



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: December 31, 2007
RE: Rea Magnet Wire Company, Inc. / 003-21713-00014
FROM: Matthew Stuckey, Deputy 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, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) 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.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).

For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

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.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of an initial Title V operating permit, permit renewal, or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impracticable to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20406

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.



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100 North Senate Avenue
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www.IN.gov/idem

PART 70 OPERATING PERMIT RENEWAL
OFFICE OF AIR QUALITY

Rea Magnet Wire Company, Inc.
3600 East Pontiac Street
Fort Wayne, Indiana 46803

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-7-10.5, applicable to those conditions.

Table with permit details: Operation Permit No.: T003-21713-00014, Issued by: Original Signed By: Matthew Stuckey, Deputy Branch Chief, Permits Branch, Office of Air Quality, Issuance Date: December 31, 2007, Expiration Date: December 31, 2012

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

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

The Permittee owns and operates stationary magnet wire coating operation

Source Address: 3600 East Pontiac Street, Fort Wayne, Indiana 46803
 Mailing Address: 3600 East Pontiac Street, Fort Wayne, Indiana 46803
 General Source Phone Number: (260) 421-7422
 SIC Code: 3357
 County Location: Allen
 Source Location Status: Attainment for all criteria pollutants
 Source Status: Part 70 Operating Permit Program
 Minor Source, under PSD Rules
 Minor Source, Section 112 of the Clean Air Act
 Not 1 of 28 Source Categories

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

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

(a) The following magnet wire enameling ovens:

Model	Oven ID #	Construction Date	Max. Rating (lbs wire/hr)	VOC Oxidizer Type	Stack ID #
Rea	540	Prior to 1965	0.26	None	C-2
Rea	541	Prior to 1965	0.26	None	C-2
Rea	542	Prior to 1965	0.26	None	C-2
Rea	543	Prior to 1965	0.26	None	C-2
Rea	544	Prior to 1965	0.26	None	C-2
Rea	550	Prior to 1965	0.26	None	C-1
MOCO	270	Prior to 1974	571	External thermal	D-2
MOCO	XR-1	Prior to 1980	11	External thermal	E-3
Rea H-9	243	June 1987	6	External catalytic	F-6
Rea H-9	244	May 1987	6	External catalytic	F-6
Rea H-9	245	June 1989	6	External catalytic	F-6
Rea H-9	246	June 1989	6	External catalytic	F-6
GE-I	210-213	June 1989	191	External thermal	F-1
GE-I	220-223	June 1989	191	External thermal	F-2
GE-M	230-238	June 1989	508	External thermal	F-3
Rea H-9	247	Feb. 1992	6	External catalytic	F-7
Rea H-9	248	Feb. 1992	6	External catalytic	F-7
MAG HS0	551	Nov. 1994	0.64	Internal catalytic	C-3
MAG HS0	552	Nov. 1994	0.64	Internal catalytic	C-4
MAG HS0	553	Nov. 1994	0.64	Internal catalytic	C-5
MAG HS1	561	Nov. 1994	0.91	Internal catalytic	C-6
MAG HS1	562	Nov. 1994	0.91	Internal catalytic	C-8
MAG HS1	563	Nov. 1994	0.91	Internal catalytic	C-10
MAG HS1	564	Nov. 1994	0.91	Internal catalytic	C-12
MAG HS1	565	Nov. 1994	0.91	Internal catalytic	C-14
MAG HS1	566	Nov. 1994	0.91	Internal catalytic	C-16
MAG HS1	567	Nov. 1994	0.91	Internal catalytic	C-18
Rea H-9	250	1995	6	External catalytic	F-7
Rea H-9	251	1995	6	External catalytic	F-8
Rea H-9	252	1995	6	External catalytic	F-8

Model	Oven ID #	Construction Date	Max. Rating (lbs wire/hr)	VOC Oxidizer Type	Stack ID #
Rea H-9	253	1995	6	External catalytic	F-8
Rea H-9	254	1995	6	External catalytic	F-7
SICME	281-282	1996	183	Internal thermal	D-3
SICME	283-284	1996	183	Internal thermal	D-4
SICME	285-286	1996	183	Internal thermal	D-5

- (b) One (1) 16.7 MMBtu per hour natural gas-fired firetube boiler, identified as CB266-500, constructed in 1965, and exhausting to stack A-2.

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

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

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, not subject to 326 IAC 20-6 [326 IAC 8-3-2] [326 IAC 8-3-5].
- (b) Activities with emissions equal to or less than the following thresholds: 5 lb/hr and 25 lb/day PM₁₀; 5 lb/hr and 25 lb/day SO₂; 5 lb/hr and 25 lb/day NO_x; 3 lb/hr and 15 lb/day VOC; 0.6 tons per year Pb; 5 lb/day and 1.0 ton/yr of a single HAP, and 12.5 lb/day and 2.5 ton/yr of any combination of HAPs, consisting of one (1) paint spray booth [326 IAC 6-3-2].
- (c) One (1) 6.0 MMBtu per hour natural gas-fired boiler, identified as Bryan RV600, constructed in 2002 and exhausting to stack A-1. [326 IAC 6-2-3]

A.4 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, T003-21713-00014, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

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

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

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

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

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

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

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

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

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by the "responsible official" of truth, accuracy, and completeness. This

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

- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) The "responsible official" is defined at 326 IAC 2-7-1(34).

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

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. 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 Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

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

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

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

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

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (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, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

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

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

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

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

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

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

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

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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

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

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

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
 - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of 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 T003-21713-00014 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 combined permit, all previous registrations and permits are superseded by this combined new source review and part 70 operating permit.

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

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

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

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

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

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

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:
- (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(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.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

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

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 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 in writing by IDEM, OAQ any additional information identified as being needed to process the application.

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

- (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 .
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

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

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

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

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

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 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),(c), or (e). The Permittee shall make such records available, upon reasonable request, for public review.

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

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

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

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

- (c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at in 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 Part 70 Operating Permit
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

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

- (a) A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.
- (b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2-2 and 326 IAC 2-3-2.

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

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

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

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

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

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

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

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

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

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

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

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

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

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

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

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

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

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

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

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
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

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

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

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

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or 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, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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

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

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

C.10 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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

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

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative [326 IAC 2-7-5][326 IAC 2-7-6] or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

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

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

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

- (a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on October 21, 1996.
- (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.13 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

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

C.14 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records;
 - (3) inspection of the control device, associated capture system, and the process.

- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
 - (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

- (a) In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), starting in 2007 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 the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by

any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6][326 IAC 2-2]
[326 IAC 2-3]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.
- (c) If there is a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit or at a source with Plant-wide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1 (ee) and/or 326 IAC 2-3-1(z)) and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:
 - (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, document and maintain the following records:
 - (A) A description of the project.
 - (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
 - (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
 - (i) Baseline actual emissions;
 - (ii) Projected actual emissions;
 - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1(mm)(2)(A)(iii); and
 - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
 - (2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
 - (3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2]
[326 IAC 2-3]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:
- Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) 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.
- (f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
- (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1(xx) and/or 326 IAC 2-3-1(qq), for that regulated NSR pollutant, and
 - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(ii).
- (g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:
- (1) The name, address, and telephone number of the major stationary source.
 - (2) The annual emissions calculated in accordance with (c)(2) and (3) in Section C- General Record Keeping Requirements.
 - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
 - (4) Any other information that the Permittee deems fit to include in this report,

Reports required in this part shall be submitted to:

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

- (h) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

Stratospheric Ozone Protection

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

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

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Magnet Wire Coating Ovens					
(a) The following magnet wire enameling ovens:					
Model	Oven ID #	Construction Date	Max. Rating (lbs wire/hr)	VOC Oxidizer Type	Stack ID #
Rea	540	Prior to 1965	0.26	None	C-2
Rea	541	Prior to 1965	0.26	None	C-2
Rea	542	Prior to 1965	0.26	None	C-2
Rea	543	Prior to 1965	0.26	None	C-2
Rea	544	Prior to 1965	0.26	None	C-2
Rea	550	Prior to 1965	0.26	None	C-1
MOCO	270	Prior to 1974	571	External thermal	D-2
MOCO	XR-1	Prior to 1980	11	External thermal	E-3
Rea H-9	243	June 1987	6	External catalytic	F-6
Rea H-9	244	May 1987	6	External catalytic	F-6
Rea H-9	245	June 1989	6	External catalytic	F-6
Rea H-9	246	June 1989	6	External catalytic	F-6
GE-I	210-213	June 1989	191	External thermal	F-1
GE-I	220-223	June 1989	191	External thermal	F-2
GE-M	230-238	June 1989	508	External thermal	F-3
Rea H-9	247	Feb. 1992	6	External catalytic	F-7
Rea H-9	248	Feb. 1992	6	External catalytic	F-7
MAG HS0	551	Nov. 1994	0.64	Internal catalytic	C-3
MAG HS0	552	Nov. 1994	0.64	Internal catalytic	C-4
MAG HS0	553	Nov. 1994	0.64	Internal catalytic	C-5
MAG HS1	561	Nov. 1994	0.91	Internal catalytic	C-6
MAG HS1	562	Nov. 1994	0.91	Internal catalytic	C-8
MAG HS1	563	Nov. 1994	0.91	Internal catalytic	C-10
MAG HS1	564	Nov. 1994	0.91	Internal catalytic	C-12
MAG HS1	565	Nov. 1994	0.91	Internal catalytic	C-14
MAG HS1	566	Nov. 1994	0.91	Internal catalytic	C-16
MAG HS1	567	Nov. 1994	0.91	Internal catalytic	C-18
Rea H-9	250	1995	6	External catalytic	F-7
Rea H-9	251	1995	6	External catalytic	F-8
Rea H-9	252	1995	6	External catalytic	F-8
Rea H-9	253	1995	6	External catalytic	F-8
Rea H-9	254	1995	6	External catalytic	F-7
SICME	281-282	1996	183	Internal thermal	D-3
SICME	283-284	1996	183	Internal thermal	D-4
SICME	285-286	1996	183	Internal thermal	D-5

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

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

D.1.1 Volatile Organic Compounds (VOCs) [326 IAC 8-1-5 (Site Specific RACT)]

- (a) Pursuant to CP-003-9913-00014, issued October 28, 1998 and 326 IAC 8-1-5, the magnet wire enameling ovens identified as 247, 248, 250, 251, 252, 253, and 254 shall achieve the following:
- (1) The VOC content of the coatings used shall not exceed 7.64 pounds per gallon coating as delivered to the applicator, excluding water,
 - (2) The catalyst shall be replaced once every twelve (12) months to ensure that the catalytic oxidizer is achieving the required overall efficiency,

- (3) VOC emissions shall be limited to 4.7 pounds of VOC per gallon of coating and 0.89 tons per year each, after controls,

VOC Emissions shall be determined by the following equation:

$$\text{VOC Emissions (tons)} = (\sum (\text{VOC Content } i \text{ (\%)} / 100 \times \text{Coating Amount } i \text{ (tons)}) \times (1 - \text{Control Efficiency \%} / 100))$$

where:

Control Efficiency % = control efficiency as demonstrated in most recent valid compliance test.

VOC Content *i* = Percent VOC content of coating *i* used

Amount *i* = Usage, in tons of the coating *i*

Compliance with these limits for ovens 250, 251, 252, 253, and 254 ensures compliance with the PSD minor limits in Condition D.1.3.

- (b) Pursuant to CP-003-9913-00014, issued October 28, 1998 and 326 IAC 8-1-5, the magnet wire enameling oven identified as 270 shall permanently reduce VOC emissions by 85% and the VOC emissions from oven 270 shall be limited to less than 6.85 pounds per hour.

D.1.2 Volatile Organic Compounds (VOCs) [326 IAC 8-2-8]

- (a) Pursuant to 326 IAC 8-2-8, for the wire enameling ovens identified as 210-213, 220-223 and 230-238, the Permittee shall not allow the discharge, into the atmosphere, of VOC in excess of 1.7 pounds of VOC per gallon of coating, excluding water, as delivered to the applicator.

Pursuant to 326 IAC 8-1-2(b), the enameling ovens' VOC emissions shall be limited to no greater than the equivalent emissions, expressed as pounds of VOC per gallon coating solids, allowed.

This equivalency was determined by the following equation:

$$E = L / (1 - (L/D))$$

Where

L= Applicable emission limit from 326 IAC 8 in pounds of VOC per gallon of coating

D= Density of VOC in coating in pounds per gallon of VOC

E= Equivalent emission limit in pounds of VOC per gallon of coating solids as applied

Actual solvent density shall be used to determine compliance of surface coating operation using the compliance methods in 326 IAC 8-1-2 (a).

The equivalent pounds of VOC per gallon of coating solids (as applied) shall be limited to less than 2.21, when L is equal to 1.7 pounds of VOC per gallon of coating and D is equal to 7.36 pounds of VOC per gallon of coating.

Pursuant to 326 IAC 8-1-2(c), the overall efficiency of the external thermal oxidizers shall be no less than the equivalent overall efficiency calculated by the following equation:

$$O = \frac{V - E}{V} \times 100$$

Where:

V = The actual VOC content of the coating or, if multiple coatings are used,

the daily weighted average VOC content of all coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids as applied.

E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.

O = Equivalent overall efficiency of the capture system and control device as a percentage.

The overall efficiency of the external thermal oxidizers for ovens 210-213 and 220-223 shall be greater than 95.0%. The overall efficiency of the external thermal oxidizers for oven 230-238 shall be greater than 97.7%.

- (b) Pursuant to 326 IAC 8-2-8, for the wire enameling ovens identified as 281-282, 283-284 and 285-286, the Permittee shall not allow the discharge, into the atmosphere, of VOC in excess of 1.7 pounds of VOC per gallon of coating, excluding water, as delivered to the applicator.

Pursuant to 326 IAC 8-1-2 (b), the enameling ovens' VOC emissions shall be limited to no greater than the equivalent emissions, expressed as pounds of VOC per gallon coating solids, allowed.

This equivalency was determined by the following equation:

$$E = L / (1 - (L/D))$$

Where

L= Applicable emission limit from 326 IAC 8 in pounds of VOC per gallon of coating

D= Density of VOC in coating in pounds per gallon of VOC

E= Equivalent emission limit in pounds of VOC per gallon of coating solids as applied

Actual solvent density shall be used to determine compliance of surface coating operation using the compliance methods in 326 IAC 8-1-2 (a).

The equivalent pounds of VOC per gallon of coating solids (as applied) shall be limited to less than 2.21, when L is equal to 1.7 pounds of VOC per gallon of coating and D is equal to 7.36 pounds of VOC per gallon of coating.

Pursuant to 326 IAC 8-1-2(c), the overall efficiency of the thermal oxidizer shall be no less than the equivalent overall efficiency calculated by the following equation:

$$O = \frac{V - E}{V} \times 100$$

Where:

V = The actual VOC content of the coating or, if multiple coatings are used, the daily weighted average VOC content of all coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids as applied.

E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.

O = Equivalent overall efficiency of the capture system and control device as a percentage.

The overall efficiency of the thermal oxidizers for ovens 281-282, 283-284 and 285-286

shall be greater than 96.6%.

D.1.3 PSD Minor Limit [326 IAC 2-2]

- (a) Pursuant to CP 02-07-90-1751, issued on June 5, 1989, and as revised by T003-21713-00014, the VOC emissions from the three (3) ovens identified as 210-213, 220-223, and 230 shall each be less than 3.04 pounds per hour per oven, after controls. Compliance with this limit shall render the requirements of 326 IAC 2-2 not applicable to the modification performed in 1989.
- (b) Pursuant to CP 003-3297-00014, issued on March 21, 1994, and CP 003-5731-00014, issued on July 9, 1996, and as revised by T003-21713-00014, the VOC emissions from the three (3) ovens identified as 281-282, 283-284, and 285-286 shall each be limited to less than 0.56 pounds per hour per oven, after controls. Compliance with this limit in combination with potential emissions from ovens 551, 552, 553, 561, 562, 563, 564, 565, 566, and 567, shall render the requirements of 326 IAC 2-2 not applicable to the modifications performed in 1994, 1995 and 1996.

D.1.4 Hazardous Air Pollutants (HAP) Minor Limits [40 CFR 63, Subpart M]

- (a) Pursuant to Significant Permit Modification 003-22934-00014, issued on December 20, 2006, and as revised by T003-21713-00014, for the emissions units identified as 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, 551, 552, 553, 561, 562, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, 540, 541, 542, 543, 544, 550, and XR-1, the total usage of coatings, solvents, lubricants and cleanup solvents shall be limited such that the single Hazardous Air Pollutant (HAP) emissions shall be limited to less than nine (9) tons per twelve (12) consecutive month period for each HAP, with compliance determined at the end of each month.
- (b) Pursuant to Significant Permit Modification 003-22934-00014, issued on December 20, 2006, and as revised by T003-21713-00014, for the emissions units identified as 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, 551, 552, 553, 561, 562, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, 540, 541, 542, 543, 544, 550, and XR-1, the total usage of coatings, solvents, lubricants and cleanup solvents shall be limited such that the combined Hazardous Air Pollutant (HAP) emissions shall be limited to less than twenty-four (24) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

These limits, in conjunction with the potential to emit of a single HAP and a combination of HAPs from the boilers and insignificant activities at the source, shall limit the source-wide emissions of any single HAP to less than ten (10) tons per year and any combination of HAPs to less than twenty-five (25) tons per year. Compliance with these limits shall make the source an area source and shall render the requirements of 40 CFR 63, Subpart M, not applicable.

D.1.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.1.6 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-5]

- (a) Pursuant to CP-003-9913-00014, issued October 28, 1998, 326 IAC 8-1-2(a), and 326 IAC 8-1-5, the Permittee shall operate the catalytic oxidizers on wire enameling ovens 247, 248, 250, 251, 252, 253, and 254 to achieve compliance with Condition D.1.1(a).
- (b) Pursuant to CP-003-9913-00014, issued October 28, 1998, 326 IAC 8-1-2(a), and 326 IAC 8-1-5, the Permittee shall operate the thermal oxidizer on wire enameling oven 270 to achieve compliance with Condition D.1.1(b).

- (c) Pursuant to 326 IAC 8-1-2(a), the Permittee shall operate the external thermal oxidizers on wire enameling ovens 210-213, 220-223, and 230-238 to achieve compliance with Condition D.1.2(a).
- (d) Pursuant to 326 IAC 8-1-2(a), the Permittee shall operate the thermal oxidizers on wire enameling ovens 281-282, 283-284 and 285-286 to achieve compliance with Conditions D.1.2(b).

D.1.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

The Permittee shall conduct performance tests to verify VOC control efficiency as shown below. If the representative oven that is required to be tested has not been in operation for at least six (6) months prior to the test deadline, another similar oven in the same group of ovens shall be tested. If none of the ovens in a particular test group has been in operation for at least six (6) months prior to the test deadline, then the Permittee is not required to conduct testing for that group. However, upon startup of any oven in a test group that has not been in operation for at least six (6) months prior to the test deadline, the Permittee shall conduct a performance test to verify VOC and/or HAP control efficiency within ninety (90) days of startup of that oven.

- (a) In order to demonstrate compliance with Conditions D.1.2(a) and D.1.3(a), the Permittee shall conduct a performance test to verify the VOC control efficiency for the external thermal oxidizers for ovens 210-213, 220-223, and 230-238 using methods approved by the Commissioner. Stack testing shall be performed in accordance with 326 IAC 3-6. The test shall be performed within one (1) year of the issuance of this permit. One representative oven shall be tested for VOC emissions. Testing shall be performed such that no single oven is tested twice in a fifteen (15) year cycle. This test shall be repeated at least once every five years from the date of this valid compliance demonstration.
- (b) In order to demonstrate compliance with Conditions D.1.2(b) and D.1.3(c), the Permittee shall conduct a performance test to verify the VOC control efficiency for the thermal oxidizers for ovens 281-282, 283-284 and 285-286 using methods approved by the Commissioner. Stack testing shall be performed in accordance with 326 IAC 3-6. The test shall be performed by July 19, 2010. One representative oven shall be tested for VOC emissions. Testing shall be performed such that no single oven is tested twice in a fifteen (15) year cycle. This test shall be repeated at least once every five years from the date of this valid compliance demonstration.
- (c) In order to demonstrate compliance with Conditions D.1.1(a) and D.1.3(b), the Permittee shall conduct a performance test to verify the VOC control efficiency for the catalytic oxidizers for ovens 247, 248, 250, 251, 252, 253, and 254 using methods approved by the Commissioner. Stack testing shall be performed in accordance with 326 IAC 3-6. The test shall be performed by July 18, 2010. Two (2) representative ovens shall be tested for VOC emissions. The test shall be done within the last 2 months of the life of the catalyst. Testing shall be performed such that no single oven is tested twice in a fifteen (15) year cycle. This test shall be repeated at least once every five years from the date of this valid compliance demonstration.
- (d) In order to demonstrate compliance with Condition D.1.1(b), the Permittee shall conduct a performance test to verify the VOC control efficiency for the thermal oxidizer for oven 270 using methods approved by the Commissioner. Stack testing shall be performed in accordance with 326 IAC 3-6. The test shall be performed by July 19, 2010. This test shall be repeated at least once every five years from the date of this valid compliance demonstration.
- (e) HAP Testing Requirements:
In order to demonstrate compliance with Condition D.1.4, the Permittee shall perform overall control efficiency of VOC testing on one oven from each of the following five (5) oven groups (210-213, 220-223, 230-237, and XR-1), (281-282, 283-284, and 285-286), (551, 552, 553, 561, 562, 563, 564, 565, 566, and 567), (243, 244, 245, 246, 247, 248, 250, 251, 252, 253, and 254), and (270) using methods approved by the Commissioner.

Stack testing shall be performed in accordance with 326 IAC 3-6, using methods determined by the Commissioner to be appropriate for each different oven design. The tests shall be performed within one (1) year of the issuance of this permit, or within five (5) years of the last valid test performed on each of these oven groups, whichever is later. The coating(s) tested shall be the wire coating used in each of these oven groups that has the lowest overall HAP destruction efficiency, as estimated by the manufacturer and approved by IDEM. This testing shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. Total VOC emissions for all ovens at this source shall be calculated each month using the following equation for VOC emissions:

$$\text{Total VOC emissions} = \sum_j [\sum_i (\text{VOC Content}_i (\%) / 100 \times \text{Coating Amount}_i)] \times (1.0 - \% \text{ VOC control efficiency}_j / 100) + \sum_k (\text{uncontrolled VOC input}_k)$$

where:

j = each individual oven

i = each coating used in an oven

k = each solvent used in an oven whose VOC emissions are uncontrolled

The most recent VOC stack test results for each oven group shall be used in determining the specific VOC control efficiency for the ovens in that oven group in the equation above. A running twelve (12) month total of VOC emissions shall be calculated by adding the total volatile organic compound emitted for the previous month to the previous 11 months total VOC emitted so as to arrive at total VOC emissions for a 12 consecutive months period.

As long as the total VOC emissions from the magnet wire ovens at this source remain below nine (9) tons in any twelve consecutive month period, no HAP testing is required.

In the event that total VOC emissions from all of the magnet wire coating ovens at this source exceeds nine (9) tons in any twelve consecutive month period, then the source shall test for individual HAP emissions from the ovens within 180 days of the notification to IDEM reporting this discovery.

The Permittee shall perform overall control efficiency of HAP testing on one oven from each of the following five (5) oven groups (210-213, 220-223, 230-237, and XR-1), (281-282, 283-284, and 285-286), (551, 552, 553, 561, 562, 563, 564, 565, 566, and 567), (243, 244, 245, 246, 247, 248, 250, 251, 252, 253, and 254), and (270) using methods approved by the Commissioner. Stack testing shall be performed in accordance with 326 IAC 3-6, using methods determined by the Commissioner to be appropriate for each different oven design. The coating(s) tested shall be the wire coating used in each of these oven groups that has the lowest overall HAP destruction efficiency, as estimated by the manufacturer and approved by IDEM. This testing shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. Single HAP and total HAP emissions for all ovens at this source shall be calculated each month using the following equation for HAP emissions:

$$\text{Single HAP emissions} = \sum_j [\sum_i (\text{single HAP Content}_i (\%) / 100 \times \text{Coating Amount}_i)] \times (1.0 - \% \text{ HAP control efficiency}_j / 100) + \sum_k (\text{uncontrolled HAP input}_k)$$

$$\text{Total HAP emissions} = \sum_j [\sum_i (\text{total HAP Content}_i (\%) / 100 \times \text{Coating Amount}_i)] \times (1.0 - \% \text{ HAP control efficiency}_j / 100) + \sum_k (\text{uncontrolled HAP input}_k)$$

where:

j = each individual oven

i = each coating used in an oven
k = each solvent used in an oven whose HAP emissions are uncontrolled

The most recent HAP stack test results for each oven group shall be used in determining the specific HAP control efficiency for the ovens in that oven group in the equation above. A running twelve (12) month total of single HAP and total HAP emissions shall be calculated by adding the single HAP and total HAP emitted for the previous month to the previous 11 months single HAP and total HAP emitted so as to arrive at single HAP and total HAP emissions for a 12 consecutive months period.

