs emitted for each compliance period.

(6) The VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(7) The cleanup solvent usage for each month;

(b) To document the compliance status with Condition D.1.2, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to demonstrate compliance with the PM, PM10 and PM2.5 emission limits established in Condition D.1.2.

(1) The amount of each coating material used (as applied) at Spray Coating Unit 1 and Spray Coating Unit 2. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(2) The density and weight percent solids of each coating material used (as applied) Spray Coating Unit 1 and Spray Coating Unit 2.

(3) The PM, PM10 and PM2.5 emissions for each compliance period.

(c) To document the compliance status with Condition D.1.9, the Permittee shall maintain a log of weekly overspray observations. The Permittee shall include in its weely record when weekly overspray observation is not made and the reason for the lack of a weekly overspray observations, (i.e. the process did not operate that day).

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

D.1.11 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1 and D.1.2 shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days following the end of each calendar quarter. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Specifically Regulated Insignificant Activities - Degreasers

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

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

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

D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2(a), the Permittee shall comply with the following requirements for the degreasers:

(1) Equip the degreaser with a cover.

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

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

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

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

(6) Store waste solvent only in closed containers.

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

SECTION E.1 Standards of Performance for Metal Coil Coating NSPS

Emissions Unit Description:

(g) One (1) steel deck fabrication line, identified as Deck Line, with a maximum production capacity of forty (40) tons of steel deck per hour, including the following:

(1) three (3) double-side roll coaters (with 2 roll coaters constructed in October 1977 and the third roll coater constructed in February 1998),

(2) three (3) electric infra-red drying ovens,

(3) two (2) airless spray edge coaters (constructed in February 1998) and

(4) Quench water stations.

Under NSPS Subpart TT, the Deck Line's three (3) roll coaters, infra-red curing ovens, and water quench stations are considered an affected metal coil surface coating facility.

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

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

E.1.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A] [326 IAC 12]

The provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the Deck Line's three (3) roll coaters, infra-red curing ovens, and water quench stations except when otherwise specified in 40 CFR 60 Subpart TT.

E.1.2 Standards of Performance for Metal Coil Coating NSPS [40 CFR Part 60, Subpart TT]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart TT, which is incorporated by reference and included as Attachment A to this permit, for the Deck Line's three (3) roll coaters, infra-red curing ovens, and water quench stations:

(a) 40 CFR 60.460
(b) 40 CFR 60.461
(c) 40 CFR 60.462(a)(1)
(d) 40 CFR 60.463(a), (b), and (c)(1)
(e) 40 CFR 60.464(a)
(f) 40 CFR 60.465(a), (c), and (e)
(g) 40 CFR 60.466(a)(1) and (b)

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

Source Name: Nucor Vulcraft - St. Joe Division
Source Address: 6610 County Road 60, St. Joe, Indiana 46785
Part 70 Permit No.: T033-25285-00027

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

Please check what document is being certified:

□ Annual Compliance Certification Letter

□ Test Result (specify)

□ Report (specify)

□ Notification (specify)

□ Affidavit (specify)

□ Other (specify)

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

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Nucor Vulcraft - St. Joe Division
Source Address: 6610 County Road 60, St. Joe, Indiana 46785
Part 70 Permit No.: T033-25285-00027

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: _____

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

Part 70 Quarterly Report

Source Name: Nucor Vulcraft - St. Joe Division
Source Address: 6610 County Road 60, St. Joe, Indiana 46785
Part 70 Permit No.: T033-25285-00027
Facility: Super Long Span Line, Long Span Line, Middle Span Line, Short Span Line, Combo Line, Bridging Line, Deck Line, Spray Coating Unit 1,Spray Coating Unit 2 and Aerosol Touch-Up
Parameter: VOC Usage
Limit: 210 tons/year with compliance determined at the end of each month

QUARTER: _____ YEAR: _____

Month	VOC Usage for This Month (tons)	VOC Usage for Previous 11 Months (tons)	VOC Usage for 12-Month Period (tons)

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: _____

Submitted By: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

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

Part 70 Quarterly Report

Source Name: Nucor Vulcraft - St. Joe Division
Source Address: 6610 County Road 60, St. Joe, Indiana 46785
Part 70 Permit No.: T033-25285-00027
Facility: Spray Coating Unit 1 and Spray Coating Unit 2
Parameter: total PM, PM10 and PM2.5 emissions, each
Limit: 142 tons/year with compliance determined at the end of each month

QUARTER: _____ YEAR: _____

Month	total PM, PM10 and PM2.5 emissions for This Month (tons)	total PM, PM10 and PM2.5 emissions for Previous 11 Months (tons)	total PM, PM10 and PM2.5 emissions for 12-Month Period (tons)

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: _____

Submitted By: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Nucor Vulcraft - St. Joe Division
Source Address: 6610 County Road 60, St. Joe, Indiana 46785
Part 70 Permit No.: T033-25285-00027

Months: _____ to _____ Year: _____

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C-General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of 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:	

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Indiana Department of Environmental Management
Office of Air Quality

Attachment A
for a
Part 70 Operating Permit

Source Background and Description

Source Name:	Nucor Vulcraft - St. Joe Division
Source Location:	6610 County Road 60, St. Joe, Indiana 46785
County:	DeKalb
SIC Code:	3441 (Fabricated Structural Metal), 3444 (Sheet Metal Work)
Significant Source Modification No.:	033-32598-00027
Permit Renewal No.:	T033-32592-00027
Permit Reviewer:	Mehul Sura

SOURCE: 47 FR 49612, Nov. 1, 1982, unless otherwise noted.

§ 60.460 Applicability and designation of affected facility.

(a) The provisions of this subpart apply to the following affected facilities in a metal coil surface coating operation: each prime coat operation, each finish coat operation, and each prime and finish coat operation combined when the finish coat is applied wet on wet over the prime coat and both coatings are cured simultaneously.

(b) This subpart applies to any facility identified in paragraph (a) of this section that commences construction, modification, or reconstruction after January 5, 1981.

§ 60.461 Definitions.

(a) All terms used in this subpart not defined below are given the same meaning as in the Act or in subpart A of this part.

Coating means any organic material that is applied to the surface of metal coil.

Coating application station means that portion of the metal coil surface coating operation where the coating is applied to the surface of the metal coil. Included as part of the coating application station is the flashoff area between the coating application station and the curing oven.

Curing oven means the device that uses heat or radiation to dry or cure the coating applied to the metal coil.

Finish coat operation means the coating application station, curing oven, and quench station used to apply and dry or cure the final coating(s) on the surface of the metal coil. Where only a single coating is applied to the metal coil, that coating is considered a finish coat.

Metal coil surface coating operation means the application system used to apply an organic coating to the surface of any continuous metal strip with thickness of 0.15 millimeter (mm) (0.006 in.) or more that is packaged in a roll or coil.

Prime coat operation means the coating application station, curing oven, and quench station used to apply and dry or cure the initial coating(s) on the surface of the metal coil.

Quench station means that portion of the metal coil surface coating operation where the coated metal coil is cooled, usually by a water spray, after baking or curing.

VOC content means the quantity, in kilograms per liter of coating solids, of volatile organic compounds (VOC's) in a coating.

(b) All symbols used in this subpart not defined below are given the same meaning as in the Act and in subpart A of this part.

C_a = the VOC concentration in each gas stream leaving the control device and entering the atmosphere (parts per million by volume, as carbon).

C_b = the VOC concentration in each gas stream entering the control device (parts per million by volume, as carbon).

C_f = the VOC concentration in each gas steam emitted directly to the atmosphere (parts per million by volume, as carbon).

D_c = density of each coating, as received (kilograms per liter).

D_d = density of each VOC-solvent added to coatings (kilograms per liter).

D_r = density of VOC-solvent recovered by an emission control device (kilograms per liter).

E= VOC destruction efficiency of the control device (fraction).

F= the proportion of total VOC's emitted by an affected facility that enters the control device (fraction).

G= volume-weighted average mass of VOC's in coatings consumed in a calendar month per unit volume of coating solids applied (kilograms per liter).

L_c = the volume of each coating consumed, as received (liters).

L_d = the volume of each VOC-solvent added to coatings (liters).

L_r = the volume of VOC-solvent recovered by an emission control device (liters).

L_s = the volume of coating solids consumed (liters).

M_d = the mass of VOC-solvent added to coatings (kilograms).

M_o = the mass of VOC's in coatings consumed, as received (kilograms).

M_r = the mass of VOC's recovered by an emission control device (kilograms).

