INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

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: March 7, 2007

RE: Essex Group, Inc. / 083-23813-00008

FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

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

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER.dot 03/23/06

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204-2251
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

March 7, 2007

Mr. Robert Koch
Essex Group, Inc.
1299 East Essex Road
Vincennes, IN 47591

Re: 083-23813-00008
PSD Significant Source Modification to:
Part 70 permit No.: T083-7422-00008

Dear Mr. Koch:

Essex Group, Inc. was issued Part 70 Operating Permit T083-7422-00008 on May 3, 2004 for a stationary copper rod production and magnet wire manufacturing plant. An application to modify the source was received on October 25, 2006. Pursuant to 326 IAC 2-7-10.5 Essex Group, Inc. is approved to complete the following activities:

(a) Increase the production capacity of eight (8) existing magnet wire coating units: 209E and 209W through 212E and 212W. The existing capacity is 658 pounds of copper wire per hour, per unit. The new capacity is 900 pounds of copper wire per hour, per unit.

(b) Increase the production capacity of eight (8) existing magnet wire coating units: 213E and 213W through 216E and 216W. The existing capacity is 527 pounds of copper wire per hour, per unit. The new capacity is 900 pounds of copper wire per hour, per unit.

(c) Construct four (4) wire annealers to magnet wire coating units 213E and 213W through 216E and 216W. Currently, each E/W pair shares a common annealer. After the modification, each unit will have its own annealer. The additional annealers allow Essex greater flexibility in oven scheduling, reduced downtime, reduced scrap generation and greater energy use efficiency.

(d) Construct emission capture devices on the lubricant coating subsections of units 213E and 213W through 216E and 216W.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

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

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-

20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

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

4. Pursuant to 326 IAC 2-2-8(a)(1), this permit to construct shall expire if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is discontinued for a period of eighteen (18) months of more.

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

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

This significant source modification authorizes construction of the new emission units. Operating conditions shall be incorporated into the Part 70 operating permit as a significant permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12. Operation is not approved until the significant permit modification has been issued.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call (800) 451-6027, and ask for Jenny Acker or extension 2-8253, or dial (317) 232-8253.

Sincerely,

Original document signed by

Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

Attachments
JLA
cc: File - Knox County
Knox County Health Department
IDEM Southwest Regional Office
Air Compliance Section Inspector - Jennifer Schick

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204-2251
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

PREVENTION OF SIGNIFICANT DETERIORATION (PSD)
AND
SIGNIFICANT SOURCE MODIFICATION TO A
PART 70 SOURCE
OFFICE OF AIR QUALITY

Essex Group, Inc.
1299 East Essex Rd.
Vincennes, Indiana 47591

(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.

PSD/Significant Source Modification No.: T083-23813-00008	
Issued by: *Original document signed by* Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: March 7, 2007

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a stationary copper rod production and magnet wire manufacturing plant.

Source Address:	1299 East Essex Road, Vincennes, IN, 47591
Mailing Address:	1299 East Essex Road, Vincennes, IN, 47591
SIC Code:	3351 and 3357
County Location:	Knox
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major under PSD rules Major Source, Section 112 of the Clean Air Act

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:

Magnet Wire Production - Departments 200 and 300

Under the Miscellaneous Metal Parts and Products Coating NESHAP (40 CFR 63, Subpart MMMM), the following emission units are considered to be part of an existing magnet wire coating affected source:

(a) Two (2) Department 200 Emission Units, identified as units 201E and 201W, each constructed in 1989 and modified in 1998 and 2005. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(b) Four (4) Department 200 Emission Units, identified as units 202E, 202W, 203E, and 203W, each constructed in 1993 and modified in 1998 and 2005. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(c) Six (6) Department 200 Emission Units, identified as units 204E, 204W, 205E, 205W, 206E, and 206W, each constructed in 1995 and modified in 1997 or 1998 and 2005. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(d) Four (4) Department 200 Emission Units, identified as units 207E, 207W, 208E, and 208W, constructed in 1994 and modified in 1997 and 2005. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(e) Eight (8) Department 200 Emission Units, identified as units 209E, 209W, 210E, 210W, 211E, 211W, 212E, and 212W, each constructed in 1998 and modified in 2005 and 2007. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(f) Four (4) Department 200 Emission Units, identified as units 213E, 213W, 214E, and 214W, each constructed in 1998 and modified in 2007. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(g) Four (4) Department 200 Emission Units, identified as units 215E, 215W, 216E, 216W, each constructed in 1997 and modified in 2007. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(h) Eight (8) Department 300 Emission Units, identified as units 301E, 301W, 302E, 302W, 303E, 303W, 304E, and 304W constructed in 1994. Each Emission Unit consists of one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, one (1) topical lube applicator and each pair sharing one (1) annealing system. Each unit has a maximum copper wire producing capacity of 284 lb copper per hour. Emissions from enamel curing are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(i) Twelve (12) Department 300 Emission Units, identified as units 305E, 305W, 306E, 306W, 309E, 309W, 310E, 310W, 311E, 311W, 312E, and 312W, each constructed in 1996. Each Emission Unit consists of one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, one (1) topical lube applicator and each pair sharing one (1) annealing system. Each unit has a maximum copper wire producing capacity of 284 lb copper per hour. Emissions from enamel curing are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(j) Four (4) Department 300 Emission Units, identified as units 307E, 307W, 308E, and 308W constructed in 1995. Each Emission Unit consists of one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, one (1) topical lube applicator and each pair sharing one (1) annealing system. Each unit has a maximum copper wire producing capacity of 284 lb copper per hour. Emissions from enamel curing are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(k) Eight (8) Department 300 Emission Units, identified as units 313E, 313W, 314E, 314W, 315E, 315W, 316E, and 316W constructed in 1997. Each Emission Unit consists of one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, one (1) topical lube applicator and each pair sharing one (1) annealing system. Each unit has a maximum copper wire producing capacity of 284 lb copper per hour. Emissions from enamel curing are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

Copper Rod and Bar Production

(l) One (1) Copper Rod and Bar Manufacturing Process, identified as P-1, constructed in 1976, a maximum capacity of 20 tons of copper per hour, with emissions uncontrolled, exhausting to stack S-1, and consisting of:

(1) One (1) natural gas-fired vertical melt furnace, with a heat input capacity of 24 MMBtu/hr,

(2) One (1) holding furnace, with a heat input capacity of 2.0 MMBtu/hr,

(3) One (1) tundish, with a heat input capacity of 1.5 MMBtu/hr, and

(4) Various ancillary launders, with an aggregate heat input capacity of 2.5 MMBtu/hr.

Alcohol Quench Process

(m) One (1) mill emulsion system identified as P-2 Mill Emulsion System, constructed in 1976, which pumps a mill emulsion solution containing 0.2% - 2.5% by volume Isopropyl Alcohol (2-propanol) through sprays in an enclosed rolling mill stand area, with emissions uncontrolled, and exhausting to stack/vent V-1;

(n) One (1) quench system identified as P-2 Quench System, constructed in 1976, which pumps a quench solution containing 0.8% - 3.0% by volume Isopropyl Alcohol (2-propanol) ejectors into tubes, with emissions uncontrolled, and exhausting to stack/vent V-2;

The maximum capacity of the P-2 Alcohol Quench Process (Mill Emulsion System and Alcohol Quench System) is 300 pounds of 2-propanol (IPA) per hour.

Storage Tanks

(o) One (1) 15,000 gallon mill emulsion storage tank, constructed in 1995;

(p) One (1) 7,500 gallon quench solution storage tank, constructed in 1978.

(q) Two (2) 7,000 gallon isopropyl storage tanks, constructed in 1988.

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

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

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

(b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment cutting torches, soldering equipment, welding equipment. [326 IAC 6-3-2]

(c) Under the Miscellaneous Metal Parts and Products Coating NESHAP (40 CFR 63, Subpart MMMM), the following emission units are considered to be part of an existing magnet wire coating affected source:

(1) Activities with emissions equal to or less than the following thresholds: 5 tons per year PM or PM10, 10 tons per year SO_2, NO_x, or VOC, 0.2 tons per year Pb, 1.0 tons per year of a single HAP, or 2.5 tons per year of any combination of HAPs:

Six (6) degreaser units, identified as P, T1, T2, T3, T4, and T5, using mechanical agitation, with solvents and vents as follows:

Tank P 90400	West Vent
Tank T1 90702	West Vent
Tank T2 90702	West Vent
Tank T3 90400	West Vent
Tank T4 90003	East Vent
Tank T5 90702	West Vent

[326 IAC 8-3-2] [326 IAC 8-3-5] [326 IAC 20-1] [40 CFR Part 63, Subpart A] [40 CFR Part 63, Subpart MMMM]

(2) Solvent recycling systems with batch capacity less than or equal to 100 gallons:

One (1) closed loop solvent recovery still, utilizing an electric steam generator producing 150 psi steam, with a solvent batch capacity of 60 gallons. The solvent recovered is SX-90702.

[326 IAC 20-1] [40 CFR Part 63, Subpart A] [40 CFR Part 63, Subpart MMMM]

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).

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, T083-7422-00008, 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.

(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 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.6 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.7 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.8 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.9 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.10 Annual Compliance Certification [326 IAC 2-7-6(5)]

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC61-53
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.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

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

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

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

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

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC61-53
Indianapolis, Indiana 46204-2251

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

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

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

B.12 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, and the Southwest Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

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

And

Telephone Number: 812-380-2305 (Southwest Regional Office)
Facsimile Number: 812-380-2307

(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
MC61-53
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 or 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.13 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 in 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.14 Prior Permits Superseded [326 IAC 2-1.1-9.5] [326 IAC 2-7-10.5]

(a) All terms and conditions of previous permits established prior to 083-77422-00008 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 Part 70 operating permit.

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
MC61-53
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 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
MC61-53
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 permit.

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

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC61-53
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
MC61-53
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 emissions trades that are subject to 326 IAC 2-7-20(b), (c), or (e). The Permittee shall make such records available, upon reasonable request, for public review.

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

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

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

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

(3) Any change in emissions; and

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

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

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

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

B.21 Source Modification Requirement [326 IAC 2-7-10.5] [326 IAC 2-2-2] [326 IAC 2-3-2]

(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/or 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
MC61-53
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.

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
MC61-52
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 14-10-4-1, 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.

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

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

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

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC61-53
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 source 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
MC61-53
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 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 March 2, 1998.

(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 source 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) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year 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
MC61-50
Indianapolis, Indiana 46204-2251

(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(ll)) at an existing emissions unit or at a source with a Plantwide 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(ll)) 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
MC61-53
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(ll)) 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
MC61-53
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 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Magnet Wire Production - Departments 200 and 300

Under the Miscellaneous Metal Parts and Products Coating NESHAP (40 CFR 63, Subpart MMMM), the following emission units are considered to be part of an existing magnet wire coating affected source:

(a) Two (2) Department 200 Emission Units, identified as units 201E and 201W, each constructed in 1989 and modified in 1998 and 2005. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(b) Four (4) Department 200 Emission Units, identified as units 202E, 202W, 203E, and 203W, each constructed in 1993 and modified in 1998 and 2005. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(c) Six (6) Department 200 Emission Units, identified as units 204E, 204W, 205E, 205W, 206E, and 206W, each constructed in 1995 and modified in 1997 or 1998 and 2005. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(d) Four (4) Department 200 Emission Units, identified as units 207E, 207W, 208E, and 208W, constructed in 1994 and modified in 1997 and 2005. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(e) Eight (8) Department 200 Emission Units, identified as units 209E, 209W, 210E, 210W, 211E, 211W, 212E, and 212W, each constructed in 1998 and modified in 2005 and 2007. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(f) Four (4) Department 200 Emission Units, identified as units 213E, 213W, 214E, and 214W, each constructed in 1998 and modified in 2007. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(g) Four (4) Department 200 Emission Units, identified as units 215E, 215W, 216E, 216W, each constructed in 1997 and modified in 2007. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube

applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(h) Eight (8) Department 300 Emission Units, identified as units 301E, 301W, 302E, 302W, 303E, 303W, 304E, and 304W constructed in 1994. Each Emission Unit consists of one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, one (1) topical lube applicator and each pair sharing one (1) annealing system. Each unit has a maximum copper wire producing capacity of 284 lb copper per hour. Emissions from enamel curing are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(i) Twelve (12) Department 300 Emission Units, identified as units 305E, 305W, 306E, 306W, 309E, 309W, 310E, 310W, 311E, 311W, 312E, and 312W, each constructed in 1996. Each Emission Unit consists of one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, one (1) topical lube applicator and each pair sharing one (1) annealing system. Each unit has a maximum copper wire producing capacity of 284 lb copper per hour. Emissions from enamel curing are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(j) Four (4) Department 300 Emission Units, identified as units 307E, 307W, 308E, and 308W constructed in 1995. Each Emission Unit consists of one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, one (1) topical lube applicator and each pair sharing one (1) annealing system. Each unit has a maximum copper wire producing capacity of 284 lb copper per hour. Emissions from enamel curing are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(k) Eight (8) Department 300 Emission Units, identified as units 313E, 313W, 314E, 314W, 315E, 315W, 316E, and 316W constructed in 1997. Each Emission Unit consists of one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, one (1) topical lube applicator and each pair sharing one (1) annealing system. Each unit has a maximum copper wire producing capacity of 284 lb copper per hour. Emissions from enamel curing are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(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 Prevention of Significant Deterioration - BACT [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3, and PSD SSM 083-23813-00008:

(a) VOC emissions from the enamel curing subsection of magnet wire coating units 201E and 201W through 216E and 216W and 301E and 301W through 316E and 316W shall be controlled by an oxidizer with a minimum one-hundred percent (100%) capture efficiency (as defined by Method 204 of 40 CFR Part 52, Appendix M). The captured VOC emissions shall be routed to the internal thermal oxidizers and destroyed with a minimum ninety-eight and five tenths percent (98.5%) destruction efficiency.

(b) VOC emissions from the lubricant (lube) coating subsection of magnet wire coating units 201E and 201W through 216E and 216W shall be controlled by a device with a minimum one-hundred percent (100%) capture efficiency (as defined by Method 204 of 40 CFR Part 52, Appendix M). The captured VOC emissions shall be routed to the internal

thermal oxidizers and destroyed with a minimum ninety-eight and five tenths percent (98.5%) destruction efficiency.

(c) The total VOC emissions from magnet wire coating units 201E and 201W through 216E and 216W and 301E and 301W through 316E and 316W shall not exceed 329 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these limits will satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) with respect to VOC for the affected units.

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

(a) Pursuant to 326 IAC 8-2-8 (Magnet Wire Coating Operations), the owner or operator shall not allow the discharge into the atmosphere of VOC in excess of 1.7 pounds VOC per gallon of coating, excluding water, as delivered to the applicator.

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

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 the surface coating operation using the compliance methods in 326 IAC 8-1-2(a).

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

(d) Pursuant to 326 IAC 8-1-2(c):

(1) The overall control efficiency of the thermal oxidizers controlling units 201E and 201W through 216E and 216W shall be no less than 96.0% or the required destruction efficiency demonstrated by the most recent stack test, for the worst case VOC coating currently used; for a higher VOC content coating, the overall control efficiency of these units shall be no less than the estimated control efficiency required to achieve compliance with the VOC limit in Condition D.1.2(a) and the PSD BACT limit in Condition D.1.1(a) and (b); and

(2) The overall control efficiency of the thermal oxidizers controlling units 301E and 301W through 316E and 316W shall be no less than 97.8% or the required destruction efficiency demonstrated by the most recent stack test, for the worst case VOC coating currently used; for a higher VOC content coating, the overall control efficiency of these units shall be no less than the estimated control efficiency required to achieve compliance with the VOC limit in Condition D.1.2(a) and the PSD BACT limit in Condition D.1.1(a) and (b).

The overall control efficiency (O) of the thermal oxidizers shall be 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 = Overall efficiency of the capture system and control device as a percentage.

Compliance with Condition D.1.1 will ensure compliance with the requirements of 326 IAC 8-2-8.

D.1.3 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.

Compliance Determination Requirements

D.1.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 2-2]

(a) Pursuant to 326 IAC 2-2 (PSD) and 326 IAC 8-1-2(a), the Permittee shall operate the internal thermal oxidizers at all times the respective facilities are in operation to achieve compliance with Conditions D.1.1 and D.1.2.

(b) Compliance with Condition D.1.1 shall be determined using the following equation:

$$VOC_t = [(VOC_{ie2} + VOC_{il2}) \times (1 - DE_2/100)] + VOC_{ie3} \times (1 - DE_3/100) + VOC_{il3s}$$

Where:

VOC_t = Total VOC emissions (ton/month) from magnet wire coating units 201E and 201W through 216E and 216W and 301E and 301W through 316E and 316W for a given calendar month.

VOC_{ie2} = Total VOC input (ton/month) to the enamel coating/curing subsection of units 201E and 201W through 216E and 216W for a given calendar month.

VOC_{il2} = Total VOC input (ton/month) to the lubricant coating subsection of units 201E and 201W through 216E and 216W for a given calendar month.

DE_2 = The destruction efficiency (%) of the Department 200 integral thermal oxidizers as determined by the most recent compliance test.

VOC_{ie3} = Total VOC input (ton/month) to the enamel coating/curing subsection of units 301E and 301W through 316E and 316W for a given calendar month.

DE_3 = The destruction efficiency (%) of the Department 300 integral thermal oxidizers as determined by the most recent compliance test.

VOC_{il3s} = Total VOC input (ton/month) to the lubricant coating subsection of units 301E and 301W through 316E and 316W, and the total VOC from cleanup solvent used in conjunction with units 201E and 201W through 216E and 216W and 301E and 301W through 316E for a given calendar month.

D.1.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) The Permittee shall conduct performance tests (as described in (b), (c), (d), (e) and (f) below) to verify the VOC capture and destruction efficiency requirements in Conditions D.1.1 and D.1.2.

(b) No later than September 22, 2009, the Permittee shall test three (3) internal thermal oxidizers from magnet wire coating units 301E/W through 316E/W that have not been tested in the past ten (10) years. These tests shall be repeated at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted using Method 25A or methods approved by the Commissioner and in accordance with 326 IAC 3-6-3 and Section C - Performance Testing.

(c) No later than 180 days after the issuance of SSM 083-21221-00008, the Permittee shall test two (2) internal thermal oxidizers and two (2) lubricant coating subsection capture devices from magnet wire coating units 201E/W through 212E/W that have not been tested in the past ten (10) years. These tests shall be repeated at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted using Method 25A or methods approved by the Commissioner and in accordance with 326 IAC 3-6-3 and Section C - Performance Testing.

(d) Within sixty (60) days after achieving maximum capacity, but not more than one hundred and eighty (180) days after initial startup of the modified magnetic wire coating units 213E/W through 216E/W (PSD/SSM 083-23813-00008), the Permittee shall test one (1) internal thermal oxidizers and one (1) lubricant coating subsection capture devices from magnet wire coating units 213E/W through 216E/W that have not been tested in the past ten (10) years. These tests shall be repeated at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted using methods approved by the Commissioner and in accordance with 326 IAC 3-6-3 and Section C - Performance Testing.

(e) Before using a coating that would lead to a higher VOC loading in pounds per hour than what was used during the stack test required in (a) above, the Permittee shall conduct a performance test to verify VOC control efficiency as per Condition D.1.2 for the thermal oxidizer using methods approved by the Commissioner.

(f) For a higher VOC content coating than that used during the stack test in (a) 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 VOC loading (L_{new}) for the higher VOC content enamel;
(3) Calculate the current maximum VOC 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 higher VOC content enamel.

D.1.6 Thermal Oxidizer Temperature

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature of the internal thermal oxidizer. 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 temperature shall be recorded whenever the thermal oxidizer is 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 internal thermal oxidizer. Continuous monitoring shall mean no less often than once per fifteen (15) minutes.

(c) The oxidizer shall operate such that if the three-hour average temperature falls below the 3 hour block average minimum required temperature (setpoint) 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 setpoint. Corrective action must return oxidizer temperature to or above the minimum temperature setpoint 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) Any action taken must be in accordance and consistent with Section C - Response to Excursions and Exceedances and failure to take action consistent with Section C - Response to Excursions and 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.1.7 Record Keeping Requirements

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

(1) The VOC content of each coating material and solvent used.

(2) Coating and solvent usage as follows:

(A) The amount of coating material and solvent added to the coating material used at the enamel coating/curing subsections of units 201E and 201W through 216E and 216W on a monthly basis.

(B) The amount of coating material and solvent added to the coating material used at the enamel coating/curing subsections of units 301E and 301W through 316E and 316W on a monthly basis.

(C) The amount of coating material and solvent added to the coating material used at the lubricant coating subsections of units 201E and 201W through 216E and 216W on a monthly basis.

(D) The amount of coating material and solvent added to the coating material used at the lubricant coating subsections of units 301E and 301W through 316E and 316W on a monthly basis.

(E) The amount of cleanup solvents used on a monthly basis.

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

If MSDS sheets are used to determine the VOC content of the coating, the Permittee shall verify that the VOC content stated on the MSDS is based on EPA Method 24 or other Method, as determined by the Commissioner.

(3) The total VOC emissions for each month.

(4) The equivalent emissions of VOC expressed of pounds per gallon of coating solids as applied.

(5) Continuous temperature records as read by the continuous monitor or IDEM-approved manner, and 3 hour average temperature records or maintain a record of the reason why the continuous and 3 hour temperature records were not taken.

(b) To document compliance with Condition D.1.5, the Permittee shall maintain records of the test results, including the average temperature used to demonstrate compliance with Conditions D.1.1 and D.1.2 during the most recent compliant stack test.

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

D.1.8 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1(c) 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).

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Copper Rod and Bar Manufacturing Process

(l) One (1) Copper Rod and Bar Manufacturing Process, identified as P-1, constructed in 1976, a maximum capacity of 20 tons of copper per hour, with emissions uncontrolled, exhausting to stack S-1, and consisting of:

(1) One (1) natural gas-fired vertical melt furnace, with a heat input capacity of 24 MMBtu/hr,

(2) One (1) holding furnace, with a heat input capacity of 2.0 MMBtu/hr,

(3) One (1) tundish, with a heat input capacity of 1.5 MMBtu/hr, and

(4) Various ancillary launders, with an aggregate heat input capacity of 2.5 MMBtu/hr.

(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 Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from the copper rod and bar manufacturing process (identified as P-1) shall not exceed 30.51 pounds per hour when operating at a process weight rate of 20 tons per hour.

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

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

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

D.2.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

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

D.2.3 Visible Emissions Notations

(a) Visible emission notations of the exhaust from the copper rod and bar manufacturing process (exhausting to stack S-1) shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

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

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

D.2.4 Record Keeping Requirements

(a) To document compliance with Condition D.2.3, the Permittee shall maintain once per day records of the visible emission notations or maintain a record of the reason why the visible emission notations were not taken.

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

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Alcohol Quench Process and Storage Tanks

(m) One (1) mill emulsion system identified as P-2 Mill Emulsion System, constructed in 1976, which pumps a mill emulsion solution containing 0.2% - 2.5% by volume Isopropyl Alcohol (2-propanol) through sprays in an enclosed rolling mill stand area, with emissions uncontrolled, and exhausting to stack/vent V-1;

(n) One (1) quench system identified as P-2 Quench System, constructed in 1976, which pumps a quench solution containing 0.8% - 3.0% by volume Isopropyl Alcohol (2-propanol) ejectors into tubes, with emissions uncontrolled, and exhausting to stack/vent V-2;

The maximum capacity of the P-2 Alcohol Quench Process (Mill Emulsion System and Alcohol Quench System) is 300 pounds of 2-propanol (IPA) per hour.

(o) One (1) 15,000 gallon mill emulsion storage tank, constructed in 1995;

(p) One (1) 7,500 gallon quench solution storage tank, constructed in 1978.

(q) Two (2) 7,000 gallon isopropyl storage tanks, constructed in 1988.

(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 Standards for Vessels [326 IAC 12]

Pursuant to 326 IAC 12 and 326 IAC 1-1-3, the Permittee shall maintain readily available records showing the dimensions of the 15,000 gallon mill emulsion storage tank and an analysis showing its capacity. This requirement will remain in effect until 326 IAC 12 and 326 IAC 1-1-3 are revised to incorporate the October 15, 2003, or later, version of 40 CFR Part 60, Subpart Kb.

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

D.3.2 Record Keeping Requirements

To document compliance with Condition D.3.1, the Permittee shall keep readily accessible records showing the dimension of the storage tanks and an analysis showing the capacity of the storage tanks.

SECTION D.4 FACILITY OPERATION CONDITIONS

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

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

(b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment cutting torches, soldering equipment, welding equipment. [326 IAC 6-3-2]

(c) Under the Miscellaneous Metal Parts and Products Coating NESHAP (40 CFR 63, Subpart MMMM), the following emission units are considered to be part of an existing magnet wire coating affected source:

(1) Activities with emissions equal to or less than the following thresholds: 5 tons per year PM or PM10, 10 tons per year SO_2, NO_x, or VOC, 0.2 tons per year Pb, 1.0 tons per year of a single HAP, or 2.5 tons per year of any combination of HAPs:

Six (6) degreaser units, identified as P, T1, T2, T3, T4, and T5, using mechanical agitation, with solvents and vents as follows:

Tank P	90400	West Vent
Tank T1	90702	West Vent
Tank T2	90702	West Vent
Tank T3	90400	West Vent
Tank T4	90003	East Vent
Tank T5	90702	West Vent

[326 IAC 8-3-2] [326 IAC 8-3-5] [326 IAC 20-1] [40 CFR Part 63, Subpart A] [40 CFR Part 63, Subpart MMMM]

(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 Volatile Organic Compounds (VOC)

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

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with a facility for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements;

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.4.2 Volatile Organic Compounds (VOC)

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the Permittee of a cold cleaner degreaser facility, construction of which commenced after July 1, 1990, shall ensure that the following 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 the solvent used is insoluble in, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

D.4.3 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from the insignificant brazing equipment, cutting torches, soldering equipment, and welding equipment operations shall be limited as follows:

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

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

SECTION E.1 National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

Facility Description [326 IAC 2-7-5(15)]: Magnet Wire Production - Departments 200 and 300

Under the Miscellaneous Metal Parts and Products Coating NESHAP (40 CFR 63, Subpart MMMM), the following emission units are considered to be part of an existing magnet wire coating affected source.