- (f) For a higher VOC and/or HAP content coating than that used during the stack tests in (a) – (e) above, the following procedure shall be followed:
- (1) Calculate the new minimum required control efficiency for the new coating (E_{new});
 - (2) Calculate the new maximum HAP loading (L_{new}) for the higher HAP content enamel;
 - (3) Calculate the current maximum HAP loading ($L_{current}$);
 - (4) If E_{new} is lower than the last stack test control efficiency, and L_{new} is lower than $L_{current}$, Permittee shall be allowed to use the same destruction efficiency for calculations for the higher HAP content enamel.
- (g) Before using a coating that would lead to a higher VOC and/or HAP loading in pounds per hour than what was used during the stack test required in paragraphs (a) through (e) above, the Permittee shall conduct a performance test to verify VOC and/or HAP control efficiency as per Conditions D.1.1, D.1.2, D.1.3, and D.1.4 for the catalytic/thermal oxidizers using methods approved by the Commissioner.
- (h) In order to demonstrate compliance with Condition D.1.1(a)(3) for the twelve (12) month catalyst replacement frequency requirement in Condition D.1.1(a)(2), the Permittee shall conduct a one-time performance test to verify the VOC control efficiency for the catalytic oxidizers for ovens 243, 244, 245, or 246 using methods approved by the Commissioner. Stack testing shall be performed in accordance with 326 IAC 3-6. The test shall be performed within one year of issuance of this permit. One (1) representative oven shall be tested for VOC emissions. The test shall be done on an oven with a catalyst that has been in use for at least twelve (12) months. This test may be done in conjunction with the VOC testing required for this oven group in Condition D.1.7(e).

D.1.8 VOC Emissions

- (a) Compliance with Condition D.1.1(a)(3) shall be demonstrated within 30 days of the end of each month. This shall be based on the total volatile organic compound emitted for the previous month, and adding it to the previous 11 months total VOC emitted so as to arrive at VOC emissions for 12 consecutive months period. The VOC emissions for a month can be arrived at using the following equation for VOC usage:

$$\text{Total VOC emissions} = \sum_j [\sum_i (\text{VOC Content}_i (\%) / 100 \times \text{Coating Amount}_i)] \times (1.0 - \% \text{ VOC control efficiency}_j / 100) + \sum_k (\text{uncontrolled VOC input}_k)$$

where:

j = each individual oven
i = each coating used in an oven
k = each solvent used in an oven whose VOC emissions are uncontrolled

The % VOC control efficiency for ovens 247, 248, 250, 251, 252, 253, and 254 shall be determined by testing pursuant to Condition D.1.7.

- (b) Compliance with Condition D.1.4 shall be demonstrated within 30 days of the end of each month by demonstrating that VOC emissions from ovens 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, 551, 552, 553, 561, 562, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, 540, 541, 542, 543, 544, 550, and XR-1 do not exceed nine (9) tons per year. This shall be based on the total volatile organic compound emitted for the previous month, and adding it to previous 11 months total VOC emitted so as to arrive at VOC emissions for 12 consecutive months period. The VOC emissions for a month can be arrived at using the formula in paragraph (a) above. The % VOC control efficiency for each oven group as determined by the most recent VOC stack testing pursuant to Condition D.1.7(e) for the ovens in that oven group shall be used in determining the specific VOC control efficiency for the ovens in that oven group.

D.1.9 Hazardous Air Pollutant (HAP) Calculations

In the event that total VOC emissions from all of the magnet wire coating ovens exceeds nine (9) tons per year as determined pursuant to Condition D.1.8, the Permittee shall demonstrate compliance with the HAP emission limitation in Condition D.1.4, by determining the HAP emissions for each month for the emissions units identified as 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, 551, 552, 553, 561, 562, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, 540, 541, 542, 543, 544, 550, and XR-1.

For ovens 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, 551, 552, 553, 561, 562, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, and XR-1, HAP emissions shall be determined as follows:

$$\text{HAP}_1 \text{ emissions} = [\text{HAP usage all ovens} \times (1.0 - \% \text{ HAP control efficiency} / 100)]$$

For ovens 540, 541, 542, 543, 544, and 550, HAP emissions shall be determined as follows:

$$\text{HAP}_2 \text{ emissions} = (\text{HAP usage of ovens } 540, 541, 542, 543, 544, \text{ and } 550)$$

$$\text{Total HAP Emissions} = \text{HAP}_1 \text{ emissions} + \text{HAP}_2 \text{ emissions}$$

The % HAP control efficiency for each oven group shall be determined by testing per Condition D.1.7.

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

D.1.10 Thermal/Catalytic Oxidizer Operation [40 CFR 64]

- (a) From the date of issuance of Part 70 permit renewal 003-22934-00014 until the approved stack test results are available, and in order to demonstrate compliance with Conditions D.1.1, D.1.2, and D.1.3:
- (1) The Permittee shall operate the external thermal oxidizers 3 hour average temperature for ovens 210-213 and 220-223 at or above the temperature that results in the required 95.0% control efficiency, as determined during compliance tests.
 - (2) The Permittee shall operate the external thermal oxidizers 3 hour average temperature for oven 230-238 at or above the temperature that results in the required 97.7% control efficiency, as determined during compliance tests.
 - (3) The Permittee shall operate the thermal oxidizers 3 hour average temperature for ovens 281-282, 283-284 and 285-286 at or above the temperature of 1250 degrees F or the temperature determined during compliance tests to maintain a 96.6% control efficiency.
 - (4) The Permittee shall operate the catalytic oxidizers 3 hour average temperature for ovens 247, 248, 250, 251, 252, 253, and 254 at or above the temperature that

results in the required 90.0% control efficiency, as determined during compliance tests.

- (5) The Permittee shall operate the thermal oxidizer 3 hour average temperature for oven 270 at or above the temperature of 1250 degrees F or the temperature determined during compliance tests to maintain a 85.0% control efficiency.
- (b) From the date of issuance of the Part 70 permit until the approved stack test results are available, and in order to demonstrate compliance with Condition D.1.4, the Permittee shall operate the catalytic/thermal oxidizers 3 hour average temperature for ovens 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, 551, 552, 553, 561, 562, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, and XR-1 at or above the temperature that results in the HAP (VOC) control efficiency necessary to comply with the requirements of Condition D.1.4, as demonstrated by Condition D.1.8 or D.1.9.
- (c) From the date that the approved stack test results are available, and in order to demonstrate compliance with Condition D.1.4, the Permittee shall operate the catalytic/thermal oxidizers 3 hour average temperature for ovens 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, 552, 553, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, and XR-1 at or above the temperature that results in the HAP (VOC) control efficiency necessary to comply with the requirements of Condition D.1.4, as demonstrated by Condition D.1.8 or D.1.9.
- (d) The Permittee shall determine the 3 hour block average minimum temperature from the most recent valid stack test that demonstrates compliance with limits in Conditions D.1.1, D.1.2, D.1.3, and D.1.4, as approved by IDEM.
- (e) From the date of the approved stack test results are available, and in order to demonstrate compliance with Conditions D.1.1, D.1.2, D.1.3, and D.1.4, the Permittee shall operate the thermal/catalytic oxidizers at or above the 3 hour block average minimum temperature as observed during the compliant stack test.

D.1.11 Parametric Monitoring [40 CFR 64]

- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the catalytic and thermal oxidizers for measuring operating temperature of the oxidizers. For the purposes of this condition, continuous monitoring shall mean no less often than once per fifteen (15) minutes. The output from this monitoring system and the three hour average temperatures shall be recorded whenever the catalytic and thermal oxidizers are in operation.
- (b) If the primary continuous monitoring system is not in operation, the oxidizer temperature will be recorded using some manner of secondary system, such as with back-up electro-mechanical hardware or manually if necessary. Nothing in this permit shall excuse the Permittee from complying with the requirement to continuously monitor the temperature of the oxidizers. Continuous monitoring shall mean no less often than once per fifteen (15) minutes.
- (c) The oxidizers shall operate such that if the three-hour average temperature falls below the 3 hour block average minimum required temperature (set point) as determined by the latest stack test, corrective actions shall be taken within 15 minutes to return oxidizer temperature to at least the required minimum temperature set point. Corrective action must return oxidizer temperature to or above the minimum temperature set point within thirty (30) minutes of the corrective action, or the enamel flow to the oven shall be shut off. Failure to take corrective action or failure to shut off the enamel flow as stated above shall be considered a deviation from this permit.
- (d) All actions described in paragraph (c) above must be taken in accordance with Section C - Response to Excursions of Exceedances and failure to take action consistent with

Section C - Response to Excursions of Exceedances shall be considered a deviation from this permit.

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

D.1.12 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1, D.1.2, and D.1.3, the Permittee shall maintain the following records for ovens 247, 248, 250, 251, 252, 253, 254, 270, 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, 245, and 246 in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC content limits and/or VOC emission limits established in Conditions D.1.1, D.1.2, and D.1.3.
- (1) The amount and VOC content of each coating, solvent, lubricant and cleanup solvent used in each oven on a monthly basis. Records shall include purchase orders, invoices, supplier data sheets, and material safety data sheets (MSDS) necessary to verify the type and amount used.
 - (2) The total VOC usage for each month;
 - (3) The weight of VOC usage for each compliance period.
 - (4) The weight of VOCs emitted for each compliance period, based on VOC usage in the magnet wire ovens $\times (1 - \text{VOC control efficiency } \%/100) + \text{uncontrolled VOC input}$.
- (b) To document compliance with Condition D.1.4, the Permittee shall maintain the following records for ovens 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, 551, 552, 561, 562, 553, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, 540, 541, 542, 543, 544, 550, and XR-1 in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the HAP emission limits established in Condition D.1.4. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (1) The amount and VOC and HAP content of each coating, solvent, lubricant and cleanup solvent used on a monthly basis. Records shall include purchase orders, invoices, supplier data sheets, and material safety data sheets (MSDS) necessary to verify the type and amount used.
 - (2) The total VOC and HAP usage for each month;
 - (3) The weight of VOC and HAP usage for each compliance period.
 - (4) The weight of VOCs emitted for each compliance period, based on VOC usage in the magnet wire ovens $\times (1 - \text{VOC control efficiency } \%/100) + \text{uncontrolled VOC input}$.
 - (5) In the event that total VOC emissions exceeds nine (9) tons per year, as determined by condition D.1.8, the Permittee shall also maintain records of the weight of single HAPs and total HAPs emitted for each compliance period, based on HAP usage in the magnet wire ovens $\times (1 - \text{HAP control efficiency } \%/100) + \text{uncontrolled HAP input}$.
- (c) To document compliance with Condition D.1.1(a)(2), the Permittee shall maintain records of the dates that the catalysts are replaced in ovens 247, 248, 250, 251, 252, 253 and 254.
- (d) To document compliance with Condition D.1.12, the Permittee shall maintain the

continuous temperature records and 3 hour average temperature records.

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

D.1.13 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Conditions D.1.1(a)(3) and D.1.4 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) In the event that total VOC emissions exceeds nine (9) tons in any twelve (12) consecutive month period, the Permittee shall submit a quarterly summary of the HAP emissions to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported, to document compliance with Condition D.1.4. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) In the event that total VOC emissions exceeds nine (9) tons in any twelve (12) consecutive month period, the Permittee shall submit a notification to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days of discovery that the VOC emissions exceed nine (9) tons per twelve consecutive month period. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.2

FACILITY OPERATION CONDITIONS

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

- (b) One (1) 16.7 MMBtu per hour natural gas-fired boiler, identified as CB266-500, constructed in 1965, and exhausting to stack A-2.

Insignificant Activities:

- (c) One (1) 6.0 MMBtu per hour natural gas-fired boiler, identified as Bryan RV600, constructed in 2002 and exhausting to stack A-1. [326 IAC 6-2-3]

(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 Particulate [326 IAC 6-2-3]

- (a) Pursuant to 326 IAC 6-2-3(a), (b) and (d) (Particulate Emission Limitations for Sources of Indirect Heating), the particulate emissions from the 16.7 MMBtu/hr natural gas-fired boiler (CB266-500) shall not exceed 0.8 lbs per MMBtu. Pursuant to 326 IAC 6-2-3(a), (b) and (d), the particulate emissions from all boilers which were in operation on June 8, 1972 shall be limited by the following equation or by 0.8 lbs per MMBtu, whichever is more stringent:

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}} = \frac{50 \times 0.67 \times 42}{76.5 \times (16.7 + 16.7)^{0.75} \times 1^{0.25}} = \frac{1.32 \text{ lbs PM}}{\text{MMBtu heat input}}$$

Where:

C = max ground level concentration (= 50 F g/m³)

Pt = emission rate limit (lbs/MMBtu)

Q = total source heat input capacity (MMBtu/hr) = 33.6

N = number of stacks = 1

a = plume rise factor = 0.67

h = stack height (ft) = 42

The more stringent PM emission limit for this boiler is 0.8 lbs/MMBtu heat input.

- (b) Pursuant to 326 IAC 6-2-4(a), the particulate emissions from the 6.0 MMBtu/hr natural gas-fired boiler (Bryan RV600) shall be limited by 0.484 lbs/MMBtu heat input. The emission limit was calculated using the following equation:

$$Pt = \frac{1.09}{Q^{0.26}} = \frac{1.09}{(16.7 + 6.0)^{0.26}} = 0.484 \text{ lbs/MMBtu}$$

Where:

Pt = emission rate limit (lbs/MMBtu)

Q = total source heat input capacity (MMBtu/hr)

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Insignificant Degreaser

- (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] [326 IAC 8-3-5].

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

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

D.3.1 Cold Cleaner (Degreaser) Operations [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the Permittee shall:

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

D.3.2 Cold Cleaner (Degreaser) Operations [326 IAC 8-3-5]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the Permittee shall ensure that the following control equipment requirements are met:
- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (B) The solvent is agitated; or
 - (C) The solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

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

SECTION D.4

FACILITY OPERATION CONDITIONS

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

- (b) Activities with emissions equal to or less than the following thresholds: 5 lb/hr and 25 lb/day PM10; 5 lb/hr and 25 lb/day SO₂; 5 lb/hr and 25 lb/day NO_x; 3 lb/hr and 15 lb/day VOC; 0.6 tons per year Pb; 5 lb/day and 1.0 ton/yr of a single HAP, and 12.5 lb/day and 2.5 ton/yr of any combination of HAPs, consisting of one (1) paint spray booth [326 IAC 6-3-2].

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

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

D.4.1 Particulate Emissions from Manufacturing Operations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(d) (Particulate Emission Limitations for Manufacturing Processes), particulate from the insignificant paint spray booth shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: Rea Magnet Wire Company, Inc.
Source Address: 3600 East Pontiac Street, Fort Wayne, Indiana 46803
Mailing Address: 3600 East Pontiac Street, Fort Wayne, Indiana 46803
Part 70 Permit No.: T003-21713-00014

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

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

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Rea Magnet Wire Company, Inc.
Source Address: 3600 East Pontiac Street, Fort Wayne, Indiana 46803
Mailing Address: 3600 East Pontiac Street, Fort Wayne, Indiana 46803
Part 70 Permit No.: T003-21713-00014

This form consists of 2 pages

Page 1 of 2

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

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

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

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

Page 2 of 2

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

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

Part 70 Quarterly Report

Source Name: Rea Magnet Wire Company, Inc.
 Source Address: 3600 East Pontiac Street, Fort Wayne, Indiana 46803
 Mailing Address: 3600 East Pontiac Street, Fort Wayne, Indiana 46803
 Part 70 Permit No.: T003-21713-00014
 Facility: Ovens 247, 248, 250, 251, 252, 253, and 254
 Parameter: VOC emissions
 Limit: Less than 0.89 tons each, per twelve (12) consecutive month period.

YEAR:

QUARTER:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- ☉ No deviation occurred in this quarter.
- ☉ Deviation/s occurred in this quarter.
 Deviation has been reported on:

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

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Rea Magnet Wire Company
 Source Address: 3600 East Pontiac Street, Fort Wayne, Indiana 46803
 Mailing Address: 3600 East Pontiac Street, Fort Wayne, Indiana 46803
 Part 70 Permit No.: T003-6959-00014
 Facility: Ovens 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, 551, 552, 553, 561, 562, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, 540, 541, 542, 543, 544, 550, and XR-1
 Parameter: Single and Combination Hazardous Air Pollutants (HAPs)
 Limits: Less than nine (9) tons for each single hazardous air pollutant (HAP)
 Less than twenty-four (24) tons of combined Hazardous Air Pollutants (HAPs)
 The HAP limits shall be based on a twelve (12) consecutive month period

Quarter: _____ Year _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.
 Deviation has been reported on:

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

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION
 PART 70 OPERATING PERMIT
 QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Rea Magnet Wire Company, Inc.
 Source Address: 3600 East Pontiac Street, Fort Wayne, Indiana 46803
 Mailing Address: 3600 East Pontiac Street, Fort Wayne, Indiana 46803
 Part 70 Permit No.: T003-21713-00014

Months: _____ to _____ Year: _____

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
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: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for a Part 70 (Title V) Operating Permit Renewal

Source Background and Description

Source Name: Rea Magnet Wire Company, Inc.
 Source Location: 3600 East Pontiac Street, Fort Wayne, Indiana 46803
 County: Allen
 SIC Code: 3357
 Operation Permit No.: T003-21713-00014
 Permit Reviewer: ERG/ST

On June 1, 2007, the Office of Air Quality (OAQ) had a notice published in the Fort Wayne Journal Gazette, Fort Wayne, Indiana, stating that Rea Magnet Wire Company, Inc. had applied for a Part 70 Operating Permit Renewal to operate a stationary magnet wire coating operation with control. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On June 29, 2007, Rea Magnet Wire Company, Inc. submitted comments on the proposed Part 70 permit renewal. On October 18, 2007, Rea Magnet Wire Company, Inc. submitted comments on the Addendum to the proposed Part 70 permit renewal. The summary of the comments is as follows. New language is shown in bold and deleted language is shown in strikethrough. The Table of Contents has been updated as necessary.

Comment 1: In the TSD and permit equipment description sections, please change the oven company name "SIGME" to "SICME".

IDEM Response to Comment 1: The permit has been changed as shown below. No changes have been made to the TSD because IDEM, OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

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

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

(a) The following magnet wire enameling ovens:

Model	Oven ID #	Construction Date	Max. Rating (lbs wire/hr)	VOC Oxidizer Type	Stack ID #
...
SIGME SICME	281-282	1996	183	Internal thermal	D-3
SIGME SICME	283-284	1996	183	Internal thermal	D-4
SIGME SICME	285-286	1996	183	Internal thermal	D-5

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Magnet Wire Coating Ovens					
(a) The following magnet wire enameling ovens:					
Model	Oven ID #	Construction Date	Max. Rating (lbs wire/hr)	VOC Oxidizer Type	Stack ID #
...					
SIGME SICME	281-282	1996	183	Internal thermal	D-3
SIGME SICME	283-284	1996	183	Internal thermal	D-4
SIGME SICME	285-286	1996	183	Internal thermal	D-5
...					

Comment 2: The list of permitted emission units in Section A.2 and D.1 should include ovens 551, 561, and 562, which are currently in use at the facility. These ovens were apparently removed during the drafting of the renewal. Please include these ovens in the equipment description listing along with their requirements. Also, the MAG HS ovens should be designated as MAG HS0 and MAG HS1.

IDEM Response to Comment 2: Ovens 551, 561, and 562 were inadvertently omitted from the equipment list in the draft Title V Renewal. These units were included in the original Title V permit, T003-6959-00014. The addition of oven 551 to the equipment list increases the uncontrolled potential to emit of the source by 1.5 tons of VOC per year and the addition of ovens 561 and 562 to the equipment list increases the uncontrolled potential to emit of the source by 4.4 tons of VOC per year. The requirements of 326 IAC 8-2-8 do not apply to these ovens because the potential to emit of VOC before controls from each of these ovens is less than 25 tons per year. The calculations for potential to emit are documented in Appendix A to this Addendum. Changes to the permit requirements for these ovens are explained in subsequent IDEM responses.

The permit has been changed to add these units to the list of emission units.

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

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

(a) The following magnet wire enameling ovens:

Model	Oven ID #	Construction Date	Max. Rating (lbs wire/hr)	VOC Oxidizer Type	Stack ID #
...					
MAG HS0	551	Nov. 1994	0.64	Internal catalytic	C-3
MAG HS00	552	Nov. 1994	0.64	Internal catalytic	C-4
MAG HS00	553	Nov. 1994	0.64	Internal catalytic	C-5
MAG HS1	561	Nov. 1994	0.91	Internal catalytic	C-6
MAG HS1	562	Nov. 1994	0.91	Internal catalytic	C-8
MAG HS11	563	Nov. 1994	0.91	Internal catalytic	C-10
MAG HS11	564	Nov. 1994	0.91	Internal catalytic	C-12
MAG HS11	565	Nov. 1994	0.91	Internal catalytic	C-14
MAG HS11	566	Nov. 1994	0.91	Internal catalytic	C-16
MAG HS11	567	Nov. 1994	0.91	Internal catalytic	C-18
...					

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Magnet Wire Coating Ovens					
(a) The following magnet wire enameling ovens:					
Model	Oven ID #	Construction Date	Max. Rating (lbs wire/hr)	VOC Oxidizer Type	Stack ID #
...					
MAG HS0	551	Nov. 1994	0.64	Internal catalytic	C-3
MAG HS00	552	Nov. 1994	0.64	Internal catalytic	C-4
MAG HS00	553	Nov. 1994	0.64	Internal catalytic	C-5
MAG HS1	561	Nov. 1994	0.91	Internal catalytic	C-6
MAG HS1	562	Nov. 1994	0.91	Internal catalytic	C-8
MAG HS1	563	Nov. 1994	0.91	Internal catalytic	C-10
MAG HS1	564	Nov. 1994	0.91	Internal catalytic	C-12
MAG HS1	565	Nov. 1994	0.91	Internal catalytic	C-14
MAG HS1	566	Nov. 1994	0.91	Internal catalytic	C-16
MAG HS1	567	Nov. 1994	0.91	Internal catalytic	C-18
...					

Comment 3: The Bryan RV 600 boiler has a heat input equal to or less than ten million (10,000,000) BTU per hour. Pursuant to 326 IAC 2-7-1(21)(G)(i)(AA)(aa), this equipment should be listed as and considered an insignificant activity.

IDEM Response to Comment 3: The Bryan RV 600 boiler meets the criteria for an insignificant boiler under 326 IAC 2-7-1(21)(G)(i)(AA)(aa). The particulate emissions limitation for this boiler in Condition D.2.1(b) remains unchanged, as the emission limit is dependent upon the boiler's maximum heat input capacity (6 MMBtu/hr). This equipment has been listed under section A.3 to show that it is an insignificant activity. The permit has been changed as follows:

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

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

...

(c) ~~One (1) 6.0 MMBtu per hour natural gas-fired boiler, identified as Bryan RV600, constructed in 2002 and exhausting to stack A-1.~~

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

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

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, not subject to 326 IAC 20-6 [326 IAC 8-3-2] [326 IAC 8-3-5].
- (b) Activities with emissions equal to or less than the following thresholds: 5 lb/hr and 25 lb/day PM10; 5 lb/hr and 25 lb/day SO₂; 5 lb/hr and 25 lb/day NO_x; 3 lb/hr and 15 lb/day VOC; 0.6 tons per year Pb; 5 lb/day and 1.0 ton/yr of a single HAP, and 12.5 lb/day and 2.5 ton/yr of any combination of HAPs, consisting of one (1) paint spray booth [326 IAC 6-3-2].
- (c) **One (1) 6.0 MMBtu per hour natural gas-fired boiler, identified as Bryan RV600, constructed in 2002 and exhausting to stack A-1. [326 IAC 6-2-3]**

SECTION D.2

FACILITY OPERATION CONDITIONS

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

- (b) One (1) 16.7 MMBtu per hour natural gas-fired boiler, identified as CB266-500, constructed in 1965, and exhausting to stack A-2.

Insignificant Activities:

- (c) One (1) 6.0 MMBtu per hour natural gas-fired boiler, identified as Bryan RV600, constructed in 2002 and exhausting to stack A-1. **[326 IAC 6-2-3]**

Comment 4: The equation for particulate emissions in Condition D.2.1(a) should have one of the 16.7s listed in the denominator of the equation replaced with a 6.0 because one large boiler was replaced by a smaller 6.0 mm BTU/hr boiler. Also, it appears that the units listed for term 'C' in the equation are incorrect. Please clarify this.

IDEM Response to Comment 4: The particulate emission standard for the 16.7 MMBtu per hour natural gas-fired boiler, identified as CB266-500, is based on the total maximum heat input capacity of boilers installed at the plant at the time the boiler was constructed. Another 16.7 MMBtu/hr boiler was in operation at the Pontiac Street plant at the time that CB266-500 was constructed. Therefore, the emissions standard is based on the total heat input capacity of these two boilers (16.7 + 16.7 = 33.4). Once an allowable emission rate has been established pursuant to 326 IAC 6-2-3 based on the equipment in place at the time of construction, it does not change for that given boiler regardless of additions, removals, or replacements. No changes have been made to the equation or the emission standard. The units for term 'C = max ground level concentration' should be micrograms per cubic meter, and not micrometers per cubic meter. The permit has been changed to correct this typographical error as follows:

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

(a) . . .