N= the volume-weighted average mass of VOC emissions to the atmosphere per unit volume of coating solids applied (kilograms per liter).

Q_a = the volumetric flow rate of each gas stream leaving the control device and entering the atmosphere (dry standard cubic meters per hour).

Q_b = the volumetric flow rate of each gas stream entering the control device (dry standard cubic meters per hour).

Q_f = the volumetric flow rate of each gas steam emitted directly to the atmosphere (dry standard cubic meters per hour).

R= the overall VOC emission reduction achieved for an affected facility (fraction).

S= the calculated monthly allowable emission limit (kilograms of VOC per liter of coating solids applied).

V_s = the proportion of solids in each coating, as received (fraction by volume).

W_o = the proportion of VOC's in each coating, as received (fraction by weight).

§ 60.462 Standards for volatile organic compounds.

(a) On and after the date on which § 60.8 requires a performance test to be completed, each owner or operator subject to this subpart shall not cause to be discharged into the atmosphere more than:

(1) 0.28 kilogram VOC per liter (kg VOC/ *l*) of coating solids applied for each calendar month for each affected facility that does not use an emission control device(s); or

(2) 0.14 kg VOC/ *l* of coating solids applied for each calendar month for each affected facility that continuously uses an emission control device(s) operated at the most recently demonstrated overall efficiency; or

(3) 10 percent of the VOC's applied for each calendar month (90 percent emission reduction) for each affected facility that continuously uses an emission control device(s) operated at the most recently demonstrated overall efficiency; or

(4) A value between 0.14 (or a 90-percent emission reduction) and 0.28 kg VOC/ *l* of coating solids applied for each calendar month for each affected facility that intermittently uses an emission control device operated at the most recently demonstrated overall efficiency.

§ 60.463 Performance test and compliance provisions.

(a) Section 60.8(d) and (f) do not apply to the performance test.

(b) The owner or operator of an affected facility shall conduct an initial performance test as required under § 60.8(a) and thereafter a performance test for each calendar month for each affected facility according to the procedures in this section.

(c) The owner or operator shall use the following procedures for determining monthly volume-weighted average emissions of VOC's in kg/ *l* of coating solids applied.

(1) An owner or operator shall use the following procedures for each affected facility that does not use a capture system and control device to comply with the emission limit specified under § 60.462(a)(1). The owner or operator shall determine the composition of the coatings by formulation data supplied by the manufacturer of the coating or by an analysisof each coating, as received, using Method 24. The Administrator may require the owner or operator who uses formulation data supplied by the manufacturer of the coatings to determine the VOC content of coatings using Method 24 or an equivalent or alternative method. The owner or operator shall

determine the volume of coating and the mass of VOC-solvent added to coatings from company records on a monthly basis. If a common coating distribution system serves more than one affected facility or serves both affected and existing facilities, the owner or operator shall estimate the volume of coating used at each affected facility by using the average dry weight of coating and the surface area coated by each affected and existing facility or by other procedures acceptable to the Administrator.

(i) Calculate the volume-weighted average of the total mass of VOC's consumed per unit volume of coating solids applied during each calendar month for each affected facility, except as provided under paragraph (c)(1)(iv) of this section. The weighted average of the total mass of VOC's used per unit volume of coating solids applied each calendar month is determined by the following procedures.

(A) Calculate the mass of VOC's used (Mo+Md) during each calendar month for each affected facility by the following equation:

$$M_o + M_d = \sum_{i=1}^{n} L_{ci} D_{ci} W_{oi} + \sum_{j=1}^{m} L_{dj} D_{dj} \qquad Equation\ 1$$

($\Sigma L_{dj}\ D_{dj}$ will be 0 if no VOC solvent is added to the coatings, as received)

where

n is the number of different coatings used during the calendar month, and

m is the number of different VOC solvents added to coatings used during the calendar month.

(B) Calculate the total volume of coating solids used (L_s) in each calendar month for each affected facility by the following equation:

$$L_s = \sum_{i=1}^{n} V_{si} L_{ci} \qquad Equation\ 2$$

Where:

n is the number of different coatings used during the calendar month.

(C) Calculate the volume-weighted average mass of VOC's used per unit volume of coating solids applied (G) during the calendar month for each affected facility by the following equation:

$$G = \frac{M_o + M_d}{L_s} \qquad Equation\ 3$$

(ii) Calculate the volume-weighted average of VOC emissions to the atmosphere (N) during the calendar month for each affected facility by the following equation:

$$N = G \qquad Equation\ 4$$

(iii) Where the volume-weighted average mass of VOC's discharged to the atmosphere per unit volume of coating solids applied (N) is equal to or less than 0.28 kg/ *l,* the affected facility is in compliance.

(iv) If each individual coating used by an affected facility has a VOC content, as received, that is equal to or less than 0.28 kg/ *l* of coating solids, the affected facility is in compliance provided no VOC's are added to the coatings during distribution or application.

(2) An owner or operator shall use the following procedures for each affected facility that continuously uses a capture system and a control device that destroys VOC's (e.g., incinerator) to comply with the emission limit specified under § 60.462(a) (2) or (3).

(i) Determine the overall reduction efficiency (R) for the capture system and control device.

For the initial performance test, the overall reduction efficiency (R) shall be determined as prescribed in paragraphs (c)(2)(i) (A), (B), and (C) of this section. In subsequent months, the owner or operator may use the most recently determined overall reduction efficiency (R) for the performance test, providing control device and capture system operating conditions have not changed. The procedure in paragraphs (c)(2)(i) (A), (B), and (C) of this section, shall be repeated when directed by the Administrator or when the owner or operator elects to operate the control device or capture system at conditions different from the initial performance test.

(A) Determine the fraction (F) of total VOC's emitted by an affected facility that enters the control device using the following equation:

$$F = \frac{\sum_{i=1}^{l} C_{ai} Q_{ai}}{\sum_{i=1}^{l} C_{ai} Q_{ai} + \sum_{j=1}^{p} C_{fj} Q_{fj}}$$

Equation 5

Where:

l is the number of gas streams entering the control device, and

p is the number of gas streams emitted directly to the atmosphere.

(B) Determine the destruction efficiency of the control device (E) using values of the volumetric flow rate of each of the gas streams and the VOC content (as carbon) of each of the gas streams in and out of the device by the following equation:

$$E = \frac{\sum_{i=1}^{n} Q_{bi} C_{bi} - \sum_{j=1}^{m} Q_{aj} C_{aj}}{\sum_{i=1}^{n} Q_{bi} C_{bi}}$$

Equation 6

Where:

n is the number of gas streams entering the control device, and

m is the number of gas streams leaving the control device and entering the atmosphere.

The owner or operator of the affected facility shall construct the VOC emission reduction system so that all volumetric flow rates and total VOC emissions can be accurately determined by the applicable test methods and procedures specified in § 60.466. The owner or operator of the affected facility shall construct a temporary enclosure around the coating applicator and flashoff area during the performance test for the purpose of evaluating the capture efficiency of the system. The enclosure must be maintained at a negative pressure to ensure that all VOC emissions are measurable. If a permanent enclosure exists in the affected facility prior to the performance test and the Administrator is satisfied that the enclosure is adequately containing VOC emissions, no additional enclosure is required for the performance test.

(C) Determine overall reduction efficiency (R) using the following equation:

$$R=EF \qquad Equation\ 7$$

If the overall reduction efficiency (R) is equal to or greater than 0.90, the affected facility is in compliance and no further computations are necessary. If the overall reduction efficiency (R) is less than 0.90, the average total VOC emissions to the atmosphere per unit volume of coating solids applied (N) shall be computed as follows.

(ii) Calculate the volume-weighted average of the total mass of VOC's per unit volume of coating solids applied (G) during each calendar month for each affected facility using equations in paragraphs (c)(1)(i) (A), (B), and (C) of this section.

(iii) Calculate the volume-weighted average of VOC emissions to the atmosphere (N) during each calendar month by the following equation:

$$N=G(1-R) \qquad Equation\ 8$$

(iv) If the volume-weighted average mass of VOC's emitted to the atmosphere for each calendar month (N) is less than or equal to 0.14 kg/ *l* of coating solids applied, the affected facility is in compliance. Each monthly calculation is a performance test.

(3) An owner or operator shall use the following procedure for each affected facility that uses a control device that recovers the VOC's (e.g., carbon adsorber) to comply with the applicable emission limit specified under § 60.462(a) (2) or (3).