(a) Two (2) Department 200 Emission Units, identified as units 201E and 201W, each constructed in 1989 and modified in 1998 and 2005. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(b) Four (4) Department 200 Emission Units, identified as units 202E, 202W, 203E, and 203W, each constructed in 1993 and modified in 1998 and 2005. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(c) Six (6) Department 200 Emission Units, identified as units 204E, 204W, 205E, 205W, 206E, and 206W, each constructed in 1995 and modified in 1997 or 1998 and 2005. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(d) Four (4) Department 200 Emission Units, identified as units 207E, 207W, 208E, and 208W, constructed in 1994 and modified in 1997 and 2005. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(e) Eight (8) Department 200 Emission Units, identified as units 209E, 209W, 210E, 210W, 211E, 211W, 212E, and 212W, each constructed in 1998 and modified in 2005 and 2007. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(f) Four (4) Department 200 Emission Units, identified as units 213E, 213W, 214E, and 214W, each constructed in 1998 and modified in 2007. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(g) Four (4) Department 200 Emission Units, identified as units 215E, 215W, 216E, 216W, each constructed in 1997 and modified in 2007. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(h) Eight (8) Department 300 Emission Units, identified as units 301E, 301W, 302E, 302W, 303E, 303W, 304E, and 304W constructed in 1994. Each Emission Unit consists of one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, one (1) topical lube applicator and each pair sharing one (1) annealing system. Each unit has a maximum copper wire producing capacity of 284 lb copper per hour. Emissions from enamel curing are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(i) Twelve (12) Department 300 Emission Units, identified as units 305E, 305W, 306E, 306W, 309E, 309W, 310E, 310W, 311E, 311W, 312E, and 312W, each constructed in 1996. Each Emission Unit consists of one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, one (1) topical lube applicator and each pair sharing one (1) annealing system. Each unit has a maximum copper wire producing capacity of 284 lb copper per hour. Emissions from enamel curing are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(j) Four (4) Department 300 Emission Units, identified as units 307E, 307W, 308E, and 308W constructed in 1995. Each Emission Unit consists of one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, one (1) topical lube applicator and each pair sharing one (1) annealing system. Each unit has a maximum copper wire producing capacity of 284 lb copper per hour. Emissions from enamel curing are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(k) Eight (8) Department 300 Emission Units, identified as units 313E, 313W, 314E, 314W, 315E, 315W, 316E, and 316W constructed in 1997. Each Emission Unit consists of one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, one (1) topical lube applicator and each pair sharing one (1) annealing system. Each unit has a maximum copper wire producing capacity of 284 lb copper per hour. Emissions from enamel curing are controlled by internal thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

Specifically Regulated Insignificant Activities

Under the Miscellaneous Metal Parts and Products Coating NESHAP (40 CFR 63, Subpart MMMM), the following emission units are considered to be part of an existing magnet wire coating affected source:

(1) Activities with emissions equal to or less than the following thresholds: 5 tons per year PM or PM10, 10 tons per year SO_2, NO_x, or VOC, 0.2 tons per year Pb, 1.0 tons per year of a single HAP, or 2.5 tons per year of any combination of HAPs:

Six (6) degreaser units, identified as P, T1, T2, T3, T4, and T5, using mechanical agitation, with solvents and vents as follows: [326 IAC 8-3-2] [326 IAC 8-3-5] [326 IAC 20-1] [40 CFR Part 63, Subpart A] [40 CFR Part 63, Subpart MMMM]

Tank P	90400	West Vent
Tank T	90702	West Vent
Tank T2	90702	West Vent
Tank T3	90400	West Vent
Tank T4	90003	East Vent
Tank T5	90702	West Vent

(2) Solvent recycling systems with batch capacity less than or equal to 100 gallons:

One (1) closed loop solvent recovery still, utilizing an electric steam generator producing 150 psi steam, with a solvent batch capacity of 60 gallons. The solvent recovered is SX-90702.

[326 IAC 20-1] [40 CFR Part 63, Subpart A] [40 CFR Part 63, Subpart MMMM]

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.1.1 General Provisions Relating to NESHAP Subpart MMMM (National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products [326 IAC 20-1] [40 CFR Part 63, Subpart A]

Pursuant to 40 CFR 63.3901, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1 as specified in Table 2 of 40 CFR Part 63, Subpart MMMM in accordance with schedule in 40 CFR 63 Subpart MMMM

E.1.2 NESHAP Subpart MMMM Requirements [40 CFR 63, Subpart MMMM]

Pursuant to 40 CFR 63, Subpart MMMM, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart MMMM, for the entire source, beginning January 2, 2007, as follows:

§ 63.3880 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for miscellaneous metal parts and products surface coating facilities. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

§ 63.3881(a)(4) and (b) Am I subject to this subpart?

(a) Miscellaneous metal parts and products include, but are not limited to, metal components of the following types of products as well as the products themselves: motor vehicle parts and accessories, bicycles and sporting goods, recreational vehicles, extruded aluminum structural components, railroad cars, heavy duty trucks, medical equipment, lawn and garden equipment, electronic equipment, magnet wire, steel drums, industrial machinery, metal pipes, and numerous other industrial, household, and consumer products. Except as provided in paragraph (c) of this section, the source category to which this subpart applies is the surface coating of any miscellaneous metal parts or products, as described in paragraph (a)(1) of this section, and it includes the subcategories listed in paragraphs (a)(2) through (6) of this section.

(1) - (3) ****

(4) The magnet wire coating subcategory includes surface coating operations that are performed using coatings that meet the definition of magnet wire coatings in §63.3981.

(b) You are subject to this subpart if you own or operate a new, reconstructed, or existing affected source, as defined in §63.3882, that uses 946 liters (250 gallons (gal)) per year, or more, of coatings that contain hazardous air pollutants (HAP) in the surface coating of miscellaneous metal parts and products defined in paragraph (a) of this section; and that is a major source, is located at a major source, or is part of a major source of emissions of HAP. A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year or any

combination of HAP at a rate of 22.68 Mg (25 tons) or more per year. You do not need to include coatings that meet the definition of non-HAP coating contained in §63.3981 in determining whether you use 946 liters (250 gal) per year, or more, of coatings in the surface coating of miscellaneous metal parts and products.

§ 63.3882 What parts of my plant does this subpart cover?

(a) This subpart applies to each new, reconstructed, and existing affected source within each of the four subcategories listed in §63.3881(a).

(b) The affected source is the collection of all of the items listed in paragraphs (b)(1) through (4) of this section that are used for surface coating of miscellaneous metal parts and products within each subcategory.

(1) All coating operations as defined in §63.3981;

(2) All storage containers and mixing vessels in which coatings, thinners and/or other additives, and cleaning materials are stored or mixed;

(3) All manual and automated equipment and containers used for conveying coatings, thinners and/or other additives, and cleaning materials; and

(4) All storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation.

(c) An affected source is a new affected source if you commenced its construction after August 13, 2002 and the construction is of a completely new miscellaneous metal parts and products surface coating facility where previously no miscellaneous metal parts and products surface coating facility had existed.

(d) An affected source is reconstructed if it meets the criteria as defined in §63.2.

(e) An affected source is existing if it is not new or reconstructed.

§ 63.3883(b) and (d) When do I have to comply with this subpart?

The date by which you must comply with this subpart is called the compliance date. The compliance date for each type of affected source is specified in paragraphs (a) through (c) of this section. The compliance date begins the initial compliance period during which you conduct the initial compliance demonstration described in §§63.3940, 63.3950, and 63.3960.

(a) ****

(b) For an existing affected source, the compliance date is the date 3 years after January 2, 2004.

(c) ****

(d) You must meet the notification requirements in §63.3910 according to the dates specified in that section and in subpart A of this part. Some of the notifications must be submitted before the compliance dates described in paragraphs (a) through (c) of this section.

§ 63.3890 What emission limits must I meet?

(a) ****

(b) For an existing affected source, you must limit organic HAP emissions to the atmosphere from the affected source to the applicable limit specified in paragraphs (b)(1) through (5) of this section, except as specified in paragraph (c) of this section, determined according to the requirements in §63.3941, §63.3951, or §63.3961.

(1) ****

(2) ****

(3) For each existing magnet wire coating affected source, limit organic HAP emissions to no more than 0.12 kg (1.0 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(4) ****

(5) ****

(c) If your facility's surface coating operations meet the applicability criteria of more than one of the subcategory emission limits specified in paragraphs (a) or (b) of this section, you may comply separately with each subcategory emission limit or comply using one of the alternatives in paragraph (c)(1) or (2) of this section.

(1) If the general use or magnet wire surface coating operations subject to only one of the emission limits specified in paragraphs (a)(1), (3), (b)(1), or (3) of this section account for 90 percent or more of the surface coating activity at your facility (*i.e.,* it is the predominant activity at your facility), then compliance with that one emission limitations in this subpart for all surface coating operations constitutes compliance with the other applicable emission limits. You must use liters (gal) of solids used as a measure of relative surface coating activity over a representative period of operation. You may estimate the relative volume of coating solids used from parameters other than coating consumption and volume solids content (*e.g.,* design specifications for the parts or products coated and the number of items produced). The determination of predominant activity must accurately reflect current and projected coating operations and must be verifiable through appropriate documentation. The use of parameters other than coating consumption and volume solids content must be approved by the Administrator. You may use data for any reasonable time period of at least 1 year in determining the relative amount of coating activity, as long as they represent the way the source will continue to operate in the future and are approved by the Administrator. You must determine the predominant activity at your facility and submit the results of that determination with the initial notification required by §63.3910(b). Additionally, you must determine the facility's predominant activity annually and include the determination in the next semi-annual compliance report required by §63.3920(a).

(2) You may calculate and comply with a facility-specific emission limit as described in paragraphs (c)(2)(i) through (iii) of this section. If you elect to comply using the facility-specific emission limit alternative, then compliance with the facility-specific emission limit and the emission limitations in this subpart for all surface coating operations constitutes compliance with this and other applicable surface coating NESHAP. In calculating a facility-specific emission limit, you must include coating activities that meet the applicability criteria of the other subcategories and constitute more than 1 percent of total coating activities. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than 1 percent of coating activities need not be included in the determination of predominant activity but must be included in the compliance calculation.

(i) You are required to calculate the facility-specific emission limit for your facility when you submit the notification of compliance status required in §63.3910(c), and on a monthly basis afterward using the coating data for the relevant 12-month compliance period.

(ii) Use Equation 1 of this section to calculate the facility-specific emission limit for your surface coating operations for each 12-month compliance period.

Facility Specific Emission Unit = $$\frac{\sum_{i=1}^{n}(Limit_i)(Solid_i)}{\sum_{i=1}^{n}(Solid_i)}$$

Where:

Facility-specific emission limit = Facility-specific emission limit for each 12-month compliance period, kg (lb) organic HAP per kg (lb) coating solids used.

$Limit_i$ = The new source or existing source emission limit applicable to coating operation, i, included in the facility-specific emission limit, converted to kg (lb) organic HAP per kg (lb) coating solids used, if the emission limit is not already in those units. All emission limits included in the facility-specific emission limit must be in the same units.

$Solids_i$ = The liters (gal) of solids used in coating operation, i, in the 12-month compliance period that is subject to emission limit, i. You may estimate the volume of coating solids used from parameters other than coating consumption and volume solids content (*e.g.,* design specifications for the parts or products coated and the number of items produced). The use of parameters other than coating consumption and volume solids content must be approved by the Administrator.

n = The number of different coating operations included in the facility-specific emission limit.

(iii) ****

§ 63.3891(c) What are my options for meeting the emission limits?

You must include all coatings (as defined in §63.3981), thinners and/or other additives, and cleaning materials used in the affected source when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in §63.3890. To make this determination, you must use at least one of the three compliance options listed in paragraphs (a) through (c) of this section. You may apply any of the compliance options to an individual coating operation, or to multiple coating operations as a group, or to the entire affected source. You may use different compliance options for different coating operations, or at different times on the same coating operation. You may employ different compliance options when different coatings are applied to the same part, or when the same coating is applied to different parts. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you must document this switch as required by §63.3930(c), and you must report it in the next semiannual compliance report required in §63.3920.

(a) ****

(b) ****

(c) *Emission rate with add-on controls option.* Demonstrate that, based on the coatings, thinners and/or other additives, and cleaning materials used in the coating operation(s), and the emissions reductions achieved by emission capture systems and add-on controls, the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in §63.3890, calculated as a rolling 12-month emission rate and determined on a monthly basis. If you use this compliance option, you must also demonstrate that all emission capture systems and add-on control devices for the coating operation(s) meet the operating limits required in §63.3892, except for solvent recovery systems for which you conduct liquid-liquid material balances according to §63.3961(j), and that you meet the work practice standards required in §63.3893. You must meet all the requirements of §§63.3960 through 63.3968 to demonstrate compliance with the emission limits, operating limits, and work practice standards using this option.

§ 63.3892(b) and (c) What operating limits must I meet?

(a) ****

(b) For any controlled coating operation(s) on which you use the emission rate with add-on controls option, except those for which you use a solvent recovery system and conduct a liquid-liquid material balance according to §63.3961(j), you must meet the operating limits specified in Table 1 to this subpart. These operating limits apply to the emission capture and control systems on the coating operation(s) for which you use this option, and you must establish the operating limits during the performance test according to the requirements in §63.3967. You must meet the operating limits at all times after you establish them.

(c) If you use an add-on control device other than those listed in Table 1 to this subpart, or wish to monitor an alternative parameter and comply with a different operating limit, you must apply to the Administrator for approval of alternative monitoring under §63.8(f).

§ 63.3893(b) What work practice standards must I meet?

(a) ****

(b) If you use the emission rate with add-on controls option, you must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners and/or other additives, and cleaning materials used in, and waste materials generated by the controlled coating operation(s) for which you use this option; or you must meet an alternative standard as provided in paragraph (c) of this section. The plan must specify practices and procedures to ensure that, at a minimum, the elements specified in paragraphs (b)(1) through (5) of this section are implemented.

(1) All organic-HAP-containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be stored in closed containers.

(2) Spills of organic-HAP-containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be minimized.

(3) Organic-HAP-containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes.

(4) Mixing vessels which contain organic-HAP-containing coatings and other materials must be closed except when adding to, removing, or mixing the contents.

(5) Emissions of organic HAP must be minimized during cleaning of storage, mixing, and conveying equipment.

(c) As provided in §63.6(g), we, the U.S. Environmental Protection Agency, may choose to grant you permission to use an alternative to the work practice standards in this section.

§ 63.3900(a)(2), (b) and (c) What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations in this subpart as specified in paragraphs (a)(1) and (2) of this section.

(1) ****

(2) Any coating operation(s) for which you use the emission rate with add-on controls option, as specified in §63.3891(c), must be in compliance with the emission limitations as specified in paragraphs (a)(2)(i) through (iii) of this section.

(i) The coating operation(s) must be in compliance with the applicable emission limit in §63.3890 at all times except during periods of startup, shutdown, and malfunction.

(ii) The coating operation(s) must be in compliance with the operating limits for emission capture systems and add-on control devices required by §63.3892 at all times except during periods of startup, shutdown, and malfunction, and except for solvent recovery systems for which you conduct liquid-liquid material balances according to §63.3961(j).

(iii) The coating operation(s) must be in compliance with the work practice standards in §63.3893 at all times.

(b) You must always operate and maintain your affected source, including all air pollution control and monitoring equipment you use for purposes of complying with this subpart, according to the provisions in §63.6(e)(1)(i).

(c) If your affected source uses an emission capture system and add-on control device, you must develop a written startup, shutdown, and malfunction plan according to the provisions in §63.6(e)(3). The plan must address the startup, shutdown, and corrective actions in the event of a malfunction of the emission capture system or the add-on control device. The plan must also address any coating operation equipment that may cause increased emissions or that would affect capture efficiency if the process equipment malfunctions, such as conveyors that move parts among enclosures.

§ 63.3901 What parts of the General Provisions apply to me?

Table 2 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

§ 63.3910 What notifications must I submit?

(a) *General.* You must submit the notifications in §§63.7(b) and (c), 63.8(f)(4), and 63.9(b) through (e) and (h) that apply to you by the dates specified in those sections, except as provided in paragraphs (b) and (c) of this section.

(b) *Initial Notification.* You must submit the initial notification required by §63.9(b) for a new or reconstructed affected source no later than 120 days after initial startup or 120 days after January 2, 2004, whichever is later. For an existing affected source, you must submit the initial notification no later than 1 year after January 2, 2004. If you are using compliance with the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (subpart IIII of this part) as provided for under §63.3881(d) to constitute compliance with this subpart for any or all of your metal parts coating operations, then you must include a statement to this effect in your initial notification, and no other notifications are required under this subpart in regard to those metal parts coating operations. If you are complying with another NESHAP that constitutes the predominant activity at your facility under §63.3881(e)(2) to constitute compliance with this subpart for your metal parts coating operations, then you must include a statement to this effect in your initial notification, and no other notifications are required under this subpart in regard to those metal parts coating operations.

(c) *Notification of compliance status.* You must submit the notification of compliance status required by §63.9(h) no later than 30 calendar days following the end of the initial compliance period described in §§63.3940, 63.3950, or 63.3960 that applies to your affected source. The notification of compliance status must contain the information specified in paragraphs (c)(1) through (11) of this section and in §63.9(h).

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of the report and beginning and ending dates of the reporting period. The reporting period is the initial compliance period described in §§63.3940, 63.3950, or 63.3960 that applies to your affected source.

(4) Identification of the compliance option or options specified in §63.3891 that you used on each coating operation in the affected source during the initial compliance period.

(5) Statement of whether or not the affected source achieved the emission limitations for the initial compliance period.

(6) If you had a deviation, include the information in paragraphs (c)(6)(i) and (ii) of this section.

(i) A description and statement of the cause of the deviation.

(ii) If you failed to meet the applicable emission limit in §63.3890, include all the calculations you used to determine the kg (lb) of organic HAP emitted per liter (gal) coating solids used. You do not need to submit information provided by the materials' suppliers or manufacturers, or test reports.

(7) For each of the data items listed in paragraphs (c)(7)(i) through (iv) of this section that is required by the compliance option(s) you used to demonstrate compliance with the emission limit, include an example of how you determined the value, including calculations and supporting data. Supporting data may include a copy of the information provided by the supplier or manufacturer of the example coating or material, or a summary of the results of testing conducted according to §63.3941(a), (b), or (c). You do not need to submit copies of any test reports.

(i) Mass fraction of organic HAP for one coating, for one thinner and/or other additive, and for one cleaning material.

(ii) Volume fraction of coating solids for one coating.

(iii) Density for one coating, one thinner and/or other additive, and one leaning material, except that if you use the compliant material option, only the example coating density is required.

(iv) The amount of waste materials and the mass of organic HAP contained in the waste materials for which you are claiming an allowance in Equation 1 of §63.3951.

(8) The calculation of kg (lb) of organic HAP emitted per liter (gal) coating solids used for the compliance option(s) you used, as specified in paragraphs (c)(8)(i) through (iii) of this section.

(i) For the compliant material option, provide an example calculation of the organic HAP content for one coating, using Equation 2 of §63.3941.

(ii) For the emission rate without add-on controls option, provide the calculation of the total mass of organic HAP emissions for each month; the calculation of the total volume of coating solids used each month; and the calculation of the 12-month organic HAP emission rate using Equations 1 and 1A through 1C, 2, and 3, respectively, of §63.3951.

(iii) For the emission rate with add-on controls option, provide the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month, using Equations 1 and 1A through 1C of §63.3951; the calculation of the total volume of coating solids used each month using Equation 2 of §63.3951; the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of §63.3961 and Equations 2, 3, and 3A through 3C of §63.3961 as applicable; the calculation of the total mass of organic HAP emissions each month using Equation 4 of §63.3961; and the calculation of the 12-month organic HAP emission rate using Equation 5 of §63.3961.

(9) For the emission rate with add-on controls option, you must include the information specified in paragraphs (c)(9)(i) through (iv) of this section, except that the requirements in paragraphs (c)(9)(i) through (iii) of this section do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to §63.3961(j).

(i) For each emission capture system, a summary of the data and copies of the calculations supporting the determination that the emission capture system is a permanent total enclosure (PTE) or a measurement of the emission capture system efficiency. Include a description of the protocol followed for measuring capture efficiency, summaries of any capture efficiency tests conducted, and any calculations supporting the capture efficiency determination. If you use the data quality objective (DQO) or lower confidence limit (LCL) approach, you must also include the statistical calculations to show you meet the DQO or LCL criteria in appendix A to subpart KK of this part. You do not need to submit complete test reports.

(ii) A summary of the results of each add-on control device performance test. You do not need to submit complete test reports.

(iii) A list of each emission capture system's and add-on control device's operating limits and a summary of the data used to calculate those limits.

(iv) A statement of whether or not you developed and implemented the work practice plan required by §63.3893.

(10) If you are complying with a single emission limit representing the predominant activity under §63.3890(c)(1), include the calculations and supporting information used to demonstrate that this emission limit represents the predominant activity as specified in §63.3890(c)(1).

(11) If you are complying with a facility-specific emission limit under §63.3890(c)(2), include the calculation of the facility-specific emission limit and any supporting information as specified in §63.3890(c)(2).

§ 63.3920 What reports must I submit?

(a) *Semiannual compliance reports.* You must submit semiannual compliance reports for each affected source according to the requirements of paragraphs (a)(1) through (7) of this section. The semiannual compliance reporting requirements may be satisfied by reports required under other parts of the Clean Air Act (CAA), as specified in paragraph (a)(2) of this section.

(1) *Dates.* Unless the Administrator has approved or agreed to a different schedule for submission of reports under §63.10(a), you must prepare and submit each semiannual compliance report according to the dates specified in paragraphs (a)(1)(i) through (iv) of this section. Note that the information reported for each of the months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

(i) The first semiannual compliance report must cover the first semiannual reporting period which begins the day after the end of the initial compliance period described in §63.3940, §63.3950, or §63.3960 that applies to your affected source and ends on June 30 or December 31, whichever date is the first date following the end of the initial compliance period.

(ii) Each subsequent semiannual compliance report must cover the subsequent semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(iii) Each semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(iv) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the date specified in paragraph (a)(1)(iii) of this section.

(2) *Inclusion with title V report.* Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a semiannual compliance report pursuant to this section along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the semiannual compliance report includes all required information concerning deviations from any emission limitation in this subpart, its submission will be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a semiannual compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permitting authority.

(3) *General requirements.* The semiannual compliance report must contain the information specified in paragraphs (a)(3)(i) through (vii) of this section, and the information specified in paragraphs (a)(4) through (7) and (c)(1) of this section that is applicable to your affected source.

(i) Company name and address.

(ii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(iii) Date of report and beginning and ending dates of the reporting period. The reporting period is the 6-month period ending on June 30 or December 31. Note that the information reported for each of the 6 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

(iv) Identification of the compliance option or options specified in §63.3891 that you used on each coating operation during the reporting period. If you switched between compliance options during the reporting period, you must report the beginning and ending dates for each option you used.

(v) If you used the emission rate without add-on controls or the emission rate with add-on controls compliance option (§63.3891(b) or (c)), the calculation results for each rolling 12-month organic HAP emission rate during the 6-month reporting period.

(vi) If you used the predominant activity alternative (§63.3890(c)(1)), include the annual determination of predominant activity if it was not included in the previous semi-annual compliance report.

(vii) If you used the facility-specific emission limit alternative (§63.3890(c)(2)), include the calculation of the facility-specific emission limit for each 12-month compliance period during the 6-month reporting period.

(4) *No deviations.* If there were no deviations from the emission limitations in §§63.3890, 63.3892, and 63.3893 that apply to you, the semiannual compliance report must include a statement that there were no deviations from the emission limitations during the reporting period. If you used the emission rate with add-on controls option and there were no periods during which the continuous parameter monitoring systems (CPMS) were out-of-control as specified in §63.8(c)(7), the semiannual compliance report must include a statement that there were no periods during which the CPMS were out-of-control during the reporting period.

(5) ****

(6) ****

(7) *Deviations: Emission rate with add-on controls option.* If you used the emission rate with add-on controls option and there was a deviation from an emission limitation (including any periods when emissions bypassed the add-on control device and were diverted to the atmosphere), the semiannual compliance report must contain the information in paragraphs (a)(7)(i) through (xiv) of this section. This includes periods of startup, shutdown, and malfunction during which deviations occurred.

(i) The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in §63.3890.

(ii) The calculations used to determine the 12-month organic HAP emission rate for each compliance period in which a deviation occurred. You must provide the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1 and 1A through 1C of §63.3951; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.3951(e)(4); the calculation of the total volume of coating solids used each month using Equation 2 of §63.3951; the calculation of the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of §63.3961, and Equations 2, 3, and 3A through 3C of §63.3961, as applicable; the calculation of the total mass of organic HAP emissions each month using Equation 4 of §63.3961; and the calculation of the 12-month organic HAP emission rate using Equation 5 of §63.3961. You do not need to submit the background data supporting these calculations (*e.g.,* information provided by materials suppliers or manufacturers, or test reports).

(iii) The date and time that each malfunction started and stopped.

(iv) A brief description of the CPMS.

(v) The date of the latest CPMS certification or audit.

(vi) The date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks.

(vii) The date, time, and duration that each CPMS was out-of-control, including the information in §63.8(c)(8).

(viii) The date and time period of each deviation from an operating limit in Table 1 to this subpart; date and time period of any bypass of the add-on control device; and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(ix) A summary of the total duration of each deviation from an operating limit in Table 1 to this subpart and each bypass of the add-on control device during the semiannual reporting period, and the total duration as a percent of the total source operating time during that semiannual reporting period.

(x) A breakdown of the total duration of the deviations from the operating limits in Table 1 of this subpart and bypasses of the add-on control device during the semiannual reporting period into those that were due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(xi) A summary of the total duration of CPMS downtime during the semiannual reporting period and the total duration of CPMS downtime as a percent of the total source operating time during that semiannual reporting period.

(xii) A description of any changes in the CPMS, coating operation, emission capture system, or add-on control device since the last semiannual reporting period.

(xiii) For each deviation from the work practice standards, a description of the deviation, the date and time period of the deviation, and the actions you took to correct the deviation.

(xiv) A statement of the cause of each deviation.

(b) *Performance test reports.* If you use the emission rate with add-on controls option, you must submit reports of performance test results for emission capture systems and add-on control devices no later than 60 days after completing the tests as specified in §63.10(d)(2).

(c) *Startup, shutdown, malfunction reports.* If you used the emission rate with add-on controls option and you had a startup, shutdown, or malfunction during the semiannual reporting period, you must submit the reports specified in paragraphs (c)(1) and (2) of this section.