Where:

C = max ground level concentration (= 50 ~~µm~~^g/m³)

Pt = emission rate limit (lbs/MMBtu)

Q = total source heat input capacity (MMBtu/hr) = 33.6

N = number of stacks = 1

a = plume rise factor = 0.67

h = stack height (ft) = 42

. . .

Comment 5: In Section A.1 of the permit, it is mistakenly stated that Allen County is a nonattainment area for the 8-hour ozone standard.

IDEM Response to Comment 5: Allen County was re-designated as maintenance attainment for the 8-hour ozone standard by EPA in 72 FR 1292 on January 11, 2007. On September 6, 2007 the Indiana Air Pollution Control Board finalized a temporary emergency rule to redesignate Allen, Clark, Elkhart, Floyd, LaPorte, and St. Joseph counties as attainment for the 8-hour ozone standard. Allen County is now an attainment area for the 8-hour ozone standard. The PTE of VOC and NOx for this source is less than 250 tons per year. Therefore the source is a minor source under PSD. The permit has been changed as follows:

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

The Permittee owns and operates stationary magnet wire coating operation

Source Address:	3600 East Pontiac Street, Fort Wayne, Indiana 46803
Mailing Address:	3600 East Pontiac Street, Fort Wayne, Indiana 46803
General Source Phone Number:	(260) 421-7422
SIC Code:	3357
County Location:	Allen
Source Location Status:	Nonattainment for 8-hour ozone standard Attainment for all other criteria pollutants
Source Status:	Part 70 Operating Permit Program Minor Source, under PSD Rules Major Source under Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

Comment 6: Remove the requirements for glass lines BV, USM and USM2 from Condition D.4.1. The glass lines BV, USM and USM2 are no longer operated at this facility. The paint spray booth is controlled by filters.

IDEM Response to Comment 6: The permit has been changed as follows:

D.4.1 Particulate Emissions from Manufacturing Operations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(d) (Particulate Emission Limitations for Manufacturing Processes), particulate from the insignificant ~~BV glassline, USM glassline, USM2 glassline, and paint spray booth~~ shall be controlled by a dry particulate filter, ~~or an equivalent control device~~, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

Comment 7: The formula for calculating HAPs emissions in Condition D.1.9 must be corrected because it counts the emissions from ovens 540, 541, 542, 543, 544 and 550 twice.

IDEM Response to Comment 7: Ovens 540, 541, 542, 543, 544 and 550 were handled differently in the equation because they have no control devices. However, by using a HAP control efficiency of zero in the equation for these ovens, they do not need a separate part of the equation. As stated in the response to Comment 2, ovens 551, 561, and 562 were inadvertently left out of the draft permit. Since ovens 551, 561, and 562 are part of the plant and must be counted under the source-wide HAP limit, these ovens have been added to the HAP limit in Condition D.1.9. The permit has been changed as follows. (The permit also shows changes that are made in response to a subsequent comment. These changes are explained in the response to Comment 16.)

D.1.9 Hazardous Air Pollutant (HAP) Calculations

In the event that total VOC emissions from all of the magnet wire coating ovens exceeds nine (9) tons per year as determined pursuant to Condition D.1.8, the Permittee shall ~~in order to demonstrate compliance with the HAP emission limitation in Condition D.1.4, the Permittee shall determine the single and combination~~ by determining the HAP emissions for each month for the emissions units identified as 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, **551, 552, 553, **561**, **562**, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, 540, 541, 542, 543, 544, 550, and XR-1. ~~, using the following methodology:~~**

For ovens 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, 551, 552, 553, 561, 562, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, and XR-1, HAP emissions shall be determined as follows:

HAP₁ emissions = [HAP usage all units ovens x (1.0 - % HAP control efficiency / 100)]

For ovens 540, 541, 542, 543, 544, and 550, HAP emissions shall be determined as follows:

HAP₂ emissions = \sum (HAP usage of units ovens 540, 541, 542, 543, 544, and 550)

Total HAP Emissions = HAP₁ emissions + HAP₂ emissions

The % HAP control efficiency for each oven group shall be determined by testing per Condition D.1.7.

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

Part 70 Quarterly Report

Source Name: Rea Magnet Wire Company
Source Address: 3600 East Pontiac Street, Fort Wayne, Indiana 46803
Mailing Address: 3600 East Pontiac Street, Fort Wayne, Indiana 46803
Part 70 Permit No.: T003-6959-00014
Facility: Ovens 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, **551**, 552, 553, **561**, **562**, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, 540, 541, 542, 543, 544, 550, and XR-1
Parameter: Single and Combination Hazardous Air Pollutants (HAPs)
Limits: Less than nine (9) tons for each single hazardous air pollutant (HAP)
Less than twenty-four (24) tons of combined Hazardous Air Pollutants (HAPs)
The HAP limits shall be based on a twelve (12) consecutive month period

...

Comment 8: In Condition D.1.12(d), the reference to section C should be to Condition C.14 - Response to Excursions and Exceedances.

IDEM Response to Comment 8: The commenter is correct in stating that the reference to the condition in D.1.12 is referring specifically to Condition C.14. However, IDEM prefers to leave this reference more general in case future changes are made to the C Section that changes the number of this condition. If the Section C condition number was changed, the reference could be missed and not updated. No changes were made as a result of this comment.

Comment 9: In Condition D.1.13(a), the list does not include Ovens 243 and 244 as it should.

IDEM Response to Comment 9: Condition D.1.13(a) requires the Permittee to keep records for VOC usage at ovens subject to VOC emission standards or VOC limits in Conditions D.1.1, D.1.2, and D.1.3. Since ovens 243 and 244 are not subject to any specific VOC emission standards or VOC limits in Conditions D.1.1, D.1.2, and D.1.3, recordkeeping for VOC usage at these ovens is not required. However, in order to demonstrate compliance with the HAP emission limits in Condition D.1.4, the Permittee is required to keep records for HAP usage in ovens 243 and 244 in Condition D.1.13(b). As stated in the response to Comment 2, ovens 551, 561, and 562 were inadvertently left out of the draft permit. Since ovens 551, 561, and 562 are part of the plant and records of HAP usage must be kept, these ovens have been added to Condition D.1.13(b). The permit has been revised as follows:

~~D.1.13~~ **D.1.12** Record Keeping Requirements

- (a) . . .
...
(4) The weight of VOCs emitted for each compliance period, based on VOC usage in the magnet wire ovens $\times (1 - \text{VOC control efficiency \%} / 100) + \text{uncontrolled VOC input}$.
- (b) To document compliance with Condition D.1.4, the Permittee shall maintain the following records for ovens 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, **551**, 552, **561**, **562**, 553, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, 540, 541, 542, 543, 544, 550, and XR-1 in accordance with (1) through ~~(4)~~ **(5)** below. Records maintained for (1) through ~~(4)~~ **(5)** shall be taken monthly and shall be complete and sufficient to establish compliance with the HAP emission limits established in Condition D.1.4. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (1) The amount and **VOC and** HAP content of each coating, solvent, lubricant and cleanup solvent used on a monthly basis. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
- (2) The total **VOC and** HAP usage for each month;
- (3) The weight of **VOC and** HAP usage for each compliance period.
- (4) **The weight of VOCs emitted for each compliance period, based on VOC usage in the magnet wire ovens $\times (1 - \text{VOC control efficiency \%} / 100) + \text{uncontrolled VOC input}$.**
- ~~(4)~~**(5) In the event that total VOC emissions exceeds nine (9) tons per year, as determined by condition D.1.8, the Permittee shall also maintain records of the** The weight of single HAPs and total HAPs emitted for each compliance period, based on HAP usage in the magnet wire ovens $\times (1 - \text{HAP control efficiency \%} / 100) + \text{uncontrolled HAP input}$.
- ...

~~D.1.14~~ **D.1.13** Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Conditions D.1.1(a)(3) and D.1.4 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) **In the event that total VOC emissions exceeds nine (9) tons in any twelve (12) consecutive month period, the Permittee shall submit a quarterly summary of the HAP emissions to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported, to document compliance with Condition D.1.4. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).**
- (c) **In the event that total VOC emissions exceeds nine (9) tons in any twelve (12) consecutive month period, the Permittee shall submit a notification to the address**

listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days of discovery that the VOC emissions exceed nine (9) tons per twelve consecutive month period. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Comment 10: Oven XR-1 was installed and operating in the Fort Wayne Pontiac Street plant prior to June 1969. This oven has always been an experimental oven used to try out new enamels and new products. The oven typically runs less than 40 hours/week and never runs more than one or two wire lines. The oven is incapable of running the ultrafine sizes chosen for the potential to emit (PTE) calculation, which estimated PTE to be 26.3 tons of VOC emissions per year. The actual enamel usage (input) for this oven is more likely less than one (1) ton per year and the emissions from the oven would be further reduced at least 80-90% by the catalytic oxidizer in the oven. Finally at the bottom of the table under ** The following statement is made: "Assume a HAP content of less than 94% for the total HAP content and less than 38% for a single HAP." A review of MSDS supports these values as maximums. The actual average HAP content for the enamel used in the Fort Wayne Pontiac Street facility is less than 33% and largest single HAP is Phenol which averages about 13%. The actual enamels run on XR-1 would have less HAP content than these averages.

IDEM Response to Comment 10: Data was not provided by the source to estimate the emissions from oven XR-1. Therefore, a very conservative estimate was used where the worst case coating to weight of wire emission factor was assumed for XR-1. Using the information provided in this comment that the oven is incapable of running the ultrafine sizes of wire, the maximum coating concentration to weight of wire emission factor for all non-ultrafine sized wire coatings and ovens was used. The worst case was based on the other MOCO oven at the source (oven 270). This estimate is included in the Appendix to this Addendum and revises the estimate from 26.3 tons per year to 3.85 tons per year. The requirements for this oven listed in Conditions D.1.4, D.1.7, D.1.9, D.1.10, and D.1.13 remain unchanged as a result of the revised PTE. No changes were made to the permit as a result of this comment.

Comment 11: In regards to the testing requirements in Condition D.1.7: all of the ovens except for the GE-I and GE-M were stack tested in July of 2005. Please revise the requirements for testing these units accordingly. Also, Rea Magnet will require more time than 180 days to make an effective test of the GE-M and GE-I oven group. Since the GE-M and GE-I ovens need to be tested at the end of the catalyst life (12 months), Rea Magnet believes that a requirement to test within 18 months of issuance will be more effective. Also, the permit does not list any testing requirements for the H-9 Ovens identified as 243, 244, 245 and 246. Testing requirements for these ovens were listed in the TSD. Which is correct? The table for testing requirements on page 22 of the TSD represents a much easier way to view the actual test requirements. Please delete the previous paragraphs (a) through (f) in favor of this table. Oven XR-1 was included with the GE-I and GE-M ovens in the table but not in paragraph (a). Paragraphs (a) through (f) require testing within 18 months of issuance but the table requires testing within 180 days of issuance. All of the ovens except for those in paragraphs (a) (210-213, 220-223, and 230-238) and (c) (243, 244, 245, and 246) were tested in July 2005. Ovens 551, 561, and 562 are not listed in the testing requirements table in the TSD.

IDEM Response to Comment 11: The testing requirements in Condition D.1.7 of the permit will be changed to reflect the fact that oven groups identified as H-9 (247, 248, 250, 251, 252, 253, 254), MOCO (270), and SICME (281-282, 283-284, 285-286) were tested in July 2005 and do not require repeat testing until 2010. The testing timeframe will be revised to one year to allow Rea Magnet to test one of the GE-M and GE-I ovens within the last few months of catalyst life. No VOC testing is required for oven XR-1 and the H-9 ovens identified as 243, 244, 245 and 246 because these ovens do not have to demonstrate compliance with a VOC limit. However, these ovens are required to test to demonstrate compliance with a source-wide HAP minor limit. Compliance with this HAP limit is discussed in Comment 16 below. As stated in the response to Comment 2, ovens 551, 561, and 562 were inadvertently left out of the draft permit. Testing requirements for ovens 551, 561, and 562 have been added to the permit. These ovens are

required to test for HAP emissions to demonstrate compliance with a source-wide HAP minor limit. Compliance with this HAP limit is discussed in Comment 16 below. The time allowed to test ovens not previously tested was changed to one year to provide more time to get to the end of the life of the catalyst. IDEM believes that one year is sufficient for the source to schedule these tests. The following changes have been made to the permit as a result of this comment:

D.1.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) In order to demonstrate compliance with Conditions D.1.2(a) and D.1.3(a), the Permittee shall conduct a performance test to verify the VOC control efficiency for the catalytic oxidizers for ovens 210-213, 220-223, and 230-238 using methods approved by the Commissioner. Stack testing shall be performed in accordance with 326 IAC 3-6. The test shall be performed within ~~one hundred eighty (180) days~~ **one (1) year** of the issuance of this permit ~~or within five (5) years of the last valid test performed on one of these ovens, whichever is later.~~ One representative oven shall be tested for VOC emissions. Testing shall be performed such that no single oven is tested twice in a fifteen (15) year cycle. This test shall be repeated at least once every five years from the date of this valid compliance demonstration.
- (b) In order to demonstrate compliance with Conditions D.1.2(b) and D.1.3(c), the Permittee shall conduct a performance test to verify the VOC control efficiency for the thermal oxidizers for ovens 281-282, 283-284 and 285-286 using methods approved by the Commissioner. Stack testing shall be performed in accordance with 326 IAC 3-6. The test shall be performed ~~within one hundred eighty (180) days of the issuance of this permit or within five (5) years of the last valid test performed on one of these ovens, whichever is later~~ **by July 19, 2010**. One representative oven shall be tested for VOC emissions. Testing shall be performed such that no single oven is tested twice in a fifteen (15) year cycle. This test shall be repeated at least once every five years from the date of this valid compliance demonstration.
- (c) In order to demonstrate compliance with Conditions D.1.1(a) and D.1.3(b), the Permittee shall conduct a performance test to verify the VOC control efficiency for the catalytic oxidizers for ovens 247, 248, 250, 251, 252, 253, and 254 using methods approved by the Commissioner. Stack testing shall be performed in accordance with 326 IAC 3-6. The test shall be performed ~~within one hundred eighty (180) days of the issuance of this permit or within five (5) years of the last valid test performed on one of these ovens, whichever is later~~ **by July 18, 2010**. Two (2) representative ovens shall be tested for VOC emissions. The test shall be done within the last 2 months of the life of the catalyst. Testing shall be performed such that no single oven is tested twice in a fifteen (15) year cycle. This test shall be repeated at least once every five years from the date of this valid compliance demonstration.
- (d) In order to demonstrate compliance with Condition D.1.1(b), the Permittee shall conduct a performance test to verify the VOC control efficiency for the thermal oxidizer for oven 270 using methods approved by the Commissioner. Stack testing shall be performed in accordance with 326 IAC 3-6. The test shall be performed ~~within one hundred eighty (180) days of the issuance of this permit or within five (5) years of the last valid test performed on one of these ovens, whichever is later~~ **by July 19, 2010**. This test shall be repeated at least once every five years from the date of this valid compliance demonstration.

...

Comment 12: In Condition D.1.7, paragraphs (f) and (g) should be reversed. It would seem like the information gained in paragraph (g) will be needed to decide what to do about the requirements of Item (f). Also it should be kept in mind that the HAP limits are facility limits. It is extremely unlikely that Rea will ever consider running any higher HAP content enamels than those that are currently being run. We are continuing to work with our enamel suppliers to further reduce HAP content.

IDEM Response to Comment 12: The permit has been changed as follows:

D.1.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(f) For a higher VOC and/or HAP content coating than that used during the stack tests in (a) – (e) above, the following procedure shall be followed:

- (1) Calculate the new minimum required control efficiency for the new coating (E_{new});
- (2) Calculate the new maximum HAP loading (L_{new}) for the higher HAP content enamel;
- (3) Calculate the current maximum HAP loading ($L_{current}$);
- (4) If E_{new} is lower than the last stack test control efficiency, and L_{new} is lower than $L_{current}$, Permittee shall be allowed to use the same destruction efficiency for calculations for the higher HAP content enamel.

~~(f)(g)~~ Before using a coating that would lead to a higher VOC and/or HAP loading in pounds per hour than what was used during the stack test required in paragraphs (a) through (e) above, the Permittee shall conduct a performance test to verify VOC and/or HAP control efficiency as per Conditions D.1.1, D.1.2, D.1.3, and D.1.4 for the catalytic/thermal oxidizers using methods approved by the Commissioner.

~~(g)~~ For a higher VOC and/or HAP content coating than that used during the stack tests in (a) – (e) above, the following procedure shall be followed:

- ~~(1)~~ Calculate the new minimum required control efficiency for the new coating (E_{new});
- ~~(2)~~ Calculate the new maximum HAP loading (L_{new}) for the higher HAP content enamel;
- ~~(3)~~ Calculate the current maximum HAP loading ($L_{current}$);
- ~~(4)~~ If E_{new} is lower than the last stack test control efficiency, and L_{new} is lower than $L_{current}$, Permittee shall be allowed to use the same destruction efficiency for calculations for the higher HAP content enamel.

Comment 13: Regarding Conditions D.1.4(c)(1), (2), (3), (4) and (5): there is no problem with achieving an overall HAP destruction efficiency of 95% on a facility wide basis. However, it should be noted that it may not be necessary for every oven group listed to meet 95%, only that the combined total overall efficiency be greater than 95%. In other words, the HAP limit is a facility limit not an individual type of equipment limit. In fact, the actual facility limit is 9.0 tons of a single HAP and 24.0 tons total of all HAPs in one year. In subparagraph (3), ovens 551, 561 and 562 are missing. Condition D1.10(b) mistakenly lists ovens 540, 541, 542, 544 and 550 as ovens that must meet the 95% HAP destruction requirements of Condition D.1.4.

IDEM Response to Comment 13: The HAP minor limit in Condition D.1.4 is indeed a limit on all of the magnet wire coating ovens at this source. It is not necessary for each individual magnet wire coating oven to meet a 95% HAP destruction efficiency in order that source-wide emissions of HAP be below ten (10) tons per year of a single HAP and twenty-five (25) tons per year of a combination of HAPs. Since the HAP emissions for the magnet wire ovens at this source are calculated (in Condition D.1.9) using the cumulative sum of the emissions of each oven and accounting for the differences in destruction efficiencies of each oven, it is not necessary to

require that each oven using oxidizers for HAP control achieve a minimum HAP control efficiency of 95%. It is simply necessary that, in aggregate, the actual total emissions from the ovens are less than the HAP minor limits accepted in SPM 003-22934-00014. Therefore, the 95% HAP destruction efficiency requirements for each oven group have been removed to allow greater operational flexibility. Further, it should be clarified that the HAP minor limits taken in SPM 003-22934-00014 apply to all of the magnet wire coating ovens at the Rea Magnet Pontiac Street plant but do not apply specifically to the boilers and non-magnet wire oven insignificant activities. The limits of nine (9) tons for a single HAP and twenty-four (24) tons for a combination of HAPs include allowances for emission of HAPs from other emission units located at the source that are not magnet wire coating ovens. Since ovens 551, 561, and 562 are part of the plant and must be counted under the source-wide HAP limit, these ovens have been added to Condition D.1.4. The permit must contain enforceable limits for HAPs in the form of overall HAP destruction efficiency requirements and minimum temperature requirements. These requirements have been addressed in the response to Comment 16. Ovens 540, 541, 542, 544 and 550 do not have integral or add-on control devices. Although HAP emissions from these ovens are included in the source-wide HAP emission limits, these ovens are not required to control HAPs with add-on technology and are not required to stack test for VOC or HAP emissions. These ovens have been deleted from Condition D.1.10 and the requirement to achieve the 95% reduction efficiency has been removed (See IDEM Response to Comment 13). The permit has been changed as follows:

D.1.4 Hazardous Air Pollutants (HAP) Minor Limits [40 CFR 63, Subpart M]

- (a) Pursuant to Significant Permit Modification 003-22934-00014, issued on December 20, 2006, and as revised by T003-21713-00014, for the emissions units identified as 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, **551**, 552, 553, **561**, **562**, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, 540, 541, 542, 543, 544, 550, and XR-1, the emissions of a single Hazardous Air Pollutant (HAP) shall be limited to less than nine (9) tons per twelve (12) consecutive month period for each HAP, with compliance determined at the end of each month.
- (b) Pursuant to Significant Permit Modification 003-22934-00014, issued on December 20, 2006, and as revised by T003-21713-00014, for the emissions units identified as 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, **551**, 552, 553, **561**, **562**, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, 540, 541, 542, 543, 544, 550, and XR-1, the combined emissions of Hazardous Air Pollutants (HAPs) shall be limited to less than twenty-four (24) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- ~~(c) Pursuant to Significant Permit Modification 003-22934-00014, issued on December 20, 2006, and as revised by T003-21713-00014, and in order to limit the potential to emit after control of a single HAP to less than nine (9) tons and any combination of HAPs to less than twenty-four (24) tons per 12 consecutive month period.~~
- ~~(1) The internal catalytic oxidizers for wire enameling ovens 210-213, 220-223, 230-237, and XR-1 shall maintain a minimum overall HAP control efficiency of ninety-five percent (95%).~~
- ~~(2) The internal thermal oxidizers for the SICME wire enameling ovens 281-282, 283-284 and 285-286, shall maintain a minimum overall HAP control efficiency of ninety-five percent (95%).~~
- ~~(3) The internal catalytic oxidizers for wire enameling ovens 552, 553, 563, 564, 565, 566 and 567 shall maintain a minimum overall HAP control efficiency of ninety-five percent (95%).~~

- ~~(4) The external catalytic oxidizers for wire enameling ovens 243, 244, 245, 246, 247, 248, 250, 251, 252, 253 and 254 shall maintain a minimum overall HAP control efficiency of ninety five percent (95%).~~
- ~~(5) The external thermal oxidizer for wire enameling oven 270 shall maintain a minimum overall HAP control efficiency of ninety five percent (95%).~~

These limits, in conjunction with the potential to emit of a single HAP and a combination of HAPs from the boilers and insignificant activities at the source, shall limit the source-wide emissions of any single HAP to less than ten (10) tons per year and any combination of HAPs to less than twenty-five (25) tons per year. Compliance with these limits shall make the source an area source and shall render the requirements of 40 CFR 63, Subpart M, not applicable.

D.1.10 Thermal/Catalytic Oxidizer Operation [40 CFR 64]

...

- (b) From the date of issuance of the Part 70 permit until the approved stack test results are available, and in order to demonstrate compliance with Condition D.1.4, the Permittee shall operate the catalytic/thermal oxidizers 3 hour average temperature for ovens 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, **551**, 552, 553, **561**, **562**, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, 540, 541, 542, 543, 544, 550, and XR-1 at or above the temperature that results in the ~~required 95.0% overall HAP~~ **VOC control efficiency necessary to comply with the requirements of Condition D.1.4.**

...

Comment 14: In Condition D.1.1(a)(1) of the permit, it is stated that the VOC content of the coatings used in magnet wire enameling ovens 247, 248, 250, 251, 252, 253, and 254 shall not exceed 7.64 pounds per gallon. This number also occurs on page 15 of the TSD. What is the basis of calculations for this number? If this comes from 326 IAC 8-2-8, then the number should be adjusted to reflect the results of the last stack test where an overall destruction efficiency of 99.4% was achieved.

IDEM Response to Comment 14: This limit is a part of the 326 IAC 8-1-5 RACT (Reasonably Available Control Technology) requirements for these units accepted in CP-003-9913-00014, issued October 28, 1998. The emission limit specified in the permit was based on the development process of RACT and was specified in terms of a required overall efficiency and a VOC content of coating. The source went through the RACT process because they were unable to meet the applicable requirements of 326 IAC 8-2-8 and requested an alternative. Changes to these requirements cannot be made without an extensive review by IDEM, the public, and EPA.

The requirement that the VOC content of coatings used in these ovens not exceed 7.64 lbs VOC per gallon comes from the MSDS for the worst case coating (ML Enamel) used in the determination of the RACT. The number is not derived using calculations from 326 IAC 8-2-8, or, more correctly, 326 IAC 8-1-2(b) and (c). The number 7.64 lbs/gal was seen as a worst case upper limit on VOC content for a coating at the time that the RACT was determined. Combined with the overall VOC control efficiency of 90%, VOC emissions from these ovens would be in compliance with the RACT.

Comment 15: In Condition D.1.2, it is required that the wire enameling ovens identified as 210-213, 220-223, 230-238, 281-282, 283-284, and 285-286 meet the requirements of 326 IAC 8-2-8. There are enamels run at various times on these ovens where the current control system may not be adequate to meet 8-2-8 requirements. Of particular concern is the 97.7% requirement for oven 230-238.