(i) Calculate the total mass of VOC's consumed ($M_o + M_d$) during each calendar month for each affected facility using equation (1).

(ii) Calculate the total mass of VOC's recovered (M_r) during each calendar month using the following equation:

$$M_r = L_r D_r \qquad Equation\ 9$$

(iii) Calculate the overall reduction efficiency of the control device (R) for each calendar month for each affected facility using the following equation:

$$R=\frac{M_r}{M_o + M_d} \qquad Equation\ 10$$

If the overall reduction efficiency (R) is equal to or greater than 0.90, the affected facility is in compliance and no further computations are necessary. If the overall reduction efficiency (R) is less than 0.90, the average total VOC emissions to the atmosphere per unit volume of coating solids applied (N) must be computed as follows.

(iv) Calculate the total volume of coating solids consumed (L_s) and the volume-weighted average of the total mass of VOC's per unit volume of coating solids applied (G) during each calendar month for each affected facility using equations in paragraphs (c)(1)(i) (B) and (C) of this section.

(v) Calculate the volume-weighted average mass of VOC's emitted to the atmosphere (N) for each calendar month for each affected facility using equation (8).

(vi) If the weighted average mass of VOC's emitted to the atmosphere for each calendar month (N) is less than or equal to 0.14 kg/ *l* of coating solids applied, the affected facility is in compliance. Each monthly calculation is a performance test.

(4) An owner or operator shall use the following procedures for each affected facility that intermittently uses a capture system and a control device to comply with the emission limit specified in § 60.462(a)(4).

(i) Calculate the total volume of coating solids applied without the control device in operation (L_{sn}) during each calendar month for each affected facility using the following equation:

$$L_{sn} = \sum_{i=1}^{n} V_{si} L_{ci} \quad Equation\ 11$$

Where:

n is the number of coatings used during the calendar month without the control device in operation.

(ii) Calculate the total volume of coating solids applied with the control device in operation (L_{sc}) during each calendar month for each affected facility using the following equation:

$$L_{sc} = \sum_{i=1}^{n} V_{si} L_{ci} \quad Equation\ 12$$

Where:

n is the number of coatings used during the calendar month with the control device in operation.

(iii) Calculate the mass of VOC's used without the control device in operation (M_{on} +M_{dn}) during each calendar month for each affected facility using the following equation:

$$M_{on} + M_{dn} + \sum_{i=1}^{n} L_{ci} D_{ci} W_{ci} + \sum_{j=1}^{m} L_{dj} D_{dj} \quad Equation\ 13$$

Where:

n is the number of different coatings used without the control device in operation during the calendar month, and

m is the number of different VOC-solvents added to coatings used without the control device in operation during the calendar month.

(iv) Calculate the volume-weighted average of the total mass of VOC's consumed per unit volume of coating solids applied without the control device in operation (G_n) during each calendar month for each affected facility using the following equation:

$$G_n = \frac{M_{on} + M_{dn}}{L_{sn}} \qquad Equation\ 14$$

(v) Calculate the mass of VOC's used with the control device in operation (M_{oc} +M_{dc}) during each calendar month for each affected facility using the following equation:

$$M_{oc} + M_{dc} = \sum_{i=1}^{n} L_{ci} D_{ci} W_{ci} + \sum_{j=1}^{m} L_{dj} D_{dj} \qquad Equation\ 15$$

Where:

n is the number of different coatings used with the control device in operation during the calendar month, and

m is the number of different VOC-solvents added to coatings used with the control device in operation during the calendar month.

(vi) Calculate the volume-weighted average of the total mass of VOC's used per unit volume of coating solids applied with the control device in operation (G_c) during each calendar month for each affected facility using the following equation:

$$G = \frac{M_{oc} + M_{dc}}{L_{sn}} \qquad Equation\ 16$$

(vii) Determine the overall reduction efficiency (R) for the capture system and control device using the procedures in paragraphs (c)(2)(i) (A), (B), and (C) or paragraphs (c)(3) (i), (ii), and (iii) of this section, whichever is applicable.

(viii) Calculate the volume-weighted average of VOC emissions to the atmosphere (N) during each calendar month for each affected facility using the following equation:

$$N = \frac{G_n L_{sn} + G_c L_{sc} (1 - R)}{L_{sn} + L_{sc}} \qquad Equation\ 17$$

Equation 17

(ix) Calculate the emission limit(s) for each calendar month for each affected facility using the following equation:

$$S = \frac{0.28\,L_{sn} + 0.1\,G_c L_{sc}}{L_{ns} + L_{sc}}$$

or

$$\frac{0.28\,L_{sn} + 0.14\,L_{sc}}{L_{sn} + L_{sc}} \qquad \textit{Equation 18}$$

whichever is greater.

(x) If the volume-weighted average mass of VOC's emitted to the atmosphere for each calendar month (N) is less than or equal to the calculated emission limit (S) for the calendar month, the affected facility is in compliance. Each monthly calculation is a performance test.

[47 FR 49612, Nov. 1, 1982; 48 FR 1056, Jan. 10, 1983, as amended at 65 FR 61761, Oct. 17, 2000]

§ 60.464 Monitoring of emissions and operations.

(a) Where compliance with the numerical limit specified in § 60.462(a) (1) or (2) is achieved through the use of low VOC-content coatings without the use of emission control devices or through the use of higher VOC-content coatings in conjunction with emission control devices, the owner or operator shall compute and record the average VOC content of coatings applied during each calendar month for each affected facility, according to the equations provided in § 60.463.

(b) Where compliance with the limit specified in § 60.462(a)(4) is achieved through the intermittent use of emission control devices, the owner or operator shall compute and record for each affected facility the average VOC content of coatings applied during each calendar month according to the equations provided in § 60.463.

(c) If thermal incineration is used, each owner or operator subject to the provisions of this subpart shall install, calibrate, operate, and maintain a device that continuously records the combustion temperature of any effluent gases incinerated to achieve compliance with § 60.462(a)(2), (3), or (4). This device shall have an accuracy of ±2.5 °C. or ±0.75 percent of the temperature being measured expressed in degrees Celsius, whichever is greater. Each owner or operator shall also record all periods (during actual coating operations) in excess of 3 hours during which the average temperature in any thermal incinerator used to control emissions from an affected facility remains more than 28 °C (50 °F) below the temperature at which compliance with § 60.462(a)(2), (3), or (4) was demonstrated during the most recent measurement of incinerator efficiency required by § 60.8. The records required by § 60.7 shall identify each such occurrence and its duration. If catalytic incineration is used, the owner or operator shall install, calibrate, operate, and maintain a device to monitor and record continuously the gas temperature both upstream and downstream of the incinerator catalyst bed. This device shall have an accuracy of ±2.5 °C. or ±0.75 percent of the temperature being measured expressed in degrees Celsius, whichever is greater. During coating operations, the owner or operator shall record all periods in excess of 3 hours where the average difference between the temperature upstream and downstream of the incinerator catalyst bed remains below 80 percent of the temperature difference at which compliance was demonstrated during the most recent measurement of incinerator efficiency or when the inlet temperature falls more than 28 °C (50 °F) below the temperature at which compliance with § 60.462(a)(2), (3), or (4) was demonstrated during the most recent measurement of incinerator efficiency required by § 60.8. The records required by § 60.7 shall identify each such occurrence and its duration.

[47 FR 49612, Nov. 1, 1982; 48 FR 1056, Jan. 10, 1983, as amended at 65 FR 61761, Oct. 17, 2000]

§ 60.465 Reporting and recordkeeping requirements.

(a) Where compliance with the numerical limit specified in § 60.462(a) (1), (2), or (4) is achieved through the use of low VOC-content coatings without emission control devices or through the use of higher VOC-content coatings in conjunction with emission control devices, each owner or operator subject to the provisions of this subpart shall include in the initial compliance report required by § 60.8 the weighted average of the VOC content of coatings used during a period of one calendar month for each affected facility. Where compliance with § 60.462(a)(4) is achieved through the intermittent use of a control device, reports shall include separate values of the weighted average VOC content of coatings used with and without the control device in operation.

(b) Where compliance with § 60.462(a)(2), (3), or (4) is achieved through the use of an emission control device that destroys VOC's, each owner or operator subject to the provisions of this subpart shall include the following data in the initial compliance report required by § 60.8:

(1) The overall VOC destruction rate used to attain compliance with § 60.462(a)(2), (3), or (4) and the calculated emission limit used to attain compliance with § 60.462(a)(4); and

(2) The combustion temperature of the thermal incinerator or the gas temperature, both upstream and downstream of the incinerator catalyst bed, used to attain compliance with § 60.462(a)(2), (3), or (4).