(1) If your actions were consistent with your startup, shutdown, and malfunction plan, you must include the information specified in §63.10(d) in the semiannual compliance report required by paragraph (a) of this section.

(2) If your actions were not consistent with your startup, shutdown, and malfunction plan, you must submit an immediate startup, shutdown, and malfunction report as described in paragraphs (c)(2)(i) and (ii) of this section.

(i) You must describe the actions taken during the event in a report delivered by facsimile, telephone, or other means to the Administrator within 2 working days after starting actions that are inconsistent with the plan.

(ii) You must submit a letter to the Administrator within 7 working days after the end of the event, unless you have made alternative arrangements with the Administrator as specified in §63.10(d)(5)(ii). The letter must contain the information specified in §63.10(d)(5)(ii).

§ 63.3930 What records must I keep?

You must collect and keep records of the data and information specified in this section. Failure to collect and keep these records is a deviation from the applicable standard.

(a) A copy of each notification and report that you submitted to comply with this subpart, and the documentation supporting each notification and report. If you are using the predominant activity alternative

under §63.3890(c), you must keep records of the data and calculations used to determine the predominant activity. If you are using the facility-specific emission limit alternative under §63.3890(c), you must keep records of the data used to calculate the facility-specific emission limit for the initial compliance demonstration. You must also keep records of any data used in each annual predominant activity determination and in the calculation of the facility-specific emission limit for each 12-month compliance period included in the semi-annual compliance reports.

(b) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP and density for each coating, thinner and/or other additive, and cleaning material, and the volume fraction of coating solids for each coating. If you conducted testing to determine mass fraction of organic HAP, density, or volume fraction of coating solids, you must keep a copy of the complete test report. If you use information provided to you by the manufacturer or supplier of the material that was based on testing, you must keep the summary sheet of results provided to you by the manufacturer or supplier. You are not required to obtain the test report or other supporting documentation from the manufacturer or supplier.

(c) For each compliance period, the records specified in paragraphs (c)(1) through (4) of this section.

(1) A record of the coating operations on which you used each compliance option and the time periods (beginning and ending dates and times) for each option you used.

(2) ****

(3) ****

(4) For the emission rate with add-on controls option, records of the calculations specified in paragraphs (c)(4)(i) through (v) of this section.

(i) The calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1 and 1A through 1C of §63.3951 and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.3951(e)(4);

(ii) The calculation of the total volume of coating solids used each month using Equation 2 of §63.3951;

(iii) The calculation of the mass of organic HAP emission reduction by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of §63.3961 and Equations 2, 3, and 3A through 3C of §63.3961, as applicable;

(iv) The calculation of each month's organic HAP emission rate using Equation 4 of §63.3961; and

(v) The calculation of each 12-month organic HAP emission rate using Equation 5 of §63.3961.

(d) A record of the name and volume of each coating, thinner and/or other additive, and cleaning material used during each compliance period. If you are using the compliant material option for all coatings at the source, you may maintain purchase records for each material used rather than a record of the volume used.

(e) A record of the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each compliance period unless the material is tracked by weight.

(f) A record of the volume fraction of coating solids for each coating used during each compliance period.

(g) If you use either the emission rate without add-on controls or the emission rate with add-on controls compliance option, the density for each coating, thinner and/or other additive, and cleaning material used during each compliance period.

(h) If you use an allowance in Equation 1 of §63.3951 for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage, and disposal facility (TSDF) according to §63.3951(e)(4), you must keep records of the information specified in paragraphs (h)(1) through (3) of this section.

(1) The name and address of each TSDF to which you sent waste materials for which you use an allowance in Equation 1 of §63.3951; a statement of which subparts under 40 CFR parts 262, 264, 265, and 266 apply to the facility; and the date of each shipment.

(2) Identification of the coating operations producing waste materials included in each shipment and the month or months in which you used the allowance for these materials in Equation 1 of §63.3951.

(3) The methodology used in accordance with §63.3951(e)(4) to determine the total amount of waste materials sent to or the amount collected, stored, and designated for transport to a TSDF each month; and the methodology to determine the mass of organic HAP contained in these waste materials. This must include the sources for all data used in the determination, methods used to generate the data, frequency of testing or monitoring, and supporting calculations and documentation, including the waste manifest for each shipment.

(i) [Reserved]

(j) You must keep records of the date, time, and duration of each deviation.

(k) If you use the emission rate with add-on controls option, you must keep the records specified in paragraphs (k)(1) through (8) of this section.

(1) For each deviation, a record of whether the deviation occurred during a period of startup, shutdown, or malfunction.

(2) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) The records required to show continuous compliance with each operating limit specified in Table 1 to this subpart that applies to you.

(4) ****

(5) ****

(6) The records specified in paragraphs (k)(6)(i) and (ii) of this section for each add-on control device organic HAP destruction or removal efficiency determination as specified in §63.3966.

(i) Records of each add-on control device performance test conducted according to §§63.3964 and 63.3966.

(ii) Records of the coating operation conditions during the add-on control device performance test showing that the performance test was conducted under representative operating conditions.

(7) Records of the data and calculations you used to establish the emission capture and add-on control device operating limits as specified in §63.3967 and to document compliance with the operating limits as specified in Table 1 to this subpart.

(8) A record of the work practice plan required by §63.3893 and documentation that you are implementing the plan on a continuous basis.

§ 63.3931 In what form and for how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database.

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to §63.10(b)(1). You may keep the records off-site for the remaining 3 years.

Compliance Requirements for the Emission Rate With Add-On Control Options

§ 63.3960 By what date must I conduct performance tests and other initial compliance demonstrations?

(b) *Existing affected sources.* For an existing affected source, you must meet the requirements of paragraphs (b)(1) through (3) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in §63.3883. Except for magnet wire coating operations and solvent recovery systems for which you conduct liquid-liquid material balances according to §63.3961(j), you must conduct a performance test of each capture system and add-on control device according to the procedures in §§63.3964, 63.3965, and 63.3966 and establish the operating limits required by §63.3892 no later than the compliance date specified in §63.3883. For magnet wire coating operations, you may, with approval, conduct a performance test of a single magnet wire coating machine that represents identical or very similar magnet wire coating machines. For a solvent recovery system for which you conduct liquid-liquid material balances according to §63.3961(j), you must initiate the first material balance no later than the compliance date specified in §63.3883.

(2) You must develop and begin implementing the work practice plan required by §63.3893 no later than the compliance date specified in §63.3883.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of §63.3961. The initial compliance period begins on the applicable compliance date specified in §63.3883 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You must determine the mass of organic HAP emissions and volume of coatings solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§63.3964, 63.3965, and 63.3966; results of liquid-liquid material balances conducted according to §63.3961(j); calculations according to §63.3961 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in §63.3890; the operating limits established during the performance tests and the results of the continuous parameter monitoring required by §63.3968; and documentation of whether you developed and implemented the work practice plan required by §63.3893.

(c) You are not required to conduct an initial performance test to determine capture efficiency or destruction efficiency of a capture system or control device if you receive approval to use the results of a performance test that has been previously conducted on that capture system or control device. Any such previous tests must meet the conditions described in paragraphs (c)(1) through (3) of this section.

(1) The previous test must have been conducted using the methods and conditions specified in this subpart.

(2) Either no process or equipment changes have been made since the previous test was performed or the owner or operator must be able to demonstrate that the results of the performance test, reliably demonstrate compliance despite process or equipment changes.

(3) Either the required operating parameters were established in the previous test or sufficient data were collected in the previous test to establish the required operating parameters.

§ 63.3961 How do I demonstrate initial compliance?

(a) You may use the emission rate with add-on controls option for any coating operation, for any group of coating operations in the affected source, or for all of the coating operations in the affected source. You may include both controlled and uncontrolled coating operations in a group for which you use this option. You must use either the compliant material option or the emission rate without add-on controls option for any coating operation in the affected source for which you do not use the emission rate with add-on controls option. To demonstrate initial compliance, the coating operation(s) for which you use the emission rate with add-on controls option must meet the applicable emission limitations in §§63.3890, 63.3892, and 63.3893. You must conduct a separate initial compliance demonstration for each general use, magnet wire, rubber-to-metal, and extreme performance fluoropolymer coating operation, unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.3890(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.4490(c), you must demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You must meet all the requirements of this section. When calculating the organic HAP emission rate according to this section, do not include any coatings, thinners and/or other additives, or cleaning materials used on coating operations for which you use the compliant material option or the emission rate without add-on controls option. You do not need to redetermine the mass of organic HAP in coatings, thinners and/or other additives, or cleaning materials that have been reclaimed onsite (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coatings operation(s) for which you use the emission rate with add-on controls option. If you use coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site, the amount of each used in a month may be reduced by the amount of each that is reclaimed. That is, the amount used may be calculated as the amount consumed to account for materials that are reclaimed.

(b) *Compliance with operating limits.* Except as provided in §63.3960(a)(4), and except for solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements of paragraph (j) of this section, you must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by §63.3892, using the procedures specified in §§63.3967 and 63.3968.

(c) *Compliance with work practice requirements.* You must develop, implement, and document your implementation of the work practice plan required by §63.3893 during the initial compliance period, as specified in §63.3930.

(d) *Compliance with emission limits.* You must follow the procedures in paragraphs (e) through (n) of this section to demonstrate compliance with the applicable emission limit in §63.3890 for each affected source in each subcategory.

(e) *Determine the mass fraction of organic HAP, density, volume used, and volume fraction of coating solids.* Follow the procedures specified in §63.3951(a) through (d) to determine the mass fraction of organic HAP, density, and volume of each coating, thinner and/or other additive, and cleaning material used during each month; and the volume fraction of coating solids for each coating used during each month.

(f) *Calculate the total mass of organic HAP emissions before add-on controls.* Using Equation 1 of §63.3951, calculate the total mass of organic HAP emissions before add-on controls from all coatings, thinners and/or other additives, and cleaning materials used during each month in the coating operation or group of coating operations for which you use the emission rate with add-on controls option.

(g) *Calculate the organic HAP emission reduction for each controlled coating operation.* Determine the mass of organic HAP emissions reduced for each controlled coating operation during each month. The emission reduction determination quantifies the total organic HAP emissions that pass through the emission capture system and are destroyed or removed by the add-on control device. Use the procedures in paragraph (h) of this section to calculate the mass of organic HAP emission reduction for each

controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances. For each controlled coating operation using a solvent recovery system for which you conduct a liquid-liquid material balance, use the procedures in paragraph (j) of this section to calculate the organic HAP emission reduction.

(h) *Calculate the organic HAP emission reduction for each controlled coating operation not using liquid-liquid material balance.* Use Equation 1 of this section to calculate the organic HAP emission reduction for each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances. The calculation applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coatings, thinners and/or other additives, and cleaning materials that are used in the coating operation served by the emission capture system and add-on control device during each month. You must assume zero efficiency for the emission capture system and add-on control device for any period of time a deviation specified in §63.3963(c) or (d) occurs in the controlled coating operation, including a deviation during a period of startup, shutdown, or malfunction, unless you have other data indicating the actual efficiency of the emission capture system and add-on control device and the use of these data is approved by the Administrator. Equation 1 of this section treats the materials used during such a deviation as if they were used on an uncontrolled coating operation for the time period of the deviation.

$$H_C = \left(A_C + B_C + C_C - R_W - H_{UNC}\right)\left(\frac{CE}{100} \times \frac{DRE}{100}\right) \qquad (Eq.\ 1)$$

Where:

H_C = Mass of organic HAP emission reduction for the controlled coating operation during the month, kg.

A_C = Total mass of organic HAP in the coatings used in the controlled coating operation during the month, kg, as calculated in Equation 1A of this section.

B_C = Total mass of organic HAP in the thinners and/or other additives used in the controlled coating operation during the month, kg, as calculated in Equation 1B of this section.

C_C = Total mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, kg, as calculated in Equation 1C of this section.

R_W = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the compliance period, kg, determined according to §63.3951(e)(4). (You may assign a value of zero to R_W if you do not wish to use this allowance.)

H_{UNC} = Total mass of organic HAP in the coatings, thinners and/or other additives, and cleaning materials used during all deviations specified in §63.3963(c) and (d) that occurred during the month in the controlled coating operation, kg, as calculated in Equation 1D of this section.

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent. Use the test methods and procedures specified in §§63.3964 and 63.3965 to measure and record capture efficiency.

DRE = Organic HAP destruction or removal efficiency of the add-on control device, percent. Use the test methods and procedures in §§63.3964 and 63.3966 to measure and record the organic HAP destruction or removal efficiency.

(1) Calculate the mass of organic HAP in the coatings used in the controlled coating operation, kg (lb), using Equation 1A of this section:

$$A_C = \sum_{i=1}^{m}\left(Vol_{c,i}\right)\left(D_{c,i}\right)\left(W_{c,i}\right) \qquad (Eq.\ 1A)$$

Where:

A_C = Total mass of organic HAP in the coatings used in the controlled coating operation during the month, kg.

$Vol_{c,i}$ = Total volume of coating, i, used during the month, liters.

$D_{c,i}$ = Density of coating, i, kg per liter.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg per kg. For reactive adhesives as defined in §63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

m = Number of different coatings used.

(2) Calculate the mass of organic HAP in the thinners and/or other additives used in the controlled coating operation, kg (lb), using Equation 1B of this section:

$$B_C = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \qquad (Eq.\ 1B)$$

Where:

B_C = Total mass of organic HAP in the thinners and/or other additives used in the controlled coating operation during the month, kg.

$Vol_{t,j}$ = Total volume of thinner and/or other additive, j, used during the month, liters.

$D_{t,j}$ = Density of thinner and/or other additive, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner and/or other additive, j, kg per kg. For reactive adhesives as defined in §63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

n = Number of different thinners and/or other additives used.

(3) Calculate the mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, kg (lb), using Equation 1C of this section:

$$C_C = \sum_{k=1}^{p} (Vol_{s,k})(D_{s,k})(W_{s,k}) \qquad (Eq.\ 1C)$$

Where:

C_C = Total mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, kg.

$Vol_{s,k}$ = Total volume of cleaning material, k, used during the month, liters.

$D_{s,k}$ = Density of cleaning material, k, kg per liter.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg per kg.

p = Number of different cleaning materials used.

(4) Calculate the mass of organic HAP in the coatings, thinners and/or other additives, and cleaning materials used in the controlled coating operation during deviations specified in §63.3963(c) and (d), using Equation 1D of this section:

$$H_{UNC} = \sum_{k=1}^{q} (Vol_k)(D_k)(W_k) \qquad (Eq.\ 1D)$$

Where:

H_{UNC} = Total mass of organic HAP in the coatings, thinners and/or other additives, and cleaning materials used during all deviations specified in §63.3963(c) and (d) that occurred during the month in the controlled coating operation, kg.

Vol_h = Total volume of coating, thinner and/or other additive, or cleaning material, h, used in the controlled coating operation during deviations, liters.

D_h = Density of coating, thinner and/or other additives, or cleaning material, h, kg per liter.

W_h = Mass fraction of organic HAP in coating, thinner and/or other additives, or cleaning material, h, kg organic HAP per kg coating. For reactive adhesives as defined in §63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

q = Number of different coatings, thinners and/or other additives, and cleaning materials used.

(i) [Reserved]

(j) ****

§ 63.3963 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance with the applicable emission limit in §63.3890, the organic HAP emission rate for each compliance period, determined according to the procedures in §63.3961, must be equal to or less than the applicable emission limit in §63.3890. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in §63.3960 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in §63.3961 on a monthly basis using data from the previous 12 months of operation. If you are complying with a facility-specific emission limit under §63.3890(c), you must also perform the calculation using Equation 1 in §63.3890(c)(2) on a monthly basis using the data from the previous 12 months of operation.

(b) If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in §63.3890, this is a deviation from the emission limitation for that compliance period that must be reported as specified in §§63.3910(c)(6) and 63.3920(a)(7).

(c) You must demonstrate continuous compliance with each operating limit required by §63.3892 that applies to you, as specified in Table 1 to this subpart, when the coating line is in operation.

(1) If an operating parameter is out of the allowed range specified in Table 1 to this subpart, this is a deviation from the operating limit that must be reported as specified in §§63.3910(c)(6) and 63.3920(a)(7).

(2) If an operating parameter deviates from the operating limit specified in Table 1 to this subpart, then you must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation, unless you have other data indicating the actual efficiency of the emission capture system and add-on control device and the use of these data is approved by the Administrator.

(d) You must meet the requirements for bypass lines in §63.3968(b) for controlled coating operations for which you do not conduct liquid-liquid material balances. If any bypass line is opened and emissions are diverted to the atmosphere when the coating operation is running, this is a deviation that must be reported as specified in §§63.3910(c)(6) and 63.3920(a)(7). For the purposes of completing the compliance calculations specified in §§63.3961(h), you must treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation as indicated in Equation 1 of §63.3961.

(e) You must demonstrate continuous compliance with the work practice standards in §63.3893. If you did not develop a work practice plan, or you did not implement the plan, or you did not keep the records required by §63.3930(k)(8), this is a deviation from the work practice standards that must be reported as specified in §§63.3910(c)(6) and 63.3920(a)(7).

(f) As part of each semiannual compliance report required in §63.3920, you must identify the coating operation(s) for which you used the emission rate with add-on controls option. If there were no deviations from the emission limitations, submit a statement that you were in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in §63.3890, and you achieved the operating limits required by §63.3892 and the work practice standards required by §63.3893 during each compliance period.

(g) [Reserved]

(h) [Reserved]

(i) [Reserved]

(j) You must maintain records as specified in §§63.3930 and 63.3931.

(k) *Calculate the total volume of coating solids used.* Determine the total volume of coating solids used, liters, which is the combined volume of coating solids for all the coatings used during each month in the coating operation or group of coating operations for which you use the emission rate with add-on controls option, using Equation 2 of §63.3951.

(l) *Calculate the mass of organic HAP emissions for each month.* Determine the mass of organic HAP emissions, kg, during each month, using Equation 4 of this section:

$$H_{HAP} = H_e - \sum_{i=1}^{q}\left(H_{c,i}\right) - \sum_{j=1}^{r}\left(H_{CSR,j}\right) \qquad (Eq.\ 4)$$

where:

H_{HAP} = Total mass of organic HAP emissions for the month, kg.

H_e = Total mass of organic HAP emissions before add-on controls from all the coatings, thinners and/or other additives, and cleaning materials used during the month, kg, determined according to paragraph (f) of this section.

$H_{C,i}$ = Total mass of organic HAP emission reduction for controlled coating operation, i, not using a liquid-liquid material balance, during the month, kg, from Equation 1 of this section.

$H_{CSR,j}$ = Total mass of organic HAP emission reduction for coating operation, j, controlled by a solvent recovery system using a liquid-liquid material balance, during the month, kg, from Equation 3 of this section.

q = Number of controlled coating operations not controlled by a solvent recovery system using a liquid-liquid material balance.

r = Number of coating operations controlled by a solvent recovery system using a liquid-liquid material balance.

(m) *Calculate the organic HAP emission rate for the compliance period.* Determine the organic HAP emission rate for the compliance period, kg (lb) of organic HAP emitted per liter (gal) coating solids used, using Equation 5 of this section:

$$H_{annual} = \frac{\sum_{y=1}^{n} H_{HAP,y}}{\sum_{y=1}^{n} V_{st,y}} \qquad (Eq.\ 5)$$

Where:

H_{annual} = Organic HAP emission rate for the compliance period, kg organic HAP emitted per liter coating solids used.

$H_{HAP,y}$ = Organic HAP emissions for month, y, kg, determined according to Equation 4 of this section.

$V_{st,y}$ = Total volume of coating solids used during month, y, liters, from Equation 2 of §63.3951.

y = Identifier for months.

n = Number of full or partial months in the compliance period (for the initial compliance period, n equals 12 if the compliance date falls on the first day of a month; otherwise n equals 13; for all following compliance periods, n equals 12).

(n) *Compliance demonstration.* The organic HAP emission rate for the initial compliance period, calculated using Equation 5 of this section, must be less than or equal to the applicable emission limit for each subcategory in §63.3890 or the predominant activity or facility-specific emission limit allowed in §63.3890(c). You must keep all records as required by §§63.3930 and 63.3931. As part of the notification of compliance status required by §63.3910, you must identify the coating operation(s) for which you used the emission rate with add-on controls option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in §63.3890, and you achieved the operating limits required by §63.3892 and the work practice standards required by §63.3893.

§ 63.3964 What are the general requirements for performance tests?

(a) You must conduct each performance test required by §63.3960 according to the requirements in §63.7(e)(1) and under the conditions in this section, unless you obtain a waiver of the performance test according to the provisions in §63.7(h).

(1) *Representative coating operation operating conditions.* You must conduct the performance test under representative operating conditions for the coating operation. Operations during periods of startup, shutdown, or malfunction and during periods of nonoperation do not constitute representative conditions. You must record the process information that is necessary to document operating conditions during the test and explain why the conditions represent normal operation.

(2) *Representative emission capture system and add-on control device operating conditions.* You must conduct the performance test when the emission capture system and add-on control device are operating at a representative flow rate, and the add-on control device is operating at a representative inlet concentration. You must record information that is necessary to document emission capture system and add-on control device operating conditions during the test and explain why the conditions represent normal operation.

(b) You must conduct each performance test of an emission capture system according to the requirements in §63.3965. You must conduct each performance test of an add-on control device according to the requirements in §63.3966.

§ 63.3965 How do I determine the emission capture system efficiency?

You must use the procedures and test methods in this section to determine capture efficiency as part of the performance test required by §63.3960.

(a) *Assuming 100 percent capture efficiency.* You may assume the capture system efficiency is 100 percent if both of the conditions in paragraphs (a)(1) and (2) of this section are met:

(1) The capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and directs all the exhaust gases from the enclosure to an add-on control device.

(2) All coatings, thinners and/or other additives, and cleaning materials used in the coating operation are applied within the capture system; coating solvent flash-off, curing, and drying occurs within the capture system; and the removal or evaporation of cleaning materials from the surfaces they are applied to occurs within the capture system. For example, this criterion is not met if parts enter the open shop environment when being moved between a spray booth and a curing oven.

(b) *Measuring capture efficiency.* If the capture system does not meet both of the criteria in paragraphs (a)(1) and (2) of this section, then you must use one of the three protocols described in paragraphs (c), (d), and (e) of this section to measure capture efficiency. The capture efficiency measurements use TVH capture efficiency as a surrogate for organic HAP capture efficiency. For the protocols in paragraphs (c) and (d) of this section, the capture efficiency measurement must consist of three test runs. Each test run must be at least 3 hours duration or the length of a production run, whichever is longer, up to 8 hours. For the purposes of this test, a production run means the time required for a single part to go from the beginning to the end of the production, which includes surface preparation activities and drying and curing time.

(c) *Liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.* The liquid-to-uncaptured-gas protocol compares the mass of liquid TVH in materials used in the coating operation to the mass of TVH emissions not captured by the emission capture system. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (c)(1) through (6) of this section to measure emission capture system efficiency using the liquid-to-uncaptured-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings, thinners and/or other additives, and cleaning materials are applied, and all areas where emissions from these applied coatings and materials subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions for routing to an add-on control device, such as the entrance and exit areas of an oven or spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR Part 51.

(2) Use Method 204A or 204F of appendix M to 40 CFR part 51 to determine the mass fraction of TVH liquid input from each coating, thinner and/or other additive, and cleaning material used in the coating operation during each capture efficiency test run. To make the determination, substitute TVH for each occurrence of the term VOC in the methods.

(3) Use Equation 1 of this section to calculate the total mass of TVH liquid input from all the coatings, thinners and/or other additives, and cleaning materials used in the coating operation during each capture efficiency test run:

$$TVH_{used} = \sum_{i=1}^{n} (TVH_i)(Vol_i)(D_i) \qquad (Eq.\ 1)$$

Where:

TVH_{used} = Mass of liquid TVH in materials used in the coating operation during the capture efficiency test run, kg.

TVH_i = Mass fraction of TVH in coating, thinner and/or other additive, or cleaning material, i, that is used in the coating operation during the capture efficiency test run, kg TVH per kg material.

Vol_i = Total volume of coating, thinner and/or other additive, or cleaning material, i, used in the coating operation during the capture efficiency test run, liters.

D_i = Density of coating, thinner and/or other additive, or cleaning material, i, kg material per liter material.

n = Number of different coatings, thinners and/or other additives, and cleaning materials used in the coating operation during the capture efficiency test run.

(4) Use Method 204D or 204E of appendix M to 40 CFR Part 51 to measure the total mass, kg, of TVH emissions that are not captured by the emission capture system. They are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) Use Method 204D of appendix M to 40 CFR Part 51 if the enclosure is a temporary total enclosure.

(ii) Use Method 204E of appendix M to 40 CFR 51 if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, must be shut down, but all fans and blowers must be operating normally.

(5) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 2 of this section:

$$CE = \frac{\left(TVH_{used} - TVH_{uncaptured}\right)}{TVH_{used}} \times 100 \qquad \text{(Eq. 2)}$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

TVH_{used} = Total mass of TVH liquid input used in the coating operation during the capture efficiency test run, kg.

$TVH_{uncaptured}$ = Total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.

(6) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(d) *Gas-to-gas protocol using a temporary total enclosure or a building enclosure.* The gas-to-gas protocol compares the mass of TVH emissions captured by the emission capture system to the mass of TVH emissions not captured. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (d)(1) through (5) of this section to measure emission capture system efficiency using the gas-to-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings, thinners and/or other additives, and cleaning materials are applied, and all areas where emissions from these applied coatings and materials subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions generated by the coating operation for routing to an add-on control device, such as the entrance and exit areas of an oven or a spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR Part 51.

(2) Use Method 204B or 204C of appendix M to 40 CFR Part 51 to measure the total mass, kg, of TVH emissions captured by the emission capture system during each capture efficiency test run as measured at the inlet to the add-on control device. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) The sampling points for the Method 204B or 204C measurement must be upstream from the add-on control device and must represent total emissions routed from the capture system and entering the add-on control device.

(ii) If multiple emission streams from the capture system enter the add-on control device without a single common duct, then the emissions entering the add-on control device must be simultaneously measured in each duct and the total emissions entering the add-on control device must be determined.

(3) Use Method 204D or 204E of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions that are not captured by the emission capture system; they are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) Use Method 204D of appendix M to 40 CFR Part 51 if the enclosure is a temporary total enclosure.

(ii) Use Method 204E of appendix M to 40 CFR Part 51 if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, must be shut down, but all fans and blowers must be operating normally.