IDEM Response to Comment 15: IDEM has determined that these ovens are subject to the requirements of 326 IAC 8-2-8. The limits in the permit are based on the worst case coatings used for each oven group. PTE calculations are shown in Appendix A to the TSD that was placed on Public Notice. It is the Permittee's responsibility to comply with the requirements of 326 IAC 8-2-8. If the Permittee determines that a coating cannot be used in an oven and still comply with the requirements of 326 IAC 8-2-8, then that coating can not be used in that oven without being out of compliance with the rule. There are options in the methods to comply with Article 8 rules included in 326 IAC 8-1. The source may want to review these options to determine if they may want to comply in a different way. The source would need to obtain the necessary permit approvals in advance of such a change.

Upon further review, and to clarify the requirements for meeting the requirements of 326 IAC 8-2-8 when different coatings are used, the specific text regarding worst case coatings has been removed. The permit has been changed as follows:

D.1.2 Volatile Organic Compounds (VOCs) [326 IAC 8-2-8]

(a) . . .

~~The pounds of VOC per gallon of coating solids shall be limited to less than 2.27 lb/gal for ovens 210-213 and 220-223. The pounds of VOC per gallon of coating solids shall be limited to less than 2.19 lb/gal for oven 230-238.~~

. . .

(b) . . .

~~The pounds of VOC per gallon of coating solids shall be limited to less than 2.22 lb/gal for ovens 281-282, 283-284 and 285-286.~~

. . .

Comment 16: In a meeting on May 3, 2007, Rea Magnet met with IDEM, OAQ staff to discuss testing requirements for meeting the HAP emission limits in their Title V permit. Although Rea Magnet understood that a tentative agreement had been reached regarding a "Trigger Limit" provision, there is no such provision in the current permit. Rea Magnet requests that IDEM add the "Trigger Limit" provision for HAPs testing to the permit. Further, the ovens identified as 210-213, 220-223, 230-237, and XR-1 cannot be tested by inlet and outlet testing because the internal flow in these ovens mixes and re-circulates gases within the oven several times before the gases exhaust to the stack.

IDEM Response to Comment 16: The Trigger Limit provision that Rea Magnet refers to in this comment was under discussion at the time that this draft permit was being prepared, and was not included in the draft sent to Public Notice. The Trigger Limit will be added in this Addendum.

The Trigger Limit specifies that if Rea Magnet's reported VOC emissions from the magnet wire ovens exceed nine (9) tons for any twelve (12) month consecutive period, then Rea Magnet will have triggered the requirement to test for individual HAP emissions from the ovens. The trigger limit saves the expense of multiple tests for HAPs while ensuring that HAP emissions remain within the bounds of the area source limits that Rea Magnet accepted in 2006 in Significant Permit Modification 003-22934-00014. The Trigger Limit does require that VOC testing be done on each oven group at least every five years, therefore, oven groups that have not been tested in the last five years must be tested. These test results will then be used to determine total VOC emissions for all of the ovens at this source. If total VOC emissions from the magnet wire ovens exceeds nine (9) tons for any twelve (12) month consecutive period, then Rea Magnet will have triggered the requirement to test for HAPs which would then need to commence within 180 days of the submission of the report.

The nine (9) ton trigger is based on the following assumptions: All HAPs are also volatile organic compounds (VOC). The area source limit accepted by the source on emissions of a single HAP is a total nine (9) tons from all of the magnet wire ovens, so if all of the VOC emissions are attributable to a single HAP, the limit will keep single HAP emissions from the ovens below nine (9) tons per year. In fact, Rea's records of the chemical composition of the coatings and solvents used in the magnet wire coating ovens indicates that the maximum single HAP content for any single coating is less than 40% by weight, while average VOC content for all coatings is over 90%. Similarly, if all VOC is HAP, and total VOC is limited to less than nine (9) tons per year, then total HAPs from all of the ovens will be limited to less than twenty-four (24) tons per year. Rea Magnet has indicated that the typical total HAP content of any wire coating is less than 50% by weight (the rest being non-HAP VOC and solids).

Finally, the testing method requirement has been revised to allow the source and IDEM's Compliance Data Section the flexibility to find the best method for testing each type of oven. The following changes have been made to the permit:

D.1.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(e) **HAP Testing Requirements:**

~~Pursuant to Significant Permit Modification 003-22934-00014, issued on December 20, 2006, and as revised by T003-21713-00014, in~~ In order to demonstrate compliance with Condition D.1.4, the Permittee shall perform ~~inlet and outlet HAP~~ **overall control efficiency of VOC** testing on one oven from each of the following six (6) oven groups (210-213, 220-223, 230-237, and XR-1), (281-282, 283-284, and 285-286), (**551**, 552, and 553), (**561**, **562**, 563, 564, 565, 566, and 567), (243, 244, 245, 246, 247, 248, 250, 251, 252, 253, and 254), and (270) using methods approved by the Commissioner. **Stack testing shall be performed in accordance with 326 IAC 3-6, using methods determined by the Commissioner to be appropriate for each different oven design. The tests shall be performed within one (1) year of the issuance of this permit, or within five (5) years of the last valid test performed on each of these oven groups, whichever is later. The coating(s) tested shall be the ,for the HAP wire coating used at the source in each of these oven groups that has the lowest overall HAP destruction efficiency, as estimated by the manufacturer and approved by IDEM. This testing shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. Total VOC emissions for all ovens at this source shall be calculated each month using the following equation for VOC emissions:**

$$\text{Total VOC emissions} = \sum_j [\sum_i (\text{VOC Content}_i (\%) / 100 \times \text{Coating Amount}_i)] \times (1.0 - \% \text{ VOC control efficiency}_j / 100) + \sum_k (\text{uncontrolled VOC input}_k)$$

where:

j = each individual oven

i = each coating used in an oven

k = each solvent used in an oven whose VOC emissions are uncontrolled

The most recent VOC stack test results for each oven group shall be used in determining the specific VOC control efficiency for the ovens in that oven group in the equation above. A running twelve (12) month total of VOC emissions shall be calculated by adding the total volatile organic compound emitted for the previous month to the previous 11 months total VOC emitted so as to arrive at total VOC emissions for a 12 consecutive months period.

As long as the total VOC emissions from the magnet wire ovens at this source remain below nine (9) tons in any twelve consecutive month period, no HAP testing is required.

In the event that total VOC emissions from all of the magnet wire coating ovens at this source exceeds nine (9) tons in any twelve consecutive month period, then the source shall test for individual HAP emissions from the ovens within 180 days of the notification to IDEM reporting this discovery.

The Permittee shall perform overall control efficiency of HAP testing on one oven from each of the following six (6) oven groups (210-213, 220-223, 230-237, and XR-1), (281-282, 283-284, and 285-286), (551, 552, and 553), (561, 562, 563, 564, 565, 566, and 567), (243, 244, 245, 246, 247, 248, 250, 251, 252, 253, and 254), and (270) using methods approved by the Commissioner. Stack testing shall be performed in accordance with 326 IAC 3-6, using methods determined by the Commissioner to be appropriate for each different oven design. The coating(s) tested shall be the wire coating used in each of these oven groups that has the lowest overall HAP destruction efficiency, as estimated by the manufacturer and approved by IDEM. This testing shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. Single HAP and total HAP emissions for all ovens at this source shall be calculated each month using the following equation for HAP emissions:

$$\text{Single HAP emissions} = \sum_j [\sum_i (\text{single HAP Content}_i (\%) / 100 \times \text{Coating Amount}_i)] \times (1.0 - \% \text{ HAP control efficiency}_j / 100) + \sum_k (\text{uncontrolled HAP input}_k)$$

$$\text{Total HAP emissions} = \sum_j [\sum_i (\text{total HAP Content}_i (\%) / 100 \times \text{Coating Amount}_i)] \times (1.0 - \% \text{ HAP control efficiency}_j / 100) + \sum_k (\text{uncontrolled HAP input}_k)$$

where:

j = each individual oven

i = each coating used in an oven

k = each solvent used in an oven whose HAP emissions are uncontrolled

The most recent HAP stack test results for each oven group shall be used in determining the specific HAP control efficiency for the ovens in that oven group in the equation above. A running twelve (12) month total of single HAP and total HAP emissions shall be calculated by adding the single HAP and total HAP emitted for the previous month to the previous 11 months single HAP and total HAP emitted so as to arrive at single HAP and total HAP emissions for a 12 consecutive months period.

D.1.8 VOC Emissions

- (a) Compliance with Conditions D.1.1(a) and D.1.4 shall be demonstrated within 30 days of the end of each month. This shall be based on the total volatile organic compound emitted for the previous month, and adding it to previous 11 months total VOC emitted so as to arrive at VOC emissions for 12 consecutive months period. The VOC emissions for a month can be arrived at using the following equation for VOC usage:

$$\text{VOC emissions} = [\sum (\text{VOC Content}_i (\%) \times \text{Coating Amount}_i) \times (1.0 - \% \text{ VOC control efficiency})] + [\text{uncontrolled VOC input}]$$

Total VOC emissions = $\sum_j [\sum_i (\text{VOC Content}_i (\%) / 100 \times \text{Coating Amount}_i)] \times (1.0 - \% \text{ VOC control efficiency}_j / 100) + \sum_k (\text{uncontrolled VOC input}_k)$

where:

j = each individual oven

i = each coating used in an oven

k = each solvent used in an oven whose VOC emissions are uncontrolled

The % VOC control efficiency for ovens 247, 248, 250, 251, 252, 253, and 254 shall be determined by testing pursuant to Condition D.1.7.

- (b) **Compliance with Condition D.1.4 shall be demonstrated within 30 days of the end of each month by demonstrating that VOC emissions from ovens 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, 551, 552, 553, 561, 562, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, 540, 541, 542, 543, 544, 550, and XR-1 do not exceed nine (9) tons per year. This shall be based on the total volatile organic compound emitted for the previous month, and adding it to previous 11 months total VOC emitted so as to arrive at VOC emissions for 12 consecutive months period. The VOC emissions for a month can be arrived at using the formula in paragraph (a) above. The % VOC control efficiency for each oven group as determined by the most recent VOC stack testing pursuant to Condition D.1.7(e) for the ovens in that oven group shall be used in determining the specific VOC control efficiency for the ovens in that oven group.**

D.1.9 Hazardous Air Pollutant (HAP) Calculations

In the event that total VOC emissions from all of the magnet wire coating ovens exceeds nine (9) tons per year as determined pursuant to Condition D.1.8, the Permittee shall ~~in order to demonstrate compliance with the HAP emission limitation in Condition D.1.4, the Permittee shall determine the single and combination~~ by determining the HAP emissions for each month for the emissions units identified as 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, 551, 552, 553, 561, 562, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, 540, 541, 542, 543, 544, 550, and XR-1. ~~using the following methodology:~~

For ovens 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, 551, 552, 553, 561, 562, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, and XR-1, HAP emissions shall be determined as follows:

HAP₁ emissions = [HAP usage all units ovens x (1.0 - % HAP control efficiency / 100)]

For ovens 540, 541, 542, 543, 544, and 550, HAP emissions shall be determined as follows:

HAP₂ emissions = \sum (HAP usage of units ovens 540, 541, 542, 543, 544, and 550)

Total HAP Emissions = HAP₁ emissions + HAP₂ emissions

The % HAP control efficiency for each oven group shall be determined by testing per Condition D.1.7.

D.1.10 Thermal/Catalytic Oxidizer Operation [40 CFR 64]

...

- (b) From the date of issuance of the Part 70 permit until the approved stack test results are available, and in order to demonstrate compliance with Condition D.1.4, the Permittee shall operate the catalytic/thermal oxidizers 3 hour average temperature for ovens 210-

213, 220-223, 230-238, 281-282, 283-284, 285-286, **551**, 552, 553, **561**, **562**, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, 540, 541, 542, 543, 544, 550, and XR-1 at or above the temperature that results in the ~~required 95.0% overall~~ HAP (VOC) control efficiency **necessary to comply with the requirements of Condition D.1.4, as demonstrated by Condition D.1.8 or D.1.9.**

- (c) **From the date that the approved stack test results are available, and in order to demonstrate compliance with Condition D.1.4, the Permittee shall operate the catalytic/thermal oxidizers 3 hour average temperature for ovens 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, 552, 553, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, 540, 541, 542, 543, 544, 550, and XR-1 at or above the temperature that results in the HAP (VOC) control efficiency necessary to comply with the requirements of Condition D.1.4, as demonstrated by Condition D.1.8 or D.1.9.**
- ~~(d)~~(d) The Permittee shall determine the 3 hour block average minimum temperature from the most recent valid stack test that demonstrates compliance with limits in Conditions D.1.1, D.1.2, D.1.3, and D.1.4, as approved by IDEM.
- ~~(d)~~(e) From the date of the approved stack test results are available, and in order to demonstrate compliance with Conditions D.1.1, D.1.2, D.1.3, and D.1.4, the Permittee shall operate the thermal/catalytic oxidizers at or above the 3 hour block average minimum temperature as observed during the compliant stack test.

Comment 17: In paragraph (a) of the Existing Approvals section of the TSD there is a lengthy discussion about the reasons for removing permit operating Condition D.1.1 of T003-6959-00014. The GE-I and GE-M ovens were installed in 1989 and their potential to emit was established as less than 25 tons per year based on the fact that the ovens had integral controls. These ovens cannot be operated without the catalytic oxidizers because they do not have enough installed external energy to reach operating temperature without the thermal energy added due to the oxidation of the solvents. The catalysts were only assumed to be 80% effective back then and even then their emissions were below the 25 ton limit. In actual fact, from historical test data, the catalysts achieve more like 95% efficiency under normal wire manufacturing oven temperature operating conditions. Given the aforementioned information IDEM can't now suddenly decide that the catalyst are essentially zero effective and thus the ovens have greatly increased potential to emit. The logic applied creates a whole sequence of potential PSD problems many years after the ovens were originally installed. A second problem created is that the ovens in question occasionally run materials that are low enough in solids content that the terms and conditions of 326 IAC 8-2-8 may not be met. All of the materials being run would have easily been below the 25 ton after control limit and these materials are run in such small quantities that the 25 ton limit would not have been exceeded even if the catalyst were only 80% effective. On the other hand 326 IAC 8-2-8 may require more than a 97% control efficiency for some of the materials on the worst case list. In effect, the ovens may not be able to run many of the materials required as a result of this single change. See page 15 of the TSD 326 IAC 8-1-6 (Volatile Organic Compounds) item(a) and page 16 of the TSD 326 IAC 8-2-8 (Magnet Wire Coating) operations item (a).

IDEM Response to Comment 17: IDEM acknowledges that the catalytic oxidizers are required for proper normal operation of these ovens. IDEM cannot regard these thermal/catalytic oxidizers to be integral as there is no way to guarantee that they will always be operating above a given temperature to achieve the needed VOC destruction. Rea Magnet must only operate the oxidizer to achieve a certain process temperature that may or may not be ideal for VOC destruction and emissions control. IDEM considers that adding temperature requirements and PSD limits for VOC emissions for these ovens retroactively is correcting a past error. It is the responsibility of the source to meet all applicable requirements. 326 IAC 8-2-8 applies to these ovens and therefore it must be considered along with the construction of the control device when

determining the products to be manufactured on these lines. The historical applicability of PSD to these ovens was reviewed and is discussed in the response to Comments 18 through 20. Limits were added in Condition D.1.3(a) to ensure that these ovens did not trigger the requirements of 326 IAC 2-2. The second part of this comment is addressed in the response to Comment 15 above.

Comment 18: In paragraph (b) of the Existing Approvals section of the TSD there is a discussion concerning Condition D.2.1 which pertains to SICME Ovens 281-282, 282-283 and 284-285. This oven always has and always will meet the definition of an oven with an integral thermal oxidizer control. The oven is electrically powered and the function of the catalyst in this oven is not pollution control but rather energy conservation and rapid recovery of operating temperature in a start up situation. The oven does not have enough installed electrical energy to get up to the required temperature without the energy from the burned solvents. The integral thermal oxidizer is designed to operate at 1250-1300°F and does not depend on catalytic effect to achieve destruction efficiencies in excess of 99%. Furthermore, there is no point in operating the oven at lower integral thermal oxidizer temperatures since that would limit the productivity of the oven itself. In stack testing conducted at the Fort Wayne facility in July 2005 both MOCO Oven 270 which has an add on gas powered thermal oxidizer and 290 which has an electrically powered integral thermal oxidizer achieved destruction efficiencies on the order of 99% at 1250°F. This data demonstrates that the catalysts are having little or no effect. Given the questions raised in items 2 and 3 above, paragraphs (c) and (d) of the Existing Approvals of the TSD are not really required. On page 5 of the TSD, all of the reasons under Air Pollution Control Justification as an Integral Part of the Process that were originally cited remain valid. The GE-M and GE-I ovens in Section D.1 have always annual catalyst changes as a part of the operating permit. This is the proper way to assure that catalysts are not defective. The catalysts are not a part of the pollution control system for Oven 290. In summary, it would seem logical that IDEM would not arbitrarily change the conditions of an existing permit without further discussion with the Permittee about the impact the changes may have on the ability to meet the new terms and conditions. Also, on page 5 of the TSD, all of the reasons under Air Pollution Control Justification as an Integral Part of the Process that were originally cited remain valid. The GE-M and GE-I ovens in section D.1 have always had annual catalyst changes as a part of the operating permit. This is the proper way to assure that catalysts are not defective. In summary it would seem logical that IDEM would not arbitrarily change the conditions of an existing permit without further discussion with the Permittee about the impact the changes may have on the ability to meet the new terms and conditions.

IDEM Response to Comment 18: This comment is similar to Comment 17. IDEM acknowledges that the thermal oxidizers are required for proper normal operation of these ovens. However, IDEM cannot regard these thermal/catalytic oxidizers to be integral as there is no way to guarantee that they will always be operating above a temperature to achieve the needed VOC destruction. Rea Magnet must only operate the oxidizer to achieve a certain process temperature that may or may not be ideal for VOC destruction and emissions control. IDEM considers that adding temperature requirements and PSD limits for VOC emissions for these ovens is correcting a past error. It is the responsibility of the source to meet all applicable requirements. 326 IAC 8-2-8 applies to these ovens and therefore it must be considered along with the destruction efficiency of the control device when determining the products to be manufactured on these lines. Condition D.1.11(a) requires that the catalysts in the GE-M and GE-I ovens be replaced yearly. Oven 290 has been removed since these comments were submitted.

Comment 19: On page 7 of the TSD the Potential to Emit After Issuance is calculated based on unrealistic assumptions and operating conditions. In order to meet the HAP limits much higher destruction efficiencies will have to be met or Rea Magnet will be in violation of those conditions.

IDEM Response to Comment 19: The estimates of PTE are based on required (federally enforceable) destruction efficiency rather than actual (tested) destruction efficiency, and only for those ovens having a destruction efficiency requirement. The PTE estimates of VOC emissions are higher than the actual VOC emissions. In light of this, it is likely that the source will be able to comply

with the HAP emission limits and the PSD limits on VOC emissions in the permit. As requested by the source, the permit requires that the source limit emissions of HAPs to area source levels. The source must monitor HAP input to the ovens and use the existing oxidizers to meet this limit. Quarterly reporting is required to verify compliance. Given this, and the fact that the source requested the limit and has agreed to these conditions, IDEM believes the source is capable of meeting the HAP limits.

Comment 20: In the State Rule Applicability – Entire Source, 326 IAC 2-2 (Prevention of Significant Deterioration) discussion on page 12 of the TSD second paragraph from the bottom, a limit of 0.45 pounds/hr of VOC emissions after controls for Ovens 281-282, 283-284 and 285-286 is listed. On Page 13 of the TSD this limit is restated as 0.74 pounds per hour along with a number of different ovens which are H-9s but not H-9 ovens 247 and 248 which perhaps should have been included. It would seem that the statement on page 12 would still apply to Ovens 281-282, 283-284 and 285-286. On page 41 of the permit a new quarterly report form is required as a result of the reconsideration of the PSD requirements in the TSD. This report serves no useful purpose and may not have been required if the PSD requirements had not been improperly reconsidered long after they had originally been completed. In Condition D.1.1(a)(3) and D.1.3(a) and (b), the addition of the words "**after control**" would help clarify the requirements under this condition.

IDEM Response to Comment 20: The 0.45 pounds per hour limit for ovens 281-282, 283-284 and 285-286 are based on calculations from CP 003-5731-00014, issued on July 9, 1996. In this permit, the increase in VOC was limited by conditions in the permit to 5.96 tons per year. This is equivalent to 1.986 tons per year per oven and 0.45 pounds per hour per oven. The restated limit of 0.74 pounds per hour for the H-9 ovens is in error, as it mistakenly excludes emissions from ovens 551, 561, and 562, which were excluded from the draft version of the permit.

In light of this, the PSD discussion for these units must be re-considered. The section of the State Rule Applicability – Entire Source, 326 IAC 2-2 (Prevention of Significant Deterioration) discussion that deals with the modifications done in 1994, 1995 and 1996 should read as follows, considering the addition of ovens 551, 561, and 562:

The ovens added in 1994, 1995 and 1996 under CP 003-3297-00014, issued on March 21, 1994, (ovens 250, 251, 252, 253, and 254), CP 003-4044-00014, issued on October 24, 1994 (ovens 551, 552, 553, 561, 562, 563, 564, 565, 566, and 567), and CP 003-5731-00014, issued on July 9, 1996, (ovens 281-282, 283-284, and 285-286), occurred within overlapping periods of one year, and could have been considered a single project. Although the combined PTE before controls for these projects ($40.7 + 20.08 + 149 = 210$ tons per year) exceeded the PSD significant level (40 tons per year), this combined project did not trigger PSD review because the emissions, as limited by conditions in these permits kept total VOC emissions from all of these ovens below 40 tons per year. VOC emissions from ovens 250, 251, 252, 253, and 254 were limited by conditions in the permit to a total of 8.95 tons per year. Ovens 551, 552, 553, 561, 562, 563, 564, 565, 566, and 567 had a total potential to emit before controls of 20.08 tons of VOC per year. VOC emissions from ovens 281-282, 283-284, and 285-286 were limited by conditions in the permit to a total of 5.96 tons per year. The total VOC emissions after limits for this combined project ($(8.95 + 20.08 + 5.96 = 35.89)$ tons per year) is less than the PSD significant level (40 tons per year). Therefore, IDEM concludes that this combined project did not trigger PSD review. In order to make the requirements federally enforceable, and, to make the modification performed in 1994, 1995 and 1996 a minor modification under PSD, the following limits have been added to the permit. The pounds per hour limit for ovens 250, 251, 252, 253, 254, 281-282, 283-284, and 285-286 is based on the PSD significant level (40 tons/year) minus the potential to emit of ovens 551, 552, 553, 561, 562, 563, 564, 565, 566, and 567 (20.08 tons/yr), divided by the number of ovens being limited (8) and converted to pounds per hour. ($40.0 - 20.08$) tons/yr / 8 ovens / 8760 hrs/yr x 2000 lbs/ton = 0.56 pounds per hour per oven.

The VOC emissions from ovens 250, 251, 252, 253, 254, 281-282, 283-284, and 285-286 shall each be limited to less than 0.56 pounds per hour per oven.

Compliance with these limits in combination with potential emissions from ovens 551, 552, 553, 561, 562, 563, 564, 565, 566, and 567 shall keep the total VOC emissions from the modifications performed under CP 003-3297-00014, CP 003-4044-00014, and CP 003-5731-00014, to less than 40 tons per year.

However, in 1998, under CP 003-9913-00014, issued on October 28, 1998, the source accepted Reasonably Available Control Technology (RACT) limits on ovens 250, 251, 252, 253, and 254 requiring that VOC emissions from these ovens be limited to 0.89 tons per year per oven. This limit is equivalent to a limit of 0.203 pounds of VOC per hour. As this limit is stricter than the PSD limits calculated above, ovens 250, 251, 252, 253, and 254 shall comply with the RACT limit.

Quarterly reporting for the PSD minor limits added in this permit is not required, as the recordkeeping requirements, combined with the testing requirements, are deemed adequate to demonstrate compliance with the PSD minor limits. The permit has been changed as follows:

D.1.1 Volatile Organic Compounds (VOCs) [326 IAC 8-1-5 (Site Specific RACT)]

(a) Pursuant to CP-003-9913-00014, issued October 28, 1998 and 326 IAC 8-1-5, the magnet wire enameling ovens identified as 247, 248, 250, 251, 252, 253, and 254 shall achieve the following:

...

(3) VOC emissions shall be limited to 4.7 pounds of VOC per gallon of coating and 0.89 tons per year each, **after controls**,

~~(4) The capture system shall be operated in such a manner as to maintain an overall control efficiency of not less than 90%, and~~

~~(5) The capture system fan shall be operated at times when the ovens are in operation.~~

VOC Emissions shall be determined by the following equation:

$$\text{VOC Emissions (tons)} = (\sum (\text{VOC Content } i \text{ (\%)} / 100 \times \text{Coating Amount } i \text{ (tons)}) \times (1 - \text{Control Efficiency } \% / 100))$$

where:

Control Efficiency % = control efficiency as demonstrated in most recent valid compliance test.

VOC Content i = Percent VOC content of coating i used

Amount i = Usage, in tons of the coating i

Compliance with these limits for ovens 250, 251, 252, 253, and 254 ensures compliance with the PSD minor limits in Condition D.1.3.