(c) Following the initial performance test, the owner or operator of an affected facility shall identify, record, and submit a written report to the Administrator every calendar quarter of each instance in which the volume-weighted average of the local mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) is greater than the limit specified under § 60.462. If no such instances have occurred during a particular quarter, a report stating this shall be submitted to the Administrator semiannually.

(d) The owner or operator of each affected facility shall also submit reports at the frequency specified in § 60.7(c) when the incinerator temperature drops as defined under § 60.464(c). If no such periods occur, the owner or operator shall state this in the report.

(e) Each owner or operator subject to the provisions of this subpart shall maintain at the source, for a period of at least 2 years, records of all data and calculations used to determine monthly VOC emissions from each affected facility and to determine the monthly emission limit, where applicable. Where compliance is achieved through the use of thermal incineration, each owner or operator shall maintain, at the source, daily records of the incinerator combustion temperature. If catalytic incineration is used, the owner or operator shall maintain at the source daily records of the gas temperature, both upstream and downstream of the incinerator catalyst bed.

[47 FR 49612, Nov. 1, 1982, as amended at 55 FR 51383, Dec. 13, 1990; 56 FR 20497, May 3, 1991; 65 FR 61761, Oct. 17, 2000]

§ 60.466 Test methods and procedures.

(a) The reference methods in appendix A to this part, except as provided under § 60.8(b), shall be used to determine compliance with § 60.462 as follows:

(1) Method 24, or data provided by the formulator of the coating, shall be used for determining the VOC content of each coating as applied to the surface of the metal coil. In the event of a dispute, Method 24 shall be the reference method. When VOC content of waterborne coatings, determined by Method 24, is used to determine compliance of affected facilities, the results of the Method 24 analysis shall be adjusted as described in Section 12.6 of Method 24;

(2) Method 25, both for measuring the VOC concentration in each gas stream entering and leaving the control device on each stack equipped with an emission control device and for measuring the VOC concentration in each gas stream emitted directly to the atmosphere;

(3) Method 1 for sample and velocity traverses;

(4) Method 2 for velocity and volumetric flow rate;

(5) Method 3 for gas analysis; and

(6) Method 4 for stack gas moisture.

(b) For Method 24, the coating sample must be at least a 1-liter sample taken at a point where the sample will be representative of the coating as applied to the surface of the metal coil.

(c) For Method 25, the sampling time for each of three runs is to be at least 60 minutes, and the minimum sampling volume is to be at least 0.003 dscm (0.11 dscf); however, shorter sampling times or smaller volumes, when necessitated by process variables or other factors, may be approved by the Administrator.

(d) The Administrator will approve testing of representative stacks on a case-by-case basis if the owner or operator can demonstrate to the satisfaction of the Administrator that testing of representative stacks yields results comparable to those that would be obtained by testing all stacks.

[47 FR 49612, Nov. 1, 1982, as amended at 51 FR 22938, June 24, 1986; 65 FR 61761, Oct. 17, 2000]

Indiana Department of Environmental Management
Office of Air Quality

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

Source Background and Description

Source Name:	Nucor Vulcraft - St. Joe Division
Source Location:	6610 County Road 60, St. Joe, Indiana 46785
County:	DeKalb
SIC Code:	3441 (Fabricated Structural Metal), 3444 (Sheet Metal Work)
Significant Source Modification No.:	033-32598-00027
Permit Renewal No.:	T033-32592-00027
Permit Reviewer:	Mehul Sura

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Nucor Vulcraft - St. Joe Division relating to the operation of a stationary steel joist and deck fabrication plant. On November 15, 2012 Nucor Vulcraft - St. Joe Division submitted an application to the OAQ requesting to renew its operating permit. Nucor Vulcraft - St. Joe Division was issued its Second Part 70 Operating Permit Renewal T033-25285-00027 on September 10, 2008.

In addition to the renewal, Nucor Vulcraft - St. Joe Division plans to add new spray coating operations.

This TSD covers the review documentation for both the construction approval of the new spray coating operations (under the Significant Source Modification.: 033-32598-00027) and its operation approval (under the Part 70 Operating Renewal T033-32592-00027). This TSD also covers the renewal of existing units at the source.

Source Definition

This company consists of two (2) plants:

(a) Nucor Vulcraft Group – St. Joe Division is located at 6610 County Road 60, St. Joe, Indiana 46785 (Plant ID 033-00027); and

(b) Nucor Fastener is located at 6730 County Road 60, St. Joe, Indiana 46785, (Plant ID 033-00038).

On October 11, 2006, in Significant Permit Modification (033-22929-00027), a source determination concluded that Nucor Vulcraft Group – St. Joe Division and Nucor Fastener are under the common control of Nucor Corporation, and will be considered one 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. Nucor Fastener's operations are included as part of Nucor Vulcraft's Part 70 operating source. Therefore, the term "source" in the Part 70 documents refers to both Nucor Vulcraft Group – St. Joe Division and Nucor Fastener as one source.

Separate Part 70 renewal permits have been issued to Nucor Vulcraft Group – St. Joe Division and Nucor Fastener, solely for administrative purposes.

Nucor Vulcraft Group – St. Joe Division is currently operating under its second Title V renewal (T033-25285-00027) and it is being renewed the third time in this review.

Nucor Fastener is operating under its first renewal administrative Title V permit (T033-31290-00038).

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

(a) One (1) steel joist fabrication line, identified as Super Long Span Line, with a maximum production capacity of ten (10) tons of steel joists per hour, constructed in August 1991, including the following:

(1) a GMAW welding area and

(2) one (1) dip-and-drain paint tank.

(b) One (1) steel joist fabrication line, identified as Long Span Line, with a maximum production capacity of ten (10) tons of steel joists per hour, including the following:

(1) a GMAW welding area (constructed in September 1974) and

(2) two (2) dip-and drain paint tanks, (constructed in September 1974, with the original solvent-based paint dip tanks replaced with water-based paint dip tanks in January 1993).

(c) One (1) steel joist fabrication line, identified as Middle Span Line, with a maximum production capacity of ten (10) tons of steel joists per hour, including the following:

(1) a GMAW welding area (constructed in March 1972) and

(2) a dip-and-drain paint tank, (constructed in 2011).

(d) One (1) steel joist fabrication line, identified as Short Span Line, with a maximum production capacity of nine (9) tons of steel joists per hour, including the following:

(1) a GMAW welding area (constructed in March 1972) and

(2) one (1) vacuum-assisted flow coater (constructed in September 1994 by replacing the original paint dip tanks).

(e) One (1) steel joist fabrication line, identified as Combo Line, with a maximum production capacity of twelve (12) tons of steel joists per hour, including the following:

(1) a GMAW welding area (constructed in October 1985), and

(2) two (2) dip-and drain paint tanks (constructed in October 1985, and replaced with water-based paint dip tanks in September 1994).

(f) One (1) steel bridging fabrication line, identified as Bridging Line, with a maximum production capacity of ten (10) tons per hour, including the following:

(1) a GMAW welding area (constructed in March 1972),

(2) one (1) dip-and drain paint tank (constructed in March 1972 and replaced with water-based dip-and drain tank in September 1992), and

(3) one (1) vacuum coater, (constructed in December 1992).

(g) One (1) steel deck fabrication line, identified as Deck Line, with a maximum production capacity of forty (40) tons of steel deck per hour, including the following:

(1) three (3) double-side roll coaters (with 2 roll coaters constructed in October 1977 and the third roll coater constructed in February 1998),

(2) three (3) electric infra-red drying ovens,

(3) two (2) airless spray edge coaters (constructed in February 1998), and

(4) Quench water stations.

Under NSPS Subpart TT, the Deck Line's three (3) roll coaters, infra-red curing ovens, and water quench stations are considered an affected metal coil surface coating facility.

Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit

There are no unpermitted emission units operating at this source during this review process.

Emission Units and Pollution Control Equipment Removed From the Source

The following emission units have been removed from the permit since the Part 70 Operating Permit Renewal T033-25285-00027, issued on September 10, 2008:

(a) One (1) dip-and-drain paint tank, located at Super Long Span Line, constructed in August 1991, with a maximum production capacity of ten (10) tons of steel joists per hour.

(b) One (1) dip-and drain paint tank, located at Bridging Line, constructed in March 1972, with a maximum production capacity of ten (10) tons per hour.