(4) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 3 of this section:

$$CE = \frac{TVH_{captured}}{\left(TVH_{captured} + \mathrm{TVH}_{\mathrm{uncaptured}}\right)} \times 100 \qquad \text{(Eq. 3)}$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

$TVH_{captured}$ = Total mass of TVH captured by the emission capture system as measured at the inlet to the add-on control device during the emission capture efficiency test run, kg.

$TVH_{uncaptured}$ = Total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.

(5) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(e) *Alternative capture efficiency protocol.* As an alternative to the procedures specified in paragraphs (c) and (d) of this section and subject to the approval of the Administrator, you may determine capture efficiency using any other capture efficiency protocol and test methods that satisfy the criteria of either the DQO or LCL approach as described in appendix A to subpart KK of this part.

§ 63.3966 How do I determine the add-on control device emission destruction or removal efficiency?

You must use the procedures and test methods in this section to determine the add-on control device emission destruction or removal efficiency as part of the performance test required by §63.3960. You must conduct three test runs as specified in §63.7(e)(3) and each test run must last at least 1 hour. If the source is a magnet wire coating machine, you may use the procedures in section 3.0 of appendix A to this subpart as an alternative.

(a) For all types of add-on control devices, use the test methods specified in paragraphs (a)(1) through (5) of this section.

(1) Use Method 1 or 1A of appendix A to 40 CFR Part 60, as appropriate, to select sampling sites and velocity traverse points.

(2) Use Method 2, 2A, 2C, 2D, 2F, or 2G of appendix A to 40 CFR Part 60, as appropriate, to measure gas volumetric flow rate.

(3) Use Method 3, 3A, or 3B of appendix A to 40 CFR Part 60, as appropriate, for gas analysis to determine dry molecular weight.

(4) Use Method 4 of appendix A to 40 CFR Part 60, to determine stack gas moisture.

(5) Methods for determining gas volumetric flow rate, dry molecular weight, and stack gas moisture must be performed, as applicable, during each test run.

(b) Measure total gaseous organic mass emissions as carbon at the inlet and outlet of the add-on control device simultaneously, using either Method 25 or 25A of appendix A to 40 CFR Part 60.

(1) Use Method 25 if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be more than 50 parts per million (ppm) at the control device outlet.

(2) Use Method 25A if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be 50 ppm or less at the control device outlet.

(3) Use Method 25A if the add-on control device is not an oxidizer.

(c) If two or more add-on control devices are used for the same emission stream, then you must measure emissions at the outlet to the atmosphere of each device. For example, if one add-on control device is a concentrator with an outlet to the atmosphere for the high-volume dilute stream that has been treated by the concentrator, and a second add-on control device is an oxidizer with an outlet to the atmosphere for the low-volume concentrated stream that is treated with the oxidizer, you must measure emissions at the outlet of the oxidizer and the high volume dilute stream outlet of the concentrator.

(d) For each test run, determine the total gaseous organic emissions mass flow rates for the inlet and the outlet of the add-on control device, using Equation 1 of this section. If there is more than one inlet or outlet to the add-on control device, you must calculate the total gaseous organic mass flow rate using Equation 1 of this section for each inlet and each outlet and then total all of the inlet emissions and total all of the outlet emissions:

$$M_f = Q_{sd} C_c (12)\ (0.0416)\ \left(10^{-6}\right) \qquad (Eq.\ 1)$$

Where:

M_f = Total gaseous organic emissions mass flow rate, kg per hour (h).

C_c = Concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A, parts per million by volume (ppmv), dry basis.

Q_{sd} = Volumetric flow rate of gases entering or exiting the add-on control device, as determined by Method 2, 2A, 2C, 2D, 2F, or 2G, dry standard cubic meters/hour (dscm/h).

0.0416 = Conversion factor for molar volume, kg-moles per cubic meter (mol/m^3) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg).

(e) For each test run, determine the add-on control device organic emissions destruction or removal efficiency, using Equation 2 of this section:

$$DRE = \frac{M_{fi} - M_{fo}}{M_{fi}} \times 100 \qquad (Eq.\ 2)$$

Where:

DRE = Organic emissions destruction or removal efficiency of the add-on control device, percent.

M_{fi} = Total gaseous organic emissions mass flow rate at the inlet(s) to the add-on control device, using Equation 1 of this section, kg/h.

M_{fo} = Total gaseous organic emissions mass flow rate at the outlet(s) of the add-on control device, using Equation 1 of this section, kg/h.

(f) Determine the emission destruction or removal efficiency of the add-on control device as the average of the efficiencies determined in the three test runs and calculated in Equation 2 of this section.

§ 63.3967 How do I establish the emission capture system and add-on control device operating limits during the performance test?

During the performance test required by §63.3960 and described in §§63.3964, 63.3965, and 63.3966, you must establish the operating limits required by §63.3892 according to this section, unless you have received approval for alternative monitoring and operating limits under §63.8(f) as specified in §63.3892.

(a) *Thermal oxidizers.* If your add-on control device is a thermal oxidizer, establish the operating limits according to paragraphs (a)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. You must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.

(2) Use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. This average combustion temperature is the minimum operating limit for your thermal oxidizer.

(b) *Catalytic oxidizers.* If your add-on control device is a catalytic oxidizer, establish the operating limits according to either paragraphs (b)(1) and (2) or paragraphs (b)(3) and (4) of this section. If the source is a magnet wire coating machine, you may use the procedures in section 3.0 of appendix A to this subpart as an alternative.

(1) During the performance test, you must monitor and record the temperature just before the catalyst bed and the temperature difference across the catalyst bed at least once every 15 minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed and the average temperature difference across the catalyst bed maintained during the performance test. These are the minimum operating limits for your catalytic oxidizer.

(3) You must monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for your catalytic oxidizer as specified in paragraph (b)(4) of this section. During the performance test, you must monitor and record the temperature just before the catalyst bed at least once every 15 minutes during each of the three test runs. Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed during the performance test. This is the minimum operating limit for your catalytic oxidizer.

(4) You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s) for which you elect to monitor according to paragraph (b)(3) of this section. The plan must address, at a minimum, the elements specified in paragraphs (b)(4)(i) through (iii) of this section.

(i) Annual sampling and analysis of the catalyst activity (*i.e.,* conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures. If problems are found during the catalyst activity test, you must replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations.

(ii) Monthly external inspection of the catalytic oxidizer system, including the burner assembly and fuel supply lines for problems and, as necessary, adjust the equipment to assure proper air-to-fuel mixtures.

(iii) Annual internal inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found during the annual internal inspection of the catalyst, you must replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations. If the catalyst bed is replaced and is not of like or better kind and quality as the old catalyst then you must conduct a new performance test to determine destruction efficiency according to §63.3966. If a catalyst bed is replaced and the replacement catalyst is of like or better kind and quality as the old catalyst, then a new performance test to determine destruction efficiency is not required and you may continue to use the previously established operating limits for that catalytic oxidizer.

(f) *Emission capture systems.* For each capture device that is not part of a PTE that meets the criteria of §63.3965(a), establish an operating limit for either the gas volumetric flow rate or duct static pressure, as specified in paragraphs (f)(1) and (2) of this section. The operating limit for a PTE is specified in Table 1 to this subpart. If the source is a magnet wire coating machine, you may use the procedures in section 2.0 of appendix A to this subpart as an alternative.

(1) During the capture efficiency determination required by §63.3960 and described in §§63.3964 and 63.3965, you must monitor and record either the gas volumetric flow rate or the duct static pressure for each separate capture device in your emission capture system at least once every 15 minutes during each of the three test runs at a point in the duct between the capture device and the add-on control device inlet.

(2) Calculate and record the average gas volumetric flow rate or duct static pressure for the three test runs for each capture device. This average gas volumetric flow rate or duct static pressure is the minimum operating limit for that specific capture device.

§ 63.3968 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?

(a) *General.* You must install, operate, and maintain each CPMS specified in paragraphs (c), (e), (f), and (g) of this section according to paragraphs (a)(1) through (6) of this section. You must install, operate, and maintain each CPMS specified in paragraphs (b) and (d) of this section according to paragraphs (a)(3) through (5) of this section.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four equally spaced successive cycles of CPMS operation in 1 hour.

(2) You must determine the average of all recorded readings for each successive 3 hour period of the emission capture system and add-on control device operation.

(3) You must record the results of each inspection, calibration, and validation check of the CPMS.

(4) You must maintain the CPMS at all times and have available necessary parts for routine repairs of the monitoring equipment.

(5) You must operate the CPMS and collect emission capture system and add-on control device parameter data at all times that a controlled coating operation is operating, except during monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, if applicable, calibration checks and required zero and span adjustments).

(6) You must not use emission capture system or add-on control device parameter data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities when calculating data averages. You must use all the data collected during all other periods in calculating the data averages for determining compliance with the emission capture system and add-on control device operating limits.

(7) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the CPMS to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation

are not malfunctions. Any period for which the monitoring system is out-of-control and data are not available for required calculations is a deviation from the monitoring requirements.

(b) *Capture system bypass line.* You must meet the requirements of paragraphs (b)(1) and (2) of this section for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.

(1) You must monitor or secure the valve or closure mechanism controlling the bypass line in a nondiverting position in such a way that the valve or closure mechanism cannot be opened without creating a record that the valve was opened. The method used to monitor or secure the valve or closure mechanism must meet one of the requirements specified in paragraphs (b)(1)(i) through (v) of this section.

(i) *Flow control position indicator.* Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. The time of occurrence and flow control position must be recorded, as well as every time the flow direction is changed. The flow control position indicator must be installed at the entrance to any bypass line that could divert the emissions away from the add-on control device to the atmosphere.

(ii) *Car-seal or lock-and-key valve closures.* Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. You must visually inspect the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position, and the emissions are not diverted away from the add-on control device to the atmosphere.

(iii) *Valve closure monitoring.* Ensure that any bypass line valve is in the closed (nondiverting) position through monitoring of valve position at least once every 15 minutes. You must inspect the monitoring system at least once every month to verify that the monitor will indicate valve position.

(iv) *Automatic shutdown system.* Use an automatic shutdown system in which the coating operation is stopped when flow is diverted by the bypass line away from the add-on control device to the atmosphere when the coating operation is running. You must inspect the automatic shutdown system at least once every month to verify that it will detect diversions of flow and shut down the coating operation.

(v) *Flow direction indicator.* Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow direction indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. Each time the flow direction changes, the next reading of the time of occurrence and flow direction must be recorded. The flow direction indicator must be installed in each bypass line or air makeup supply line that could divert the emissions away from the add-on control device to the atmosphere.

(2) If any bypass line is opened, you must include a description of why the bypass line was opened and the length of time it remained open in the semiannual compliance reports required in §63.3920.

(c) *Thermal oxidizers and catalytic oxidizers.* If you are using a thermal oxidizer or catalytic oxidizer as an add-on control device (including those used with concentrators or with carbon adsorbers to treat desorbed concentrate streams), you must comply with the requirements in paragraphs (c)(1) through (3) of this section:

(1) For a thermal oxidizer, install a gas temperature monitor in the firebox of the thermal oxidizer or in the duct immediately downstream of the firebox before any substantial heat exchange occurs.

(2) For a catalytic oxidizer, install gas temperature monitors upstream and/or downstream of the catalyst bed as required in §63.3967(b).

(3) For all thermal oxidizers and catalytic oxidizers, you must meet the requirements in paragraphs (a) and (c)(3)(i) through (v) of this section for each gas temperature monitoring device.

(i) Locate the temperature sensor in a position that provides a representative temperature.

(ii) Use a temperature sensor with a measurement sensitivity of 5 degrees Fahrenheit or 1.0 percent of the temperature value, whichever is larger.

(iii) Before using the sensor for the first time or when relocating or replacing the sensor, perform a validation check by comparing the sensor output to a calibrated temperature measurement device or by comparing the sensor output to a simulated temperature.

(iv) Conduct an accuracy audit every quarter and after every deviation. Accuracy audit methods include comparisons of sensor output to redundant temperature sensors, to calibrated temperature measurement devices, or to temperature simulation devices.

(v) Conduct a visual inspection of each sensor every quarter if redundant temperature sensors are not used.

(d) ********

(e) ********

(f) *********

(g) *Emission capture systems.* The capture system monitoring system must comply with the applicable requirements in paragraphs (g)(1) and (2) of this section. If the source is a magnet wire coating machine, you may use the procedures in section 2.0 of appendix A to this subpart as an alternative.

(1) For each flow measurement device, you must meet the requirements in paragraphs (a) and (g)(1)(i) through (vii) of this section.

(i) Locate a flow sensor in a position that provides a representative flow measurement in the duct from each capture device in the emission capture system to the add-on control device.

(ii) Use a flow sensor with an accuracy of at least 10 percent of the flow.

(iii) Perform an initial sensor calibration in accordance with the manufacturer's requirements.

(iv) Perform a validation check before initial use or upon relocation or replacement of a sensor. Validation checks include comparison of sensor values with electronic signal simulations or via relative accuracy testing.

(v) Conduct an accuracy audit every quarter and after every deviation. Accuracy audit methods include comparisons of sensor values with electronic signal simulations or via relative accuracy testing.

(vi) Perform leak checks monthly.

(vii) Perform visual inspections of the sensor system quarterly if there is no redundant sensor.

(2) For each pressure drop measurement device, you must comply with the requirements in paragraphs (a) and (g)(2)(i) through (vii) of this section.

(i) Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure drop across each opening you are monitoring.

(ii) Use a pressure sensor with an accuracy of at least 0.5 inches of water column or 5 percent of the measured value, whichever is larger.

(iii) Perform an initial calibration of the sensor according to the manufacturer's requirements.

(iv) Conduct a validation check before initial operation or upon relocation or replacement of a sensor. Validation checks include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.

(v) Conduct accuracy audits every quarter and after every deviation. Accuracy audits include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.

(vi) Perform monthly leak checks on pressure connections. A pressure of at least 1.0 inches of water column to the connection must yield a stable sensor result for at least 15 seconds.

(vii) Perform a visual inspection of the sensor at least monthly if there is no redundant sensor.

§ 63.3980 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. Environmental Protection Agency (EPA), or a delegated authority such as your State, local, or tribal agency. If the Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are listed in paragraphs (c)(1) through (4) of this section:

(1) Approval of alternatives to the requirements in §63.3881 through 3883 and §63.3890 through 3893.

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

§ 63.3981 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in 40 CFR 63.2, and in this section as follows:

Additive means a material that is added to a coating after purchase from a supplier (*e.g.,* catalysts, activators, accelerators).

Add-on control means an air pollution control device, such as a thermal oxidizer or carbon adsorber, that reduces pollution in an air stream by destruction or removal before discharge to the atmosphere.

Adhesive, adhesive coating means any chemical substance that is applied for the purpose of bonding two surfaces together. Products used on humans and animals, adhesive tape, contact paper, or any other product with an adhesive incorporated onto or in an inert substrate shall not be considered adhesives under this subpart.

Assembled on-road vehicle coating means any coating operation in which coating is applied to the surface of some component or surface of a fully assembled motor vehicle or trailer intended for on-road use including, but not limited to, components or surfaces on automobiles and light-duty trucks that have been repaired after a collision or otherwise repainted, fleet delivery trucks, and motor homes and other recreational vehicles (including camping trailers and fifth wheels). Assembled on-road vehicle coating includes the concurrent coating of parts of the assembled on-road vehicle that are painted off-vehicle to protect systems, equipment, or to allow full coverage. Assembled on-road vehicle coating does not include surface coating operations that meet the applicability criteria of the automobiles and light-duty trucks

NESHAP. Assembled on-road vehicle coating also does not include the use of adhesives, sealants, and caulks used in assembling on-road vehicles.

Capture device means a hood, enclosure, room, floor sweep, or other means of containing or collecting emissions and directing those emissions into an add-on air pollution control device.

Capture efficiency or capture system efficiency means the portion (expressed as a percentage) of the pollutants from an emission source that is delivered to an add-on control device.

Capture system means one or more capture devices intended to collect emissions generated by a coating operation in the use of coatings or cleaning materials, both at the point of application and at subsequent points where emissions from the coatings and cleaning materials occur, such as flashoff, drying, or curing. As used in this subpart, multiple capture devices that collect emissions generated by a coating operation are considered a single capture system.

Cleaning material means a solvent used to remove contaminants and other materials, such as dirt, grease, oil, and dried or wet coating (*e.g.,* depainting or paint stripping), from a substrate before or after coating application or from equipment associated with a coating operation, such as spray booths, spray guns, racks, tanks, and hangers. Thus, it includes any cleaning material used on substrates or equipment or both.

Coating means a material applied to a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, paints, sealants, liquid plastic coatings, caulks, inks, adhesives, and maskants. Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances, or paper film or plastic film which may be pre-coated with an adhesive by the film manufacturer, are not considered coatings for the purposes of this subpart. A liquid plastic coating means a coating made from fine particle-size polyvinyl chloride (PVC) in solution (also referred to as a plastisol).

Coating operation means equipment used to apply cleaning materials to a substrate to prepare it for coating application (surface preparation) or to remove dried coating; to apply coating to a substrate (coating application) and to dry or cure the coating after application; or to clean coating operation equipment (equipment cleaning). A single coating operation may include any combination of these types of equipment, but always includes at least the point at which a given quantity of coating or cleaning material is applied to a given part and all subsequent points in the affected source where organic HAP are emitted from the specific quantity of coating or cleaning material on the specific part. There may be multiple coating operations in an affected source. Coating application with handheld, non-refillable aerosol containers, touch-up markers, or marking pens is not a coating operation for the purposes of this subpart.

Coatings solids means the nonvolatile portion of the coating that makes up the dry film.

Continuous parameter monitoring system (CPMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this subpart, used to sample, condition (if applicable), analyze, and provide a record of coating operation, or capture system, or add-on control device parameters.

Controlled coating operation means a coating operation from which some or all of the organic HAP emissions are routed through an emission capture system and add-on control device.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart including but not limited to, any emission limit or operating limit or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limit, or operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Emission limitation means the aggregate of all requirements associated with a compliance option including emission limit, operating limit, work practice standard, etc.

Enclosure means a structure that surrounds a source of emissions and captures and directs the emissions to an add-on control device.

Exempt compound means a specific compound that is not considered a VOC due to negligible photochemical reactivity. The exempt compounds are listed in 40 CFR 51.100(s).

Extreme performance fluoropolymer coating means coatings that are formulated systems based on fluoropolymer resins which often contain bonding matrix polymers dissolved in non-aqueous solvents as well as other ingredients. Extreme performance fluoropolymer coatings are typically used when one or more critical performance criteria are required including, but not limited to a nonstick low-energy surface, dry film lubrication, high resistance to chemical attack, extremely wide operating temperature, high electrical insulating properties, or that the surface comply with government (*e.g.,* USDA, FDA) or third party specifications for health, safety, reliability, or performance. Once applied to a substrate, extreme performance fluoropolymer coatings undergo a curing process that typically requires high temperatures, a chemical reaction, or other specialized technology.

Facility maintenance means the routine repair or renovation (including the surface coating) of the tools, equipment, machinery, and structures that comprise the infrastructure of the affected facility and that are necessary for the facility to function in its intended capacity.

General use coating means any material that meets the definition of coating but does not meet the definition of high performance coating, rubber-to-metal coating, magnet wire coating, or extreme performance fluoropolymer coating as defined in this section.

High performance architectural coating means any coating applied to architectural subsections which is required to meet the specifications of Architectural Aluminum Manufacturer's Association's publication number AAMA 605.2–2000.

High performance coating means any coating that meets the definition of high performance architectural coating or high temperature coating in this section.

High temperature coating means any coating applied to a substrate which during normal use must withstand temperatures of at least 538 degrees Celsius (1000 degrees Fahrenheit).

Hobby shop means any surface coating operation, located at an affected source, that is used exclusively for personal, noncommercial purposes by the affected source's employees or assigned personnel.

Magnet wire coatings, commonly referred to as magnet wire enamels, are applied to a continuous strand of wire which will be used to make turns (windings) in electrical devices such as coils, transformers, or motors. Magnet wire coatings provide high dielectric strength and turn-to-turn conductor insulation. This allows the turns of an electrical device to be placed in close proximity to one another which leads to increased coil effectiveness and electrical efficiency.

Magnet wire coating machine means equipment which applies and cures magnet wire coatings.

Manufacturer's formulation data means data on a material (such as a coating) that are supplied by the material manufacturer based on knowledge of the ingredients used to manufacture that material, rather than based on testing of the material with the test methods specified in §63.3941. Manufacturer's formulation data may include, but are not limited to, information on density, organic HAP content, volatile organic matter content, and coating solids content.

Mass fraction of organic HAP means the ratio of the mass of organic HAP to the mass of a material in which it is contained, expressed as kg of organic HAP per kg of material.

Month means a calendar month or a pre-specified period of 28 days to 35 days to allow for flexibility in recordkeeping when data are based on a business accounting period.

Non-HAP coating means, for the purposes of this subpart, a coating that contains no more than 0.1 percent by mass of any individual organic HAP that is an OSHA-defined carcinogen as specified in 29 CFR 1910.1200(d)(4) and no more than 1.0 percent by mass for any other individual HAP.

Organic HAP content means the mass of organic HAP emitted per volume of coating solids used for a coating calculated using Equation 2 of §63.3941. The organic HAP content is determined for the coating in the condition it is in when received from its manufacturer or supplier and does not account for any alteration after receipt. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, organic HAP content is the mass of organic HAP that is emitted, rather than the organic HAP content of the coating as it is received.

Permanent total enclosure (PTE) means a permanently installed enclosure that meets the criteria of Method 204 of appendix M, 40 CFR Part 51, for a PTE and that directs all the exhaust gases from the enclosure to an add-on control device.

Personal watercraft means a vessel (boat) which uses an inboard motor powering a water jet pump as its primary source of motive power and which is designed to be operated by a person or persons sitting, standing, or kneeling on the vessel, rather than in the conventional manner of sitting or standing inside the vessel.

Protective oil means an organic material that is applied to metal for the purpose of providing lubrication or protection from corrosion without forming a solid film. This definition of protective oil includes, but is not limited to, lubricating oils, evaporative oils (including those that evaporate completely), and extrusion oils. Protective oils used on miscellaneous metal parts and products include magnet wire lubricants and soft temporary protective coatings that are removed prior to installation or further assembly of a part or component.

Reactive adhesive means adhesive systems composed, in part, of volatile monomers that react during the adhesive curing reaction, and, as a result, do not evolve from the film during use. These volatile components instead become integral parts of the adhesive through chemical reaction. At least 70 percent of the liquid components of the system, excluding water, react during the process.

Research or laboratory facility means a facility whose primary purpose is for research and development of new processes and products, that is conducted under the close supervision of technically trained personnel, and is not engaged in the manufacture of final or intermediate products for commercial purposes, except in a *de minimis* manner.

Responsible official means responsible official as defined in 40 CFR 70.2.

Rubber-to-metal coatings are coatings that contain heat-activated polymer systems in either solvent or water that, when applied to metal substrates, dry to a non-tacky surface and react chemically with the rubber and metal during a vulcanization process.

Startup, initial means the first time equipment is brought online in a facility.

Surface preparation means use of a cleaning material on a portion of or all of a substrate. This includes use of a cleaning material to remove dried coating, which is sometimes called depainting.

Temporary total enclosure means an enclosure constructed for the purpose of measuring the capture efficiency of pollutants emitted from a given source as defined in Method 204 of appendix M, 40 CFR Part 51.

Thinner means an organic solvent that is added to a coating after the coating is received from the supplier.

Total volatile hydrocarbon (TVH) means the total amount of nonaqueous volatile organic matter determined according to Methods 204 and 204A through 204F of appendix M to 40 CFR Part 51 and substituting the term TVH each place in the methods where the term VOC is used. The TVH includes both VOC and non-VOC.

Uncontrolled coating operation means a coating operation from which none of the organic HAP emissions are routed through an emission capture system and add-on control device.

Volatile organic compound (VOC) means any compound defined as VOC in 40 CFR 51.100(s).

Volume fraction of coating solids means the ratio of the volume of coating solids (also known as the volume of nonvolatiles) to the volume of a coating in which it is contained; liters (gal) of coating solids per liter (gal) of coating.

Wastewater means water that is generated in a coating operation and is collected, stored, or treated prior to being discarded or discharged.

Table 1 to Subpart MMMM of Part 63—Operating Limits if Using the Emission Rate With Add-On Controls Option

For the following device . . .	You must meet the following operating limit	And you must demonstrate continuous compliance with the operating limit by . . . .
1. Thermal oxidizer	a. The average Combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to §63.3967(a).	i. Collecting the combustion temperature data according to §63.3968(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average Combustion temperature at or above the temperature limit.
2. Catalytic oxidizer	a. The average Temperature measured just before the catalyst bed in any 3-hour period must not fall below the limit established according to §63.3967(b) (for magnet wire coating machines, temperature can be monitored before or after the catalyst bed); and either	i. Collecting the temperature data according to §63.3968(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature before (or for magnet wire coating machines after) the catalyst bed at or above the temperature limit.
	b. Ensure that the average temperature difference across the catalyst bed in any 3-hour period does not fall below the temperature difference limit established according to §63.3967(b) (2); or	i. Collecting the temperature data according to §63.3968(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average Temperature difference at or above the temperature difference limit.
	c. Develop and implement an inspection and maintenance plan according to §63.3967(b)(4) or for magnet wire coating machines according to section 3.0 of appendix A to this subpart.	i. Maintaining and up-to-date inspection and maintenance plan, records of annual catalyst activity checks, records of monthly inspections of the oxidizer system, and records of the annual internal inspections of the catalyst bed. If a problem is discovered during a monthly or annual inspection required by §63.3967(b)(4) or for magnet wire coating machines by

Table 1 to Subpart MMMM of Part 63—Operating Limits if Using the Emission Rate With Add-On Controls Option

For the following device . . .	You must meet the following operating limit	And you must demonstrate continuous compliance with the operating limit by . . . .
		section 3.0 of appendix A to this subpart, you must take corrective action as soon as practicable consistent with the manufacturer's recommendations.
3. Regenerative carbon adsorber.	a. The total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each carbon bed regeneration cycle must not fall below the total regeneration desorbing gas mass flow limit established according to §63.3967(c); and	i. Measuring the total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each regeneration cycle according to §63.3968(d); and ii. Maintaining the total regeneration desorbing gas mass flow at or above the mass flow limit.
	b. The temperature of the carbon bed, after completing each regeneration and any cooling cycle, must not exceed the carbon bed temperature limit established according to § 63.3967(c).	i. Measuring the temperature of the carbon bed after completing each regeneration and any cooling cycle according to §63.3968(d); and ii. Operating the carbon beds such that each carbon bed is not returned to service until completing each regeneration and any cooling cycle until the recorded temperature of the carbon bed is at or below the temperature limit.
4. Condenser	a. The average condenser outlet (product side) gas temperature in any 3-hour period must not exceed the temperature limit established according to §63.3967(d).	i. Collecting the condenser outlet (product side) gas Temperature according to §63.3968(e); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average gas temperature at the outlet at or below the temperature limit.
5. Concentrators, including zeolite wheels and rotary carbon adsorbers.	a. The average gas temperature of the desorption concentrate stream in any 3-hour period must not fall below the limit established according to §63.3967(e); and	i. Collecting the temperature data according to 63.3968(f); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature at or above the temperature limit.
	b. The average pressure drop of the dilute stream across the concentrator in any 3-hour period must not fall below the limit established according to §63.3967(e). pressure drop at or above the pressure drop limit.	i. Collecting the pressure drop data according to 63.3968(f); ii. Reducing the pressure drop data to 3-hour block averages; and iii. Maintaining the 3-hour average
6. Emission	a. The direction of the air flow	i. Collecting the direction of air

Table 1 to Subpart MMMM of Part 63—Operating Limits if Using the Emission Rate With Add-On Controls Option

For the following device . . .	You must meet the following operating limit	And you must demonstrate continuous compliance with the operating limit by . . . .
capture system that is a PTE according to §63.3965(a).	at all times must be into the enclosure; and either	flow, and either the facial velocity of air through all natural draft openings according to §63.3968(b)(1) or the pressure drop across the enclosure according to §63.3968(g)(2); and ii. Maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.
	b. The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minutes; or	i. See items 6.a.i and 6.a.ii.
	c. The pressure drop across the enclosure must be at least 0.007 inch H2O, as established in Method 204 of appendix M to 40 CFR Part 51.	i. See items 6.a.i and 6.a.ii.
7. Emission capture system that is not a PTE according to §63.3965(a).	a. The average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to §63.3967(f).	i. Collecting the gas volumetric flow rate or duct static pressure for each capture device according to §63.3968(g); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limited.