D.1.3 PSD Minor Limit [326 IAC 2-2]

(a) Pursuant to CP 02-07-90-1751, issued on June 5, 1989, and as revised by T003-21713-00014, the VOC emissions from the three (3) ovens identified as 210-213, 220-223, and 230 shall each be less than 3.04 pounds per hour per oven, **after controls**. Compliance with this limit shall render the requirements of 326 IAC 2-2 not applicable to the modification performed in 1989.

- (b) Pursuant to CP 003-3297-00014, issued on March 21, 1994, and CP 003-5731-00014, issued on July 9, 1996, and as revised by T003-21713-00014, the VOC emissions from the ~~eight (8)~~ **three (3)** ovens identified as ~~250, 251, 252, 253, 254,~~ 281-282, 283-284, and 285-286 shall each be limited to less than ~~0.74~~ **0.56** pounds per hour per oven, **after controls**. Compliance with this limit in combination with potential emissions from ovens **551, 552, 553, 561, 562, 563, 564, 565, 566, and 567**, shall render the requirements of 326 IAC 2-2 not applicable to the modifications performed in 1994, 1995 and 1996.

Comment 21: On page 13 of the TSD in the third paragraph from the bottom, oven 290 is mentioned as potential source of VOC emissions equal to 284 ton/year before controls. Oven 290 is a Weather Rite V series oven with an integral Thermal Oxidizer, therefore the 284 tons is on the order of 100 times too high. Furthermore since the oven would have to comply with 326 IAC 8-2-8 it would have had to achieve an overall control efficiency of 96% not 93.5%.

IDEM Response to Comment 21: Oven 290 was removed in early 2007.

Comment 22: The control efficiency for the thermal oxidizers specified in condition D.1.10(a)(3) should be 96.6%.

IDEM Response to Comment 22: The permit has been changed as follows:

D.1.10 Thermal/Catalytic Oxidizer Operation [40 CFR 64]

(a) . . .

. . .

- (3) The Permittee shall operate the thermal oxidizers 3 hour average temperature for ovens 281-282, 283-284 and 285-286 at or above the temperature of 1250 degrees F or the temperature determined during compliance tests to maintain a ~~96.0%~~ **96.6%** control efficiency.

Comment 23: Please revise Condition D.1.10(c) to remove reference to testing for ovens 540, 541, 542, 543, 544, and 560. Although emissions from these ovens are counted towards the source-wide HAP limits, these ovens do not have control devices and do not require testing.

IDEM Response to Comment 23: The permit has been changed as follows:

D.1.10 Thermal/Catalytic Oxidizer Operation [40 CFR 64]

. . .

- (c) From the date that the approved stack test results are available, and in order to demonstrate compliance with Condition D.1.4, the Permittee shall operate the catalytic/thermal oxidizers 3 hour average temperature for ovens 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, 552, 553, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, ~~540, 541, 542, 543, 544, 550,~~ and XR-1 at or above the temperature that results in the HAP (VOC) control efficiency necessary to comply with the requirements of Condition D.1.4, as demonstrated by Condition D.1.8 or D.1.9.

. . .

Comment 24: Rea Magnet requests that the language in Condition D.1.4 be revised to specify that compliance with the source-wide HAP limits must be determined on a month by month basis but that reports need be submitted every quarter. Rea Magnet asks that IDEM change the language in Conditions D.1.4 and D.1.8 to read as follows:

D.1.4 Hazardous Air Pollutants (HAP) Minor Limits [40 CFR 63, Subpart M]

- (a) Pursuant to Significant Permit Modification 003-22934-00014, issued on December 20, 2006, and as revised by T003-21713-00014, for the emissions units identified as 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, 551, 552, 553, 561, 562, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, 540, 541, 542, 543, 544, 550, and XR-1, the total usage of coatings, solvents, lubricants and cleanup solvents shall be limited such that the single Hazardous Air Pollutant (HAP) emissions shall be limited to less than nine (9) tons per twelve (12) consecutive month period for each HAP, with compliance determined **on a month by month basis** at the end of each ~~month~~ **quarter**.
- (b) Pursuant to Significant Permit Modification 003-22934-00014, issued on December 20, 2006, and as revised by T003-21713-00014, for the emissions units identified as 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, 551, 552, 553, 561, 562, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, 540, 541, 542, 543, 544, 550, and XR-1, the total usage of coatings, solvents, lubricants and cleanup solvents shall be limited such that the combined Hazardous Air Pollutant (HAP) emissions shall be limited to less than twenty-four (24) tons per twelve (12) consecutive month period, with compliance determined **on a month by month basis** at the end of each ~~month~~ **quarter**.

D.1.8 VOC Emissions

- (a) Compliance with Condition D.1.1(a)(3) shall be demonstrated **on a month by month basis** within 30 days of the end of each ~~quarter month~~. This shall be based on the total volatile organic compound emitted for **each of** the previous months, and adding ~~#~~ **each month's emissions** to the previous 11 months total VOC emitted so as to arrive at VOC emissions for 12 consecutive months period. The VOC emissions for a month can be arrived at using the following equation for VOC usage:
- ...
- (b) Compliance with Condition D.1.4 shall be demonstrated **on a month by month basis** within 30 days of the end of each ~~quarter month~~ by demonstrating that VOC emissions from ovens 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, 551, 552, 553, 561, 562, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, 540, 541, 542, 543, 544, 550, and XR-1 do not exceed nine (9) tons per year. This shall be based on the total volatile organic compound emitted for the previous month, and adding it to previous 11 months total VOC emitted so as to arrive at VOC emissions for 12 consecutive months period. The VOC emissions for a month can be arrived at using the formula in paragraph (a) above. The % VOC control efficiency for each oven group as determined by the most recent VOC stack testing pursuant to Condition D.1.7(e) for the ovens in that oven group shall be used in determining the specific VOC control efficiency for the ovens in that oven group.

IDEM Response to Comment 24: The Permittee needs to demonstrate compliance with the applicable limits on a monthly basis. That is, the calculations determining compliance must be done monthly and recorded. The reports verifying compliance need only be submitted every quarter. No changes have been made to the permit as a result of this comment.

Comment 25: Rea Magnet requests that the language in Condition D.1.13 be revised to allow Rea to use the material data sheets provided by our suppliers as part of the records needed to verify the VOC and HAP content of the coatings and solvents used in our facilities.

IDEM Response to Comment 25: IDEM agrees that the data sheets provided by the coating and solvent suppliers should be a part of the records required to verify compliance with the VOC and HAP limits in the permit. The permit has been changed as follows:

~~D.1.13~~ **D.1.12** Record Keeping Requirements

(a) . . .

- (1) The amount and VOC content of each coating, solvent, lubricant and cleanup solvent used in each oven on a monthly basis. Records shall include purchase orders, invoices, **supplier data sheets**, and material safety data sheets (MSDS) necessary to verify the type and amount used.

. . .

(b) . . .

- (1) The amount and VOC and HAP content of each coating, solvent, lubricant and cleanup solvent used on a monthly basis. Records shall include purchase orders, invoices, **supplier data sheets**, and material safety data sheets (MSDS) necessary to verify the type and amount used.

Comment 26: Rea Magnet requests that the testing requirements in condition D.1.10 be revised to allow greater flexibility in testing schedules for ovens that may not be in use at the time of the required test date. Not all oven groups are in continuous operation, and starting up an oven solely to test one oven in the group of idle ovens is costly and inefficient. Language currently in the Rea Lafayette plant permit provides the necessary flexibility.

IDEM Response to Comment 26: IDEM agrees that, should testing dates fall during a time when the entire oven group is idle, that testing shall be delayed until the oven group is once again in operation. The permit has been changed as follows:

D.1.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

The Permittee shall conduct performance tests to verify VOC control efficiency as shown below. If the representative oven that is required to be tested has not been in operation for at least six (6) months prior to the test deadline, another similar oven in the same group of ovens shall be tested. If none of the ovens in a particular test group has been in operation for at least six (6) months prior to the test deadline, then the Permittee is not required to conduct testing for that group. However, upon startup of any oven in a test group that has not been in operation for at least six (6) months prior to the test deadline, the Permittee shall conduct a performance test to verify VOC and/or HAP control efficiency within ninety (90) days of startup of that oven.

(a) . . .

Comment 27: Rea Magnet believes that it may not be able to meet the new requirements under 326 IAC 8-2-8 for the MOCO XR-1 oven and the GE-I and GE-M ovens (210-213, 220-223, and 230-238). These ovens operate with both an internal catalytic oxidizer and an external thermal oxidizer. These ovens have always used the external thermal oxidizers as a means to control emissions. Rea proposes that it operate the external thermal oxidizers as the primary control device for these ovens and have the equipment descriptions changed to reflect this fact. Also, please remove the catalyst replacement requirements in Condition D.1.11(a) from the permit. The testing requirements in condition D.1.7(a), along with the continuous oven temperature monitoring requirements in conditions D.1.10 and D.1.12, are sufficient to insure that these ovens are operating at a temperature that insures adequate control of emissions and compliance with the VOC and HAP limits in the permit.

IDEM Response to Comment 27: IDEM agrees that the description should be revised to show the control device used for these ovens and that compliance with the applicable VOC and HAP limits for these ovens be shown after the effect of the external thermal oxidizers. The permit has been

changed as follows (the changes also show a change made in response to a subsequent comment):

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

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

(a) The following magnet wire enameling ovens:

Model	Oven ID #	Construction Date	Max. Rating (lbs wire/hr)	VOC Oxidizer Type	Stack ID #
...					
MOCO	XR-1	Prior to 1980	11	External thermal Internal catalytic	E-3
...					
GE-I	210-213	June 1989	191	External thermal Internal catalytic	F-1
GE-I	220-223	June 1989	191	External thermal Internal catalytic	F-2
GE-M	230-238	June 1989	508	External thermal Internal catalytic	F-3
...					

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Magnet Wire Coating Ovens

(a) The following magnet wire enameling ovens:

Model	Oven ID #	Construction Date	Max. Rating (lbs wire/hr)	VOC Oxidizer Type	Stack ID #
...					
MOCO	XR-1	Prior to 1980	11	External thermal Internal catalytic	E-3
...					
GE-I	210-213	June 1989	191	External thermal Internal catalytic	F-1
GE-I	220-223	June 1989	191	External thermal Internal catalytic	F-2
GE-M	230-238	June 1989	508	External thermal Internal catalytic	F-3
...					

D.1.2 Volatile Organic Compounds (VOCs) [326 IAC 8-2-8]

(a) ...

Pursuant to 326 IAC 8-1-2(c), the overall efficiency of the **external** thermal oxidizers shall be no less than the equivalent overall efficiency calculated by the following equation:

...

The overall efficiency of the **external** thermal oxidizers for ovens 210-213 and 220-223 shall be greater than 95.0%. The overall efficiency of the **external** thermal oxidizers for oven 230-238 shall be **greater than 97.7%**.

D.1.6 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-5]

...

- (c) Pursuant to 326 IAC 8-1-2(a), the Permittee shall operate the **external thermal catalytic** oxidizers on wire enameling ovens 210-213, 220-223, and 230-238 to achieve compliance with Condition D.1.2(a).

...

D.1.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

...

- (a) In order to demonstrate compliance with Conditions D.1.2(a) and D.1.3(a), the Permittee shall conduct a performance test to verify the VOC control efficiency for the **external thermal catalytic** oxidizers for ovens 210-213, 220-223, and 230-238 using methods approved by the Commissioner. Stack testing shall be performed in accordance with 326 IAC 3-6. The test shall be performed within one (1) year of the issuance of this permit. One representative oven shall be tested for VOC emissions. Testing shall be performed such that no single oven is tested twice in a fifteen (15) year cycle. This test shall be repeated at least once every five years from the date of this valid compliance demonstration.

...

D.1.10 Thermal/Catalytic Oxidizer Operation [40 CFR 64]

- (a) From the date of issuance of Part 70 permit renewal 003-22934-00014 until the approved stack test results are available, and in order to demonstrate compliance with Conditions D.1.1, D.1.2, and D.1.3:
- (1) The Permittee shall operate the **external thermal catalytic** oxidizers 3 hour average temperature for ovens 210-213 and 220-223 at or above the temperature that results in the required 95.0% control efficiency, as determined during compliance tests.
- (2) The Permittee shall operate the **external thermal catalytic** oxidizers 3 hour average temperature for ovens 230-238 at or above the temperature that results in the required 97.7% control efficiency, as determined during compliance tests.

...

D.1.11 Catalyst Replacement

- ~~(a) The catalyst for the magnet wire enameling ovens identified as 210-213, 220-223 and 230-238 shall be replaced a minimum of every twelve (12) months provided that the catalytic oxidizer is achieving the required overall efficiency.~~
- ~~(b) The catalyst for the magnet wire enameling ovens identified as 247, 248, 250, 251, 252, 253, and 254 shall be replaced once every six months to ensure that the catalytic oxidizer is achieving the required overall efficiency.~~

~~D.1.13~~ **D.1.12** Record Keeping Requirements

...

- (c) To document compliance with Conditions ~~D.1.14~~ **D.1.1(a)(2)**, the Permittee shall maintain records of the dates that the catalysts are replaced in ovens ~~210-213, 220-223, 230-238,~~ 247, 248, 250, 251, 252, 253 and 254.

...

Comment 28: Rea Magnet requests that the MAG HS0 ovens 551, 552, and 553 be grouped with the MAG HS1 ovens 561, 562, 563, 564, 565, 566, and 567 for purposes of HAP testing per condition D.1.7(e) and VOC testing per condition D.1.8(b). All of these ovens are of similar design, apply similar coatings, process only ultrafine wire, and control emissions with internal catalytic oxidizers. Treating these ovens as a single group will allow Rea greater flexibility in the testing process.

IDEM Response to Comment 28: IDEM agrees that these ovens are similar enough to be grouped for testing purposes. The Permit has been changed as follows:

D.1.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

...

- (e) HAP Testing Requirements:
In order to demonstrate compliance with Condition D.1.4, the Permittee shall perform overall control efficiency of VOC testing on one oven from each of the following ~~six (6)~~ **five (5)** oven groups (210-213, 220-223, 230-237, and XR-1), (281-282, 283-284, and 285-286), (551, 552, ~~and 553,),~~ (561, 562, 563, 564, 565, 566, and 567), (243, 244, 245, 246, 247, 248, 250, 251, 252, 253, and 254), and (270) using methods approved by the Commissioner. Stack testing shall be performed in accordance with 326 IAC 3-6, using methods determined by the Commissioner to be appropriate for each different oven design. The tests shall be performed within one (1) year of the issuance of this permit, or within five (5) years of the last valid test performed on each of these oven groups, whichever is later. The coating(s) tested shall be the wire coating used in each of these oven groups that has the lowest overall HAP destruction efficiency, as estimated by the manufacturer and approved by IDEM. This testing shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. Total VOC emissions for all ovens at this source shall be calculated each month using the following equation for VOC emissions:

...

The Permittee shall perform overall control efficiency of HAP testing on one oven from each of the following ~~six (6)~~ **five (5)** oven groups (210-213, 220-223, 230-237, and XR-1), (281-282, 283-284, and 285-286), (551, 552, ~~and 553,),~~ (561, 562, 563, 564, 565, 566, and 567), (243, 244, 245, 246, 247, 248, 250, 251, 252, 253, and 254), and (270) using methods approved by the Commissioner. Stack testing shall be performed in accordance with 326 IAC 3-6, using methods determined by the Commissioner to be appropriate for each different oven design. The coating(s) tested shall be the wire coating used in each of these oven groups that has the lowest overall HAP destruction efficiency, as estimated by the manufacturer and approved by IDEM. This testing shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. Single HAP and total HAP emissions for all ovens at this source shall be calculated each month using the following equation for HAP emissions:

Comment 29: Rea Magnet requests that the catalyst change frequency requirement specified in Condition D.1.1(a)(2) and again in Condition D.1.11(b) for ovens 247, 248, 250, 251, 252, 253, and 254 be changed from six months to twelve months. This requirement was added in CP-003-9913-00014, issued October 28, 1998, as part of the RACT requirements (326 IAC 8-1-5) for these ovens. Rea Magnet is not certain as to how this six-month replacement frequency was determined. The catalyst elements are very expensive and premature changes represent considerable cost without appreciably improving environmental performance. Recent testing on oven 251 indicated that the catalyst in this oven was still achieving a destruction efficiency of

99.4% after 207 days in operation. Rea Magnet suggests a 12 month replacement frequency. Rea Magnet is willing to arrange with IDEM to test an oven of this type with an older catalyst (ovens 243, 244, 245, or 246). Also Rea requests that the duplicate requirement in Condition D.1.11(b) be deleted from the permit.

IDEM Response to Comment 29: IDEM agrees that a longer catalyst change frequency is warranted if the source can demonstrate that that catalysts remain effective for the longer period. IDEM will add conditional testing language allowing this change and requiring the Permittee to test an oven within twelve months of issuance of the permit to demonstrate compliance with the VOC emission limits for the twelve (12) month catalyst replacement period. Condition D.1.11(b) has been deleted, as this requirement is already contained in Condition D.1.1(a)(2). The permit has been changed as follows:

D.1.1 Volatile Organic Compounds (VOCs) [326 IAC 8-1-5 (Site Specific RACT)]

- (a) Pursuant to CP-003-9913-00014, issued October 28, 1998 and 326 IAC 8-1-5, the magnet wire enameling ovens identified as 247, 248, 250, 251, 252, 253, and 254 shall achieve the following:
- (1) The VOC content of the coatings used shall not exceed 7.64 pounds per gallon coating as delivered to the applicator, excluding water,
 - (2) The catalyst shall be replaced once every ~~six~~ **twelve (12)** months to ensure that the catalytic oxidizer is achieving the required overall efficiency,

...

D.1.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (h) **In order to demonstrate compliance with Condition D.1.1(a)(3) for the twelve (12) month catalyst replacement frequency requirement in Condition D.1.1(a)(2), the Permittee shall conduct a one-time performance test to verify the VOC control efficiency for the catalytic oxidizers for ovens 243, 244, 245, or 246 using methods approved by the Commissioner. Stack testing shall be performed in accordance with 326 IAC 3-6. The test shall be performed within one year of issuance of this permit. One (1) representative oven shall be tested for VOC emissions. The test shall be done on an oven with a catalyst that has been in use for at least twelve (12) months. This test may be done in conjunction with the VOC testing required for this oven group in Condition D.1.7(e).**

D.1.11 Catalyst Replacement

- ~~(a) The catalyst for the magnet wire enameling ovens identified as 210-213, 220-223 and 230-238 shall be replaced a minimum of every twelve (12) months provided that the catalytic oxidizer is achieving the required overall efficiency.~~
- ~~(b) The catalyst for the magnet wire enameling ovens identified as 247, 248, 250, 251, 252, 253, and 254 shall be replaced once every six months to ensure that the catalytic oxidizer is achieving the required overall efficiency.~~

Company Name: Rea Magnet Wire Company, Inc.
 Address: 3600 East Pontiac Street, Fort Wayne, Indiana 46803
 Title V: T003-21713-00014
 Reviewer: ERG/ST
 Date: November 2, 2007

Oven Model	Oven ID Number	# Ovens	Material (Worst Case Coating)	Density (lbs/gal)	Weight Percent VOC (%)	Usage (gal/unit)	Maximum Throughput (unit/hour)	Type of Oxidizer	Uncontrolled Emissions				Required Oxidizer VOC Control Efficiency (%)*	Controlled Emissions			
									PTE VOC per oven (lbs/hr)	PTE VOC per oven (lbs/day)	PTE VOC per oven (tons/yr)	PTE VOC all ovens (tons/yr)		PTE VOC per oven (lbs/hr)	PTE VOC per oven (lbs/day)	PTE VOC per oven (tons/yr)	PTE VOC all ovens (tons/yr)
GE-I	210-213, 220-223	2	Coat 2 basecoat	8.88	64.0%	0.0034	143	Internal	2.76	66.3	12.1	24.2	95.0%	0.14	3.32	0.61	1.21
			Coat 2 topcoat	8.32	86.0%	0.0043	143		4.40	106	19.3	38.5	95.0%	0.22	5.28	0.96	1.93
			Coat 2 bondcoat	8.17	92.0%	0.0041	143		4.41	106	19.3	38.6	95.0%	0.22	5.29	0.97	1.93
GE-M	230-238	1	Coat 1	8.72	87.0%	0.0080	338	Internal	20.5	492	89.8	89.8	97.7%	0.47	11.3	2.07	2.07
SIGME	281-282, 283-284, 285-286	3	Coat 2	8.54	85.4%	0.0100	155	Internal	11.3	272	49.6	148.9	96.6%	0.39	9.25	1.69	5.06
MAG HSO	551, 552, 553	3	Coat 3 basecoat	8.07	70.0%	0.0138	0.55	Internal	0.043	1.03	0.19	0.56	0.0%	0.043	1.03	0.19	0.56
			Coat 3 topcoat	8.31	93.0%	0.0069	0.55		0.029	0.70	0.13	0.39	0.0%	0.029	0.70	0.13	0.39
			Coat 3 bondcoat	8.17	92.0%	0.0669	0.55		0.28	6.64	1.21	3.63	0.0%	0.28	6.64	1.21	3.63
MAG HS1	561, 562, 563, 564, 565, 566, 567	7	Coat 1	8.2	92.0%	0.250	0.26	Internal	0.49	11.8	2.15	15.0	0.0%	0.49	11.76	2.15	15.03
Rea H-9	243, 244	2	Coat 1	8.84	92.0%	0.228	1	External	1.86	44.6	8.14	16.3	0.0%	1.86	44.6	8.14	16.3
Rea H-9	245, 246	2	Coat 2	8.84	92.0%	0.228	1	External	1.86	44.6	8.14	16.3	0.0%	1.86	44.6	8.14	16.3
Rea H-9	247, 248, 250, 251, 252, 253, 254	7	Coat 1	8.84	92.0%	0.228	1	External	1.86	44.6	8.14	57.0	90.0%	0.19	4.46	0.81	5.70
MOCO	270	1	Coat 2	8.34	86.4%	0.011	571	External	45.7	1096	200	200	85.0%	6.85	164	30.0	30.0
Rea	540, 541, 542, 543, 544, 550	6	Coat 3 basecoat	8.57	70.0%	0.032	0.26	None	0.05	1.20	0.22	1.31	0.0%	0.05	1.20	0.22	1.31
			Coat 3 topcoat	8.31	93.0%	0.022	0.26		0.04	1.06	0.19	1.16		0.04	1.06	0.19	1.16
									Total				Total				
													652				
													102.5				

The transfer efficiency for all wire coating operations is 100%. There is no particulate potential due to the magnet wire coating operations.

* The permit requires the ovens to operate with a VOC control efficiency as stated in this column.

Methodology

PTE VOC per oven (Before Oxidizers) (lbs/hr) = Density (lbs/gal) x Weight Percent VOC (%) x Usage (gal/unit) x Maximum Throughput (units/hr)

PTE VOC per oven (Before Oxidizers) (lbs/day) = Density (lbs/gal) x Weight Percent VOC (%) x Usage (gal/unit) x Maximum Throughput (units/hr) x 24 (hr/day)

PTE VOC per oven (After Required Oxidizers) (lbs/hr) = Density (lbs/gal) x Weight Percent VOC (%) x Usage (gal/unit) x Maximum Throughput (units/hr) x (1- Destruction Efficiency(%))

PTE VOC per oven (After Required Oxidizers) (lbs/day) = PTE VOC per oven (After Integral Oxidizers) (lbs/hr) x 24 hours/day

PTE VOC per oven (After Required Oxidizers) (tons/yr) = Density (lbs/gal) x Weight Percent VOC (%) x Usage (gal/unit) x Max. Throughput (units/hr) x (1- Destruction Eff. (%)) x 8760 hrs/yr x 1ton/2000 lbs

PTE VOC All Ovens (After Required Oxidizers) (tons/yr) = PTE VOC per oven (After Integral Oxidizers) (tons/yr) x Number of Ovens

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Material usage for the oven XR-1 was not provided by the source. In order to estimate emissions from this oven, an emission factor was developed based on the emissions calculated for the other ovens and the size of the oven. **Ovens processing ultrafine wire (Rea, HS0, HS1, Rea H-9) were excluded, as oven XR-1 cannot process ultrafine wire.**

Development of Emission Factor

Oven Model	Oven ID Number	# Ovens	Material (Worst Case Coating)	Density (lbs/gal)	Weight Percent VOC (%)	Usage (gal/unit)	Maximum Throughput (unit/hour)	Type of Oxidizer	Uncontrolled Emissions					
									PTE VOC per oven (lbs/hr)	PTE VOC per oven (lbs/day)	PTE VOC per oven (tons/yr)	Total PTE VOC per oven (tons/yr)	Size of Oven (lbs wire/hr)	Calculated Emission Factor (Tons of VOC/lbs of wire)
GE-I	210-213, 220-223	2	Coat 2 basecoat	8.88	61.0%	0.0034	143	Internal	2.63	63.2	11.5			
			Coat 2 topcoat	8.32	86.0%	0.0043	143		4.40	106	19.3			
			Coat 2 bondcoat	8.17	92.0%	0.0041	143		4.41	106	19.3	50.1	191.0	2.99E-05
GE-M	230-238	1	Coat 1	8.72	87.0%	0.0080	338	Internal	20.5	492	89.8	89.8	508.0	2.02E-05
SIGME	281-282, 283-284, 285-286	3	Coat 2	8.54	85.4%	0.0100	155	Internal	11.3	272	49.6	49.6	183.0	3.10E-05
MOCO	270	1	Coat 2	8.34	86.4%	0.011	571	External	45.7	1096	200	200	571	4.00E-05
Worst Case Emission Factor for Fine Wire Ovens													4.00E-05	

Methodology for Emissions Calculation

PTE VOC per oven (Before Oxidizers) (lbs/hr) = Density (lbs/gal) x Weight Percent VOC (%) x Usage (gal/unit) x Maximum Throughput (units/hr)

PTE VOC per oven (Before Oxidizers) (lbs/day) = Density (lbs/gal) x Weight Percent VOC (%) x Usage (gal/unit) x Maximum Throughput (units/hr) x 24 (hr/day)

Calculate Emissions for the MOCO oven XR-1

Using the worst case emission factor estimated above of 4.00 E-05 and the capacity of the XR-1 oven of 11 pounds of wire per hour:

$$=4.0 \text{ E-05 tons VOC/lb wire} \times 11 \text{ lbs of wire/hr} \times 8760 \text{ hr/year} = \mathbf{3.85} \text{ tons VOC/yr}$$

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for the Renewal of a Part 70 Operating Permit

Source Background and Description

Source Name:	Rea Magnet Wire Company, Inc.
Source Location:	3600 East Pontiac Street, Fort Wayne, Indiana 46803
County:	Allen
SIC Code:	3357
Operation Permit No.:	T003-6959-00014
Operation Permit Issuance Date:	May 30, 2001
Permit Renewal No.:	003-21713-00014
Permit Reviewer:	ERG/ST

The Office of Air Quality (OAQ) has reviewed a Part 70 Operating Permit Renewal application from Rea Magnet Wire Company, Inc. relating to the operation of a stationary magnet wire coating operation.