Insignificant Activities

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

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

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

(c) Natural gas-fired space heaters with heat input equal to or less than ten million (10,000,000) Btu per hour.

(d) Propane or LPG, or butane-fired space heaters with heat input equal to or less than six million (6,000,000) Btu per hour.

(e) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu/hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hr.

(f) Combustion source flame safety purging on startup.

(g) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles having a storage capacity less than or equal to 10,500 gallons.

(h) The following VOC and HAP storage containers: Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons.

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

(j) Packaging lubricants or greases.

(k) Filling drums, pails or other packaging containers with lubricating oils, waxes, and greases.

(l) Application of oils, greases, lubricants, or nonvolatile materials applied as temporary protective coatings.

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

(n) Cleaners and solvents characterized as follows:

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

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

(o) Infrared cure equipment.

(p) Cutting 200,000 linear feet or less of one (1) inch plate for structural steel and bridge fabrication activities.

(q) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.

(r) Any operation using aqueous solutions containing less than 1% by weight of VOCs, excluding HAPs.

(s) Process vessel degassing and cleaning to prepare for internal repairs.

(t) Purging gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.

(u) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.

(v) On-site fire and emergency response training approved by the department.

(w) Natural gas turbines or reciprocating engines not exceeding 16,000 horsepower,

(x) Stationary fire pumps, and

(y) Activities with emissions equal to or less than the following thresholds: 5 tons per year PM or PM10, 10 tons per year SO2, NOx, or VOC, 0.2 tons per year Pb, 1.0 tons per year of a single HAP, or 2.5 tons per year of any combination of HAPs:

(1) Two (2) storage tanks, each capable of holding 6,000 gallons of water-based paint, associated with the Deck Line.

(2) Two (2) underground storage tanks, each capable of holding 12,000 gallons of diesel fuel, associated with the Truck Maintenance building.

Construction and Operation Review of the Proposed Modification

On December 6, 2012, the Office of Air Quality (OAQ) received an application from Nucor Vulcraft - St. Joe Division (located at 6610 County Road 60, St. Joe, Indiana 46785) to add new spray coating and Aerosol Touch-Up operations. The descriptions of the new spray coating and Aerosol Touch-Up operations are as follows:

(a) Two (2) mobile joist fabrication line spray coating operations, identified as Spray Coating Unit 1 and Spray Coating Unit 2, approved in 2013 for construction, with a maximum production capacity of 12 tons of steel joists per hour each, to be used on the Super Long Span, Long Span, Middle Span, Short Span or Combo Joist fabrication line, using work practices for particulate control.

(b) Aerosol Touch-Up operation, approved in 2013 for construction, using less than 5 gallons of paint a day, no control, exhausting inside the building.

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.

Increase in PTE Before Controls of the Modification	
Pollutant	**Potential To Emit** (ton/yr)
PM	764
PM10	764
PM2.5	764
SO_2	-
VOC	232.46
CO	-
NO_X	-
CO2e	-
Single HAPs	-
Total HAPs	-

(a) Approval to construct - Significant Source Modification

This source modification is subject to 326 IAC 2-7-10.5(g)(4) because the potential to emit PM, PM2.5, PM10 and VOC are greater than twenty-five (25) tons per year.

See Appendix A for the calculations.

(b) Approval to Operate – Part 70 Operating Renewal

This modification requires a significant permit modification pursuant to 326 IAC 2-7-12(d)(1) because the addition of the proposed booth involve adding new limits in the permit. However, instead of issuing a separate significant permit modification, this significant permit revision will be incorporated into this renewal.

Existing Approvals

The source was issued Part 70 Operating Permit Renewal No. Permit Renewal No. T033-25285-00027 on September 10, 2008. The source has since received the following approvals: Minor Permit Modification 033-29931-00027, issued on February 22, 2011.

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

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

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

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.
Unclassifiable or attainment effective April 5, 2005, for PM2.5.

(a) Ozone Standards

Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Delaware 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) PM2.5

Delaware 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. These rules became effective on 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

Delaware County has been classified as attainment or unclassifiable in Indiana for all other pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

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

Unrestricted Potential Emissions

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

The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM, PM10, PM2.5 and VOC, each, is greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7 and will be issued a Part 70 Operating Permit Renewal.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, because the source met the following:

(a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.

(b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Potential to Emit After Issuance

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 permit renewal, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

		Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)									
Emission Unit		PM	PM10	PM2.5	SO2	VOC	CO	NOx	Total HAPs	Worst Single HAP	CO2e
NUCOR Vulcraft Group - St. Joe Division Plant ID 003-00027	Dip coating, Flow coating, or Roll coating application	-	-	-	-	210.00 **	-	-	-	-	-
	Spray Coating Unit 1 and Spray Coating Unit 2	142 *	142 *	142 *	-		-	-	-	-	-
	Aerosol Touch-Up	1.26	1.26	1.26	-		-	-	-	-	-
	Welding	11.67	11.67	11.67	-	-	-	-	7.14	7.14	-
	NG Combustion	0.20	0.80	0.80	0.06	0.58	8.80	10.47	0.20	0.20	12,645
	Site Remediation	-	-	-	-	10.00	-	-	-	0.95	-
NUCOR Fastener Plant ID 033-00038	NUCOR Fastener Plant ID 033-00038***	89.65	93.75	93.75	6.81	24.70	53.78	66.36	1.50	1.50	81,918
Total PTE of Entire Source		244.8	249.5	249.5	6.87	248.7	62.58	76.83	11.05	7.14	94,563
PSD Major Source Thresholds		**250**	**250**	**250**	**250**	**250**	**250**	**250**	**-**	-	100,000

* PTE based on the PSD Minor limits taken by the source:

(a) The spray coatings applied at Spray Coating Unit 1 and 2 shall be limited such that total PM emissions from Spray Coating Unit 1 and 2 shall not exceed 142 tons per twelve consecutive month period with compliance determined at the end of each month.

(b) The spray coatings applied at Spray Coating Unit 1 and 2 shall be limited such that total PM10 emissions from Spray Coating Unit 1 and 2 shall not exceed 142 tons per twelve consecutive month period with compliance determined at the end of each month.

(c) The spray coatings applied at Spray Coating Unit 1 and 2 shall be limited such that total PM2.5 emissions from Spray Coating Unit 1 and 2 shall not exceed 142 tons per twelve consecutive month period with compliance determined at the end of each month.

The above limits in conjunction with PM, PM10 and PM2.5 PTE of other emission units at the source, shall limit the source-wide PTE of PM, PM10 and PM2.5 PTE from the entire source (Nucor Vulcraft Group – St. Joe Division and Nucor Fastener) to less than 250 tons per twelve (12) consecutive month period, each, and renders the source minor under 326 IAC 2-2, PSD.

Note: These are new applicable requirements. These are Title I changes.

** PTE based on the PSD Minor limits taken by the source:

The VOC input, including coatings, dilution solvents, and cleaning solvents, to the Super Long Span Line, Long Span Line, Middle Span Line, Short Span Line, Combo Line, Bridging Line, Deck Line, Spray Coating Unit 1 and Spray Coating Unit 2 and Aerosol Touch-Up shall not exceed 210 tons, combined, per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with the above limit, in conjunction with the potential to emit VOC from other emission units at the source, shall limit the source-wide PTE of VOC from the entire source (Nucor Vulcraft Group – St. Joe Division and Nucor Fastener) to less than 250 tons per twelve (12) consecutive month period and renders the source minor under 326 IAC 2-2, PSD.

Note: This is an existing limitation. It is being revised to add the new Spray Coating Unit 1 and Spray Coating Unit 2 and Aerosol Touch-Up in the limitation.

Compliance with the VOC content and usage limitations contained in the above limit shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

*** Please refer to Minor Source Modification No.: 033-32247-00038 for the PTE details of NUCOR Fastener Plant ID 033-00038.

This existing stationary source is not major for PSD because the emissions of each regulated pollutant are less than 250 tons per year, and it is not in one of the twenty-eight (28) listed source categories.

Federal Rule Applicability

Compliance Assurance Monitoring (CAM)

Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to each existing pollutant-specific emission unit that meets 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.

None of the emission units at the Nucor Vulcraft Group – St. Joe Division part of the source is equipped with add-on control. Therefore, CAM requirements do not apply for any pollutant.

New Source Performance Standards (NSPS)

(a) Subpart TT—Standards of Performance for Metal Coil Surface Coating

Metal coils coating operations are not performed at the facilities listed below (1) through (8); therefore, these facilities are not subject to this rule.