Table 2 to Subpart MMMM of Part 63—Applicability of General Provisions to Subpart MMMM of Part 63

Citation	Subject	Applicable to subpart MMMM	Explanation
§ 63.1(a)(1)-(14)	General Applicability.	Yes.	
§ 63.1(b)(1)-(3)	Initial Applicability Determination.	Yes	Applicability to subpart MMMM is also specified in §63.3881.
§ 63.1(c)(1)	Applicability After Standard Established.	Yes.	
§ 63.1(c)(2)-(3)	Applicability of Permit Program for Area Sources.	No	Area sources are not subject to subpart MMMM.

Table 2 to Subpart MMMM of Part 63—Applicability of General Provisions to Subpart MMMM of Part 63

Citation	Subject	Applicable to subpart MMMM	Explanation
§ 63.1(c)(4)-(5)	Extensions and Notifications.	Yes.	
§ 63.1(e)	Applicability of Permit Program Before Relevant Standard is Set.	Yes.	
§ 63.2	Definitions	Yes	Additional definitions are specified in §63.3981.
§ 63.1(a)-(c)	Units and Abbreviations.	Yes.	
§ 63.4(a)(1)-(5)	Prohibited Activities.	Yes.	
§ 63.4(b)-(c).	Circumvention/ Severability.	Yes.	
§ 63.5(a)	Construction/ Reconstruction.	Yes.	
§ 63.5(b)(1)-(6)	Requirements for Existing, Newly Constructed, and Reconstructed Sources.	Yes.	
§ 63.5(d)	Application for Approval of Construction/Reconstruction.	Yes.	
§ 63.5(e)	Approval of Construction/Reconstruction.	Yes.	
§ 63.5(f)	Approval of Construction/Reconstruction Based on Prior State Review.	Yes.	
§ 63.6(a)	Compliance With Standards and Maintenance Requirements -Applicability.	Yes.	
§ 63.6(b)(1)-(7).	Compliance Dates for New and Reconstructed Sources	Yes	Section 63.3883 specifies the compliance dates.
§ 63.6(c)(1)-(5)	Compliance Dates for Existing Sources.	Yes	Section 63.3883 specifies the compliance dates.
§ 63.6(e)(1)-(2)	Operation and Maintenance.	Yes.	
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction Plan.	Yes	Only sources using an add-on control device to comply with the standard must complete startup, shutdown, and malfunction plans.
§ 63.6(f)(1)	Compliance Except During Startup, Shutdown, and Malfunction.	Yes	Applies only to sources using an add-on control device to comply with the standard.

Table 2 to Subpart MMMM of Part 63—Applicability of General Provisions to Subpart MMMM of Part 63

Citation	Subject	Applicable to subpart MMMM	Explanation
§ 63.6(f)(2)-(3).	Methods for Determining Compliance.	Yes.	
§ 63.6(g)(1)-(3)	Use of an Alternative Standard.	Yes	
§ 63.6(h)	Compliance With Opacity/Visible Emission Standards	No	Subpart MMMM does not establish opacity standards and does not require continuous opacity monitoring systems (COMS).
§ 63.6(i)(1)-(16)	Extension of Compliance.	Yes.	
§ 63.6(j)	Presidential Compliance Exemption.	Yes.	
§ 63.7(a)(1).	Performance Test Requirements - Applicability.	Yes	Applies to all affected sources. Additional requirements for performance testing are specified in §§ 63.3964, 63.3965, and 63.3966.
§ 63.7(a)(2)	Performance Test Requirements - Dates.	Yes	Applies only to performance tests for capture system and control device efficiency at sources using these to comply with the standard. Section 63.3960 specifies the schedule for performance test requirements that are earlier than those specified in §63.7(a)(2).
§ 63.7(a)(3).	Performance Tests Required By the Administrator.	Yes.	
§ 63.7(b)-(e)	Performance Test Requirements - Notification, Quality Assurance, Facilities Necessary for Safe Testing, Conditions During Test.	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standard.
§ 63.7(f)	Performance Test Requirements - Use of Alternative Test Method. efficiency.	Yes	Applies to all test methods except those used to determine capture system
§ 63.7(g)-(h)	Performance Test Requirements - Data Analysis, Recordkeeping, Reporting, Waiver of Test.	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standard.

Table 2 to Subpart MMMM of Part 63—Applicability of General Provisions to Subpart MMMM of Part 63

Citation	Subject	Applicable to subpart MMMM	Explanation
§ 63.8(a)(1)-(3)	Monitoring Requirements - Applicability.	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for monitoring are specified in §63.3968.
§ 63.8(a)(4)	Additional Monitoring Requirements.	No	Subpart MMMM does not have monitoring requirements for flares.
§ 63.8(b)	Conduct of Monitoring.	Yes.	
§ 63.8(c)(1)-(3)	Continuous Monitoring Systems (CMS) Operation and Maintenance.	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for CMS operations and maintenance are specified in §63.3968.
§ 63.8(c)(4).	CMS	No	§ 63.3968 specifies the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply.
§ 63.8(c)(5)	COMS	No	Subpart MMMM does not have opacity or visible emission standards.
§ 63.8(c)(6).	CMS Requirements	No	Section 63.3968 specifies the requirements for monitoring systems for capture systems and add-on control devices at sources using these to comply.
§ 63.8(c)(7)	CMS Out-of-Control Periods.	Yes.	
§ 63.8(c)(8).	CMS Out-of-Control Periods and Reporting.	No	§ 63.3920 requires reporting of CMS out-of-control periods.
§ 63.8(d)-(e)	Quality Control Program and CMS Performance Evaluation.	No	Subpart MMMM does not require the use of continuous emissions monitoring systems.
§ 63.8(f)(1)-(5)	Use of an Alternative Monitoring Method.	Yes.	
§ 63.8(f)(6)	Alternative to Relative Accuracy Test.	No	Subpart MMMM does not require the use of continuous emissions monitoring systems.
§ 63.8(g)(1)-(5)	Data Reduction.	No	Sections 63.3967 and 63.3968 specify monitoring data reduction.
§ 63.9(a)-(d).	Notification Requirements.	Yes.	

Table 2 to Subpart MMMM of Part 63—Applicability of General Provisions to Subpart MMMM of Part 63

Citation	Subject	Applicable to subpart MMMM	Explanation
§ 63.9(e)	Notification of Performance Test.	Yes	Applies only to capture system and add-on control device performance tests at sources using these to comply with the standard.
§ 63.9(f).	Notification of Visible Emissions/Opacity Test.	No	Subpart MMMM does not have opacity or visible emissions standards.
§ 63.9(g)(1)-(3)	Additional Notifications When Using CMS	No	Subpart MMMM does not require the use of continuous emissions monitoring systems.
§ 63.9(h).	Notification of Compliance Status.	Yes	Section 63.3910 specifies the dates for submitting the notification of compliance status.
§ 63.9(i).	Adjustment of Submittal Deadlines.	Yes.	
§ 63.9(j).	Change in Previous Information.	Yes.	
§ 63.10(a).	Recordkeeping/ Reporting Applicability and General Information.	Yes.	
§ 63.10(b)(1).	General Recordkeeping Requirements.	Yes	Additional requirements are specified in §§ 63.3930 and 63.3931.
§ 63.10(b)(2)(i)-(v)	Recordkeeping Relevant to Startup, Shutdown, and Malfunction Periods and CMS.	Yes	Requirements for startup, shutdown, and malfunction records only apply to add-on control devices used to comply with the standard.
§ 63.10(b)(2)(vi)-(xi)	…	Yes.	
§ 63.10(b)(2)(xii)	Records	Yes.	
§ 63.10(b)(2)(xiii)	…	No	Subpart MMMM does not require the use of continuous emissions monitoring systems.
§ 63.10(b)(2)(xiv)	…	Yes.	
§ 63.10(b)(3).	Recordkeeping Requirements for Applicability Determinations.	Yes.	
§ 63.10(c) (1)-(6)	Additional Recordkeeping Requirements for Sources with CMS.	Yes.	

Table 2 to Subpart MMMM of Part 63—Applicability of General Provisions to Subpart MMMM of Part 63

Citation	Subject	Applicable to subpart MMMM	Explanation
§ 63.10(c) (7)-(8).	…	No	The same records are required in §63.3920(a)(7).
§ 63.10(c) (9)-(15)	….	Yes.	
§ 63.10(d)(1)	General Reporting Requirements.	Yes	Additional requirements are specified in §63.3920.
§ 63.10(d)(2)	Report of Performance Test Results.	Yes	Additional requirements are specified in §63.3920(b).
§ 63.10(d)(3)	Reporting Opacity or Visible Emissions Observations.	No	Subpart MMMM does not require opacity or visible emissions observations.
§ 63.10(d)(4)..	Progress Reports for Sources With Compliance Extensions.	Yes.	
§ 63.10(d)(5).	Startup, Shutdown, and Malfunction Reports.	Yes	Applies only to add-on control devices at sources using these to comply with the standard.
§ 63.10(e) (1)-(2)	Additional CMS Reports	No	Subpart MMMM does not continuous emissions monitoring systems.
§ 63.10(e) (3).	Excess Emissions/CMS Performance Reports.	No	Section 63.3920 (b) specifies the contents of periodic compliance reports.
§ 63.10(e) (4).	COMS Data Reports	No	Subpart MMMMM does not specify requirements for opacity or COMS.
§ 63.10(f).	Recordkeeping/ Reporting Waiver.	Yes.	
§ 63.11.	Control Device Requirements/Flares.	No	Subpart MMMM does not specify use of flares for compliance.
§ 63.12	State Authority and Delegations.	Yes.	
§ 63.13..	Addresses	Yes.	
§ 63.14..	Incorporation by Reference.	Yes.	
§ 63.15..	Availability of Information/ Confidentiality.	Yes.	

Table 3 to Subpart MMMM of Part 63—Default Organic HAP Mass Fraction for Solvents and Solvent Blends

You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data and which match either the solvent blend name or the chemical abstract series (CAS) number. If a solvent blend matches both the name and CAS number for an entry, that entry's organic HAP mass fraction must be used for that solvent blend. Otherwise, use the organic HAP mass fraction for the entry matching either the solvent blend name or CAS number, or use the organic HAP mass fraction from table 4 to this subpart if neither the name or CAS number match.

Solvent/solvent blend	CAS. No.	Average organic HAP mass fraction	Typical organic HAP, percent by mass
1. Toluene	108-88-3	1.0	Toluene.
2. Xylene(s)	1330-20-7	1.0	Xylenes, ethylbenzene.
3. Hexane	110-54-3	0.5	n-hexane.
4. n-Hexane	110-54-3	1.0	n-hexane.
5. Ethylbenzene	100-41-4	1.0	Ethylbenzene.
6. Aliphatic 140	.....	0	None.
7. Aromatic 100	.....	0.02	1% xylene, 1% cumene.
8. Aromatic 150	.....	0.09	Naphthalene.
9. Aromatic naphtha	64742-95-6	0.02	1% xylene, 1% cumene.
10. Aromatic solvent	64742-94-5	0.1	Naphthalene.
11. Exempt mineral spirits	8032-32-4	0	None.
12. Ligroines (VM & P)	8032-32-4	0	None.
13. Lactol spirits	64742-89-6	0.15	Toluene.
14. Low aromatic white spirit	64742-82-1	0	None.
15. Mineral spirits	64742-88-7	0.01	Xylenes.
16. Hydrotreated naphtha	64742-48-9	0	None.
17. Hydrotreated light distillate.	64742-47-8	0.001	Toluene.
18. Stoddard solvent	8052-41-3	0.01	Xylenes.
19. Super high-flash naphtha	64742-95-6	0.05	Xylenes.
20. Varsol ® solvent	8052-49-3	0.01	0.5% xylenes, 0.5% ethylbenzene.
21. VM & P naphtha	64742-89-8	0.06	3% toluene, 3% xylene.
22. Petroleum distillate mixture	68477-31-6	0.08	4% naphthalene, 4% biphenyl.

Table 4 to Subpart MMMM of Part 63—Default Organic HAP Mass Fraction for Petroleum Solvent Groups [a]

You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data.

Solvent type	Average organic HAP mass fraction	Typical organic HAP, percent by mass
Aliphatic [b]	0.03	1% Xylene, 1% Toluene, and 1% Ethylbenzene.
Aromatic [c]	0.06	4% Xylene, 1% Toluene, and 1% Ethylbenzene.

a Use this table only if the solvent blend does not match any of the solvent blends in Table 3 to this subpart by either solvent blend name or CAS number and you only know whether the blend is aliphatic or aromatic.

b Mineral Spirits 135, Mineral Spirits 150 EC, Naphtha, Mixed Hydrocarbon, Aliphatic Hydrocarbon, Aliphatic Naphtha, Naphthol Spirits, Petroleum Spirits, Petroleum Oil, Petroleum Naphtha, Solvent Naphtha, Solvent Blend.

c Medium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.

Appendix A to Subpart MMMM of Part 63—Alternative Capture Efficiency and Destruction Efficiency Measurement and Monitoring Procedures for Magnet Wire Coating Operations

1.0 Introduction.

1.1 These alternative procedures for capture efficiency and destruction efficiency measurement and monitoring are intended principally for newer magnet wire coating machines where the control device is internal and integral to the oven so that it is difficult or infeasible to make gas measurements at the inlet to the control device.

1.2 In newer gas fired magnet wire ovens with thermal control (no catalyst), the burner tube serves as the control device (thermal oxidizer) for the process. The combustion of solvents in the burner tube is the principal source of heat for the oven.

1.3 In newer magnet wire ovens with a catalyst there is either a burner tube (gas fired ovens) or a tube filled with electric heating elements (electric heated oven) before the catalyst. A large portion of the solvent is often oxidized before reaching the catalyst. The combustion of solvents in the tube and across the catalyst is the principal source of heat for the oven. The internal catalyst in these ovens cannot be accessed without disassembly of the oven. This disassembly includes removal of the oven insulation. Oven reassembly often requires the installation of new oven insulation.

1.4 Some older magnet wire ovens have external afterburners. A significant portion of the solvent is oxidized within these ovens as well.

1.5 The alternative procedure for destruction efficiency determines the organic carbon content of the volatiles entering the control device based on the quantity of coating used, the carbon content of the volatile portion of the coating and the efficiency of the capture system. The organic carbon content of the control device outlet (oven exhaust for ovens without an external afterburner) is determined using Method 25 or 25A.

1.6 When it is difficult or infeasible to make gas measurements at the inlet to the control device, measuring capture efficiency with a gas-to-gas protocol (see §63.3965(d)) which relies on direct measurement of the captured gas stream will also be difficult or infeasible. In these situations, capture efficiency measurement is more appropriately done with a procedure which does not rely on direct measurement of the captured gas stream.

1.7 Magnet wire ovens are relatively small compared to many other coating ovens. The exhaust rate from an oven is low and varies as the coating use rate and solvent loading rate change from job to job. The air balance in magnet wire ovens is critical to product quality. Magnet wire ovens must be operated under negative pressure to avoid smoke and odor in the workplace, and the exhaust rate must be sufficient to prevent over heating within the oven.

1.8 The liquid and gas measurements needed to determine capture efficiency and control device efficiency using these alternative procedures may be made simultaneously.

1.9 Magnet wire facilities may have many (*e.g.,* 20 to 70 or more) individual coating lines each with its own capture and control system. With approval, representative capture efficiency and control device efficiency testing of one magnet wire coating machine out of a group of identical or very similar magnet wire coating machines may be performed rather than testing every individual magnet wire coating machine. The operating parameters must be established for each tested magnet wire coating machine during each capture efficiency test and each control device efficiency test. The operating parameters established for each tested magnet wire coating machine also serve as the operating parameters for untested or very similar magnet wire coating machines represented by a tested magnet wire coating machine.

2.0 Capture Efficiency.

2.1 If the capture system is a permanent total enclosure as described in §63.3965(a), then its capture efficiency may be assumed to be 100 percent.

2.2 If the capture system is not a permanent total enclosure, then capture efficiency must be determined using the liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure in §63.3965(c), or an alternative capture efficiency protocol (see §63.3965(e)) which does not rely on direct measurement of the captured gas stream.

2.3 As an alternative to establishing and monitoring the capture efficiency operating parameters in §63.3967(f), the monitoring described in either section 2.4 or 2.5, and the monitoring described in sections 2.6 and 2.7 may be used for magnet wire coating machines.

2.4 Each magnet wire oven must be equipped with an interlock mechanism which will stop or prohibit the application of coating either when any exhaust fan for that oven is not operating or when the oven experiences an over limit temperature condition.

2.5 Each magnet wire oven must be equipped with an alarm which will be activated either when any oven exhaust fan is not operating or when the oven experiences an over limit temperature condition.

2.6 If the interlock in 2.4 or the alarm in 2.5 is monitoring for over limit temperature conditions, then the temperature(s) that will trigger the interlock or the alarm must be included in the start-up, shutdown and malfunction plan and the interlock or alarm must be set to be activated when the oven reaches that temperature.

2.7 Once every 6 months, each magnet wire oven must be checked using a smoke stick or equivalent approach to confirm that the oven is operating at negative pressure compared to the surrounding atmosphere.

3.0 Control Device Efficiency.

3.1 Determine the weight fraction carbon content of the volatile portion of each coating, thinner, additive, or cleaning material used during each test run using either the procedure in section 3.2 or 3.3.

3.2 Following the procedures in Method 204F, distill a sample of each coating, thinner, additive, or cleaning material used during each test run to separate the volatile portion. Determine the weight fraction carbon content of each distillate using ASTM Method D5291–02, “Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Petroleum Products and Lubricants” (incorporated by reference, see §63.14).

3.3 Analyze each coating, thinner, additive or cleaning material used during each test run using Method 311. For each volatile compound detected in the gas chromatographic analysis of each coating, thinner, additive, or cleaning material calculate the weight fraction of that whole compound in the coating, thinner, additive, or cleaning material. For each volatile compound detected in the gas chromatographic analysis of each coating, thinner, additive, or cleaning material calculate the weight fraction of the carbon in that compound in the coating, thinner, additive, or cleaning material. Calculate the weight fraction carbon content of each coating, thinner, additive, or cleaning material as the ratio of the sum of the carbon weight fractions divided by the sum of the whole compound weight fractions.

3.4 Determine the mass fraction of total volatile hydrocarbon (TVH_i) in each coating, thinner, additive, or cleaning material, i, used during each test run using Method 24. The mass fraction of total volatile hydrocarbon equals the weight fraction volatile matter (W_v in Method 24) minus the weight fraction water (W_w in Method 24), if any, present in the coating. The ASTM Method D6053–00, “Standard Test Method for Determination of Volatile Organic Compound (VOC) Content of Electrical Insulating Varnishes” (incorporated by reference, see §63.14), may be used as an alternative to Method 24 for magnet wire enamels. The specimen size for testing magnet wire enamels with ASTM Method D6053–00 must be 2.0 ±0.1 grams.

3.5 Determine the volume (VOL_i) or mass ($MASS_i$) of each coating, thinner, additive, or cleaning material, i, used during each test run.

3.6 Calculate the total volatile hydrocarbon input ($TVHC_{inlet}$) to the control device during each test run, as carbon, using Equation 1:

$$TVHC_{inlet} = \sum_{i=1}^{n} (TVH_i \times VOL_i \times D_i \times CD_i) \qquad (Eq.\ 1)$$

where:

TVH_i = Mass fraction of TVH in coating, thinner, additive, or cleaning material, i, used in the coating operation during the test run.

VOL_i = Volume of coating, thinner, additive, or cleaning material, i, used in the coating operation during the test run, liters.

D_i = Density of coating, thinner, additive, or cleaning material, i, used in the coating operation during the test run, kg per liter.

CD_i = Weight fraction carbon content of the distillate from coating, thinner, additive, or cleaning material, i, used in the coating operation during the test run, percent.

n = Number of coating, thinner, additive, and cleaning materials used in the coating operation during the test run.

3.7 If the mass, $MASS_i$, of each coating, solvent, additive, or cleaning material, i, used during the test run is measured directly then $MASS_i$ can be substituted for $VOL_i \times D_i$ in Equation 1 in section 3.6.

3.8 Determine the TVHC output ($TVHC_{outlet}$) from the control device, as carbon, during each test run using the methods in §63.3966(a) and the procedure for determining M_{fo} in §63.3966(d). $TVHC_{outlet}$ equals M_{fo} times the length of the test run in hours.

3.9 Determine the control device efficiency (DRE) for each test run using Equation 2:

$$DRE = \frac{(TVHC_{inlet} - TVHC_{outlet})}{TVHC_{inlet}} \times 100 \qquad (Eq.\ 2)$$

3.10 The efficiency of the control device is the average of the three individual test run values determined in section 3.9.

3.11 As an alternative to establishing and monitoring the destruction efficiency operating parameters for catalytic oxidizers in §63.3967(b), the monitoring described in sections 3.12 and 3.13 may be used for magnet wire coating machines equipped with catalytic oxidizers.

3.12 During the performance test, you must monitor and record the temperature either just before or just after the catalyst bed at least once every 15 minutes during each of the three test runs. Use the data collected during the performance test to calculate and record the average temperature either just before or just after the catalyst bed during the performance test. This is the minimum operating limit for your catalytic oxidizer and for the catalytic oxidizers in identical or very similar magnet wire coating machines represented by the tested magnet wire coating machine.

3.13 You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s). The plan must address, at a minimum, the elements specified in sections 3.14 and 3.15, and the elements specified in either (a) section 3.16 or (b) sections 3.17 and 3.18.

3.14 You must conduct a monthly external inspection of each catalytic oxidizer system, including the burner assembly and fuel supply lines for problems and, as necessary, adjust the equipment to assure proper air-to-fuel mixtures.

3.15 You must conduct an annual internal inspection of each accessible catalyst bed to check for channeling, abrasion, and settling. If problems are found, you must replace the catalyst bed or take corrective action consistent with the manufacturer's recommendations. This provision does not apply to internal catalysts which cannot be accessed without disassembling the magnet wire oven.

3.16 You must take a sample of each catalyst bed and perform an analysis of the catalyst activity (*i.e.,* conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures. This sampling and analysis must be done within the time period shown in Table 1 below of the most recent of the last catalyst activity test or the last catalyst replacement. For example, if the warranty for the catalyst is 3 years and the catalyst was more recently replaced then the sampling and analysis must be done within the earlier of 26,280 operating hours or 5 calendar years of the last catalyst replacement. If the warranty for the catalyst is 3 years and the catalyst was more recently tested then the sampling and analysis must be done within the earlier of 13,140 operating hours or 3 calendar years of the last catalyst activity test. If problems are found during the catalyst activity test, you must replace the catalyst bed or take corrective action consistent with the manufacturer's recommendations.

Table 1_Catalyst Monitoring Requirements

If the catalyst was last (more recently) replaced and the warranty period is . . .	Then the time between catalyst replacement and the next catalyst activity test cannot exceed the earlier of . . .	And the catalyst was more recently tested, then the time between catalyst activity tests cannot exceed the earlier of . . .
1 year	8,760 operating hours or 5 calendar years.	8,760 operating hours or 3 calendar years.
2 years	15,520 operating hours or 5 calendar years.	8,760 operating hours or 3 calendar years.
3 years	26,280 operating hours or 5 calendar years.	13,100 operating hours or 3 calendar years.
4 years	35,040 operating hours or 5 calendar years.	17,520 operating hours or 3 calendar years.
5 or more years	43,800 operating hours or 5 calendar years.	21,900 operating hours or 3 calendar years.

3.17 During the performance test, you must determine the average concentration of organic compounds as carbon in the magnet wire oven exhaust stack gases (C_c in Equation 1 in §63.3966(d)) and the destruction efficiency of the catalytic oxidizer, and calculate the operating limit for oven exhaust stack gas concentration as follows. You must identify the highest organic HAP content coating used on this magnet wire coating machine or any identical or very similar magnet wire coating machines to which the same destruction efficiency test results will be applied. Calculate the percent emission reduction necessary to meet the magnet wire coating emission limit when using this coating. Calculate the average concentration of organic compounds as carbon in the magnet wire oven exhaust stack gases that would be equivalent to exactly meeting the magnet wire coating emissions limit when using the highest organic HAP content

coating. The maximum operating limit for oven exhaust stack gas concentration equals 90 percent of this calculated concentration.