Permitted Emission Units and Pollution Control Equipment

(a) The following magnet wire enameling ovens:

Model	Oven ID #	Construction Date	Max. Rating (lbs wire/hr)	VOC Oxidizer Type	Stack ID #
Rea	540	Prior to 1965	0.26	None	C-2
Rea	541	Prior to 1965	0.26	None	C-2
Rea	542	Prior to 1965	0.26	None	C-2
Rea	543	Prior to 1965	0.26	None	C-2
Rea	544	Prior to 1965	0.26	None	C-2
Rea	550	Prior to 1965	0.26	None	C-1
MOCO	270	Prior to 1974	571	External thermal	D-2
MOCO	XR-1	Prior to 1980	11	Internal catalytic	E-3
Rea H-9	243	June 1987	6	External catalytic	F-6
Rea H-9	244	May 1987	6	External catalytic	F-6
Rea H-9	245	June 1989	6	External catalytic	F-6
Rea H-9	246	June 1989	6	External catalytic	F-6
GE-I	210-213	June 1989	191	Internal catalytic	F-1
GE-I	220-223	June 1989	191	Internal catalytic	F-2
GE-M	230-238	June 1989	508	Internal catalytic	F-3
Rea H-9	247	Feb. 1992	6	External catalytic	F-7
Rea H-9	248	Feb. 1992	6	External catalytic	F-7
MAG HSO	552	Nov. 1994	0.64	Internal catalytic	C-4
MAG HSO	553	Nov. 1994	0.64	Internal catalytic	C-5
MAG HSI	563	Nov. 1994	0.91	Internal catalytic	C-10
MAG HSI	564	Nov. 1994	0.91	Internal catalytic	C-12
MAG HSI	565	Nov. 1994	0.91	Internal catalytic	C-14
MAG HSI	566	Nov. 1994	0.91	Internal catalytic	C-16
MAG HSI	567	Nov. 1994	0.91	Internal catalytic	C-18
Rea H-9	250	1995	6	External catalytic	F-7
Rea H-9	251	1995	6	External catalytic	F-8
Rea H-9	252	1995	6	External catalytic	F-8
Rea H-9	253	1995	6	External catalytic	F-8
Rea H-9	254	1995	6	External catalytic	F-7
SIGME	281-282	1996	183	Internal thermal	D-3
SIGME	283-284	1996	183	Internal thermal	D-4
SIGME	285-286	1996	183	Internal thermal	D-5

- (b) One (1) 16.7 MMBtu per hour natural gas-fired firetube boiler, identified as CB266-500, constructed in 1965, and exhausting to stack A-2.
- (c) One (1) 6.0 MMBtu per hour natural gas-fired boiler, identified as Bryan RV600, constructed in 2002 and exhausting to stack A-1.

Unpermitted Emission Units and Pollution Control Equipment

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

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, not subject to 326 IAC 20-6 [326 IAC 8-3-2] [326 IAC 8-3-5].
- (b) Activities with emissions equal to or less than the following thresholds: 5 lb/hr and 25 lb/day PM₁₀; 5 lb/hr and 25 lb/day SO₂; 5 lb/hr and 25 lb/day NO_x; 3 lb/hr and 15 lb/day VOC; 0.6 tons per year Pb; 5 lb/day and 1.0 ton/yr of a single HAP, and 12.5 lb/day and 2.5 ton/yr of any combination of HAPs, consisting of one (1) paint spray booth [326 IAC 6-3-2].
- (c) Natural gas fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
- (d) 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 per hour.
- (e) The following VOC and HAP storage containers:
 - (1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
 - (2) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (f) Equipment used exclusively for the following:
 - (1) Packaging lubricants and greases.
 - (2) Filing drums, pails or other packaging containers with lubricating oils, waxes and greases.
- (g) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (h) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment and welding equipment consuming less than six hundred twenty-five (625) pounds of rod or wire per day.
- (i) Cleaners and solvents characterized as having a vapor pressure equal to or less than 2 kPa; 15mm Hg; or 0.3 psi measured at 38 degrees C (100°F).
- (j) Closed loop heating and cooling systems.
- (k) Any of the following structural steel and bridge fabrication activities:

- (1) cutting 200,000 linear feet or less of one inch (1") plate or equivalent.
- (2) Using 80 tons or less of welding consumables.
- (l) Groundwater oil recovery wells.
- (m) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.
- (n) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs.
- (o) Noncontact cooling tower systems with forced and induced draft cooling tower system not regulated under a NESHAP.
- (p) Quenching operations used with treating processes.
- (q) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (r) Heat exchanger cleaning and repair.
- (s) Paved and unpaved roads and parking lots with public access.
- (t) Asbestos abatement projects regulated by 326 IAC 14-10.
- (u) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.
- (v) 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.
- (w) Blowdown for any of the following: sight glass, boiler, compressors, pumps and cooling tower.
- (x) Furnaces used for melting metals other than beryllium with a brim full capacity of less than or equal to 450 cubic inches by volume.
- (y) Purge double block and bleed valves.
- (z) Filter or coalescer media changeout.
- (aa) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (bb) Activities with emissions equal to or less than the following thresholds: 5 lb/hr and 25 lb/day PM₁₀; 5 lb/hr and 25 lb/day SO₂; 5 lb/hr and 25 lb/day NO_x; 3 lb/hr and 15 lb/day VOC; 0.6 tons per year Pb; 5 lb/day and 1.0 ton/yr of a single HAP, and 12.5 lb/day and 2.5 ton/yr of any combination of HAPs, consisting of:
 - (1) Enamel, Thinner and Solvent Storage Tanks
 - (2) Wastewater Evaporator
 - (3) Superconductor stripper line
 - (4) Cleaning containers
 - (5) Dry lube applicators
 - (6) Fenn Mill using mineral spirits
 - (7) Three Stand Mill using water-based materials

Existing Approvals

The source has been operating under Part 70 Operating Permit 003-6959-00014, issued on May 30, 2001, and the following previous approvals:

- (a) Review Request 003-16303-00014, issued on January 16, 2004;
- (b) Administrative Amendment 003-20378-00014, issued on March 24, 2006; and
- (c) Significant Permit Modification 003-22934-00014, issued on December 20, 2006.

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 permits are superseded by this permit.

- (a) Condition D.1.1, Operating Permit T003-6959-00014, issued May 30, 2001, has been removed.
Reason for Removal: This condition required the operation of oxidizers to control VOC emissions from magnet wire process lines 210-213, 220-223, and 230-238 in order to make the requirements of 326 IAC 8-2-8 not applicable. However, IDEM has re-evaluated the integral to process determination for these ovens (see *Air Pollution Control Justification as an Integral Part of the Process*) and determined that the oxidizers should not be considered integral. A facility cannot take a limit to avoid the requirements of 326 IC 8-2-8. The PTE before controls for these facilities is greater than 25 tons per year. Therefore, these magnet wire process lines are subject to the requirements of 326 IAC 8-2-8.
- (b) Condition D.2.1, Operating Permit T003-6959-00014, issued May 30, 2001, has been removed.
Reason for Removal: This condition required that VOC emissions from magnet wire process lines 281-282, 283-284, and 285-286 be less than 15 pounds per day in order to make the requirements of 326 IAC 8-2-8 not applicable. However, IDEM has re-evaluated the integral to process determination for these ovens (see *Air Pollution Control Justification as an Integral Part of the Process*) and determined that the oxidizers should not be considered integral. A facility cannot take a limit to avoid the requirements of 326 IC 8-2-8. The PTE before controls for these facilities is greater than 15 pounds per day. Therefore, these magnet wire process lines are subject to the requirements of 326 IAC 8-2-8.
- (c) PSD Minor Limit
In 1989, the source added three (3) magnet wire process lines, identified as 210-213, 220-223, and 230-238. A PSD minor limit has been added to the permit to make this modification minor under PSD and to add federally-enforceable limits for VOC emissions. (See discussion under the *State Rule Applicability – Entire Source - 326 IAC 2-2 (Prevention of Significant Deterioration)* section of this TSD.)
- (d) PSD Minor Limit
In 1994, 1995, and 1996, the source added eight (8) magnet wire process lines, identified as 250, 251, 252, 253, 254, 281-282, 283-284, and 285-286. A PSD minor limit has been added to the permit to make these modifications minor under PSD and to add federally-enforceable limits for VOC emissions. (See discussion under the *State Rule Applicability – Entire Source - 326 IAC 2-2 (Prevention of Significant Deterioration)* section of this TSD.)
- (e) Conditions D.1.8, D.2.8(b), D.3.6, D.4.9(b), and D.5.7(b), Significant Permit Modification 003-22934-00014, issued on December 20, 2006, have been revised.
Reason for Revision: These conditions required that the magnet wire process ovens be tested for HAPs every two and one-half (2.5) years. Upon further review, IDEM has

determined that a testing frequency of every five (5) years is adequate to ensure compliance with the HAP area source limits in the permit.

Air Pollution Control Justification as an Integral Part of the Process

The following justification has been incorporated from the Technical Support Document for the initial Part 70 permit (T003-6959-00014):

The company submitted the following justification such that the VOC internal catalytic and thermal oxidizers on the ovens identified as 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, 552, 553, 563, 564, 565, 566, and 567 be considered as an integral part of the wire coating process:

- (a) The VOCs will be oxidized using only the process heat supplied by the curing ovens.
- (b) The processes could not operate without the oxidizers, because the oxidizers supply the heat needed for curing the wire coating.
- (c) The oxidizers serve a primary purpose other than pollution control. The oxidizers supply the heat needed for curing the wire coating.

IDEM, OAQ has re-evaluated the justifications and while the catalytic oxidation system meets some of the criteria for this determination, the control efficiency of the catalytic oxidizers is dependent on temperature and the quality of the catalyst. Therefore, the catalytic oxidation system will not be considered integral to the process and the permitting level will be determined using the potential to emit before controls. Operating conditions in the proposed permit will specify that the catalytic oxidizer shall operate at all times that the wire coating process is in operation.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations (pages 1 through 5).

County Attainment Status

The source is located in Allen County.

Pollutant	Status
PM10	Attainment
PM 2.5	Attainment
SO ₂	Attainment
NO ₂	Attainment
8-hour Ozone	Basic Nonattainment
CO	Attainment
Lead	Attainment

- (a) Allen County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. See the State Rule Applicability – Entire Source section.
- (b) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Allen

County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for nonattainment new source review.

- (c) Allen County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.
- (d) On October 25, 2006, the Indiana Air Pollution Control Board approved a permanent rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	tons/year
PM	Less than 100
PM-10	Less than 100
SO ₂	Less than 100
VOC	Greater than 100
CO	Less than 100
NO _x	Less than 100
Single HAP (xylene)	Greater than 10
Combination HAPs	Greater than 25

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of VOC is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants are less than 100 tons per year.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is equal to or greater than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

Actual Emissions

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

Pollutant	Actual Emissions (tons/year)
PM10	0
PM2.5	0
SO ₂	0
VOC	42
CO	5
NO _x	5
HAP	Not reported

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet 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 assure 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 enforceable only after issuance of the original Part 70 operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/emission unit	Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC *	CO	NO _x	HAPs **
All Magnet Wire Ovens	0	0	0	123	0	0	Single: Less than 9 Combination: Less than 24
Oven Burners	0.12	0.49	0.04	0.35	5.41	6.44	0.12
Boiler CB266-500	0.14	0.55	0.04	0.39	6.02	7.17	0.14
Boiler Bryan RV600	0.05	0.20	0.02	0.14	2.16	2.58	0.05
Total PTE	0.31	1.23	0.10	124	13.6	16.2	Single: Less than 10 Combination: Less than 25

* The PTE of VOC is limited by control efficiency requirements in the permit.

** The PTE of a single HAP and a combination of HAPs is limited to less than 10 tons per year and 25 tons per year, respectively, by conditions in SPM 003-22934-00014, issued on December 20, 2006.

- (a) This existing stationary source is not major for PSD because the emissions of each attainment criteria pollutant are less than two hundred fifty (<250) tons per year, and it is not one of the twenty-eight (28) listed source categories.
- (b) This existing stationary source is major for Emission Offset for ozone because the emissions of the nonattainment pollutant, VOC, are greater than one hundred (>100) tons per year.
- (c) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

Federal Rule Applicability

- (a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to existing emission units that involve a pollutant-specific emission unit and meet the following criteria:
 - (1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;
 - (2) is subject to an emission limitation or standard for that pollutant; and
 - (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following tables are used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each existing emission unit involved:

Emission Unit - Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE of VOC (tons/year)	Controlled PTE of VOC (tons/year)	Major Source Threshold (ton/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
210-213 - VOC	Oxidizer	Y	50.1	10.0	100	N	N
220-223 - VOC	Oxidizer	Y	50.1	10.0	100	N	N
230-238 - VOC	Oxidizer	Y	89.9	18.0	100	N	N
281-282 - VOC	Oxidizer	Y	49.6	1.99	100	N	N
283-284 - VOC	Oxidizer	Y	49.6	1.99	100	N	N
285-286 - VOC	Oxidizer	Y	49.6	1.99	100	N	N
552 - VOC	Oxidizer	N	1.5	1.53	100	N	N
553 - VOC	Oxidizer	N	1.5	1.53	100	N	N
563 - VOC	Oxidizer	N	2.2	2.17	100	N	N
564 - VOC	Oxidizer	N	2.2	2.17	100	N	N
565 - VOC	Oxidizer	N	2.2	2.17	100	N	N
566 - VOC	Oxidizer	N	2.2	2.17	100	N	N
567 - VOC	Oxidizer	N	2.2	2.17	100	N	N
243 - VOC	Oxidizer	N	8.14	8.14	100	N	N
244 - VOC	Oxidizer	N	8.14	8.14	100	N	N
245 - VOC	Oxidizer	Y	8.14	8.14	100	N	N
246 - VOC	Oxidizer	Y	8.14	8.14	100	N	N
247 - VOC	Oxidizer	Y	8.1	0.81	100	N	N
248 - VOC	Oxidizer	Y	8.1	0.81	100	N	N
250 - VOC	Oxidizer	Y	8.1	0.81	100	N	N
251 - VOC	Oxidizer	Y	8.1	0.81	100	N	N
252 - VOC	Oxidizer	Y	8.1	0.81	100	N	N
253 - VOC	Oxidizer	Y	8.1	0.81	100	N	N
254 - VOC	Oxidizer	Y	8.1	0.81	100	N	N
270 - VOC	Oxidizer	Y	200	30.0	100	Y	N
540 - VOC	None	N	0.41	0.41	100	N	N
541 - VOC	None	N	0.41	0.41	100	N	N
542 - VOC	None	N	0.41	0.41	100	N	N
543 - VOC	None	N	0.41	0.41	100	N	N
544 - VOC	None	N	0.41	0.41	100	N	N
550 - VOC	None	N	0.41	0.41	100	N	N
XR-1 - VOC	Oxidizer	N	26.3	26.3	100	N	N

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to oven 270 for VOC upon issuance of the Title V Renewal. The CAM requirements for oven 270 are discussed in the *Compliance Requirements* section of this TSD and are included in the Part 70 permit renewal.

Emission Unit - Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE* (tons/year)	Controlled PTE* (tons/year)	Major Source Threshold (ton/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
210-213 - HAPS	Oxidizer	Y	50.1	10.0	10/25	Y	N
220-223 - HAPS	Oxidizer	Y	50.1	10.0	10/25	Y	N
230-238 - HAPS	Oxidizer	Y	89.9	18.0	10/25	Y	N
281-282 - HAPS	Oxidizer	Y	49.6	1.99	10/25	Y	N
283-284 - HAPS	Oxidizer	Y	49.6	1.99	10/25	Y	N
285-286 - HAPS	Oxidizer	Y	49.6	1.99	10/25	Y	N
552 - HAPS	Oxidizer	Y	1.5	1.53	10/25	N	N
553 - HAPS	Oxidizer	Y	1.5	1.53	10/25	N	N
563 - HAPS	Oxidizer	Y	2.2	2.17	10/25	N	N
564 - HAPS	Oxidizer	Y	2.2	2.17	10/25	N	N
565 - HAPS	Oxidizer	Y	2.2	2.17	10/25	N	N

Emission Unit - Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE* (tons/year)	Controlled PTE* (tons/year)	Major Source Threshold (ton/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
566 - HAPS	Oxidizer	Y	2.2	2.17	10/25	N	N
567 - HAPS	Oxidizer	Y	2.2	2.17	10/25	N	N
243 - HAPS	Oxidizer	Y	8.14	8.14	10/25	N	N
244 - HAPS	Oxidizer	Y	8.14	8.14	10/25	N	N
245 - HAPS	Oxidizer	Y	8.14	8.14	10/25	N	N
246 - HAPS	Oxidizer	Y	8.14	8.14	10/25	N	N
247 - HAPS	Oxidizer	Y	8.1	0.81	10/25	N	N
248 - HAPS	Oxidizer	Y	8.1	0.81	10/25	N	N
250 - HAPS	Oxidizer	Y	8.1	0.81	10/25	N	N
251 - HAPS	Oxidizer	Y	8.1	0.81	10/25	N	N
252 - HAPS	Oxidizer	Y	8.1	0.81	10/25	N	N
253 - HAPS	Oxidizer	Y	8.1	0.81	10/25	N	N
254 - HAPS	Oxidizer	Y	8.1	0.81	10/25	N	N
270 - HAPS	Oxidizer	Y	200	30.0	10/25	Y	Y
540 - HAPS	None	Y	0.41	0.41	10/25	N	N
541 - HAPS	None	Y	0.41	0.41	10/25	N	N
542 - HAPS	None	Y	0.41	0.41	10/25	N	N
543 - HAPS	None	Y	0.41	0.41	10/25	N	N
544 - HAPS	None	Y	0.41	0.41	10/25	N	N
550 - HAPS	None	Y	0.41	0.41	10/25	N	N
XR-1 - HAPS	Oxidizer	Y	less than 10/25**	less than 10/25**	10/25	N	N

* Assume HAP emissions are equivalent to VOC emissions.

**Assume a HAP content of less than 94% for total HAP and less than 38% for a single HAP. A review of magnet wire MSDS supports these values as maximums.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to ovens 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, and 270 for a single HAP and a combination of HAPs upon issuance of the Title V Renewal. The CAM requirements for these ovens are discussed in the *Compliance Requirements* section of this TSD and are included in the Part 70 permit renewal.

- (b) The requirements of the New Source Performance Standards: Surface Coating of Metal Coil (326 IAC 12, 40 CFR 60, Subpart TT) are not included in this permit for the magnet wire enameling ovens because, pursuant to 40 CFR 60.461, metal coil is defined as “a continuous metal strip” (with a thickness) and the magnet wire coated at this source is not a strip, but a cylindrical piece (with a diameter).
- (c) The requirements of the New Source Performance Standards for Fossil-Fuel-Fired Steam Generators, (326 IAC 12, 40 CFR 60, Subpart D), are not included in this permit for the two (2) natural gas-fired boilers (CB266-500 and Bryan RV600). The maximum heat input of these boilers is less than 250 MMBtu/hr.
- (d) The requirements of the New Source Performance Standards for Electric Utility Steam Generating Units, (326 IAC 12, 40 CFR 60, Subpart Da), are not included in this permit for the two (2) natural gas-fired boilers (CB266-500 and Bryan RV600). These boilers are not electric utility steam generating units.
- (e) The requirements of the New Source Performance Standards for Industrial-Commercial-Institutional Steam Generating Units, (326 IAC 12, 40 CFR 60, Subpart Db) are not included in this permit for the two (2) natural gas-fired boilers (CB266-500 and Bryan RV600). These boilers have a heat input capacity less than 100 MMBtu/hr.

- (f) The requirements of the New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units (326 IAC 12, 40 CFR 60, Subpart Dc), are not included in this permit for the one (1) natural gas-fired boiler (Bryan RV600). This boiler has a maximum design heat input capacity less than 10 MMBtu/hr.
- (g) The requirements of the New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units (326 IAC 12, 40 CFR 60, Subpart Dc), are not included in this permit for the one (1) natural gas-fired boiler (CB266-500). This boiler was constructed prior to June 9, 1989, and has not been modified or reconstructed.
- (h) The requirements of the New Source Performance Standard for Storage Vessels for Petroleum Liquids (326 IAC 12, 40 CFR 60, Subparts K and Ka) are not included in this permit for the insignificant VOC and HAP storage containers and the insignificant Enamel, Thinner and Solvent Storage Tanks because the tanks have a capacity less than 40,000 gallons.
- (i) The requirements of the New Source Performance Standard for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced After July 23, 1984 (326 IAC 12, 40 CFR 60, Subpart Kb) are not included in this permit for the insignificant VOC storage containers and the insignificant Enamel, Thinner and Solvent Storage Tanks because each of the storage tanks has a capacity less than 75 cubic meters.
- (j) The requirements of National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Coil (40 CFR 63, Subpart SSSS) are not included in this permit for the magnet wire ovens because, pursuant to 40 CFR 63.5110, metal coil is defined as "a continuous metal strip" (with a thickness) and the magnet wire coated at this source is not a strip, but a cylindrical piece (with a diameter).
- (k) The requirements of the National Emission Standards for Hazardous Air Pollutants for Halogenated Solvent Cleaning (326 IAC 20-6, 40 CFR 63, Subpart T) are not included in this permit for the degreasing operations. The degreaser does not use a solvent containing methylene chloride, perchlorethylene, trichlorethylene, 1,1,1-trichlorethane, carbon tetrachloride, chloroform or any combination of these halogenated HAP solvents in a total concentration greater than five percent (5%) by weight as a cleaning or drying agent.
- (l) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products (40 CFR 63, Subpart MMMM) are not included for the magnet wire coating ovens and the insignificant paint spray booth at this source because the source has accepted enforceable limits on the emissions of HAPs included in the Part 70 permit so that the source will no longer be a major source of HAPs.
- (m) The requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD are not included in this permit for the 16.7 MMBtu per hour natural gas-fired boiler, identified as CB266-500, because the source has accepted enforceable limits on the emissions of HAPs included in the Part 70 permit so that the source will no longer be a major source of HAPs and the source has taken these limits prior to the compliance deadline of September 13, 2007.
- (n) The requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, (40 CFR 63, Subpart DDDDD) are not included in this permit for the 6.0 MMBtu per hour natural gas-fired boiler, identified as Bryan RV600, because the source has accepted enforceable limits on the emissions of HAPs included in the Part 70 permit so that the source will no longer be a major source of HAPs and the source has taken these limits prior to the compliance deadline of September 13, 2007.

State Rule Applicability – Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-3 (Emission Offset)

This source is not in 1 of the 28 source categories and there are no applicable New Source Performance Standards that were in effect on August 7, 1980; therefore, fugitive emissions are not counted towards applicability of PSD and Emission Offset.

The source was constructed prior to 1965. Prior to 1965, the source constructed ovens 540, 541, 542, 543, 544, and 550. Prior to 1974, the source added two (2) magnet wire enameling ovens (260 and 270). (Note: oven 260 was removed in 2006.) Prior to 1980, the source added magnet wire oven XR-1.