(1) Super Long Span Line,

(2) Long Span Line,

(3) Middle Span Line,

(4) Short Span Line,

(5) Combo Line,

(6) Bridging Line,

(7) Spray Coating Unit 1 and Spray Coating Unit 2 and

(8) Aerosol Touch-Up.

Deck Line
The Deck Line's two (2) edge coaters are not subject to the requirements of 40 CFR 60, Subpart TT because they apply coatings to fabricated steel deck.

The Deck Line's three (3) roll coaters, infra-red curing ovens, and water quench stations are subject to this NSPS because metal coils coating operations are performed at these facilities and this process line was modified after January 5, 1980, the applicability date of the rule.

Nonapplicable portions of the NSPS will not be included in the permit. The Deck Line's three (3) roll coaters subject to the following portions of Subpart TT:

(1) 40 CFR 60.460
(2) 40 CFR 60.461
(3) 40 CFR 60.462(a)-(c)
(4) 40 CFR 60.463(c)
(5) 40 CFR 60.464(a)
(6) 40 CFR 60.465(a), (e)
(7) 40 CFR 60.466(a)(1),(b)

(b) There are no other NSPS (326 IAC 12 and 40 CFR Part 60) included in the permit due to this renewal.

National Emission Standards for Hazardous Air Pollutants (NESHAPs)
The coating material used at this source does not contain HAPs. The source-wide PTE of single HAP and combined HAPs are less than 10 and 25 tons per year, respectively. Therefore this source is considered as an area source under NESHAP. There is no area source NESHAP applicable to this source. There are no NESHAP (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit due to this permit renewal.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)
This source, not located in Lake, Porter, or LaPorte County, is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit pursuant to 326 IAC 2-7 (Part 70). The potential to emit of VOC and PM10 is less than 250 tons per year; and the potential to emit of CO, NOx, and SO2 is less than 2,500 tons per year. Therefore, pursuant to 326 IAC 2-6-3(b)(1), triennial reporting is required. An emission statement shall be submitted in accordance with the compliance schedule in 326 IAC 2-6-3 by July 1, 2014 and every three (3) years thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 5-1 (Opacity Limitations)
This source is subject to the opacity limitations specified in 326 IAC 5-1-2(1).

326 IAC 6-4 (Fugitive Dust Emissions)

Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), fugitive dust shall not be visible crossing the boundary or property line of a source. Observances of visible emissions crossing property lines may be refuted by factual data expressed in 326 IAC 6-4-2(1), (2) or (3).

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
This rule does not apply to the source because the source-wide fugitive particulate emissions are less than 25 tons per year.

326 IAC 2-4.1 (New Source Toxics Control)
The coating material used at the coating facilities at this source does not contain HAPs. Each of the of the remaining emission units at this source has potential emissions of single HAP and combined HAPs less than 10 and 25 tons per year, respectively. Therefore the requirements of 326 IAC 2-4.1 do not apply to any emission units at the source.

326 IAC 8-6 (Organic Solvent Emission Limitations)
This rule does not apply to this source because it was constructed before October 7, 1974, the applicability date for this rule.

State Rule Applicability – Individual Facilities

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

(a) The Super Long Span Line, Long Span Line, Middle Span Line, Short Span Line, Combo Line, Bridging Line and Deck Line are not subject to this rule because these coating operations use either dip coating, flow coating or roll coating application method.

(b) The welding operation has process weight rate less than 100 pounds per hour. Pursuant to 326 IAC 6-3-2(e)(2), the particulate emissions from the welding operation shall not exceed 0.551 pounds per hour.

(c) Spray Coating Unit 1 and Spray Coating Unit 2 are subject to the requirements of this rule because because five (5) gallons or more of coating material per day is used at these facilities and spray application method is used at these facilities.

Pursuant to 326 IAC 6-3-2(d), the particulate emissions shall be controlled by a dry particulate filter, waterwash, or an equivalent control device.

The Permittee shall use following work practices as equivalent control device:

(a) Conduct all spray coating operations within an enclosed building.

(b) Close main doors, overhead doors and powered vents located within 100 feet of the spray equipment, and keep them closed during spray operations.

(c) Collect coating overspray on drip boards or disposable media such as cardboard or plastic sheets, and/or collect dry-fall paint on floor surfaces.

(d) Contain and dispose dry-fall paint from drip boards, disposable media and floor surfaces to prevent re-entrainment to exhaust air.

(d) The Aerosol Touch-Up operation is exempt from the requirements of 326 IAC 6-3 because the Aerosol Touch-Up operation uses less than five (5) gallons of coating material per day.

326 IAC 8 (VOC Rules)

Aerosol Touch-Up operation is are not subject to the requirements of 326 IAC 8 (VOC Rules) because potential VOC emissions from Aerosol Touch-Up operation are less than 15 pounds per day.

326 IAC 8-2-4 (Coil Coating Operations)

(a) The Deck Line's two (2) roll coaters were existing as of January 1, 1980, are located at a source with the potential to emit greater that one hundred (100) tons of VOC per year; and are the type of facilities described in this rule; and the Deck Line's one (1) roll coater was constructed after July 1, 1990, has actual emissions greater than fifteen (15) pounds of VOC per day and is the type of facility described in this rule. Therefore, the 3 roll coaters at the Deck Line's are subject to 326 IAC 8-2-4.

Pursuant to 326 IAC 8-2-4, the VOC content of the coatings applied to any flat metal sheets or strips that are delivered in rolls or coils to the Deck Line's three (3) roll coaters shall be limited to 2.6 pounds of VOC per gallon of coating less water delivered to the applicator.

Compliance with the VOC content and usage limitation contained in the above limit shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the “as supplied” and “as applied” VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Based on the calculations made, the above specified coating operations can comply with this requirement.

(b) The requirements of this rule do not apply to the Super Long Span Line, Long Span Line, Middle Span Line, Short Span Line, Combo Line, Bridging Line, Deck Line's two (2) edge coaters, and Spray Coating Unit 1 and Spray Coating Unit 2 because these operations are not coil coating operations.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

(a) The Super Long Span Line, Long Span Line, Middle Span Line, Short Span Line, Combo Line, Bridging Line, Deck Line, Spray Coating Unit 1 and Spray Coating Unit 2 are subject to this rule because surface coating of metal parts or products (under the Standard Industrial Classification (SIC) Code of major group #34) are performed at these facilities.

(1) Pursuant to 326 IAC 8-2-9(c)(2), the VOC content of the primer coatings delivered to the applicators of the Super Long Span Line, Long Span Line, Middle Span Line, Short Span Line, Combo Line and Spray Coating Unit 1 and Spray Coating Unit 2 shall be limited to 3.5 pounds of VOC per gallon of coating less water, for forced warm air dried coatings.

(2) Pursuant to 326 IAC 8-2-9(c)(2), the VOC content of the primer coatings delivered to the applicators of the Bridging Line shall be limited to 3.5 pounds of VOC per gallon of coating less water, for forced warm air dried coatings.

(3) Pursuant to 326 IAC 8-2-9(c)(1), the VOC content of the clear coatings delivered to the applicators of the Deck Line edge coaters shall be limited to 4.3 pounds of VOC per gallon of coating less water.

Compliance with the VOC content and usage limitations contained in the above limits shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Based on the calculations made, the above specified coating operations can comply with this requirement.

(d) Pursuant to 326 IAC 8-2-9(f), the work practices shall include the following:

(1) Store all VOC containing coatings, thinners, coating related waste, and cleaning materials in closed containers.

(2) Ensure that mixing and storage containers used for VOC containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials.

(3) Minimize spills of VOC containing coatings, thinners, coating related waste, and cleaning materials.

(4) Convey VOC containing coatings, thinners, coating related waste, and cleaning materials from one (1) location to another in closed containers or pipes.

(5) Minimize VOC emissions from the cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

326 IAC 8-3-2 (Cold cleaner degreaser control equipment and operating requirements)

The insignificant degreasers are subject to this rule because these degreasers are cold cleaning operations using solvents containing VOC. These degreasers are constructed after January 1, 1980 and are located at the source that has potential VOC emissions more than 100 tons per year. Pursuant to 326 IAC 8-3-2(a), the Permittee shall comply with the following requirements for the degreasers:

(1) Equip the degreaser with a cover.

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

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

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

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

(6) Store waste solvent only in closed containers.

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

The solvent used at these degreasers is not heated, agitated, sprayed; therefore, the requirements of 326 IAC 8-3-2(b) will not be included in the permit for these degreasers.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

This rule has been repealed. Therefore, the requirements of this rule will be removed from the permit through this renewal.