3.18 For each magnet wire coating machine equipped with a catalytic oxidizer you must perform an annual 10 minute test of the oven exhaust stack gases using EPA Method 25A. This test must be performed under steady state operating conditions similar to those at which the last destruction efficiency test for equipment of that type (either the specific magnet wire coating machine or an identical or very similar magnet wire coating machine) was conducted. If the average exhaust stack gas concentration during the annual test of a magnet wire coating machine equipped with a catalytic oxidizer is greater than the operating limit established in section 3.17 then that is a deviation from the operating limit for that catalytic oxidizer. If problems are found during the annual 10-minute test of the oven exhaust stack gases, you must replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations.

3.19 If a catalyst bed is replaced and the replacement catalyst is not of like or better kind and quality as the old catalyst, then you must conduct a new performance test to determine destruction efficiency according to §63.3966 and establish new operating limits for that catalytic oxidizer unless destruction efficiency test results and operating limits for an identical or very similar unit (including consideration of the replacement catalyst) are available and approved for use for the catalytic oxidizer with the replacement catalyst.

3.20 If a catalyst bed is replaced and the replacement catalyst is of like or better kind and quality as the old catalyst, then a new performance test to determine destruction efficiency is not required and you may continue to use the previously established operating limits for that catalytic oxidizer.

E.1.3 One Time Deadlines Relating to NESHAP Subpart MMMM

The Permittee shall comply with the following requirements by the dates listed:

Requirement	Rule Cite	Affected Facility	Deadline
Submit Initial Notification *	40 CFR 63.3910(b)	Entire Source	January 2, 2005
Conduct Initial Compliance Demonstrations	40 CFR 63.3940, 63.3950, 63.3960	Entire Source	January 31, 2008
Submit Notification of Intent to Conduct a Performance Test	40 CFR 63.7(b) and 63.9(e)	Ovens that Undergo Performance Test	November 3, 2006
Conduct Performance Test	40 CFR 63.3960(b)(1)	Ovens that Undergo Performance Test	January 2, 2007
Develop and Implement Work Practice Plan	40 CFR 63.3960(b)(2)	Entire Source	January 2, 2007
Results of Initial Performance Tests	40 CFR 63.3920(b)	Ovens that Undergo Performance Test	March 3, 2007
Notification of Compliance Status	40 CFR 63.3910(c)	Entire Source	March 1, 2008
First Semiannual Compliance Report	40 CFR 63.3920(a)(1)	Entire Source	July 31, 2008

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT
CERTIFICATION

Source Name: Essex Group, Inc. - Vincennes Plant
Source Address: 1299 East Essex Road, Vincennes, IN, 47591
Mailing Address: 1299 East Essex Road, Vincennes, IN, 47591
Part 70 Permit No.: T083-7422-00008

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

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)

☐ Report (specify)

☐ Notification (specify)

☐ Affidavit (specify)

☐ Other (specify)

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

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Branch

Part 70 Quarterly Report

Source Name: Essex Group, Inc. - Vincennes Plant
Source Address: 1299 East Essex Road, Vincennes, IN, 47591
Mailing Address: 1299 East Essex Road, Vincennes, IN, 47591
Part 70 Permit No.: T083-7422-00008
Facilities: 201E and 201W through 216E and 216W and 301E and 301W through 316E and 316W
Parameter: Total VOC emissions
Limit: The total VOC emissions shall not exceed 329 tons per twelve consecutive month period with compliance determined at the end of each month.

Monthly VOC emissions shall be determined with the following equation (see Condition **D.1.4** of the permit for a description of the variables):

$$VOC_t = [(VOC_{ie2} + VOC_{il2}) \times (1 - DE_2/100)] + VOC_{ie3} \times (1 - DE_3/100) + VOC_{il3s}$$

QUARTER: YEAR:

Month	Total VOC Emissions This Month	Total VOC Emissions from Past 11 Months	Total VOC Emissions (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 BRANCH
100 North Senate Avenue
MC61-53
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Essex Group, Inc. - Vincennes Plant
Source Address: 1299 East Essex Road, Vincennes, IN, 47591
Mailing Address: 1299 East Essex Road, Vincennes, IN, 47591
Part 70 Permit No.: T083-7422-00008

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

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

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

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

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

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Data Section

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Essex Group, Inc. - Vincennes Plant
Source Address: 1299 East Essex Road, Vincennes, IN, 47591
Mailing Address: 1299 East Essex Road, Vincennes, IN, 47591
Part 70 Permit No.: T083-7422-00008

Months: _____ **to** _____ **Year:** _____ Page 1 of 2

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 deviations required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".
NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.
THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

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

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

Page 2 of 2

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

Form Completed By: ______________________________

Title/Position: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document for a
Significant Source Modification and a Significant Permit Modification to a
Part 70 Operating Permit

Source Name:	Essex Group, Inc.
Source Location:	1299 East Essex Road, Vincennes, IN 47591
County:	Knox
SIC Code:	3357
NAICCS Code	331422
Operating Permit No.:	T 083-7422-00008
Source Modification No.:	083-23813-00008
Permit Modification No.:	083-23819-00008
Permit Reviewer:	Jenny Acker

On January 31, 2007, the Office of Air Quality (OAQ) had a notice published in the Sun Commercial in Vincennes, Indiana, stating that Essex Group, Inc. had applied for a modification to the Part 70 Operating Permit No.: 083-7422-00008. The notice also stated that OAQ proposed to issue a permit for this modification 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.

Upon further review, the OAQ has decided to make the following revisions to the permit (bolded language has been added, the language with a line through it has been deleted). The Table Of Contents has been modified to reflect these changes.

1. To minimize future amendments to the issued Part 70 Permits, the OAQ decided to delete the name and/or title of the Responsible Official (RO) in Section A.1, General Information, of the permit. However, OAQ will still be evaluating if a change in RO meets the criteria specified in 326 IAC 2-7-1(34). The revised permit condition is 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 a stationary copper rod production and magnet wire manufacturing plant.

~~Responsible Official(s):~~	~~Plant Manager(s) for Concast and Magnet Wire plants~~
Source Address:	1299 East Essex Road, Vincennes, IN, 47591
Mailing Address:	1299 East Essex Road, Vincennes, IN, 47591
SIC Code:	3351 and 3357
County Location:	Knox
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major under PSD rules Major Source, Section 112 of the Clean Air Act

2. All references to IDEM, OAQ's mailing addresses have been revised as follows:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC61-53
Indianapolis, Indiana 46204-2251

And

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC61-50
Indianapolis, Indiana 46204-2251

And

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC61-52
Indianapolis, Indiana 46204-2251

And

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC61-53
Indianapolis, Indiana 46204-2251

And

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC61-53
Indianapolis, Indiana 46204-2251

And

Indiana Department of Environmental Management
Air Compliance Section, Office of Air Quality
100 North Senate Avenue
MC61-53
Indianapolis, Indiana 46204-2251

3. The clean unit and pollution control project provisions of the U.S. EPA's New Source Review Reform Rules were vacated on June 24, 2005 by a United States Court of Appeals for the District of Columbia Circuit decision. This decision also remanded the "reasonable possibility" standard back to U.S. EPA. The OAQ plans to remove the vacated provisions from 326 IAC 2 at the next state rulemaking opportunity. Paragraph (c) of Condition C.17, Record Keeping Requirements, has been revised as follows:

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]

****

(c) If there is a ~~reasonable possibility that a~~ "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit **or at a source with a Plantwide 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)) ~~may result in significant emissions increase~~ 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:

****

No change will be made to the original TSD. The OAQ prefers that the TSD 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.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Prevention of Significant Deterioration (PSD) and Part 70 Significant Source Modification and Significant Permit Modification

Source Description and Location

Source Name:	Essex Group, Inc. - Vincennes Plant
Source Location:	1299 East Essex Road, Vincennes, IN, 47591
County:	Knox
SIC Code:	3351 and 3357
Operation Permit No.:	T083-7422-00008
Operation Permit Issuance Date:	May 3, 2004
PSD/Significant Source Modification No.:	083-23813-00008
Significant Permit Modification No.:	083-23819-00008
Permit Reviewer:	Jenny Acker

Existing Approvals

The source was issued Part 70 Operating Permit No. 083-7422-00008 on May 3, 2004. The source has since received the following approvals:

(a) PSD/Significant Source Modification No. 083-21221-00008, issued on September 23, 2005,

(b) Significant Permit Modification No. 083-21551-00008, issued on October 11, 2005; and,

(c) Significant Permit Modification No. 083-22897-00008, issued on November 3, 2006.

County Attainment Status

The source is located in Knox County.

Pollutant	Status
PM10	attainment
PM2.5	attainment
SO_2	attainment
NO_2	attainment
8-hour Ozone	attainment
CO	attainment
Lead	attainment

(a) 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 ozone. Knox County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) Knox 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 PM2.5 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 a surrogate for PM2.5 emissions.

(c) Knox County has been classified as attainment or unclassifiable for PM10, SO_2, NO_2, CO, and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

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

Source Status

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

Pollutant	Emissions (tons/year)
PM	less than 100
PM10/PM2.5	less than 100
SO_2	less than 100
VOC	greater than 250
CO	less than 100
NO_x	less than 100

(a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1)

(b) These emissions are based upon the Technical Support Document of the Significant Source Modification (T083-21221-00008), issued September 23, 2005.

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

HAPs	Potential To Emit tons/year)
Phenol	greater than 10
Cresylic Acid	greater than 10
Xylene	less than 10
Cumene	less than 10
Total	greater than 25

(a) This existing source is a major source of HAPs, as defined in 40 CFR 63.41, because HAP emissions are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

(b) These emissions are based upon the Technical Support Document of the Part 70 Operating permit (T 083-7422-00008), issued May 3, 2004.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2005 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	Not Reported
PM10	17
SO_2	0
VOC	487
CO	22
NO_x	45
HAP (Pb)	0

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed an application for a PSD Significant Source Modification and PSD Significant Permit Modification to a Part 70 permit, submitted by Essex Group, Inc. on October 25, 2006, relating to:

(a) An increase in the production capacity of eight (8) existing magnet wire coating units: 209E and 209W through 212E and 212W. The existing capacity is 658 pounds of copper wire per hour, per unit. The new capacity is 900 pounds of copper wire per hour, per unit.

(b) An increase in the production capacity of eight (8) existing magnet wire coating units: 213E and 213W through 216E and 216W. The existing capacity is 527 pounds of copper wire per hour, per unit. The new capacity is 900 pounds of copper wire per hour, per unit.

(c) The addition of four (4) wire annealers to magnet wire coating units 213E and 213W through 216E and 216W. Currently, each E/W pair shares a common annealer. After the modification, each unit will have its own annealer. The additional annealers allow Essex greater flexibility in oven scheduling, reduced downtime, reduced scrap generation and greater energy use efficiency.

(d) The addition of emission capture devices on the lubricant coating subsections of units 213E and 213W through 216E and 216W. Emissions captured by the devices will be routed to, and destroyed by, the integral thermal oxidizers. The thermal oxidizers currently control emissions from the enamel curing process. After the modification the thermal oxidizers will control emissions from the enameling and lubricant coating operations.

"Integral Part of the Process" Determination

(a) The following justification has been incorporated from the Technical Support Document for the initial Part 70 Operating Permit (T083-7422-00008):

The source submitted the following justification such that the thermal oxidizers be considered an integral part of the enamel curing ovens subsection of the wire magnet coating process.

> Wire from the annealer is sent to the enamel applicator where the wire is coated with a base coat and top coat. The coated wire then passes to a drying oven equipped with an thermal oxidizer. The heat requirement of the magnet wire curing oven is, in part, satisfied by heat generated from the combustion of the VOC in the thermal oxidizers. Therefore, the thermal oxidizers are responsible for the necessary curing of the coating applied to the magnet wire. The process could not operate without the oxidizers and the oxidizers serve a primary purpose other than pollution control.

IDEM, OAQ has evaluated the justifications and agreed that the thermal and catalytic oxidation systems will be considered as an integral part of the enamel curing ovens subsection of the wire coating process. However, the control efficiency of the thermal and catalytic oxidizers is dependent on the oven temperature and on the quality of the catalyst for the catalytic oxidizers. Therefore, the permitting level will be determined using the potential to emit before controls. Operating conditions in the proposed permit will specify that the thermal and catalytic oxidizers shall operate at all times when the enamel oven curing subsection of the wire coating process is in operation.

(b) The following justification was made in the Technical Support Document for the PSD Significant Source Modification (083-21221-00008) and the Significant Permit Modification (083-21551-00008):

> Pursuant to T083-7422-00008, issued on May 3, 2004, the thermal oxidizers (that control VOC emissions from the magnet wire coating units) are integral: i.e. considered part of the process.

During this review, IDEM, OAQ, has determined that the justification to consider the thermal oxidizers as an integral part of the wire magnet coating process, applies only to the enamel curing subsection of the wire magnet coating process and was erroneously applied to the lubricant coating subsections of the wire coating process. Therefore, thermal oxidizers are not considered an integral part of the lubricant coating subsections of the wire coating process. Operating conditions in the proposed permit will specify that the thermal and catalytic oxidizers shall operate at all times when the lubricant coating subsections of the wire coating process is in operation.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

Permit Level Determination – Part 70

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

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

Pollutant	PTE Before Modification (tons/year)	PTE After Modification (tons/year)	Net Difference (tons/year)
PM	0	0	0
PM10	0	0	0
SO_2	0	0	0
VOC	2472.88	3756.28	1283.40
CO	0	0	0
NO_X	0	0	0
HAPs	0	0	0

The Part 70 Operating permit is being modified through a Part 70 Significant Source Modification, pursuant to 326 IAC 2-7-10.5(f)(1) and (f)(4), because the modification is subject to 326 IAC 2-2 and it's potential to emit VOC is greater than 25 tons per year. The Part 70 Operating permit is being modified through a Part 70 Significant Permit Modification, pursuant to 326 IAC 2-7-12(d)(1), because the modification involves a significant change to an existing Part 70 term or condition.

Permit Level Determination – PSD or Emission Offset

In order to accommodate the capacity increase of the magnet wire coating units, the VOC PSD BACT limits originally established in T083-7422-00008, issued May 3, 2004, must be re-opened and re-evaluated. As a result, this modification is subject to the requirements of 326 IAC 2-2. See the *State Rule Applicability – 326 IAC 2-2* section of this document for more information.

Federal Rule Applicability Determination

(a) The requirements of 326 IAC 20 and 40 CFR Part 63, Subpart SSSS (National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Coil) are not included in the permit. 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).

(b) The requirements of 326 IAC 12 and 40 CFR Part 60, Subpart TT (New Source Performance Standards: Surface Coating of Metal Coil) are not included in the permit. 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 magnet wire coating units are subject to the requirements of 40 CFR Part 63, Subpart MMMM (National Emission Standards for Hazardous Air Pollutants: Surface Coating of Miscellaneous Metal Parts and Products) because they are located at a source which is a major source of HAPs and are used for the surface coating of magnet wire. A copy of the MACT is available on the U.S. EPA website, http://www.epa.gov/ttn/atw/misc/miscpg.html. Pursuant to 40 CFR 63.3883, the Permittee must comply with these requirements on and after January 2, 2007.

The Part 70 permit contains conditions addressing the requirements of 40 CFR Part 63, Subpart MMMM. These conditions have not changed as a result of the modification.

(d) The magnet wire coating units are not subject to the provisions of 40 CFR Part 64, Compliance Assurance Monitoring (CAM). In order for this rule to apply, a pollutant-specific-emissions-unit at a source that requires a Part 70 or Part 71 permit must meet three criteria for a given pollutant: 1) the unit is subject to an applicable emission limitation or standard for the applicable regulated air pollutant, 2) the unit uses a control device to achieve compliance with any such emission limitation or standard, and 3) the unit has the potential to emit, of the applicable regulated air pollutant, equal or greater than 100 percent of the amount required for a source to be classified as a major source. The magnet wire coating units do not meet these criteria and therefore, are not subject to 40 CFR Part 64 (CAM).

State Rule Applicability Determination

326 IAC 2-2 (Prevention of Significant Deterioration)
This source consists of two divisions, a Concast division, constructed in 1976, which produces copper rod and bars, and a Magnet Wire division, originally constructed in 1967, which processes the copper products from the Concast division into coated copper wire. The Magnet Wire Division is divided into two departments, Department 200 and 300. Each department contains 32 magnet wire coating units. This modification only affects units 209E and 209W through 216E and 216W.

This source is located in Knox County which is designated as attainment or unclassifiable for all criteria pollutants. The net emissions increase of the modification is less than the relevant PSD major modification thresholds. Therefore, the modification would not trigger PSD based on the level of emissions increase. However, in order to accommodate the capacity increase of the magnet wire coating units, the VOC PSD BACT limits originally established in T083-7422-00008, issued May 3, 2004, and revised in SSM 089-21221-00008, issued September 23, 2005, must be revised. As a result, this modification is subject to the requirements of 326 IAC 2-2.

The PSD provisions require that this modification be reviewed to ensure compliance with the National Ambient Air Quality Standards and to apply the requirements of 326 IAC 2-2. Specifically, 326 IAC 2-2-3 requires the determination and implementation of BACT, 326 IAC 2-2-4 and 326 IAC 2-2-5 require the evaluation of the modification's impact on air quality, 326 IAC 2-2-6 requires an assessment of increment consumption and 326 IAC 2-2-7 requires an evaluation of additional impacts.

326 IAC 2-2-3 (PSD: Best Available Control Technology)
For the purpose of evaluating VOC emissions, each magnet wire coating unit consists of two subsections, an enamel curing subsection (using integral thermal oxidization for VOC control) and a lubricant coating subsection (no controls). Pursuant to 326 IAC 2-2-3, BACT for VOC has been evaluated and determined for each of these subsections; see Appendix B for more information. Note that an economic analysis of the various control options was not completed since BACT has been determined to be the control option with the greatest emission reduction potential.

With respect to this modification, the requirement to comply with the provisions of 326 IAC 2-2 does not include 326 IAC 2-2-4 (Air Quality Analysis), 326 IAC 2-2-5 (Air Quality Impact), 326 IAC 2-2-6 (Increment Consumption) and 326 IAC 2-2-7 (Additional Analyses) because: 1) the existing allowable post-BACT VOC emission rate of 453 tpy will decrease to 329 tpy after issuance, and 2) no ozone increment is known to exist.

PSD VOC BACT has been determined to be the following:

(a) VOC emissions from the enamel curing subsection of magnet wire coating units 201E and 201W through 216E and 216W and 301E and 301W through 316E and 316W shall be controlled by an oxidizer with a minimum one-hundred percent (100%) capture efficiency (as defined by Method 204 of 40 CFR Part 52, Appendix M). The captured

VOC emissions shall be routed to the internal thermal oxidizers and destroyed with a minimum ninety-eight and five tenths percent (98.5%) destruction efficiency.

(b) VOC emissions from the lubricant (lube) coating subsection of magnet wire coating units 201E and 201W through 216E and 216W shall be controlled by a device with a minimum one-hundred percent (100%) capture efficiency (as defined by Method 204 of 40 CFR Part 52, Appendix M). The captured VOC emissions shall be routed to the internal thermal oxidizers and destroyed with a minimum ninety-eight and five tenths percent (98.5%) destruction efficiency.

(c) The total VOC emissions from magnet wire coating units 201E and 201W through 216E and 216W and 301E and 301W through 316E and 316W shall not exceed 329 tons per twelve consecutive month period with compliance determined at the end of each month.

IDEM has developed the following equation by which the Permittee can precisely determine compliance with the 329 ton per year limit:

$$VOC_t = [(VOC_{ie2} + VOC_{il2}) \times (1 - DE_2/100)] + VOC_{ie3} \times (1 - DE_3/100) + VOC_{il3s}$$

Where:

VOC_t = Total VOC emissions (ton/month) from magnet wire coating units 201E and 201W through 216E and 216W and 301E and 301W through 316E and 316W for a given calendar month.

VOC_{ie2} = Total VOC input (ton/month) to the enamel coating/curing subsection of units 201E and 201W through 216E and 216W for a given calendar month.

VOC_{il2} = Total VOC input (ton/month) to the lubricant coating subsection of units 201E and 201W through 216E and 216W for a given calendar month.

DE_2 = The destruction efficiency (%) of the Department 200 integral thermal oxidizers as determined by the most recent compliance test.

VOC_{ie3} = Total VOC input (ton/month) to the enamel coating/curing subsection of units 301E and 301W through 316E and 316W for a given calendar month.

DE_3 = The destruction efficiency (%) of the Department 300 integral thermal oxidizers as determined by the most recent compliance test.

VOC_{il3s} = Total VOC input (ton/month) to the lubricant coating subsection of units 301E and 301W through 316E and 316W, and the total VOC from cleanup solvent used in conjunction with units 201E and 201W through 216E and 216W and 301E and 301W through 316E for a given calendar month.

326 IAC 2-3 (Emission Offset)
Knox County is designated as attainment or unclassifiable for all criteria pollutants. Therefore, the requirements of 326 IAC 2-3 do not apply to this modification.

326 IAC 2-4.1 (Hazardous Air Pollutants)
This modification does not involve the construction or reconstruction of a major source of hazardous air pollutants. Therefore, pursuant to 326 IAC 2-4.1-1, this modification is not subject to the requirements of 326 IAC 2-4.1.

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

(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 6-3-2 (Particulate Emission Limitations from Manufacturing Processes)
Particulate emissions from the magnet wire coating operation result from the combustion of natural gas in the thermal oxidizers. The magnet wire coating operations are not subject to the requirements of 326 IAC 6-3-2 because, pursuant to 326 IAC 6-3-1(b)(14), each magnet wire emission unit emits significantly less than 0.551 pounds of particulate per hour.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)
None of the facilities associated with this modification have the potential to emit greater than or equal to 25 tons of SO2 per year. Therefore, the requirements of 326 IAC 7-1.1 do not apply to any of the facilities associated with this modification.

326 IAC 8-1-6 (Volatile Organic Compounds - BACT)
The enamel coating/curing subsections of the magnet wire coating units (209E/W through 216E/W) are subject to 326 IAC 8-2-8. Therefore, 326 IAC 8-1-6 is not applicable to these facilities.

The lubricant coating subsections of the magnet wire coating units (209E/W through 216 E/W) each have a potential to emit equal to or less than twenty-five (25) tons of VOC per year. Therefore, 326 IAC 8-1-6 is not applicable to these facilities.

326 IAC 8-2-8 (Magnet Wire Coating Operations)
The magnet wire coating units are located in Knox county and have actual pre-control VOC emissions greater than 15 pounds per day. As a result, the magnet wire emission units are subject to the requirements of 326 IAC 8-2-8.

The volatile organic compound (VOC) content of electrically insulating varnishes or enamel applied to aluminum or copper wire for use in electrical machinery shall be limited to 1.7 pounds VOC per gallon of coating less water delivered to the applicator.

This limit 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.

326 IAC 8-1-2 (Compliance Methods)
Pursuant to 326 IAC 8-1-2(b), the magnet wire emission units' VOC emissions shall be limited to no greater than the equivalent emissions, expressed as pounds of VOC per gallon of coating solids, allowed in (a).

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 the 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 (E) shall be limited to less than 2.21, when L is equal to 1.7 and D is equal to 7.36.

Pursuant to 326 IAC 8-1-2(c):

(a) The overall control efficiency of the thermal oxidizers controlling units 201E and 201W through 216E and 216W shall be no less than 96.0% or the required destruction efficiency demonstrated by the most recent stack test, for the worst case VOC coating currently used; for a higher VOC content coating, the overall control efficiency of these units shall be no less than the estimated control efficiency required to achieve compliance with the VOC limit in Condition D.1.2(a) and the PSD BACT limit in Condition D.1.1(a) and (b); and

(b) The overall control efficiency of the thermal oxidizers controlling units 301E and 301W through 316E and 316W shall be no less than 97.8% or the required destruction efficiency demonstrated by the most recent stack test, for the worst case VOC coating currently used; for a higher VOC content coating, the overall control efficiency of these units shall be no less than the estimated control efficiency required to achieve compliance with the VOC limit in Condition D.1.2(a) and the PSD BACT limit in Condition D.1.1(a) and (b).

The overall control efficiency (O) of the thermal oxidizers shall be 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 = Overall efficiency of the capture system and control device as a percentage.

Compliance Determination and Monitoring Requirements

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

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

arise through a source's failure to take the appropriate corrective actions within a specific time period.

The Compliance Determination Requirements applicable to this modification are as follows:

(a) Pursuant to 326 IAC 8-1-2(a) and 326 IAC 2-2 (PSD), the Permittee shall operate the internal thermal oxidizers at all times the respective facilities are in operation.

(b) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature of the internal thermal oxidizer. 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 temperature shall be recorded whenever the thermal oxidizer is in operation.

(c) 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 internal thermal oxidizer. Continuous monitoring shall mean no less often than once per fifteen (15) minutes.

(d) The oxidizer shall operate such that if the three-hour average temperature falls below the 3 hour block average minimum required temperature (setpoint) 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 setpoint. Corrective action must return oxidizer temperature to or above the minimum temperature setpoint 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.

(e) The Permittee shall conduct performance test to verify VOC capture and destruction efficiency in accordance with the following:

No later than 180 days after the issuance of SSM 083-23813-00008, the Permittee shall test one (1) internal thermal oxidizers and one (1) lubricant coating subsection capture devices from magnet wire coating units 213E/W through 216E/W that have not been tested in the past ten (10) years. These tests shall be repeated at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted using Method 25A or methods approved by the Commissioner and in accordance with 326 IAC 3-6-3 and Section C - Performance Testing.

These conditions are necessary because the capture equipment and thermal oxidizers must operate properly to ensure compliance with 326 IAC 2-2 (PSD BACT) and 326 IAC 8-2-8 (Magnet Wire Coating Operations).

Proposed Changes

Modification No. 1:

IDEM has determined that the accuracy of the instruments is not nearly as important as whether the instrument has a range that is appropriate for the normal expected reading of the parameter. Therefore, the accuracy requirement has been removed from Condition C.11 - Instrument Specifications.