At the time that the PSD rules were promulgated, the PTE for PM, PM₁₀, SO₂, NO_x, and CO for the entire source was less than 250 tons per year. In the past, the control devices were considered integral and the potential to emit of VOC has been assessed after the controls. IDEM has re-evaluated this determination (see *Air Pollution Control Justification as an Integral Part of the Process*) and determined that the oxidizers should not be considered integral. Therefore, the potential to emit of VOC (before controls) for the entire source was greater than 250 tons per year at the time that the PSD rules were promulgated. The source was a major source under PSD.

Prior to 1980, the source added magnet wire oven XR-1. The exact construction date is unknown. However, if it was after PSD rules became effective, the uncontrolled emissions from this oven are estimated to be less than 26.3 tons per year of VOC. This modification did not trigger PSD review because the increase in VOC was less than the PSD significant level (40 tons per year).

In 1987, under a Registration (no associated number), issued on May 22, 1987, the source added two (2) magnet wire enameling ovens (243 and 244). The increase in PTE for VOC before controls due to this modification was 16.3 tons per year. This modification did not trigger PSD review because the increase in VOC was less than the PSD significant level (40 tons per year).

In 1987, under PC (02) 1654, issued on October 16, 1987, the source received approval to construct three (3) magnet wire ovens (560, 245, and 246). (Note: Oven 560 was constructed in 1987 and removed prior to 2001. Ovens 245 and 246 were constructed in 1989.) The increase in PTE for VOC before controls (18.5 tons per year) was less than 40 tons per year. This modification did not trigger PSD review because the increase in VOC was less than the PSD significant level (40 tons per year).

In 1988, under an Exemption issued March 29, 1988, the source added one (1) magnet wire enameling oven (HZ4A). (Note: oven HZ4A was removed in 2006.) The increase in PTE for VOC before controls due to this modification was 63.4 tons per year. This modification did not trigger PSD review because the controls were considered integral and the after control emissions were estimated to be 12.69 tons per year, which is less than the PSD significant level (40 tons per year). The catalytic oxidizer was required by conditions in the permit to control VOC with a minimum 80% overall control efficiency.

The three modifications performed in 1987 and 1988 possibly should have been considered the same project under PSD. The total uncontrolled emissions from these modifications was 98.2 tons per year. Therefore, a limit would have been required to make PSD not applicable, assuming these modifications were all one project. Because these ovens all have oxidizers to control VOC emissions, the actual emissions were much lower than 98.2 tons per year. Even assuming a very low control efficiency of 60%, the actual emissions from these three modifications in combination would be less than the PSD significant level of 40 tons per year. Therefore, PSD was not triggered. A limit was needed for this modification (the three modifications performed in 1987 and 1988 combined) in order to create a federally enforceable limit to ensure that the requirements of PSD do not apply. However, ovens 560 and HZ4A have been removed, resulting in total uncontrolled emissions from the remaining ovens (243, 244, 245,

and 246) of 32.6 tons per year. A limit is not needed for these ovens to keep them below the PSD significant level of 40 tons per year.

In 1989, under CP 02-07-90-1751, issued on June 5, 1989, the source added three (3) magnet wire enameling ovens (210-213, 220-223, and 230-238). This permit was not considered a part of the 1987-1988 modification because the permit was issued more than a year after the permit for the HZ4A oven and these ovens are a different oven type. The ovens permitted in 1989 were large GE-1 and GE-M ovens, over 30 times the size of the REA H-9 ovens permitted in 1987. The increase in PTE for VOC for the three ovens before controls is 190 tons per year. This modification did not trigger PSD review because the controls were considered integral. Therefore, the increase in VOC was considered to be 38.01 tons per year, which is less than the PSD significant level (40 tons per year). In order to make this a federally-enforceable limit and make sure that the requirements of PSD do not apply to this modification, the following limit has been added to this permit:

The VOC emissions from ovens 210-213, 220-223, and 230-238 shall each be less than 3.04 pounds per hour. Compliance with this limit shall render the requirements of 326 IAC 2-2 not applicable to the modifications performed in 1989 under CP 02-07-90-1751.

In 1992, under CP 003-2003-00014, issued on February 24, 1992, the source added three (3) magnet wire enameling ovens (247, 248, and 249). (Note: oven 249 was removed prior to 2001.) The increase in PTE for VOC before controls due to this modification is 24.4 tons per year. This modification did not trigger PSD review because the increase in VOC was less than the PSD significant level (40 tons per year).

In 1994, under CP 003-3297-00014, issued on March 21, 1994, the source added five (5) magnet wire enameling ovens (250, 251, 252, 253, and 254). The increase in PTE for VOC before controls due to this modification is 40.7 tons per year. This modification did not trigger PSD review because the increase in VOC was limited by conditions in the permit to 8.95 tons per year, which is less than the PSD significant level (40 tons per year). The construction permit included requirements that the external oxidizers on ovens 250, 251, 252, 253, and 254 operate at an efficiency of 78%. This is equivalent to limiting emissions of VOC to 0.41 pounds per hour per oven.

In 1995, under CP 003-4044-00014, issued on October 24, 1994, the source added nine (9) magnet wire enameling ovens (551, 552, 553, 561, 562, 563, 564, 565, 566, and 567). (Note: ovens 551, 561 and 562 were removed prior to 2006.) The increase in PTE for VOC before controls due to this modification is 20.08 tons per year. This modification did not trigger PSD review because the increase in VOC was less than the PSD significant level (40 tons per year).

In 1996, under CP 003-5731-00014, issued on July 9, 1996, the source added three (3) magnet wire enameling ovens (281-282, 283-284, and 285-286). The increase in PTE for VOC before controls due to this modification is 149 tons per year. This modification did not trigger PSD review because the increase in VOC was limited by conditions in the permit to 5.96 tons per year, which is less than the PSD significant level (40 tons per year). The construction permit included requirements that the internal oxidizers on ovens 281-282, 283-284, 285-286 operate at an efficiency of 96%. This is equivalent to limiting emissions of VOC to 0.45 pounds per hour per oven.

The ovens added in 1994, 1995 and 1996 under CP 003-3297-00014, issued on March 21, 1994, (ovens 250, 251, 252, 253, and 254), CP 003-4044-00014, issued on October 24, 1994 (ovens 551, 552, 553, 561, 562, 563, 564, 565, 566, and 567), and CP 003-5731-00014, issued on July 9, 1996, (ovens 281-282, 283-284, and 285-286), occurred within overlapping periods of one year, and could have been considered a single project. Although the combined PTE before controls for these projects ($40.7 + 20.08 + 149 = 210$ tons per year) exceeded the PSD significant level (40 tons per year), this combined project did not trigger PSD review because the emissions, as limited by conditions in these permits kept total VOC emissions from all of these ovens below 40 tons per year. VOC emissions from ovens 250, 251, 252, 253, and 254 were limited by conditions in the permit to a total of 8.95 tons per year. Ovens 551, 552, 553, 561, 562, 563, 564,

565, 566, and 567 had a total potential to emit before controls of 20.08 tons of VOC per year, however, ovens 551, 561, and 562 have been removed resulting in a total potential to emit before controls from the existing units of 13.9 tons of VOC. VOC emissions from ovens 281-282, 283-284, and 285-286 were limited by conditions in the permit to a total of 5.96 tons per year. The total VOC emissions after limits for this combined project ($9.85 + 13.9 + 5.96 = 29.71$ tons per year) is less than the PSD significant level (40 tons per year). Therefore, IDEM concludes that this combined project did not trigger PSD review. In order to make the requirements a federally enforceable limit, and therefore, to make the modification performed in 1994, 1995 and 1996 a minor modification under PSD, the following limits have been added to the permit:

The VOC emissions from ovens 250, 251, 252, 253, 254, 281-282, 283-284, and 285-286 shall each be limited to less than 0.74 pounds per hour per oven.

Compliance with these limits in combination with potential emissions from ovens 552, 553, 563, 564, 565, 566, and 567 shall keep the total VOC emissions from the modifications performed under CP 003-3297-00014, issued on March 21, 1994, CP 003-4044-00014, issued on October 24, 1994, and CP 003-5731-00014, issued on July 9, 1996 to less than 40 tons per year.

In 1998, under CP 003-9913-00014, issued on October 28, 1998, the source accepted Reasonably Available Control Technology (RACT) limits on ovens 260 and 270 requiring that VOC emissions from these ovens be reduced by 85% of levels currently emitted. (Note: oven 260 was removed in 2006.) The source also accepted RACT limits on ovens 247, 248, 249, 250, 251, 252, 253, and 254 requiring that VOC emissions from these ovens be reduced by 90%, that VOC emissions be limited to less than 4.7 pounds of VOC per gallon of coating and 0.89 tons per year per oven, and that the catalyst be replaced every six months. (Note: oven 249 was removed prior to 2001.) This permit rescinded limits for the five (5) magnet wire enameling ovens (250, 251, 252, 253, and 254) accepted under CP 003-3297-00014, issued on March 21, 1994, and replaced them with more stringent limits. The modification to the limits for ovens 250, 251, 252, 253, and 254 did not trigger PSD review because there was no increase in PTE of VOC from these ovens due to this modification and the limited PTE of VOC for ovens 250, 251, 252, 253, and 254 (4.45 tons per year) remained less than the PSD significant level (40 tons per year).

The limits and control efficiency requirements taken in CP 003-9913-00014, combined with the control efficiency requirements taken in previous permits, resulted in a decrease in the limited potential to emit of VOC from the entire source, such that the source-wide PTE of VOC was effectively limited to less than 250 tons per year. However, the control efficiency requirements were not practically enforceable. Therefore, the source remained a major source under PSD after this modification.

In 1998, under CP 003-10294-00014, issued on November 18, 1998, the source added one (1) magnet wire enameling oven (290). (Note: oven 290 was removed in 2006.) The increase in PTE of VOC before controls due to this modification is 284 tons per year. This modification did not trigger PSD review because the increase in VOC was limited by conditions in the permit to 18.4 tons per year, which is less than the PSD significant level (40 tons per year). The construction permit included requirements that the internal oxidizer on oven 290 operate at an efficiency of 93.5%.

In 2002, the source replaced a 16.7 MMBtu per hour natural gas-fired boiler with a 6.0 MMBtu per hour natural gas-fired boiler. This modification did not trigger PSD review because the increase in emissions for all criteria pollutants were less than the significant levels.

This source is located in Allen County. Allen County was designated as a nonattainment area for the 8-hour ozone standard on June 15, 2004. The potential to emit of VOC of this source, after limits and control efficiency requirements, is greater than 100 tons per year but less than 250 tons per year. Therefore, this source is a major source under Emission Offset for ozone and a minor source under PSD.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit under 326 IAC 2-7, Part 70 program and has the potential to emit greater than 100 tons per year of volatile organic compounds. Pursuant to this rule, the Permittee shall triennially submit an emission statement for the source beginning in 2004 and every three years thereafter. The statement must be received by July 1 and contain the minimum requirements as specified in 326 IAC 2-6-4. The submittal should cover the period identified in 326 IAC 2-6-3(a).

326 IAC 5-1 (Opacity Limitations)

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

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

The source is located in Allen County.

- (a) This source is not located in any of the areas listed in 326 IAC 6-5-1(a). Therefore, this source is not subject to the requirements of 326 IAC 6-5.
- (b) This source did not receive all of the necessary preconstruction approvals prior to December 13, 1985. However, the fugitive particulate emissions from the paved and unpaved roads and parking lots are negligible. Pursuant to 326 IAC 6-5-1(b), this source is not subject to the requirements of 326 IAC 6-5.

State Rule Applicability – Magnet Wire Enameling Ovens

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

All of the magnet wire enameling ovens currently located at this source were constructed prior to July 27, 1997. Therefore, the requirements of 326 IAC 2-4.1 do not apply to the wire enameling ovens currently located at this source.

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

All of the wire enameling ovens at this source are surface coating facilities. The surface coating material is applied to the wire with flow application methods. Pursuant to 326 IAC 6-3-1(b)(7), the wire enameling ovens are exempt from 326 IAC 6-3-2. Therefore, the requirements of 326 IAC 6-3-2 do not apply to these facilities.

326 IAC 8-1-5 (Site Specific RACT)

- (a) In 1998, under CP 003-9913-00014, issued on October 28, 1998, the source accepted RACT limits on ovens 247, 248, 249, 250, 251, 252, 253, and 254 requiring that VOC emissions from these ovens be reduced by 90%, that VOC emissions be limited to less than 4.7 pounds of VOC per gallon of coating and 0.89 tons per year per oven, and that the catalyst be replaced every six months. (Note: oven 249 was removed prior to 2001.) This permit rescinded limits for the five (5) magnet wire enameling ovens (250, 251, 252, 253, and 254) accepted under CP 003-3297-00014, issued on March 21, 1994, and replaced them with more stringent limits. The following limits and requirements have been included in the permit:

Pursuant to 326 IAC 8-1-5 and CP-003-9913-00014, issued October 28, 1998, the magnet wire enameling ovens identified as 247, 248, 250, 251, 252, 253, and 254 shall achieve the following:

- (1) The VOC content of the coatings used shall not exceed 7.64 pounds per gallon coating as delivered to the applicator, excluding water,
- (2) The catalyst shall be replaced once every six months to ensure that the catalytic oxidizer is achieving the required overall efficiency,
- (3) VOC emissions shall be limited to 4.7 pounds of VOC per gallon of coating and 0.89 tons per year each,
- (4) The capture system shall be operated in such a manner as to maintain an overall control efficiency of not less than 90%, and
- (5) The capture system fan shall be operated at times when the ovens are in operation.

VOC Emissions shall be determined by the following equation:

$$\text{VOC Emissions (tons)} = (\sum (\text{VOC Content } i \text{ (\%)} \times \text{Coating Amount } i \text{ (tons)} \times (1 - \text{Control Efficiency } \% / 100))$$

where:

Control Efficiency % = control efficiency as demonstrated in most recent valid compliance test.

VOC Content *i* = Percent VOC content of coating *i* used

Amount *i* = Usage, in tons of the coating *i*

- (b) In 1998, under CP 003-9913-00014, issued on October 28, 1998, the source accepted Reasonably Available Control Technology (RACT) limits on ovens 260 and 270 requiring that VOC emissions from these ovens be reduced by 85% of levels currently emitted. (Note: oven 260 was removed in 2006.) In 1998, the uncontrolled PTE of VOC for oven 270 was 200.1 tons per year and 45.7 pounds per hour. The 85% reduction efficiency requirement is equivalent to limiting emissions of VOC to 6.85 pounds per hour. In order to make this requirement a federally enforceable limit, the following limit has been added to the permit:

Pursuant to CP-003-9913-00014, issued October 28, 1998 and 326 IAC 8-1-5, the magnet wire enameling oven identified as 270 shall permanently reduce VOC emissions by 85% and the VOC emissions from oven 270 shall be limited to less than 6.85 pounds per hour.

326 IAC 8-1-6 (Volatile Organic Compounds)

- (a) The magnet wire enameling ovens identified as 210-213, 220-223, and 230-238 were constructed after January 1, 1980 and have potential emissions of VOC before controls of greater than 25 tons per year for each oven. However, these ovens are subject to another Article 8 rule (326 IAC 8-2-8). Therefore, the requirements of 326 IAC 8-1-6 do not apply to these ovens.
- (b) The magnet wire enameling ovens identified as 281-282, 283-284, and 285-286 were constructed after January 1, 1980 and have potential emissions of VOC before controls of greater than 25 tons per year for each oven. However, these ovens are subject to another Article 8 rule (326 IAC 8-2-8). Therefore, the requirements of 326 IAC 8-1-6 do not apply to these ovens.
- (c) The magnet wire enameling ovens identified as 552, 553, 563, 564, 565, 566, and 567 were constructed after January 1, 1980 and have potential emissions of VOC of less than

25 tons per year for each oven. Therefore, the requirements of 326 IAC 8-1-6 do not apply to these ovens.

- (d) The magnet wire enameling ovens identified as 243, 244, 245, and 246 were constructed after January 1, 1980 and have potential emissions of VOC of less than 25 tons per year for each oven. Therefore, the requirements of 326 IAC 8-1-6 do not apply to these ovens.
- (e) The magnet wire enameling ovens identified as 247, 248, 250, 251, 252, 253, and 254 were constructed after January 1, 1980. However, these ovens are subject to requirements under another Article 8 rule (326 IAC 8-1-5). Therefore, the requirements of 326 IAC 8-1-6 do not apply to these ovens.
- (f) The magnet wire enameling ovens identified as 270, 540, 541, 542, 543, 544, 550, and XR-1 were all constructed prior to January 1, 1980. Therefore, the requirements of 326 IAC 8-1-6 do not apply to these ovens.

326 IAC 8-2-8 (Magnet Wire Coating Operations)

- (a) The magnet wire enameling ovens identified as 210-213, 220-223 and 230-238 were constructed after January 1, 1980 and prior to July 1, 1990, apply coatings to magnet wire, and are located in Allen County. The potential to emit of VOC before controls from each of these ovens is greater than 25 tons per year.

Pursuant to 326 IAC 8-2-8, for the wire enameling ovens identified as 210-213, 220-223 and 230-238, the Permittee shall not allow the discharge, into the atmosphere, of VOC in excess of 1.7 pounds of VOC per gallon of coating, excluding water, as delivered to the applicator.

Pursuant to 326 IAC 8-1-2 (b), the enameling ovens' VOC emissions shall be limited to no greater than the equivalent emissions, expressed as pounds of VOC per gallon coating solids, allowed.

This equivalency was determined by the following equation:

$$E = L / (1 - (L/D))$$

Where

- L= Applicable emission limit from 326 IAC 8 in pounds of VOC per gallon of coating
- D= Density of VOC in coating in pounds per gallon of VOC
- E= Equivalent emission limit in pounds of VOC per gallon of coating solids as applied

Actual solvent density shall be used to determine compliance of surface coating operation using the compliance methods in 326 IAC 8-1-2 (a).

The equivalent pounds of VOC per gallon of coating solids (as applied) shall be limited to less than 2.21, when L is equal to 1.7 pounds of VOC per gallon of coating and D is equal to 7.36 pounds of VOC per gallon of coating.

The pounds of VOC per gallon of coating solids shall be limited to less than 2.27 lb/gal for ovens 210-213 and 220-223. The pounds of VOC per gallon of coating solids shall be limited to less than 2.19 lb/gal for ovens 230-238.

Pursuant to 326 IAC 8-1-2(c), the overall efficiency of the thermal oxidizer shall be no less than the equivalent overall efficiency calculated by the following equation:

$$O = \frac{V - E}{V} \times 100$$

Where:

- V = The actual VOC content of the coating or, if multiple coatings are used, the daily weighted average VOC content of all coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids as applied.
- E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.
- O = Equivalent overall efficiency of the capture system and control device as a percentage.

The overall efficiency of the thermal oxidizers for ovens 210-213 and 220-223 shall be greater than 95.0%. The overall efficiency of the thermal oxidizers for oven 230-238 shall be 97.7%.

- (b) The magnet wire enameling ovens identified as 281-282, 283-284 and 285-286 were constructed after July 1, 1990, apply coatings to magnet wire, and are located in Allen County. The potential emissions of VOC before controls from each of these ovens is greater than 15 pounds per day.

Pursuant to 326 IAC 8-2-8, for the wire enameling ovens identified as 281-282, 283-284 and 285-286, the Permittee shall not allow the discharge, into the atmosphere, of VOC in excess of 1.7 pounds of VOC per gallon of coating, excluding water, as delivered to the applicator.

Pursuant to 326 IAC 8-1-2 (b), the enameling ovens' VOC emissions shall be limited to no greater than the equivalent emissions, expressed as pounds of VOC per gallon coating solids, allowed.

This equivalency was determined by the following equation:

$$E = L / (1 - (L/D))$$

Where

- L= Applicable emission limit from 326 IAC 8 in pounds of VOC per gallon of coating
- D= Density of VOC in coating in pounds per gallon of VOC
- E= Equivalent emission limit in pounds of VOC per gallon of coating solids as applied

Actual solvent density shall be used to determine compliance of surface coating operation using the compliance methods in 326 IAC 8-1-2 (a).

The equivalent pounds of VOC per gallon of coating solids (as applied) shall be limited to less than 2.21, when L is equal to 1.7 pounds of VOC per gallon of coating and D is equal to 7.36 pounds of VOC per gallon of coating.

The pounds of VOC per gallon of coating solids shall be limited to less than 2.22 lb/gal for ovens 281-282, 283-284 and 285-286.

Pursuant to 326 IAC 8-1-2(c), the overall efficiency of the thermal oxidizer shall be no less than the equivalent overall efficiency calculated by the following equation:

$$O = \frac{V - E}{V} \times 100$$

Where:

- V = The actual VOC content of the coating or, if multiple coatings are used, the daily weighted average VOC content of all coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids as applied.
- E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.
- O = Equivalent overall efficiency of the capture system and control device as a percentage.

The overall efficiency of the thermal oxidizers for ovens 281-282, 283-284 and 285-286 shall be greater than 96.6%.

- (c) The magnet wire enameling ovens identified as 552, 553, 563, 564, 565, 566, and 567 were constructed after July 1, 1990, apply coatings to magnet wire, and are located in Allen County. However, the potential emissions are less than 25 tons per year and the actual emissions of VOC from each of these ovens is less than fifteen (15) pounds per day before add-on controls. Therefore, the requirements of 326 IAC 8-2-8 do not apply to these facilities. The potential to emit from these ovens includes the evaporation of thinners being added to coatings to adjust viscosity, therefore, it is necessary to keep coating and solvent containers covered at all times to prevent solvent evaporation.
- (d) The magnet wire enameling ovens identified as 243, 244, 245 and 246 were constructed after January 1, 1980 and prior to July 1, 1990, apply coatings to magnet wire, and are located in Allen County. However, the potential emissions of VOC from each of these ovens is less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-2-8 do not apply to these facilities.
- (e) The magnet wire enameling ovens identified as 247, 248, 250, 251, 252, 253, and 254 were constructed after July 1, 1990, apply coatings to magnet wire, are located in Allen County and have actual emissions of greater than fifteen (15) pounds per day of VOC before add-on controls. However, pursuant to CP-003-9913-00014, issued October 28, 1998, these ovens are subject to requirements under 326 IAC 8-1-5 (RACT). Therefore, the requirements of 326 IAC 8-2-8 do not apply to these facilities.
- (f) The magnet wire enameling ovens identified as 270, 540, 541, 542, 543, 544, 550 and XR-1 were existing as of January 1, 1980, apply coatings to magnet wire, and are located at a source that has potential emissions of one hundred (100) tons or greater per year of VOC. However, these facilities are not located in Clark, Elkhart, Floyd, Lake, Marion, Porter or St. Joseph Counties. Therefore, the requirements of 326 IAC 8-2-8 do not apply to these facilities.

State Rule Applicability – Boilers

326 IAC 6-2-3 (Particulate Emissions for Sources of Indirect Heating)

- (a) The one (1) 16.7 MMBtu/hr natural gas fired boiler (CB266-500) is located in Allen County and was constructed before September 21, 1983. Pursuant to 326 IAC 6-2-3(a), (b) and (d), the particulate emissions from all boilers which were in operation on June 8, 1972 shall be limited by the following equation or by 0.8 lbs per MMBtu, whichever is more stringent:

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}} = \frac{50 \times 0.67 \times 42}{76.5 \times (16.7 + 16.7)^{0.75} \times 1^{0.25}} = \frac{1.32 \text{ lbs PM}}{\text{MMBtu heat input}}$$

Where:

C = max ground level concentration (= 50 F m/m³)

Pt = emission rate limit (lbs/MMBtu)

Q = total source heat input capacity (MMBtu/hr) = 33.6

N = number of stacks = 1

a = plume rise factor = 0.67
h = stack height (ft) = 42

The more stringent PM emission limit for this boiler is 0.8 lbs/MMBtu heat input.

Based on AP 42 emission factors, the 16.7 MMBtu/hr natural gas fired boiler (CB266-500) will be able to comply with this limit (See TSD Appendix A for calculations).

- (b) The one (1) 6.0 MMBtu/hr natural gas fired boiler (Bryan RV600) is located in Allen County and was constructed after September 21, 1983. Pursuant to 326 IAC 6-2-4(a), the particulate emissions from the 6.0 MMBtu/hr natural gas fired boiler shall be limited by the following equation or by 0.6 lbs/MMBtu heat input, whichever is less:

$$P_t = \frac{1.09}{Q^{0.26}}$$

Where:

P_t = emission rate limit (lbs/MMBtu)

Q = total source heat input capacity (MMBtu/hr)

The emission rate limit calculated from the equation above equals:

$$P_t = \frac{1.09}{(16.7 + 6.0)^{0.26}} = 0.484 \text{ lbs/MMBtu}$$

Therefore, the particulate emission limit for 6.0 MMBtu/hr natural gas fired boiler is 0.484 lbs/MMBtu. Based on AP 42 emission factors, the 6.0 MMBtu/hr natural gas fired boiler (Bryan RV600) will be able to comply with this limit (See TSD Appendix A for calculations).