Compliance Determination and Monitoring Requirements

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

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

The compliance determination requirement applicable to this source is as follows:

In order to comply with particulate limits specified for Spray Coating Unit 1 and Spray Coating Unit 2 in ' Potential to Emit After Issuance' section of this TSD, the PM, PM10 and PM2.5 emissions from Spray Coating Unit 1 and Spray Coating Unit 2 shall be determined as follows:

PM/PM10/PM2.5 = (∑CU x D x W%S) x (1-TE/100) x (1-CE/100) x 1/2000

Where:

PM/PM10/PM2.5 =		The total PM/PM10/PM2.5 emissions (ton/month) for all coatings.
CU	=	The total coating use (gal coating/month) of each coating.
D	=	The density (lb coating/gal coating) of each coating.
W%S	=	The weight percent solids (lb solids/lb coating) of each coating.
TE	=	The transfer efficiency (%) of the spray applicators. This value shall equal 60% unless an IDEM approved test is conducted, in which case the value shall equal that determined from the most recent IDEM approved test.

The compliance monitoring requirements applicable to this source are as follows:

Emission Units	Parameter	Frequency
Spray Coating Unit 1 and Spray Coating Unit 2	overspray observation	Weekly

Monitoring requirement of overspray on the rooftops and the nearby ground for the Spray Coating Unit 1 and Spray Coating Unit 2 is not included due to the following reason:

There are no stacks associated with the spray operations at Spray Coating Unit 1 and Spray Coating Unit 2. The emissions from these spray operations are exhausted inside the plant and these spray operations are not located near doorways or roof penetrations.

The above compliance monitoring is required to ensure that the particulate control work practice is routinely performed in order to comply with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) 326 IAC 2-2 (PSD) and 326 IAC 2-7 (Part 70).

Recommendation

The staff recommends to the Commissioner that the Significant Source Modification and Part 70 Operating Permit Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on December 6, 2013.

Conclusion

The construction and operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 033-32598-00027 and Operating Permit Renewal No. T033-32592-00027. The staff recommend to the Commissioner that this Part 70 Significant Source Modification and Operating Permit Renewal be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Mehul Sura at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-6868 or toll free at 1-800-451-6027 extension 3-6868.

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

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Appendix A: Emissions Calculations
Summary of Source-Wide Emissions

Company Name: NUCOR Vulcraft Group - St. Joe Division
Address City IN Zip: 6610 County Road 60, St. Joe, Indiana 46785
Significant Source Modification No.: 033-32598-00027
Permit Renewal No.: T033-32592-00027
Reviewer: Mehul Sura
Date: 2/13/2013

Emissions Based Upon Unlimited/Uncontrolled PTE

Process / Emission Unit		PM	PM10	PM2.5	SO2	VOC	CO	NOx	HAP		CO2e
									Single	Combined	
NUCOR Vulcraft Group - St. Joe Division Plant ID 033-00027	Dip coating, Flow coating, or Roll coating application	-	-	-	-	788.03	-	-	-	-	-
	Spray Coating Unit 1 and Spray Coating Unit 2, each	381.37	381.37	381.3686	-	115.65	-	-	-	-	-
	Aerosol Touch-Up	1.26	1.26	1.26	-	0.14	-	-	-	-	-
	Welding	11.67	11.67	11.67	-	-	-	-	7.14	7.14	-
	NG Combustion	0.20	0.80	0.80	0.06	0.58	8.80	10.47	0.20	0.20	15,724
	Site Remediation	-	-	-	-	10	-	-	-	0.95	-
NUCOR Fastener Plant ID 033-00038	NUCOR Fastener Plant ID 033-00038 ***	89.65	93.75	93.75	6.81	24.7	53.78	66.36	2.76	2.76	78,839
	Source Totals:	**484.15**	**488.85**	**488.85**	**6.87**	**939.09**	**62.58**	**76.83**	**7.14**	**11.05**	**94,563**

Emissions Based Upon Limited/Controlled PTE

Process / Emission Unit		PM	PM10	PM2.5	SO2	VOC	CO	NOx	HAP		CO2e
									Single	Combined	
NUCOR Vulcraft Group - St. Joe Division Plant ID 033-00027	Dip coating, Flow coating, or Roll coating application	-	-	-	-	210.00 **	-	-	-	-	-
	Spray Coating Unit 1 and Spray Coating Unit 2, each	142.00 *	142.00 *	142.00 *	-		-	-	-	-	-
	Aerosol Touch-Up	1.26	1.26	1.26	-		-	-	-	-	-
	Welding	11.67	11.67	11.67	-	-	-	-	7.14	7.14	-
	NG Combustion	0.20	0.80	0.80	0.06	0.58	8.80	10.47	0.20	0.20	15,724
	Site Remediation	-	-	-	-	10.00	-	-	-	0.95	-
NUCOR Fastener Plant ID 033-00038	NUCOR Fastener Plant ID 033-00038 ***	89.65	93.75	93.75	6.81	24.70	53.78	66.36	2.76	2.76	78,839
	Source Totals:	**244.78**	**249.48**	**249.48**	**6.87**	**245.28**	**62.58**	**76.83**	**7.14**	**11.05**	**94,563**

* PTE based on the PSD Minor limit.
** PTE based on the PSD Minor limits.
*** Please refer Minor Source Modification No.: 033-32247-00038 for the PTE details of NUCOR Fastener Plant ID 033-00038.

Appendix A: Emissions Calculations
Welding and Thermal Cutting

Company Name: NUCOR Vulcraft Group - St. Joe Division
Address: City IN Zip: 6610 County Road 60, St. Joe, Indiana 46785
Significant Source Modification No.: 033-32598-00027
Permit Renewal No.: T033-32592-00027
Reviewer: Mehul Sura
Date: 2/13/2013

PROCESS	Number of Stations		Max electrode consumption per station (lbs/hr)		EMISSION FACTORS (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAP (lbs/hr)
WELDING					PM=PM10	Mn	Ni	Cr	PM=PM10	Mn	Ni	Cr	
GMAW	1	512.5	512.5		0.0052	0.00318	1E-06	0.000001	2.665	1.63	0.0005	5E-04	1.630775
Metal Inert Gas (MIG) (carbon steel)					0.0241	0.000034		0.00001	0.000	0.000	0.000	0.000	0.000
Stick (E7018 electrode)					0.0211	0.0009			0.000	0.000	0.000	0.000	0.000
Tungsten Inert Gas (TIG)(carbon steel)					0.0055	0.0005			0.000	0.000	0.000	0.000	0.000
Oxyacetylene (carbon steel)					0.005	0.0005			0.000	0.000	0.000	0.000	0.000
FLAME CUTTING					EMISSION FACTORS								
					PM=PM10	Mn	Ni	Cr	PM=PM10	Mn	Ni	Cr	
Oxyacetylene					0.1622	0.005	0.0001	0.0003	0.000	0.000	0.000	0.000	0.000
Oxymethane					0.0815	0.0002		0.0002	0.000	0.000	0.000	0.000	0.000
Plasma**					0.0039				0.000	0.000	0.000	0.000	0.000
EMISSION TOTALS													
Potential Emissions lbs/hr									2.665	1.630	0.001	0.001	1.631
Potential Emissions lbs/day									63.96	39.11	0.0123	0.012	39.139
Potential Emissions tons/year									11.6727	7.138	0.002	0.002	7.143

METHODOLOGY

Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column
Emission Factors for plasma cutting from American Welding Society (AWS). Trails reported for wet cutting of 8 mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted).
Therefore, the emission factor for plasma cutting is for 8 mm thick rod.
Using AWS average values: (0.25 g/min)/(3.6 m/min) x (0.0022 lb/g)/(39.37 in/m) x (1,000 in) = 0.0039 lb/1,000 in. cut, 8mm thick
Plasma cutting emissions, lb/hr: (# of stations)(max.cutting rate, in./min)(60 min/hr.)(emission factor, lb. pollutant/1,000 in. cut, 8 mm thick)
Cutting emissions, lb.hr: (# of stations)(max. metal thickness, in.)(max cutting rate, in/min)(60 min/hr)(emission factor, lb. pollutant/1,000 in.cut, 1" thick)
Welding emissions, lb/hr: (# of stations)(max lbs. of electrode used/hr/stations)(emission factor, lb. pollutant/lb of electrode used)
Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day
Emissions, tons/year = emissions, lb/hr x 8760 hrs/year x 1 ton/2,000 lbs.
Welding and other flame cutting emission factors are from an internal training session document.
Refer to AP-42, Chapter 12.19 for additional emission factors for welding.