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 Preventive Maintenance Plan for the pH meter shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one pH point.~~

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

Modification No. 2:

Section A.2(a) through (k) have been modified to incorporate the throughput increases, the addition of four (4) annealers at units 213E/W through 216E/W, the BACT requirement to control the lubrication emissions from units 213E/W through 216E/W, and to clarify the integral to process determination. Section A.2 has been revised 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:

Magnet Wire Production - Departments 200 and 300

Under the Miscellaneous Metal Parts and Products Coating NESHAP (40 CFR 63, Subpart MMMM), the following emission units are considered to be part of an existing magnet wire coating affected source:

(a) Two (2) Department 200 Emission Units, identified as units 201E and 201W, each constructed in 1989 and modified in 1998 and 2005. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by ~~integral~~ **internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(b) Four (4) Department 200 Emission Units, identified as units 202E, 202W, 203E, and 203W, each constructed in 1993 and modified in 1998 and 2005. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by ~~integral~~ **internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(c) Six (6) Department 200 Emission Units, identified as units 204E, 204W, 205E, 205W, 206E, and 206W, each constructed in 1995 and modified in 1997 or 1998 and 2005. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by ~~integral~~ **internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(d) Four (4) Department 200 Emission Units, identified as units 207E, 207W, 208E, and 208W, constructed in 1994 and modified in 1997 and 2005. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler,

and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by ~~integral~~ **internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(e) Eight (8) Department 200 Emission Units, identified as units 209E, 209W, 210E, 210W, 211E, 211W, 212E, and 212W, each constructed in 1998 and modified in 2005 **and 2007**. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of ~~658~~ **900** lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by ~~integral~~ **internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(f) Four (4) Department 200 Emission Units, identified as units 213E, 213W, 214E, and 214W, each constructed in 1998 **and modified in 2007**. Each Emission Unit consists of **one (1) annealer,** one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, **and** one (1) topical lube applicator ~~and each pair sharing one (1) annealing system~~. Each unit has a maximum copper wire producing capacity of ~~527~~ **900** lb copper per hour. Emissions from enamel curing **and lubricant coating** are controlled by ~~integral~~ **internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(g) Four (4) Department 200 Emission Units, identified as units 215E, 215W, 216E, 216W, each constructed in 1997 **and modified in 2007**. Each Emission Unit consists of **one (1) annealer,** one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, **and** one (1) topical lube applicator ~~and each pair sharing one (1) annealing system~~. Each unit has a maximum copper wire producing capacity of ~~527~~ **900** lb copper per hour. Emissions from enamel curing **and lubricant coating** are controlled by ~~integral~~ **internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(h) Eight (8) Department 300 Emission Units, identified as units 301E, 301W, 302E, 302W, 303E, 303W, 304E, and 304W constructed in 1994. Each Emission Unit consists of one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, one (1) topical lube applicator and each pair sharing one (1) annealing system. Each unit has a maximum copper wire producing capacity of 284 lb copper per hour~~,~~ **. Emissions from enamel curing are controlled** ~~using integral~~ **by internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(i) Twelve (12) Department 300 Emission Units, identified as units 305E, 305W, 306E, 306W, 309E, 309W, 310E, 310W, 311E, 311W, 312E, and 312W, each constructed in 1996. Each Emission Unit consists of one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, one (1) topical lube applicator and each pair sharing one (1) annealing system. Each unit has a maximum copper wire producing capacity of 284 lb copper per hour~~,~~ **. Emissions from enamel curing are controlled** ~~using integral~~ **by internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(j) Four (4) Department 300 Emission Units, identified as units 307E, 307W, 308E, and 308W constructed in 1995. Each Emission Unit consists of one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, one (1) topical lube applicator and each pair sharing one (1) annealing system. Each unit has a maximum copper wire producing capacity of 284 lb copper per hour~~,~~ **. Emissions from enamel curing are controlled** ~~using integral~~ **by internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(k) Eight (8) Department 300 Emission Units, identified as units 313E, 313W, 314E, 314W, 315E, 315W, 316E, and 316W constructed in 1997. Each Emission Unit consists of one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, one (1) topical lube applicator and each pair sharing one (1) annealing system. Each unit has a maximum copper wire producing capacity of 284 lb copper per hour~~,~~ **. Emissions from enamel curing are controlled** ~~using integral~~ **by internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

Modification No. 3:

IDEM,OAQ has added language to recordkeeping requirements stating that when records are not taken as required a reason why the record was not taken shall be maintained.

Section D.1 has been modified to incorporate throughput increases at units 209E/W through 216E/W, the addition of four (4) annealers, the requirement to control the lubrication emissions (pursuant to BACT), compliance testing requirements for units 213E/W through 216E/W, and to clarify the integral to process determination.

On June 24, 2005, the U.S. Court of Appeals vacated the Pollution Control Projects and Clean Unit Designations portions of the NSR reform rule of 2003. Effective June 24, 2005, the Clean Unit provisions of the NSR rule no longer exist. Therefore, Conditions D.1.3 and D.1.9, and Section E.1, which contained Clean Unit Provisions, have been deleted from the permit.

Section D.1, Condition D.2.4, and Section E.1 have been revised as follows:

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Magnet Wire Production - Departments 200 and 300

Under the Miscellaneous Metal Parts and Products Coating NESHAP (40 CFR 63, Subpart MMMM), the following emission units are considered to be part of an existing magnet wire coating affected source:

(a) Two (2) Department 200 Emission Units, identified as units 201E and 201W, each constructed in 1989 and modified in 1998 and 2005. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by ~~integral~~ **internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(b) Four (4) Department 200 Emission Units, identified as units 202E, 202W, 203E, and 203W, each constructed in 1993 and modified in 1998 and 2005. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by ~~integral~~ **internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(c) Six (6) Department 200 Emission Units, identified as units 204E, 204W, 205E, 205W, 206E, and 206W, each constructed in 1995 and modified in 1997 or 1998 and 2005. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by ~~integral~~ **internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(d) Four (4) Department 200 Emission Units, identified as units 207E, 207W, 208E, and 208W, constructed in 1994 and modified in 1997 and 2005. Each Emission Unit consists of one (1)

annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by ~~integral~~ **internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(e) Eight (8) Department 200 Emission Units, identified as units 209E, 209W, 210E, 210W, 211E, 211W, 212E, and 212W, each constructed in 1998 and modified in 2005 **and 2007**. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of ~~658~~ **900** lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by ~~integral~~ **internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(f) Four (4) Department 200 Emission Units, identified as units 213E, 213W, 214E, and 214W, each constructed in 1998 **and modified in 2007**. Each Emission Unit consists of **one (1) annealer,** one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, **and** one (1) topical lube applicator ~~and each pair sharing one (1) annealing system~~. Each unit has a maximum copper wire producing capacity of ~~527~~ **900** lb copper per hour. Emissions from enamel curing **and lubricant coating** are controlled by ~~integral~~ **internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(g) Four (4) Department 200 Emission Units, identified as units 215E, 215W, 216E, 216W, each constructed in 1997 **and modified in 2007**. Each Emission Unit consists of **one (1) annealer,** one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, **and** one (1) topical lube applicator ~~and each pair sharing one (1) annealing system~~. Each unit has a maximum copper wire producing capacity of ~~527~~ **900** lb copper per hour. Emissions from enamel curing **and lubricant coating** are controlled by ~~integral~~ **internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(h) Eight (8) Department 300 Emission Units, identified as units 301E, 301W, 302E, 302W, 303E, 303W, 304E, and 304W constructed in 1994. Each Emission Unit consists of one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, one (1) topical lube applicator and each pair sharing one (1) annealing system. Each unit has a maximum copper wire producing capacity of 284 lb copper per hour~~,~~ **. Emissions from enamel curing are controlled** ~~using integral~~ **by internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(i) Twelve (12) Department 300 Emission Units, identified as units 305E, 305W, 306E, 306W, 309E, 309W, 310E, 310W, 311E, 311W, 312E, and 312W, each constructed in 1996. Each Emission Unit consists of one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, one (1) topical lube applicator and each pair sharing one (1) annealing system. Each unit has a maximum copper wire producing capacity of 284 lb copper per hour~~,~~ **. Emissions from enamel curing are controlled** ~~using integral~~ **by internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(j) Four (4) Department 300 Emission Units, identified as units 307E, 307W, 308E, and 308W constructed in 1995. Each Emission Unit consists of one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, one (1) topical lube applicator and each pair sharing one (1) annealing system. Each unit has a maximum copper wire producing capacity of 284 lb copper per hour~~,~~ **. Emissions from enamel curing are controlled** ~~using integral~~ **by internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(k) Eight (8) Department 300 Emission Units, identified as units 313E, 313W, 314E, 314W, 315E, 315W, 316E, and 316W constructed in 1997. Each Emission Unit consists of one (1) enamel

applicator, one (1) curing oven, one (1) wire cooler, one (1) topical lube applicator and each pair sharing one (1) annealing system. Each unit has a maximum copper wire producing capacity of 284 lb copper per hour~~,~~ **. Emissions from enamel curing are controlled** ~~using integral~~ **by internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(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 Prevention of Significant Deterioration - BACT [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3 and PSD ~~SSM 083-21221-00008~~ **SSM 083-23813-00008**:

(a) VOC emissions from the enamel curing subsection of magnet wire coating units 201E and 201W through 216E and 216W and 301E and 301W through 316E and 316W shall be controlled by an oxidizer with a minimum one-hundred percent (100%) capture efficiency (as defined by Method 204 of 40 CFR Part 52, Appendix M). The captured VOC emissions shall be routed to the ~~integral~~ **internal** thermal oxidizers and destroyed with a minimum ninety-eight and five tenths percent (98.5%) destruction efficiency.

(b) VOC emissions from the lubricant **(lube)** coating subsection of magnet wire coating units 201E and 201W through ~~212E~~ **216E** and ~~212W~~ **216W** shall be controlled by a device with a minimum one-hundred percent (100%) capture efficiency (as defined by Method 204 of 40 CFR Part 52, Appendix M). The captured VOC emissions shall be routed to the thermal oxidizers and destroyed with a minimum ninety-eight and five tenths percent (98.5%) destruction efficiency.

(c) The total VOC emissions from magnet wire coating units 201E and 201W through 216E and 216W and 301E and 301W through 316E and 316W shall not exceed ~~453~~ **329** tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these limits will satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) with respect to VOC for the affected units.

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

~~D.1.3 Clean Unit [326 IAC 2-2.2]~~

~~(a) Pursuant to 326 IAC 2-2.2, the following units are designated as Clean Units for VOC:~~

~~(1) The enamel coating subsections of magnet wire coating units 213E and 213W through 216E and 216W;~~

~~(2) The enamel coating subsections of magnet wire coating units 301E and 301W through 316E and 316W; and~~

~~(3) The enamel and lubricant coating subsections of magnet wire coating units 201E and 201W through 212E and 212W.~~

~~(b) Pursuant to 326 IAC 2-2.2-1(d), the effective date of each unit's Clean Unit designation is the date the emissions unit's air pollution control technology is placed into service or three (3) years after the issuance of the respective major NSR permit, whichever is earlier.~~

~~(c) In order to maintain the clean unit designations for the units identified in (a) above:~~

~~(1) The Permittee shall comply with all applicable requirements per 326 IAC 2-7 contained in this permit; and~~

~~(2) No physical change or change in the method of operation shall be undertaken at these emissions units that would allow them to operate in a manner inconsistent with the physical or operational characteristics of the emission units.~~

~~(d) The clean units designated in (a) above are subject to the following requirements:~~

~~(1) Any project at these emissions units for which actual construction/modification begins after the effective date of the clean unit designations and before the expiration date shall be considered to have occurred while the emissions units were clean units.~~

~~(2) If a project at these emission units does not cause the need for a change in the emission limitations or work practice requirements in this permit for these units that were adopted in conjunction with BACT and the project would not alter any physical or operational characteristics that formed the basis for the BACT determination, the clean unit designations remain unchanged.~~

~~(3) If a project causes the need for a change in the emission limitations or work practice requirements in this permit for these units that were adopted in conjunction with BACT or the project would alter any physical or operational characteristics that formed the basis for the BACT determination, then the clean unit designations shall expire upon issuance of the necessary permit modifications, unless the units requalify as clean units. If the Permittee begins actual construction on the project without first applying to modify the emissions unit's permit, the clean unit designations shall expire immediately prior to the time when actual construction of this project begins.~~

~~(4) A project that causes emissions units to lose their clean unit designations shall be subject to the applicability requirements of 326 IAC 2-2-2(d)(1) through 326 IAC 2-2-2(d)(4) and 326 IAC 2-2-2(d)(6).~~

~~D.1.4~~**D.1.3** Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

~~D.1.5~~**D.1.4** Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 2-2]

(a) Pursuant to **326 IAC 2-2 (PSD)** 326 IAC 8-1-2(a), the Permittee shall operate the ~~integral~~ **internal** thermal oxidizers at all times the respective facilities are in operation to achieve compliance with Conditions D.1.1 and D.1.2.

(b) Compliance with Condition D.1.1 shall be determined using the following equation:

$$VOC_t = [(VOC_{iem2} + VOC_{ilm2}) \times (1 - DE_2/100)] + [(VOC_{ie2}) \times (1 - DE_2/100)] + VOC_{il2} + [VOC_{ie3} \times (1 - DE_3/100)] + VOC_{il3} + VOC_c$$

Where:

VOC_t = Total VOC emissions (ton/month) from magnet wire coating units 201E and 201W through 216E and 216W and 301E and 301W through 316E and 316W for a given calendar month.

VOC_{iem2} = Total VOC input (ton/month) to the enamel coating/curing subsection of units 201E and 201W through ~~212E~~ **216E** and ~~212W~~ **216W** for a given calendar month.

$VOC_{il~~m~~2}$ = Total VOC input (ton/month) to the lubricant coating subsection of units 201E and 201W through ~~212E~~ **216E** and ~~212W~~ **216W** for a given calendar month.

DE_2 = The destruction efficiency (%) of the Department 200 integral thermal oxidizers as determined by the most recent compliance test.

~~VOC_{ie2} = Total VOC input (ton/month) to the enamel coating/curing subsection of units 213E and 213W through 216E and 216W for a given calendar month (ton/mo.)~~

~~VOC_{il2} = Total VOC input (ton/month) to the lubricant coating subsection of units 213E and 213W through 216E and 216W for a given calendar month.~~

VOC_{ie3} = Total VOC input (ton/month) to the enamel coating/curing subsection of units 301E and 301W through 316E and 316W for a given calendar month.

DE_3 = The destruction efficiency (%) of the Department 300 integral thermal oxidizers as determined by the most recent compliance test.

$VOC_{il3~~s~~}$ = Total VOC input (ton/month) to the lubricant coating subsection of units 301E and 301W through 316E and 316W for a given calendar month**, and the total VOC from cleanup solvent used in conjunction with units 201E and 201W through 216E and 216W and 301E and 301W through 316E and 316W.**

~~VOC_e = Total VOC from cleanup solvent used in conjunction with units 201E and 201W through 216E and 216W and 301E and 301W through 316E for a given calendar month.~~

~~D.1.6~~**D.1.5** Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) ***

~~(b) No later than January 11, 2010, the Permittee shall test one (1) integral thermal oxidizer from magnet wire coating units 213E/W through 216E/W that has not been tested in the past ten (10) years. This test shall be repeated at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted using Method 25A or methods approved by the Commissioner and in accordance with 326 IAC 3-6-3 and Section C - Performance Testing.~~

~~(c)~~**(b)** No later than September 22, 2009, the Permittee shall test three (3) ~~integral~~ **internal** thermal oxidizers from magnet wire coating units 301E/W through 316E/W that have not been tested in the past ten (10) years. These tests shall be repeated at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted using Method 25A or methods approved by the Commissioner and in accordance with 326 IAC 3-6-3 and Section C - Performance Testing.

~~(d)~~**(c)** No later than 180 days after the issuance of SSM 083-21221-00008, the Permittee shall test two (2) ~~integral~~ **internal** thermal oxidizers and two (2) lubricant coating subsection capture devices from magnet wire coating units 201E/W through 212E/W that have not been tested in the past ten (10) years. These tests shall be repeated at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted using Method 25A or methods approved by the Commissioner and in accordance with 326 IAC 3-6-3 and Section C - Performance Testing.

(d) Within sixty (60) days after achieving maximum capacity, but not more than one hundred and eighty (180) days after initial startup of the modified magnetic wire

coating units 213E/W through 216E/W (PSD/SSM 083-23813-00008), the Permittee shall test one (1) internal thermal oxidizers and one (1) lubricant coating subsection capture devices from magnet wire coating units 213E/W through 216E/W that have not been tested in the past ten (10) years. These tests shall be repeated at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted using methods approved by the Commissioner and in accordance with 326 IAC 3-6-3 and Section C - Performance Testing.

(e) ***

(f) ***

~~D.1.7~~**D.1.6** Thermal Oxidizer Temperature

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature of the ~~integral~~ **internal** thermal oxidizer. 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 temperature shall be recorded whenever the thermal oxidizer is 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 ~~integral~~ **internal** thermal oxidizer. Continuous monitoring shall mean no less often than once per fifteen (15) minutes.

(c) ***

(d) ***

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

~~D.1.8~~**D.1.7** Record Keeping Requirements

(a) To document compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through ~~(4)~~ **(5)** below. Records maintained for (1) through ~~(4)~~ **(5)** shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage and content limits established in Conditions D.1.1 and D.1.2. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

(1) The VOC content of each coating material and solvent used.

(2) ~~The amount of coating~~ **Coating** and solvent ~~used on a monthly basis.~~ **usage as follows:**

(A) The amount of coating material and solvent added to the coating material used at the enamel coating/curing subsections of units 201E and 201W through 216E and 216W on a monthly basis.

(B) The amount of coating material and solvent added to the coating material used at the enamel coating/curing subsections of units 301E and 301W through 316E and 316W on a monthly basis.

(C) The amount of coating material and solvent added to the coating material used at the lubricant coating subsections of units 201E and 201W through 216E and 216W on a monthly basis.

(D) The amount of coating material and solvent added to the coating material used at the lubricant coating subsections of units 301E and 301W through 316E and 316W on a monthly basis.

(E) The amount of cleanup solvents used on a monthly basis.

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

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

~~(C~~**(B)** If MSDS sheets are used to determine the VOC content of the coating, the Permittee shall verify that the VOC content stated on the MSDS is based on EPA Method 24 or other Method, as determined by the Commissioner.

(3) The total VOC ~~usage~~ **emissions** for each month.

(4) The equivalent emissions of VOC expressed of pounds per gallon of coating solids as applied.

~~(4)~~**(5)** Continuous temperature records as read by the continuous monitor or IDEM-approved manner, and 3 hour average temperature records **or maintain a record of the reason why the continuous and 3 hour temperature records were not taken.**

(b) To document compliance with Condition ~~D.1.6~~ **D.1.5**, the Permittee shall maintain records of the test results, including the average temperature used to demonstrate compliance with Conditions D.1.1 and D.1.2 during the most recent compliant stack test.

(c) ***

~~D.1.9 Requirement to Submit a Permit Modification Application [326 IAC 2-7-12] [326 IAC 2-7-5]~~

~~The Permittee shall submit an application for a Part 70 permit modification to the IDEM, OAQ to include the effective and expiration dates for all the Clean Units into the Title V permit.~~

~~(1) The permit modification application shall be consistent with 326 IAC 2-7-12.~~

~~(2) The permit modification application shall be submitted no later than sixty (60) days following the issuance of this permit and shall be submitted to:~~

~~Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251~~

~~D.1.10~~**D.1.8** Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1(c) 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).

D.2.4 Record Keeping Requirements

(a) To document compliance with Condition D.2.3, the Permittee shall maintain once per day records of the visible emission notations **or maintain a record of the reason why the visible emission notations were not taken.**

(b) ***

~~**SECTION E.1 FACILITY OPERATION CONDITIONS**~~

~~**Facility Description [326 IAC 2-7-5(15)]: Clean Units**~~

~~Units designated as Clean Units pursuant to 326 IAC 2-2.2:~~
~~Magnet wire coating units 201E and 201W through 212E and 212W -- See Section D.1 for a full description of these facilities~~

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

~~E.1.1 Clean Unit [326 IAC 2-2.2]~~

~~(a) Pursuant to 326 IAC 2-2.2, magnet wire coating units 201E and 210W through 212E and 212W are designated as Clean Units for VOC.~~

~~(b) Pursuant to 326 IAC 2-2.2-1(d), the effective date of each unit's Clean Unit designation is the date the emissions unit's air pollution control technology is placed into service or three (3) years after the issuance of the respective major NSR permit, whichever is earlier.~~

~~(c) In order to maintain the clean unit designations for the units identified in (a) above:~~

~~(1) The Permittee shall comply with all applicable requirements per 326 IAC 2-7 contained in this permit; and~~

~~(2) No physical change or change in the method of operation shall be undertaken at these emissions units that would allow them to operate in a manner inconsistent with the physical or operational characteristics of the emission units.~~

~~(d) The clean units designated in (a) above are subject to the following requirements:~~

~~(1) Any project at these emissions units for which actual construction/modification begins after the effective date of the clean unit designations and before the expiration date shall be considered to have occurred while the emissions units were clean units.~~

~~(2) If a project at these emission units does not cause the need for a change in the emission limitations or work practice requirements in this permit for these units that were adopted in conjunction with BACT and the project would not alter any physical or operational characteristics that formed the basis for the BACT determination, the clean unit designations remain unchanged.~~

~~(3) If a project causes the need for a change in the emission limitations or work practice requirements in this permit for these units that were adopted in conjunction with BACT or the project would alter any physical or operational characteristics that formed the basis for the BACT determination, then the clean unit designations shall expire upon issuance of the necessary permit modifications, unless the units requalify as clean units. If the Permittee begins actual construction on the project without first applying to modify the emissions~~

~~unit's permit, the clean unit designations shall expire immediately prior to the time when actual construction of this project begins.~~

~~(4) A project that causes emissions units to lose their clean unit designations shall be subject to the applicability requirements of 326 IAC 2-2-2(d)(1) through 326 IAC 2-2-2(d)(4) and 326 IAC 2-2-2(d)(6).~~

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

~~E.1.2 Requirement to Submit a Permit Modification Application [326 IAC 2-7-12] [326 IAC 2-7-5]~~

~~The Permittee shall submit an application for a Part 70 permit modification to the IDEM, OAQ to include the effective and expiration dates for all the Clean Units into the Title V permit.~~

~~(a) The permit modification application shall be consistent with 326 IAC 2-7-12.~~

~~(b) The permit modification application shall be submitted no later than sixty (60) days following the issuance of this permit and shall be submitted to:~~

~~Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251~~

Modification No. 4:

The former Section E.2 has been renumbered as Section E.1 and the source descriptions have been revised as follows:

SECTION ~~E.2~~ E.1 National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

Facility Description [326 IAC 2-7-5(15)]: Magnet Wire Production - Departments 200 and 300

Under the Miscellaneous Metal Parts and Products Coating NESHAP (40 CFR 63, Subpart MMMM), the following emission units are considered to be part of an existing magnet wire coating affected source.

(a) Two (2) Department 200 Emission Units, identified as units 201E and 201W, each constructed in 1989 and modified in 1998 and 2005. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by ~~integral~~ **internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(b) Four (4) Department 200 Emission Units, identified as units 202E, 202W, 203E, and 203W, each constructed in 1993 and modified in 1998 and 2005. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by ~~integral~~ **internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(c) Six (6) Department 200 Emission Units, identified as units 204E, 204W, 205E, 205W, 206E, and 206W, each constructed in 1995 and modified in 1997 or 1998 and 2005. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by ~~integral~~ **internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(d) Four (4) Department 200 Emission Units, identified as units 207E, 207W, 208E, and 208W, constructed in 1994 and modified in 1997 and 2005. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of 900 lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by ~~integral~~ **internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(e) Eight (8) Department 200 Emission Units, identified as units 209E, 209W, 210E, 210W, 211E, 211W, 212E, and 212W, each constructed in 1998 and modified in 2005 **and 2007**. Each Emission Unit consists of one (1) annealer, one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, and one (1) topical lube applicator. Each unit has a maximum copper wire producing capacity of ~~658~~ **900** lb copper per hour. Emissions from enamel curing and lubricant coating are controlled by ~~integral~~ **internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(f) Four (4) Department 200 Emission Units, identified as units 213E, 213W, 214E, and 214W, each constructed in 1998 **and modified in 2007**. Each Emission Unit consists of **one (1) annealer,** one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, **and** one (1) topical lube applicator ~~and each pair sharing one (1) annealing system~~. Each unit has a maximum copper wire producing capacity of ~~527~~ **900** lb copper per hour. Emissions from enamel curing **and lubricant coating** are controlled by ~~integral~~ **internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(g) Four (4) Department 200 Emission Units, identified as units 215E, 215W, 216E, 216W, each constructed in 1997 **and modified in 2007**. Each Emission Unit consists of **one (1) annealer,** one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, **and** one (1) topical lube applicator ~~and each pair sharing one (1) annealing system~~. Each unit has a maximum copper wire producing capacity of ~~527~~ **900** lb copper per hour. Emissions from enamel curing **and lubricant coating** are controlled by ~~integral~~ **internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(h) Eight (8) Department 300 Emission Units, identified as units 301E, 301W, 302E, 302W, 303E, 303W, 304E, and 304W constructed in 1994. Each Emission Unit consists of one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, one (1) topical lube applicator and each pair sharing one (1) annealing system. Each unit has a maximum copper wire producing capacity of 284 lb copper per hour~~,~~ **. Emissions from enamel curing are controlled** ~~using integral~~ **by internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(i) Twelve (12) Department 300 Emission Units, identified as units 305E, 305W, 306E, 306W, 309E, 309W, 310E, 310W, 311E, 311W, 312E, and 312W, each constructed in 1996. Each Emission Unit consists of one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, one (1) topical lube applicator and each pair sharing one (1) annealing system. Each unit has a maximum copper wire producing capacity of 284 lb copper per hour~~,~~ **. Emissions from enamel curing are controlled** ~~using integral~~ **by internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(j) Four (4) Department 300 Emission Units, identified as units 307E, 307W, 308E, and 308W constructed in 1995. Each Emission Unit consists of one (1) enamel applicator, one (1) curing oven, one (1) wire cooler, one (1) topical lube applicator and each pair sharing one (1) annealing system. Each unit has a maximum copper wire producing capacity of 284 lb copper per hour~~,~~ **. Emissions from enamel curing are controlled** ~~using integral~~ **by internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

(k) Eight (8) Department 300 Emission Units, identified as units 313E, 313W, 314E, 314W, 315E, 315W, 316E, and 316W constructed in 1997. Each Emission Unit consists of one (1) enamel

applicator, one (1) curing oven, one (1) wire cooler, one (1) topical lube applicator and each pair sharing one (1) annealing system. Each unit has a maximum copper wire producing capacity of 284 lb copper per hour~~,~~ **. Emissions from enamel curing are controlled** ~~using integral~~ **by internal** thermal oxidizers, exhausting to stacks identified with the same names as their respective emission units.