State Rule Applicability – Insignificant Degreaser

326 IAC 8-3-2 (Cold Cleaner Operations)

This cold cleaner degreasing facility is located in Allen County, was constructed after January 1, 1980 and is used to perform organic solvent degreasing operations. Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the Permittee shall:

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

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

This cold cleaner degreasing facility is located in Allen County, was constructed after July 1, 1990, and is used to perform organic solvent degreasing operations. Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the Permittee shall ensure that the following control equipment requirements are met:

- (a) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

- (1) The solvent volatility is greater than two (2) kilo Pascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (2) The solvent is agitated; or
 - (3) The solvent is heated.
- (b) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kilo Pascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
- (c) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
- (d) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
- (e) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kilo Pascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
- (1) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (2) A water cover when solvent used is insoluble in, and heavier than, water.
 - (3) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the Permittee of a cold cleaning facility shall ensure that the following operating requirements are met:

- (a) Close the cover whenever articles are not being handled in the degreaser.
- (b) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
- (c) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

State Rule Applicability – Insignificant Activities

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

The insignificant brazing, soldering, cutting and welding activities consume less than 625 pounds of rod or wire per day and the torch cutting activities cut less than 3,400 inches of stock one (1) inch thickness per day. Pursuant to 326 IAC 6-3-1(b)(9) and (10), the insignificant brazing, soldering, cutting and welding activities are exempt from the requirements of 326 IAC 6-3-2.

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

Pursuant to 326 IAC 6-3-2(d), particulate from the insignificant BV glassline, USM glassline, USM2 glassline, and paint spray booth shall be controlled by a dry particulate filter, or an equivalent control device, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

Testing Requirements

VOC emissions from the magnet wire ovens are calculated according to the methodology set out in the attached Appendix A: Emission Calculations. In order to demonstrate compliance with various requirements as specified below, the following ovens shall be tested. Performance testing is required to verify that the oxidizers are achieving the required control efficiency. One representative oven from each group of ovens will be tested once per permit term. The ovens have been grouped based on design, control efficiency, and temperature required. This test shall be repeated at least once every five years from the date of this valid compliance demonstration.

- (a) The Permittee shall conduct a performance test to verify the VOC control efficiency for the catalytic oxidizers for ovens 210-213, 220-223, and 230-238 using methods approved by the Commissioner. Stack testing shall be performed in accordance with 326 IAC 3-6. The test shall be performed within eighteen (18) months of the issuance of this permit or within five (5) years of the last valid test performed on one of these ovens. One representative oven shall be tested for VOC emissions. Testing shall be performed such that no single oven is tested twice in a fifteen (15) year cycle. This test shall be repeated at least once every five years from the date of this valid compliance demonstration.
- (b) The Permittee shall conduct a performance test to verify the VOC control efficiency for the thermal oxidizers for ovens 281-282, 283-284, and 285-286 using methods approved by the Commissioner. Stack testing shall be performed in accordance with 326 IAC 3-6. The test shall be performed within eighteen (18) months of the issuance of this permit or within five (5) years of the last valid test performed on one of these ovens. One representative oven shall be tested for VOC emissions. Testing shall be performed such that no single oven is tested twice in a fifteen (15) year cycle. This test shall be repeated at least once every five years from the date of this valid compliance demonstration.
- (c) The Permittee shall conduct a performance test to verify the VOC control efficiency for the thermal oxidizers for ovens 243, 244, 245, and 246 using methods approved by the Commissioner. Stack testing shall be performed in accordance with 326 IAC 3-6. The test shall be performed within eighteen (18) months of the issuance of this permit or within five (5) years of the last valid test performed on one of these ovens. One representative oven shall be tested for VOC emissions. Testing shall be performed such that no single oven is tested twice in a fifteen (15) year cycle. This test shall be repeated at least once every five years from the date of this valid compliance demonstration.
- (d) The Permittee shall conduct a performance test to verify the VOC control efficiency for the catalytic oxidizers for ovens 247, 248, 250, 251, 252, 253, and 254 using methods approved by the Commissioner. Stack testing shall be performed in accordance with 326 IAC 3-6. The test shall be performed within eighteen (18) months of the issuance of this permit or within five (5) years of the last valid test performed on one of these ovens. Two (2) representative ovens shall be tested for VOC emissions. The test shall be done within the last 2 months of the life of the catalyst. Testing shall be performed such that no single oven is tested twice in a fifteen (15) year cycle. This test shall be repeated at least once every five years from the date of this valid compliance demonstration.
- (e) The Permittee shall conduct a performance test to verify the VOC control efficiency for the thermal oxidizer for oven 270 using methods approved by the Commissioner. Stack testing shall be performed in accordance with 326 IAC 3-6. The test shall be performed within eighteen (18) months of the issuance of this permit or within five (5) years of the last valid test performed on this oven. This test shall be repeated at least once every five years from the date of this valid compliance demonstration.

- (f) Pursuant to SPM 003-22934-00014, issued on December 20, 2006, and as revised in this Title V Permit, the Permittee shall perform inlet and outlet HAP testing on one (1) oven from each of the following six (6) oven groups (210-213, 220-223, 230-237, and XR-1), (281-282, 283-284, and 285-286), (552 and 553), (563, 564, 565, 566, and 567), (243, 244, 245, 246, 247, 248, 250, 251, 252, 253, and 254), and (270) using methods approved by the Commissioner, for the HAP used at the source that has the lowest destruction efficiency, as estimated by the manufacturer and approved by IDEM. This testing shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing

These requirements are summarized in the following table:

Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing	Limit or Requirement
210-213, 220-223	Oxidizer	Within 180 days of issuance or within five (5) years of last valid test	VOC	One oven every 5 years	2.89 lbs/hr 95% control
230-238	Oxidizer		VOC		2.89 lbs/hr 97.7% control
281-282, 283-284, 285-286	Oxidizer		VOC	One oven every 5 years	0.45 lbs/hr 96.6% control
243, 244, 245, 246	Oxidizer		VOC	One oven every 5 years	1.2 lbs.hr
247, 248, 250, 251, 252, 253, 254	Oxidizer		VOC	Two ovens every 5 years	4.1 lbs/hr 4.7 lbs VOC/gal 90% control
270	Oxidizer		VOC	One oven every 5 years	6.85 lbs/hr 85% control
210-213, 220-223, 230-237, XR-1	Oxidizer	Within 5 years of last valid test	HAP	One oven every 5 years	HAP destruction efficiency of 95%
281-282, 283-284, 285-286	Oxidizer		HAP	One oven every 5 years	
552, 553			HAP	One oven every 5 years	
563, 564, 565, 566, 567	Oxidizer		HAP	One oven every 5 years	
243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254	Oxidizer		HAP	One oven every 5 years	
270	Oxidizer		HAP	One oven every 5 years	

Compliance 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 and compliance monitoring requirements applicable to this source are as follows:

1. The Permittee shall operate the catalytic/thermal oxidizers on wire enameling ovens 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, 552, 553, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, and XR-1 at all times that the wire enameling ovens are in operation.
2. From the date of issuance of the Part 70 permit until the approved stack test results are available:
 - (a) The Permittee shall operate the catalytic oxidizers 3 hour average temperature for ovens 210-213 and 220-223 at or above the temperature that results in the required 95% control efficiency, as determined during compliance tests. The Permittee shall operate the catalytic oxidizer 3 hour average temperature for oven 230-238 at or above the temperature that results in the required 97.7% control efficiency, as determined during compliance tests.
 - (b) The Permittee shall operate the thermal oxidizers 3 hour average temperature for ovens 281-282, 283-284 and 285-286 at or above the temperature of 1250 degrees F or the temperature determined during compliance tests to maintain a 96.6% control efficiency.
 - (c) The Permittee shall operate the catalytic oxidizers 3 hour average temperature for ovens 247, 248, 250, 251, 252, 253, and 254 at or above the temperature that results in the required 90.0% control efficiency, as determined during compliance tests.
 - (d) The Permittee shall operate the thermal oxidizers 3 hour average temperature for oven 270 at or above the temperature of 1250 degrees F or the temperature determined during compliance tests to maintain a 85.0% control efficiency.
 - (e) The Permittee shall operate the catalytic/thermal oxidizers 3 hour average temperature for ovens 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, 552, 553, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, and XR-1 at or above the temperature that results in the required 95.0% overall HAP control efficiency.
3. The Permittee shall determine the 3 hour block average minimum temperature from the most recent valid stack test that demonstrates compliance with the RACT, VOC and HAP limits specified above.
4. From the date of the approved stack test results are available, and in order to demonstrate compliance with the RACT, VOC and HAP limits specified above, the Permittee shall operate the thermal/catalytic oxidizers at or above the 3 hour block average minimum temperature as observed during the compliant stack test.
5. The catalyst for the magnet wire enameling ovens identified as 210-213, 220-223 and 230-238 shall be replaced a minimum of every twelve (12) months provided that the catalytic oxidizer is achieving the required overall efficiency.
6. The catalyst for the magnet wire enameling ovens identified as 247, 248, 250, 251, 252, 253, and 254 shall be replaced once every six months to ensure that the catalytic oxidizer is achieving the required overall efficiency.

7. A continuous monitoring system shall be calibrated, maintained, and operated on the catalytic and thermal oxidizers for measuring operating temperature of the oxidizers. For the purposes of this condition, continuous monitoring shall mean no less often than once per fifteen (15) minutes. The output from this monitoring system and the three hour average temperatures shall be recorded whenever the catalytic and thermal oxidizers are in operation.
8. If the primary continuous monitoring system is not in operation, the oxidizer temperature will be recorded using some manner of secondary system, such as with back-up electro-mechanical hardware or manually if necessary. Nothing in this permit shall excuse the Permittee from complying with the requirement to continuously monitor the temperature of the oxidizers. Continuous monitoring shall mean no less often than once per fifteen (15) minutes.
9. The oxidizers shall operate such that if the three-hour average temperature falls below the 3 hour block average minimum required temperature (set point) as determined by the latest stack test, corrective actions shall be taken within 15 minutes to return oxidizer temperature to at least the required minimum temperature set point. Corrective action must return oxidizer temperature to or above the minimum temperature set point within thirty (30) minutes of the corrective action, or the enamel flow to the oven shall be shut off. Failure to take corrective action or failure to shut off the enamel flow as stated above shall be considered a deviation from this permit.

These monitoring conditions are necessary because the oxidizers for ovens 210-213, 220-223, 230-238, 281-282, 283-284, 285-286, 552, 553, 563, 564, 565, 566, 567, 243, 244, 245, 246, 247, 248, 250, 251, 252, 253, 254, 270, and XR-1 must operate properly to ensure compliance with 326 IAC 2-2 (PSD), 326 IAC 8-2-8, 326 IAC 8-1-5 (RACT), 40 CFR 64 (CAM), and 326 IAC 2-7 (Part 70).

Recommendation

The staff recommends to the Commissioner that the 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 August 31, 2005.

Conclusion

The operation of this stationary magnet wire coating operation shall be subject to the conditions of the Part 70 Operating Permit renewal 003-21713-00014.

Appendix A: Emission Calculations
326 IAC 8: Rule Applicability Calculations: Magnet Wire Coating Operations

Company Name: Rea Magnet Wire Company, Inc.
 Address: 3600 East Pontiac Street, Fort Wayne, Indiana 46803
 Title V: T003-21713-00014
 Reviewer: ERG/ST
 Date: May 9, 2007

Oven Model	Oven ID Number	# Ovens	Material (Worst Case Coating)	Density (lbs/gal)	Weight Percent VOC (%)	Usage (gal/unit)	Maximum Throughput (unit/hour)	Type of Oxidizer	Uncontrolled Emissions				Required Oxidizer VOC Control Efficiency (%)*	Controlled Emissions				
									PTE VOC per oven (lbs/hr)	PTE VOC per oven (lbs/day)	PTE VOC per oven (tons/yr)	PTE VOC all ovens (tons/yr)		PTE VOC per oven (lbs/hr)	PTE VOC per oven (lbs/day)	PTE VOC per oven (tons/yr)	PTE VOC all ovens (tons/yr)	
GE-I	210-213, 220-223	2	Coat 2 basecoat	8.88	61.0%	0.0034	143	Internal	2.63	63.2	11.5	23.1	95.0%	0.13	3.2	0.58	1.15	
			Coat 2 topcoat	8.32	86.0%	0.0043	143		4.40	106	19.3	38.5	95.0%	0.22	5.3	0.96	1.93	
			Coat 2 bondcoat	8.17	92.0%	0.0041	143		4.41	106	19.3	38.6	95.0%	0.22	5.3	0.97	1.93	
GE-M	230-238	1	Coat 1	8.72	87.0%	0.0080	338	Internal	20.5	492	89.8	89.8	97.7%	0.47	11.3	2.1	2.1	
SIGME	281-282, 283-284, 285-286	3	Coat 2	8.54	85.4%	0.0100	155	Internal	11.3	272	49.6	148.9	96.6%	0.39	9.2	1.69	5.06	
MAG HSO	552, 553	2	Coat 3 basecoat	8.07	70.0%	0.0138	0.55	Internal	0.04	1.03	0.2	0.4	0.0%	0.04	1.03	0.19	0.38	
			Coat 3 topcoat	8.31	93.0%	0.0069	0.55		0.03	0.70	0.1	0.3		0.03	0.70	0.13	0.26	
			Coat 3 bondcoat	8.17	92.0%	0.0669	0.55		0.28	6.64	1.2	2.4		0.28	6.64	1.21	2.42	
MAG HSI	563, 564, 565, 566, 567	5	Coat 1	8.2	92.8%	0.250	0.26	Internal	0.49	11.9	2.2	10.8	0.0%	0.49	11.87	2.17	10.83	
Rea H-9	243, 244	2	Coat 1	8.84	92.0%	0.228	1	External	1.86	44.6	8.14	16.3	0.0%	1.86	44.6	8.14	16.3	
Rea H-9	245, 246	2	Coat 2	8.84	92.0%	0.228	1	External	1.86	44.6	8.14	16.3	0.0%	1.86	44.6	8.14	16.3	
Rea H-9	247, 248, 250, 251, 252, 253, 254	7	Coat 1	8.84	92.0%	0.228	1	External	1.86	44.6	8.14	57.0	90.0%	0.19	4.5	0.81	5.7	
MOCO	270	1	Coat 2	8.34	86.4%	0.011	571	External	45.7	1096	200	200	85.0%	6.85	164	30.0	30.0	
Rea	540, 541, 542, 543, 544, 550	6	Coat 3 basecoat	8.57	70.0%	0.032	0.26	None	0.05	1.20	0.22	1.31	0.0%	0.05	1.20	0.22	1.31	
			Coat 3 topcoat	8.31	93.0%	0.022	0.26		0.04	1.06	0.19	1.16		0.04	1.06	0.19	1.16	
									Total	645				Total				96.7

The transfer efficiency for all wire coating operations is 100%. There is no particulate potential due to the magnet wire coating operations.

* The permit requires the ovens to operate with a VOC control efficiency as stated in this column. The permit requires all ovens except 540 - 544, and 550 to operate with a HAP control efficiency of 95%.

Methodology

PTE VOC per oven (Before Oxidizers) (lbs/hr) = Density (lbs/gal) x Weight Percent VOC (%) x Usage (gal/unit) x Maximum Throughput (units/hr)

PTE VOC per oven (Before Oxidizers) (lbs/day) = Density (lbs/gal) x Weight Percent VOC (%) x Usage (gal/unit) x Maximum Throughput (units/hr) x 24 (hr/day)

PTE VOC per oven (After Required Oxidizers) (lbs/hr) = Density (lbs/gal) x Weight Percent VOC (%) x Usage (gal/unit) x Maximum Throughput (units/hr) x (1- Destruction Efficiency(%))

PTE VOC per oven (After Required Oxidizers) (lbs/day) = PTE VOC per oven (After Integral Oxidizers) (lbs/hr) x 24 hours/day

PTE VOC per oven (After Required Oxidizers) (tons/yr) = Density (lbs/gal) x Weight Percent VOC (%) x Usage (gal/unit) x Max. Throughput (units/hr) x (1- Destruction Eff. (%)) x 8760 hrs/yr x 1ton/2000 lbs

PTE VOC All Ovens (After Required Oxidizers) (tons/yr) = PTE VOC per oven (After Integral Oxidizers) (tons/yr) x Number of Ovens

**Appendix A: Emission Calculations
Emissions from MOCO oven XR-1**

Company Name: Rea Magnet Wire Company, Inc.
 Address: 3600 East Pontiac Street, Fort Wayne, Indiana 46803
 Title V: T003-21713-00014
 Reviewer: ERG/MT
 Date: May 9, 2007

Material usage for the oven XR-1 was not provided by the source. In order to estimate emissions from this oven, an emission factor was developed based on the emissions calculated for the other ovens and the size of the oven.

Development of Emission Factor

Oven Model	Oven ID Number	# Ovens	Material (Worst Case Coating)	Density (lbs/gal)	Weight Percent VOC (%)	Usage (gal/unit)	Maximum Throughput (unit/hour)	Type of Oxidizer	Uncontrolled Emissions			Total PTE VOC per oven (tons/yr)	Size of Oven (lbs wire/hr)	Calculated Emission Factor (Tons of VOC/lbs of wire)
									PTE VOC per oven (lbs/hr)	PTE VOC per oven (lbs/day)	PTE VOC per oven (tons/yr)			
GE-I	210-213, 220-223	2	Coat 2 basecoat	8.88	61.0%	0.0034	143	Internal	2.63	63.2	11.5	50.1	191.0	2.99E-05
			Coat 2 topcoat	8.32	86.0%	0.0043	143		4.40	106	19.3			
			Coat 2 bondcoat	8.17	92.0%	0.0041	143		4.41	106	19.3			
GE-M	230-238	1	Coat 1	8.72	87.0%	0.0080	338	Internal	20.5	492	89.8	89.8	508.0	2.02E-05
SIGME	281-282, 283-284, 285-286	3	Coat 2	8.54	85.4%	0.0100	155	Internal	11.3	272	49.6	49.6	183.0	3.10E-05
MAG HSO	552, 553	2	Coat 3 basecoat	8.07	70.0%	0.0138	0.55	Internal	0.04	1.03	0.2	1.5	0.64	2.72E-04
			Coat 3 topcoat	8.31	93.0%	0.0069	0.55		0.03	0.70	0.1			
			Coat 3 bondcoat	8.17	92.0%	0.0669	0.55		0.28	6.64	1.2			
MAG HSI	563, 564, 565, 566, 567	5	Coat 1	8.2	92.8%	0.250	0.26	Internal	0.49	11.9	2.2	2.2	0.91	
Rea H-9	243, 244	2	Coat 1	8.84	92.0%	0.228	1	External	1.86	44.6	8.14	8.14	6.00	1.55E-04
Rea H-9	245, 246	2	Coat 2	8.84	92.0%	0.228	1	External	1.86	44.6	8.14	8.14	6.00	1.55E-04
Rea H-9	247, 248, 250, 251, 252, 253, 254	7	Coat 1	8.84	92.0%	0.228	1	External	1.86	44.6	8.14	8.14	6.00	1.55E-04
MOCO	270	1	Coat 2	8.34	86.4%	0.011	571	External	45.7	1096	200	200	571	4.00E-05
Rea	540, 541, 542, 543, 544, 550	6	Coat 3 basecoat	8.57	70.0%	0.032	0.26	None	0.05	1.20	0.22	0.41	0.26	1.81E-04
			Coat 3 topcoat	8.31	93.0%	0.022	0.26		0.04	1.06	0.19			

Methodology for Emissions Calculation

PTE VOC per oven (Before Oxidizers) (lbs/hr) = Density (lbs/gal) x Weight Percent VOC (%) x Usage (gal/unit) x Maximum Throughput (units/hr)

PTE VOC per oven (Before Oxidizers) (lbs/day) = Density (lbs/gal) x Weight Percent VOC (%) x Usage (gal/unit) x Maximum Throughput (units/hr) x 24 (hr/day)

Calculate Emissions for the MOCO oven XR-1

Using the worst case emission factor estimated above of 2.72E-04 and the capacity of the XR-1 oven:

$$=2.72E-04 \text{ tons VOC/lb wire} * 11 \text{ lbs of wire/hr} * 8760 \text{ hr/year}$$

$$=26.3 \text{ tons/yr}$$

Appendix A: Emission Calculations
Combustion Emissions for Natural Gas Fired Boilers

Company Name: Rea Magnet Wire Company, Inc.
 Address: 3600 East Pontiac Street, Fort Wayne, Indiana 46803
 Title V: T003-21713-00014
 Reviewer: ERG/ST
 Date: May 9, 2007

Emission Unit Description	Emission Unit ID	Heat Input Capacity (MMBtu/hr)	Maximum Potential Throughput (MMCF/yr)
Natural Gas-Fired Boiler	CB266-500	16.7	143
Natural Gas-Fired Boiler	Bryan RV600	6.0	51.5

Pollutant Emission Factors (lbs/MMCF)						
PM*	PM10*	SO ₂	NO _x **	CO	VOC	HAPs
1.9	7.6	0.6	100	84.0	5.5	1.89

Potential To Emit (tons/yr)							
Emission Unit ID	PM	PM10	SO ₂	NO _x	CO	VOC	HAPs
CB266-500	0.14	0.55	0.04	7.17	6.02	0.39	0.14
Bryan RV600	0.05	0.20	0.02	2.58	2.16	0.14	0.05
TOTALS	0.19	0.74	0.06	9.75	8.19	0.54	0.18

* PM emission factor is for filterable PM only. PM10 emission factor is for condensable and filterable PM and PM10 combined.

**Emission factor for NOx: Uncontrolled = 100 lb/MMCF

Emission factors are from AP-42, Chapter 1.4 - Natural Gas Combustion, Tables 1.4-1, 1.4-2, 1.4-3 and 1.4-4. SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03. (AP-42 Supplement D 7/98)

Methodology

Max. Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hour) x 8,760 hours/yr x 1 MMCF/1,020 MMBtu

PTE (tons/yr) = Max. Potential Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lbs

Appendix A: Emission Calculations
Combustion Emissions for Natural Gas Fired Oxidizer Burners

Company Name: Rea Magnet Wire Company, Inc.
 Address: 3600 East Pontiac Street, Fort Wayne, Indiana 46803
 Title V: T003-21713-00014
 Reviewer: ERG/ST
 Date: May 9, 2007

Emission Unit Description	Heat Input Capacity (MMBtu/hr)	Maximum Potential Throughput (MMCF/yr)	Number of Ovens
Natural Gas-Fired Oxidizer Burners	0.5	4.3	30

Pollutant Emission Factors (lbs/MMCF)						
PM*	PM10*	SO ₂	NO _x **	CO	VOC	HAPs
1.9	7.6	0.6	100	84.0	5.5	1.89

Potential To Emit (tons/yr)						
PM	PM10	SO ₂	NO _x	CO	VOC	HAPs
0.12	0.49	0.04	6.44	5.41	0.35	0.12

* PM10 emission factor is for condensable and filterable PM and PM10 combined. PM emission factor is for filterable PM only.

**Emission factor for NO_x: Uncontrolled = 100 lb/MMCF

Emission factors are from AP-42, Chapter 1.4 - Natural Gas Combustion, Tables 1.4-1, 1.4-2, 1.4-3 and 1.4-4. SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03. (AP-42 Supplement D 7/98)

The ovens utilize supplemental heat from natural gas fired burners to provide heat for curing coatings and during startup.

Methodology

Max. Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hour) x 8,760 hours/yr x 1 MMCF/1,020 MMBtu

PTE (tons/yr) = Max. Potential Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lbs x Number of Ovens

**Appendix A: Emission Calculations
Summary**

Company Name: Rea Magnet Wire Company, Inc.
 Address: 3600 East Pontiac Street, Fort Wayne, Indiana 46803
 Title V: T003-21713-00014
 Reviewer: ERG/ST
 Date: May 9, 2007

Emission Unit ID		Potential To Emit (tons/yr)						
		PM	PM10	SO ₂	NO _x	CO	VOC	HAPs
GE-I	210-213, 220-223						5.01	
GE-M	230-238						2.07	
SIGME	281-282, 283-284, 285-286						5.06	
MAG HSO	552, 553						3.06	
MAG HSI	563, 564, 565, 566, 567						10.8	
Rea H-9	243, 244						16.3	
Rea H-9	245, 246						16.3	
Rea H-9	247, 248, 250, 251, 252, 253, 254						5.70	
MOCO	270						30.0	
Rea	540, 541, 542, 543, 544, 550						2.47	
MOCO	XR-1						26.30	
Boiler	CB266-500	0.14	0.55	0.04	7.17	6.02	0.39	0.14
Boiler	Bryan RV600	0.05	0.20	0.02	2.58	2.16	0.14	0.05
	Oxidizer Burners	0.12	0.49	0.04	6.44	5.41	0.35	0.12
	Totals	0.31	1.23	0.10	16.2	13.6	123.9	0.31

This table represents emissions after required controls.
 These totals do not include emission from oven XR-1.
 These totals do not include HAP emissions from the wire coating ovens.