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: NUCOR Vulcraft Group - St. Joe Division
Address City IN Zip: 6610 County Road 60, St. Joe, Indiana 46785
Significant Source Modification No.: 033-32598-00027
Permit Renewal No.: T033-32592-00027
Reviewer: Mehul Sura

Dip coating, Flow coating, or Roll coating application — Date: 2/13/2013

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Super Long Span Line	9.9	63.75%	52.20%	11.60%	62.30%	21.88%	1.77	10	3.05	1.15	20.33	487.84	89.03	0.00	5.25	100%
Long Span Line	9.9	63.75%	52.20%	11.60%	62.30%	21.88%	2.09	10	3.05	1.15	24.00	576.04	105.13	0.00	5.25	100%
Middle Span Line	11.1	1.80%	0.00%	1.80%	0.00%	38.46%	2.1	10	0.20	0.20	4.20	100.70	18.38	0.00	0.52	100%
Short Span Line	9.9	63.75%	52.20%	11.60%	62.30%	21.88%	3.26	9	3.05	1.15	33.69	808.66	147.58	0.00	5.25	100%
Combo Line	9.9	63.75%	52.20%	11.60%	62.30%	21.88%	3.23	12	3.05	1.15	44.51	1068.29	194.96	0.00	5.25	100%
Bridging Line	9.9	63.75%	52.20%	11.60%	62.30%	21.88%	2.1	10	3.05	1.15	24.12	578.79	105.63	0.00	5.25	100%
Deck Line	9.1	54.44%	51.30%	3.10%	56.00%	39.55%	1.3	40	0.64	0.28	14.67	352.06	64.25	0.00	0.71	100%
	10.1	46.61%	44.10%	2.50%	53.30%	41.19%	1.3	40	0.54	0.25	13.13	315.12	57.51	0.00	0.61	100%
Deck Line - Edge Coater	9.2	67.02%	55.50%	11.50%	61.50%	23.61%	0.03	40	2.75	1.06	1.27	30.47	5.56	0.00	4.48	100%
													788.03			

Spray Coating Unit 1 and Spray Coating Unit 2, each

Line	Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	Transfer Efficiency
Super Long Span Line	Armitage WD-27185VW	10.8	48.00%	43.2%	4.8%	0.0%	0.00%	1.77000	10.000	0.52	0.52	9.19	220.68	40.27	174.15	60%
Long Span Line	Armitage WD-27185VW	10.8	48.00%	43.2%	4.8%	0.0%	0.00%	2.09000	10.000	0.52	0.52	10.86	260.57	47.55	205.64	60%
Combo Line	Armitage WD-27185VW	10.8	48.00%	43.2%	4.8%	0.0%	0.00%	3.23000	12.000	0.52	0.52	20.14	483.24	88.19	381.37	60%
Middle Span Line	Century 220-D-407	11.1	41.55%	34.3%	7.3%	0.0%	0.00%	3.26000	10.000	0.81	0.81	26.40	633.68	115.65	370.89	60%
Short Span Line	Century 220-D-509A	10.9	52.13%	47.3%	4.8%	0.0%	0.00%	3.26000	9.000	0.52	0.52	15.38	369.18	67.38	268.22	60%
														115.65	**381.37**	

Aerosol Touch-Up

Line	Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Usage (gal/yr)	Pounds VOC per gallon of coating less water	Potential VOC tons per year	Particulate Potential (ton/yr)
Bridging Line	Marcus SP-12598-7	9.8	50.46%	37.4%	13.0%	0.0%	52.000	1.276	0.13	0.13
Deck Line	Century 220-W-203C	9.5	54.27%	38.2%	16.1%	0.0%	52.000	1.527	0.13	0.11
	Century 220-W-167C	11.1	43.86%	30.4%	13.5%	0.0%	52.000	1.490	0.13	0.16
Deck Line - Edge Coater	Century 220-C-403	9.0	46.64%	25.6%	21.1%	0.0%	52.000	1.890	0.11	0.12
Super Long Span Line	Armitage WD-27185VW	10.8	48.00%	43.2%	4.8%	0.0%	52.000	0.519	0.13	0.15
Long Span	Armitage WD-27185VW	10.8	48.00%	43.2%	4.8%	0.0%	52.000	0.519	0.13	0.15
Combo Span Line	Armitage WD-27185VW	10.8	48.00%	43.2%	4.8%	0.0%	52.000	0.534	0.13	0.15
Middle Span Line	Century 220-D-406	11.1	41.55%	34.3%	7.3%	0.0%	52.000	0.757	0.12	0.17
Short Span Line	Century 220-D-509A	10.4	52.13%	47.3%	4.8%	0.0%	52.000	0.500	0.14	0.13
									1.16	**1.26**

142	142	142
1.26	1.26	1.26
11.67	11.67	11.67
0.2	0.8	0.8
-	-	-
89.65	93.75	93.75
244.78	249.48	249.48

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emissions Calculations
Natural Gas Combustion Only
8 Charger Furnace

Company Name: NUCOR Vulcraft Group - St. Joe Division
Address City IN Zip: 6610 County Road 60, St. Joe, Indiana 46785
Significant Source Modification No.: 033-32598-00027
Permit Renewal No.: T033-32592-00027
Reviewer: Mehul Sura
Date: 2/13/2013

	Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr
Space Heaters	17.6		
Air Make-up Units	5.8		
Combo Line Oven	1.0		
Total	24.4	1020	209.5

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.2	0.8	0.8	0.063	10.5	0.6	8.8

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPs Emissions

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	2.199E-04	1.257E-04	7.855E-03	1.885E-01	3.561E-04

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	5.237E-05	1.152E-04	1.466E-04	3.980E-05	2.199E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.
See Page 3 for Greenhouse Gas calculations.

Greenhouse Gas Emissions

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	12,568	0.2	0.2
Summed Potential Emissions in tons/yr	12,568		
CO2e Total in tons/yr	15,724		

Methodology
The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

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

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

TO: Tim Jones
Nucor Vulcraft - St. Joe Division
PO Box 1000
St Joe, IN 46785

DATE: April 25, 2013

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

SUBJECT: Final Decision
Significant Source Modification to Part 70
033-32598-00027

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

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

A copy of the final decision and supporting materials has also been sent via standard mail to:
Shannon Phillips, Responsible Official
Holly Argiris, Environmental Resources Management (ERM)
OAQ Permits Branch Interested Parties List

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

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

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

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

April 25, 2013

TO: Eckhart Public Library

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

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

Applicant Name: **Nucor Vulcraft - St. Joe Division**
Permit Number: **033-32598-00027**

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

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

Enclosures
Final Library.dot 11/30/07

Mail Code 61-53

IDEM Staff	PWAY 4/25/2013 Nucor Vulcraft - St Joe Division 033-32598-00027 (final)		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**

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1		Tim Jones Nucor Vulcraft - St Joe Division PO Box 1000 St Joe IN 46785 (Source CAATS)									
2		Shannon Phillips VP/ GM Nucor Vulcraft - St Joe Division PO Box 1000 St Joe IN 46785 *(RO CAATS)*									
3		Mr. Steve Christman NISWMD 2320 W 800 S, P.O. Box 370 Ashley IN 46705 *(Affected Party)*									
4		DeKalb County Commissioners 100 South Main Street Auburn IN 46706 *(Local Official)*									
5		Ms. Diane Leroy 303 N. Jackson St. Auburn IN 46706 *(Affected Party)*									
6		Mr. Barry Fordanish R#3 1480 CR 66 Auburn IN 46706 *(Affected Party)*									
7		Dekalb County Health Department 220 E 7th St #110 Auburn IN 46706 *(Health Department)*									
8		Daniel & Sandy Trimmer 15021 Yellow River Road Columbia City IN 46725 *(Affected Party)*									
9		Brown & Sons Fuel Co. P.O. Box 665 Kendallville IN 46755 *(Affected Party)*									
10		Mr. Marty K. McCurdy 2550 County Road 27 Waterloo IN 46793 *(Affected Party)*									
11		St. Joe Town Council P.O. Box 293 St. Joe IN 46785 *(Local Official)*									
12		Eckhart Public Library 603 South Jackson Street Auburn IN 46706 *(Library)*									
13		Holly Argiris Environmental Resources Management (ERM) 11350 N. Meridian, Ste 320 Carmel IN 46032 (Consultant)									
14											
15											

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