Specifically Regulated Insignificant Activities

Under the Miscellaneous Metal Parts and Products Coating NESHAP (40 CFR 63, Subpart MMMM), the following emission units are considered to be part of an existing magnet wire coating affected source:

(1) Activities with emissions equal to or less than the following thresholds: 5 tons per year PM or PM10, 10 tons per year SO_2, NO_x, or VOC, 0.2 tons per year Pb, 1.0 tons per year of a single HAP, or 2.5 tons per year of any combination of HAPs:

Six (6) degreaser units, identified as P, T1, T2, T3, T4, and T5, using mechanical agitation, with solvents and vents as follows: [326 IAC 8-3-2] [326 IAC 8-3-5] [326 IAC 20-1] [40 CFR Part 63, Subpart A] [40 CFR Part 63, Subpart MMMM]

Tank P	90400	West Vent
Tank T	90702	West Vent
Tank T2	90702	West Vent
Tank T3	90400	West Vent
Tank T4	90003	East Vent
Tank T5	90702	West Vent

(2) Solvent recycling systems with batch capacity less than or equal to 100 gallons:

One (1) closed loop solvent recovery still, utilizing an electric steam generator producing 150 psi steam, with a solvent batch capacity of 60 gallons. The solvent recovered is SX-90702.

[326 IAC 20-1] [40 CFR Part 63, Subpart A] [40 CFR Part 63, Subpart MMMM]

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

~~E.2.1~~**E.1.1** General Provisions Relating to NESHAP Subpart MMMM (National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products [326 IAC 20-1] [40 CFR Part 63, Subpart A]

~~E.2.2~~**E.1.2** NESHAP Subpart MMMM Requirements [40 CFR 63, Subpart MMMM]

~~E.2.3~~**E.1.3** One Time Deadlines Relating to NESHAP Subpart MMMM

Modification No. 5:

The Part 70 Quarterly Reporting form, which corresponds to changes made to Condition D.1.4 (formerly Condition D.1.5) has been revised as follows:

Compliance Branch

Part 70 Quarterly Report

Source Name:	Essex Group, Inc. - Vincennes Plant
Source Address:	1299 East Essex Road, Vincennes, IN, 47591
Mailing Address:	1299 East Essex Road, Vincennes, IN, 47591
Part 70 Permit No.:	T083-7422-00008
Facilities:	201E and 201W through 216E and 216W and 301E and 301W through 316E and 316W
Parameter:	Total VOC emissions
Limit:	**The total VOC emissions shall not exceed** ~~453~~ **329** tons ~~of VOC~~ per twelve consecutive month period with compliance determined at the end of each month.

Monthly VOC emissions shall be determined with the following equation (see Condition ~~D.1.7~~ **D.1.4** of the permit for a description of the variables):

$$VOC_t = [(VOC_{ie2} + VOC_{il2}) \times (1 - DE_2/100)] \text{ ~~+ [(VOC}_{ie2}\text{) x (1 – DE}_2\text{/100)] + VOC}_{il2}\text{ ~~+ [VOC}_{ie3} \times (1 - DE_3/100)\text{~~] + VOC}_{il3}\text{s ~~+ VOCc~~}$$

***

Conclusion and Recommendation

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 PSD Significant Source Modification No. 083-23813-00008 and Part 70 and Significant Permit Modification No. 083-23819-00008. The staff recommend to the Commissioner that this Part 70 PSD Significant Source and Part 70 Significant Permit Modification be approved.

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

Company Name: Essex Group, Inc - Vincennes
Address City IN Zip: Essex Rd., P.O. Box 259, Vincennes, IN, 47591
PSD/SSM: 083-23813-00008
Part 70 permit: T083-7422-00008
Reviewer: Jenny Acker
Date: 12/18/06

Unit ID*	Coating Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/lb Cu)	Maximum throughput (lb Cu/hour)**	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Uncontrolled VOC PTE (ton/yr)	**Particulate Potential (ton/yr)**	lb VOC/ gal solids	Transfer Efficiency	**Control efficiency (%)**	**Controlled VOC PTE (ton/yr)**
201E/W - 208E/W	nylon top coat	8.60	83.70%	0.2%	83.5%	0.2%	13.07%	0.00297	14400.0	7.20	7.18	307.24	7373.72	1345.70	0.00	54.96	100%	98.50%	20.19
	polyester base coat	9.10	69.90%	0.1%	69.8%	0.2%	21.40%	0.00566	14400.0	6.36	6.35	517.40	12417.61	2266.21	0.00	29.66	100%	98.50%	33.99
	solvent blend	7.27	100.00%	0.2%	99.8%	0.2%	0.00%	0.00003	14400.0	7.27	7.26	2.72	65.19	11.90	0.00	#DIV/0!	100%	0.0%	11.90
	dri lube topical	5.90	98.80%	0.2%	98.6%	0.1%	0.92%	0.00036	14400.0	5.83	5.82	30.24	725.80	132.46	0.00	632.34	100%	98.5%	1.99
209E/W - 212E/W	nylon top coat	8.60	83.70%	0.2%	83.5%	0.2%	13.07%	0.00297	7200.0	7.20	7.18	153.62	3686.86	672.85	0.00	54.96	100%	98.50%	10.09
	polyester base coat	9.10	69.90%	0.1%	69.8%	0.2%	21.40%	0.00566	7200.0	6.36	6.35	258.70	6208.81	1133.11	0.00	29.66	100%	98.50%	17.00
	solvent blend	7.27	100.00%	0.2%	99.8%	0.2%	0.00%	0.00003	7200.0	7.27	7.26	1.36	32.60	5.95	0.00	#DIV/0!	100%	0.0%	5.95
	dri lube topical	5.90	98.80%	0.2%	98.6%	0.1%	0.92%	0.00036	7200.0	5.83	5.82	15.12	362.90	66.23	0.00	632.34	100%	98.5%	0.99
213E/W - 216E/W	nylon top coat	8.60	83.70%	0.2%	83.5%	0.2%	13.07%	0.00297	7200.0	7.20	7.18	153.62	3686.86	672.85	0.00	54.96	100%	98.50%	10.09
	polyester base coat	9.10	69.90%	0.1%	69.8%	0.2%	21.40%	0.00566	7200.0	6.36	6.35	258.70	6208.81	1133.11	0.00	29.66	100%	98.50%	17.00
	solvent blend	7.27	100.00%	0.2%	99.8%	0.2%	0.00%	0.00003	7200.0	7.27	7.26	1.36	32.60	5.95	0.00	#DIV/0!	100%	0.0%	5.95
	dri lube topical	5.90	98.80%	0.2%	98.6%	0.1%	0.92%	0.00036	7200.0	5.83	5.82	15.12	362.90	66.23	0.00	632.34	100%	98.5%	0.99
301E/W - 304E/W & 307E/W	nylon top coat	8.50	87.80%	0.2%	87.6%	0.2%	7.57%	0.00700	2840.0	7.46	7.45	148.07	3553.61	648.53	0.00	98.39	100%	98.50%	9.73
	urethane base coat	8.43	70.90%	0.1%	70.8%	0.1%	21.89%	0.01010	2840.0	5.97	5.96	171.10	4106.33	749.41	0.00	27.25	100%	98.50%	11.24
	solvent blend	7.60	100.00%	0.2%	99.8%	0.2%	0.00%	0.00004	2840.0	7.60	7.58	0.86	20.68	3.77	0.00	#DIV/0!	100%	0.0%	3.77
	dri lube topical	5.90	98.80%	0.2%	98.6%	0.1%	0.92%	0.00049	2840.0	5.83	5.82	8.10	194.30	35.46	0.00	632.34	100%	0.0%	35.46
305E/W, 306E/W & 308E/W - 316E/W	nylon top coat	8.50	87.80%	0.2%	87.6%	0.2%	7.57%	0.00700	6248.0	7.46	7.45	325.75	7817.94	1426.77	0.00	98.39	100%	98.50%	21.40
	urethane base coat	8.43	70.90%	0.1%	70.8%	0.1%	21.89%	0.01010	6248.0	5.97	5.96	376.41	9033.93	1648.69	0.00	27.25	100%	98.50%	24.73
	solvent blend	7.60	100.00%	0.2%	99.8%	0.2%	0.00%	0.00004	6248.0	7.60	7.58	1.90	45.49	8.30	0.00	#DIV/0!	100%	0.0%	8.30
	dri lube topical	5.90	98.80%	0.2%	98.6%	0.1%	0.92%	0.00049	6248.0	5.83	5.82	17.81	427.45	78.01	0.00	632.34	100%	0.0%	78.01
												TOTAL		**12111.50**	**0.00**				**328.77**

State Potential Emissions

* Each Emission Unit (EU) as denoted by the source, consists of a combination of equipment:
annealer (shared by E&W units), enamel applicator, curing oven, wire cooler, and topical lube applicator.

** The copper throughput listed represents the total copper throughput of all the units in that group.

The estimated control efficiency of the thermal oxidizers is at least 98.5%.

Note: The emissions calculated using this spreadsheet represent emissions from only the respective coating operations from each EU.
The emissions resulting from curing oven and thermal oxidizer firing are included on another page.

All coatings represent the worst case use scenario

METHODOLOGY

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

	VOC Usage (ton/yr)	Control efficiency (%)	VOC PTE (ton/yr)
Enamel Curing Subsections			
Units 201E/W - 316E/W	11697.24	98.50%	175.46
Lube Coating Subsections			
Units 201E/W - 216E/W	264.92	98.50%	3.97
Units 301E/W - 316E/W	113.47	0.00%	113.47
Solvent Usage			
Units 201E/W - 316E/W Subsections	35.87	0.00%	35.87
		Total VOC PTE	**328.77**

Appendix A: Emissions Calculations

Determination of minimum control efficiency necessary to comply with 326 IAC 8-2-8

Company Name: Essex Group, Inc. - Vincennes Plant
Address City IN Zip: 1299 East Essex Road, Vincennes, IN 47591
PSD SSM: 083-23813-00008
SPM: 083-23819-00008
Reviewer: Jenny Acker
Date: 11/30/06

Unit ID*	Coating Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/lb Cu)	Maximum throughput (lb Cu/hour)**	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Uncontrolled VOC PTE (ton/yr)	lb VOC/ gal solids	**Control efficiency required to comply with 326 IAC 8-2-8 (%)**
(201E&W-	nylon top coat	8.60	83.70%	0.2%	83.5%	0.2%	13.07%	0.00297	5400.0	7.20	7.18	115.21	2765.15	504.64	54.96	**95.98%**
203E&W)	polyester base coat	9.10	69.90%	0.1%	69.8%	0.2%	21.40%	0.00566	5400.0	6.36	6.35	194.03	4656.60	849.83	29.66	92.55%
(204E&W-	nylon top coat	8.60	83.70%	0.2%	83.5%	0.2%	13.07%	0.00297	9000.0	7.20	7.18	192.02	4608.58	841.07	54.96	**95.98%**
208E&W)	polyester base coat	9.10	69.90%	0.1%	69.8%	0.2%	21.40%	0.00566	9000.0	6.36	6.35	323.38	7761.01	1416.38	29.66	92.55%
(215E&W-	nylon top coat	8.60	83.70%	0.2%	83.5%	0.2%	13.07%	0.00297	3600.0	7.20	7.18	76.81	1843.43	336.43	54.96	**95.98%**
216E&W)	polyester base coat	9.10	69.90%	0.1%	69.8%	0.2%	21.40%	0.00566	3600.0	6.36	6.35	129.35	3104.40	566.55	29.66	92.55%
(209E&W-	nylon top coat	8.60	83.70%	0.2%	83.5%	0.2%	13.07%	0.00297	10800.0	7.20	7.18	230.43	5530.29	1009.28	54.96	**95.98%**
214E&W)	polyester base coat	9.10	69.90%	0.1%	69.8%	0.2%	21.40%	0.00566	10800.0	6.36	6.35	388.05	9313.21	1699.66	29.66	92.55%
(301-304,	nylon top coat	8.50	87.80%	0.2%	87.6%	0.2%	7.57%	0.00700	2840.0	7.46	7.45	148.07	3553.61	648.53	98.39	**97.75%**
307E&W)	urethane base coat	8.43	70.90%	0.1%	70.8%	0.1%	21.89%	0.01010	2840.0	5.97	5.96	171.10	4106.33	749.41	27.25	91.89%
(305,306,	nylon top coat	8.50	87.80%	0.2%	87.6%	0.2%	7.57%	0.00700	6248.0	7.46	7.45	325.75	7817.94	1426.77	98.39	**97.75%**
308E&W-316E&W	urethane base coat	8.43	70.90%	0.1%	70.8%	0.1%	21.89%	0.01010	6248.0	5.97	5.96	376.41	9033.93	1648.69	27.25	91.89%

State Potential Emissions

* Each Emission Unit (EU) as denoted by the source, consists of a combination of equipment: annealer (shared by E&W units), enamel applicator, curing oven, wire cooler, and topical lube applicator.

** The copper throughput listed represents the total copper throughput of all the units in that group.

Note: The emissions calculated using this spreadsheet represent emissions from only the respective coating operations from each EU. The emissions resulting from curing oven and thermal oxidizer firing are included on another page.

All coatings represent the worst case use scenario

METHODOLOGY

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

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

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

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

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

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

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

Required Control Efficiency (%) = (Pounds VOC per Gallon of Solids (lb VOC/ gal S) - 2.21) / Pounds VOC per Gallon of Solids (lb VOC/ gal S)

Total = Worst Coating + Sum of all solvents used

APPENDIX B

BEST AVAILABLE CONTROL TECHNOLOGY (BACT) DETERMINATION

Source Information and Description

Source Name:	Essex Group, Inc. - Vincennes Plant
Source Location:	1299 East Essex Road, Vincennes, IN 47591
County:	Knox
SIC Code:	3351 and 3357
Operation Permit No.:	T083-7422-00008
Operation Permit Issuance Date:	May 3, 2004
PSD/Significant Source Modification No.:	083-23813-00008
Significant Permit Modification No.:	083-23819-00008
Permit Reviewer:	Jenny Acker

The Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) has performed the following federal BACT (Best Available Control Technology) review for a modification proposed by Essex Group, Inc. ("Essex"), located in Vincennes, Indiana. The modification consists of the following:

(a) An increase in the production capacity of eight (8) existing magnet wire coating units: 209E and 209W through 212E and 212W. The existing capacity is 658 pounds of copper wire per hour, per unit. The new capacity is 900 pounds of copper wire per hour, per unit.

(b) An increase in the production capacity of eight (8) existing magnet wire coating units: 213E and 213W through 216E and 216W. The existing capacity is 527 pounds of copper wire per hour, per unit. The new capacity is 900 pounds of copper wire per hour, per unit.

(c) The addition of four (4) wire annealers to magnet wire coating units 213E and 213W through 216E and 216W. Currently, each E/W pair shares a common annealer. After the modification, each unit will have its own annealer. The annealer additions allow Essex greater flexibility in oven scheduling, reduced downtime, reduced scrap generation and greater energy use efficiency.

(d) The addition of emission capture devices on the lubricant coating subsections of units 213E and 213W through 216E and 216W. Emissions captured by the devices will be routed to, and destroyed by, thermal oxidizers.

Background and Process Description

Each magnet wire coating unit consists of an enamel applicator, drying/curing oven, wire cooler, and topical lube applicator. Raw wire is first annealed then sent to the enamel applicator where the wire is coated. The coated wire then passes to a drying/curing oven equipped with an integral thermal oxidizer. The dried/cured wire is then cooled, and finally coated with a topical lubricant. VOC emissions generated by the magnet wire coating units result from the evaporation of VOC from: 1) enamel coatings during drying/curing and 2) topical lubricant. As a result, BACT for VOC is evaluated for the enamel curing subsection and lubricant coating subsection of the units.

The enamel curing operations are totally enclosed, as defined by Method 204 of 40 CFR Part 51, Appendix M, which allows for complete capture of the VOC emissions. The majority of the VOC emissions are subsequently destroyed in the internal thermal oxidizers which serve to satisfy the heat requirement of the ovens and also function as control devices. The lubricant coating subsection of the magnet wire coating units 209E/W through 212E/W are also totally enclosed, as defined by Method 204 of 40 CFR Part 51, Appendix M. The captured VOC emissions from the lubricant coating subsection (209E/W through 212E/W) are routed to thermal oxidizers where the

majority are destroyed. The lubricant coating subsections of magnet wire coating units 213E/W through 216 E/W are uncontrolled.

BACT Description

The source is located in Knox County which is designated as attainment or unclassifiable for all criteria pollutants. For the purposes of evaluating VOC emissions, each magnet wire coating unit consists of two subsections, a basecoat/topcoat coating subsection and a topical lubricant coating subsection. Pursuant to 326 IAC 2-2-3, BACT for VOC has been evaluated and determined for each of these subsections.

> BACT is defined as "an emission limitation based on the maximum degree of reduction of each pollutant subject to regulation under the CAA emitted from or which results from any major emitting facility, which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such facility through application of production processes and available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of each such pollutant. In no event shall application of 'best available control technology' result in emissions of any pollutants which will exceed the emissions allowed by any applicable standard established pursuant to section 111 or 112 of this Act."

According to the *"Top-Down" Best Available Control Technology Guidance Document* outlined in the 1990 draft USEPA *New Source Review Workshop Manual*, BACT analyses are conducted with a 'top-down' approach which consists of the following steps:

(1) Identify all potentially available control options;

(2) Eliminate technically infeasible control options;

(3) Rank remaining control technologies by control effectiveness;

(4) Evaluate the most effective controls and document the results; and

(5) Select BACT.

Also in accordance with the *"Top-Down" Best Available Control Technology Guidance Document* outlined in the 1990 draft USEPA *New Source Review Workshop Manual*, BACT analyses (specifically step 4) must take into account the energy, environmental, and economic impacts on the source. These reductions may be determined through the application of available control techniques, process design, and/or operational limitations. Such reductions are necessary to demonstrate that the emissions remaining after application of BACT will not cause or contribute to air pollution, thereby protecting public health and the environment. This BACT determination is based on the following information:

(1) The PSD permit application submitted by Essex Group, Inc. on October 25, 2006;

(2) The EPA RACT/BACT/LAER (RBLC) Clearinghouse;

(3) Permit requirements of other magnet wire production facilities; and

(4) Results from stack testing on representative emission units at the Vincennes plant.

BACT for VOC – Enamel curing subsection

Step 1 - Identify Control Options

The following technologies were identified as potentially available options that could be used to control VOC emissions from the enamel curing subsection of the magnet wire coating units. IDEM and the Permittee searched EPA's RACT/BACT/LAER Clearinghouse (RBLC) and reviewed permits of nearly identical sources to produce this list.

SIC Code	Source Name (location)	RBLC ID or Permit Number (issuance date)	Process	Technology	Control Efficiency
3357	Essex Group - Vincennes (Vincennes, IN)	PSD/SSM 083-21221-00008 (September 23, 2005)	Magnet wire curing	Thermal oxidization	98.5%
3357	Rea Magnet Wire Company (Lafayette, IN)	T157-6960-00032 (February 18, 1999)	Magnet wire curing	Thermal oxidization	98.5%
3357	Phelps Dodge Magnet Wire Company (Fort Wayne, IN)	T003-6925-00013 (October 10, 2002)	Magnet wire curing	Thermal oxidization	96.7%
3357	Essex Group - Franklin (Franklin, TN)	LAER TN-0022	Magnet wire curing	Incineration using an afterburner	95%
3357	Essex Group - Franklin (Franklin, TN)	LAER TN-0120	Magnet wire curing	Thermal oxidization	87%

Step 2 - Eliminate technically infeasible control options

As with all baking/curing operations, the temperature used to cure the product must be high enough to ensure product quality (e.g. the enamel is not "sticky") but low enough to ensure that the coating is not damaged (e.g. the enamel is not burned or "coked"). The use of integral thermal oxidization at a destruction efficiency of greater than 98.5% is not technically feasible because the corresponding oven temperatures at that destruction efficiency would potentially damage the coatings and compromise product quality. This determination was made by Essex in preparation for the BACT determination included in the TSD for PSD /SSM 083-21221-00008, issued September 23, 2005. As the above table indicates, pursuant to PSD/SSM 083-21221-00008, Essex is currently required to maintain a destruction efficiency of at least 98.5% for all the enamel curing subsections. Combined with a mandated capture efficiency of 100%, Essex currently achieves an overall control efficiency of 98.5% on their enamel curing subsections (201E/W through 216 E/W and 301E/W through 316E/W).

Note that a review of additional control options provided in the EPA's Air Pollution Control Technology Fact Sheets (located at www.epa.gov/ttn/catc/products.html) was not completed because Essex uses, and has proposed to continue using, the control option with the greatest emission reduction potential.

Step 3 - Rank remaining control technologies by control effectiveness

The technically feasible control options rank as follows:

Control Type	Estimated VOC Control Efficiency
Integral Thermal Oxidization	98.5%
Non-integral Thermal Oxidization	96.7%
Incineration with an Afterburner	95%
Non-integral Thermal Oxidization	87%

Step 4 - Evaluate the most effective controls and document results

Integral thermal oxidization, operating with a 98.5% destruction efficiency, is the best (i.e. has the greatest emission reduction potential) technically feasible control option. Since this option is currently employed by Essex as required by existing permit requirements, economic and energy analyses are not necessary. The use of thermal oxidation (on the respective units) will result in potential VOC emission reductions of up to 1779 tons per year based on an overall control efficiency of 98.5% (100% capture and 98.5% destruction).

Step 5 - Select BACT

Based on the considerations mentioned above, IDEM has determined that BACT for VOC for the enamel curing subsections of the magnet wire coating units (208E and 208W through 212E and 212W, and 213E and 213W through 216E and 216W) shall remain as follows:

> VOC emissions from the enamel curing subsection of magnet wire coating units 201E and 201W through 216E and 216W and 301E and 301W through 316E and 316W shall be controlled by a device with a minimum one-hundred percent (100%) capture efficiency (as defined by Method 204 of 40 CFR Part 52, Appendix M). The captured VOC emissions shall be routed to the integral thermal oxidizers and destroyed with a minimum ninety-eight and five tenths percent (98.5%) destruction efficiency.

Due to the operational design of the magnet wire coating units, and to allow maximum operational flexibility, the structure of the final BACT limits for the enamel curing and lubricant coating subsections will be presented together at this end of this document.

BACT for VOC – Lubricant coating subsection

A review of EPA's RBLC identified zero (0) facilities under the RBLC Code 41.010 (Organic Evaporative losses – Magnet Wire Surface Coating) that implemented BACT to control VOC emissions from lubricant coating. A review of the permit requirements of other magnet wire production facilities revealed zero (0) facilities that control VOC emissions from lubricant coating.

Pursuant to PSD/SSM 083-21221-00008, issued on September 23, 2005, OAQ considered control technologies from similar operations; specifically, technically feasible controls for magnet wire enamel curing subsections and determined BACT for the lubricating subsections of magnet wire coating units(201E/W through 212E/W) to be as follows:

SIC Code	Source Name (location)	RBLC ID or Permit Number (issuance date)	Process	Technology	Control Efficiency
3357	Essex Group - Vincennes (Vincennes, IN)	PSD/SSM 083-21221-00008 (September 23, 2005)	lubricant coating	Integral thermal oxidization	98.5%

Note that a review of additional control options provided in the EPA's Air Pollution Control Technology Fact Sheets (located at www.epa.gov/ttn/catc/products.html) was not completed because Essex uses, and has proposed to continue using, the control option with the greatest emission reduction potential.

Based on the considerations mentioned above, IDEM has determined that BACT for VOC for the lubricant coating subsections of the magnet wire coating units (209E and 209W through 212E and 212W shall remain as follows:

> VOC emissions from the lubricant coating subsection of magnet wire coating units 201E and 201W through 212E and 212W shall be controlled by a device with a minimum one-hundred percent (100%) capture efficiency (as defined by Method 204 of 40 CFR Part 52, Appendix M). The captured VOC emissions shall be routed to the thermal oxidizers of the respective enamel curing ovens and destroyed with a minimum ninety-eight and five tenths percent (98.5%) destruction efficiency.

Based on the considerations mentioned above, IDEM has determined that BACT for VOC for the lubricant coating subsections of the magnet wire coating units (213E and 213W through 216E and 216W) shall be as follows:

> VOC emissions from the lubricant coating subsection of magnet wire coating units 213E and 213W through 216E and 216W shall be controlled by a device with a minimum one-hundred percent (100%) capture efficiency (as defined by Method 204 of 40 CFR Part 52, Appendix M). The captured VOC emissions shall be routed to the thermal oxidizers of the respective enamel curing ovens and destroyed with a minimum ninety-eight and five tenths percent (98.5%) destruction efficiency.

Final BACT

The existing BACT requirements for those magnet wire coating units not affected by this modification, units 201E and 201W through 208E and 208W and 301E and 301W through 316E and 316W, has been unchanged and included here for clarification. However, the structure of original BACT limitation (pursuant to PSD/SSM 083-21221-00008, September 23, 2005) has been revised to accommodate the BACT limits contained in this document and provide maximum operational flexibility.

As a result, BACT for the Department 200 and 300 magnet wire coating units shall be the following:

Pursuant to 326 IAC 2-2-3 and PSD SSM 083-23813-00008:

(a) VOC emissions from the enamel curing subsection of magnet wire coating units 201E and 201W through 216E and 216W and 301E and 301W through 316E and 316W shall be controlled by an oxidizer with a minimum one-hundred percent (100%) capture efficiency (as defined by Method 204 of 40 CFR Part 52, Appendix M). The captured VOC emissions shall be routed to the internal thermal oxidizers and destroyed with a minimum ninety-eight and five tenths percent (98.5%) destruction efficiency.

(b) VOC emissions from the lubricant (lube) coating subsection of magnet wire coating units 201E and 201W through 216E and 216W shall be controlled by a device with a minimum one-hundred percent (100%) capture efficiency (as defined by Method 204 of 40 CFR Part 52, Appendix M). The captured VOC emissions shall be routed to the internal thermal oxidizers and destroyed with a minimum ninety-eight and five tenths percent (98.5%) destruction efficiency.

(c) The total VOC emissions from magnet wire coating units 201E and 201W through 216E and 216W and 301E and 301W through 316E and 316W shall not exceed 329 tons per twelve consecutive month period with compliance determined at the end of each month.

Compliance with these limits will satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) with respect to VOC for the affected units.

The procedures for demonstrating compliance are listed in the Technical Support Document.