



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
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Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

TO: Interested Parties / Applicant

DATE: August 6, 2008

RE: 3M Hartford City / 009-26248-00004

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

## Notice of Decision: Approval – Effective Immediately

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

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204.

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

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

The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

- (1) the name and address of the person making the request;

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

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

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

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

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



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## Part 70 Operating Permit Renewal OFFICE OF AIR QUALITY

**3M Hartford City  
304S 075E  
Hartford City, Indiana 47348**

(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.

Operation Permit No.: T009-26248-00004	
Issued by: Original signed by  Chrystal A. Wagner, Section Chief Permits Branch Office of Air Quality	Issuance Date: August 6, 2008  Expiration Date: August 6, 2013

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## SECTION A SOURCE SUMMARY

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

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

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The Permittee owns and operates a stationary tape, label and extruded web manufacturing plant.

Source Address:	304S 075E, Hartford City, Indiana 47348
Mailing Address:	304S 075E, Hartford City, IN. 47348
General Source Phone Number:	(765) 348-3200
SIC Code:	2672, 2899, 3081
County Location:	Blackford
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD Rules Major Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

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

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

- (a) One (1) BA Coating Line, identified as EU001, constructed in 1963, consisting of the following equipment:

two (2) coating stations (coating stations 1 and 2), installed in 1963, and one (1) coating station (coating station 3), installed in 1995, each applying coatings with methods including, but not limited to, gravure, reverse roll, extrusion die, hopper/knife, and/or slot die, utilizing thermal oxidizer No. 2, identified as C002, for volatile organic compound (VOC) control, exhausting to stack S/V 888-002.

Under 40 CFR 63.3280, Subpart JJJJ, this facility is considered an existing major source of HAP at which web coating lines are operated.

- (b) One (1) BC-1 Coating Line, identified as EU002, constructed in 1963 and modified in 1986, consisting of the following equipment:

one (1) coating station, installed in 1963, and one (1) coating station installed in 1986, each applying coatings with methods including, but not limited to, pressure fed die, gravure, curtain and/or fluid bed, utilizing thermal oxidizer No. 1, identified as C001, for volatile organic compound (VOC) control, exhausting to stack S/V 888-001.

Under 40 CFR 63.3280, Subpart JJJJ, this facility is considered an existing major source of HAP at which web coating lines are operated.

- (c) One (1) BC-2 Coating Line, identified as EU003, consisting of the following equipment:

one (1) coating station, installed in 1963, applying coatings with methods including, but not limited to, wrap cast, reverse roll, gravure, and/or reverse gravure, utilizing thermal

oxidizer No. 1, identified as C001, for volatile organic compound (VOC) control, exhausting to stack S/V 888-001. This Coating Line was changed as per a permit issued on July 10, 1998;

Under 40 CFR 63.3280, Subpart JJJJ, this facility is considered an existing major source of HAP at which web coating lines are operated.

- (d) One (1) VCS Coating Line, identified as EU004, constructed in 1994, consisting of the following equipment:
- (1) One (1) compounding room, constructed in 1994, exhausting to stack S/V 001-001;
  - (2) One (1) coating station, installed in 1994, applying coatings with methods including, but not limited to, reverse roll, gravure, reverse gravure, flexographic, and/or pressure fed die methods, utilizing thermal oxidizer No. 2, C002, for volatile organic compound (VOC) control, exhausting to stack S/V 888-002;
  - (3) One (1) coating station, approved for construction in 2007, applying coatings with methods including, but not limited to, reverse roll, gravure, reverse gravure, flexographic, and/or pressure fed die methods, utilizing an enclosure and a thermal oxidizer No. 2, C002, for volatile organic compound (VOC) control, exhausting to stack S/V 888-002; and
  - (4) Four (4) natural gas-fired drying ovens, two (2) constructed in 1994 with a rated capacity of 0.80 MMBtu/hr each, two (2) constructed in 2007, with a rated capacity of 0.55 MMBTU/hr and 0.88 MMBtu/hr.

Under 40 CFR 60, Subpart RR, this facility is considered an existing pressure sensitive tape and label materials coating line and under 40 CFR 63.3280, Subpart JJJJ, this facility is considered an existing major source of HAP at which web coating lines are operated.

- (e) One (1) Extrusion Line, identified as EU005, constructed in 1996, consisting of one (1) extruder, calendar rolls, and one (1) oven, utilizing thermal oxidizer No. 1, C001, for volatile organic compound (VOC) control, exhausting to stack S/V 888-002;

Under 40 CFR 63.3280, Subpart JJJJ, this facility is considered an existing major source of HAP at which web coating lines are operated.

- (f) One (1) compounding/mix & mill area, identified as EU007, containing variety of mixing vessels, each constructed between 1957-1995, used for mixing in the compounding area;
- (g) Three (3) boilers, identified as EU008, EU009, and EU010, each constructed in 1986, each with a maximum heat input capacity of 12.553 MMBtu per hour, each combusting natural gas and No.2 Fuel Oil, exhausting to stacks S/V 001-005, 001-006, and 001-007, respectively;
- (h) Six (6) outdoor bulk storage tanks, identified as T001, T003, T006, T008, T009 and T012, each constructed in 1988, 1976, 1986, 1999, 1985 and 2000, respectively, each with a maximum tank capacity of 30,000, 20,000, 30,000, 275, 275 and 275 gallons, respectively, each containing volatile organic liquids with maximum true vapor pressure less than 15.0 kPa; and

- (i) Five (5) indoor bulk storage tanks, identified as T002, T004, T005, T007, and T011 constructed in 1997, 1997, 1997, 1992, and 1991 respectively, with a maximum tank capacity of 300, 300, 300, 7500, and 1500 gallons, respectively, each containing volatile organic liquids with maximum true vapor pressure less than 15.0 kPa.

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

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

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6; [326 IAC 8-3-2] [326 IAC 8-3-5]
- (b) The following equipment related to manufacturing activities not resulting in the emissions of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment; [326 IAC 6-3-2(e)]
- (c) Trimmers that do not produce fugitive emissions that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone; [326 IAC 6-3-2(e)]
- (d) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4-3]
- (e) Emergency Generator constructed April 1, 2008, with a maximum heat input capacity of 427 MMBtu per hour, combusting natural gas.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

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

- (a) It is a major source, as defined in 326 IAC 2-7-1 (22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

## SECTION B GENERAL CONDITIONS

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

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

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

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- (a) This permit, T009-26248-00004, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

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

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

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

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

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

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

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

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

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

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

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by the "responsible official" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A "responsible official" is defined at 326 IAC 2-7-1(34).

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

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

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

and

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

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

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

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

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

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

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- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

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

Telephone Number: 317-233-0178 (ask for Compliance Section)  
Facsimile Number: 317-233-6865

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

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

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

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

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

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

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

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

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- (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) In addition to the non-applicability determinations set forth in Sections D of this permit, the IDEM, OAQ has made the following determination regarding this source:
- (1) BA Coating Line is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.440, Subpart RR) because of the following reasons:
- (i) The BA Coating Line was originally constructed in 1963 (prior to the applicability date of December 30, 1980);
  - (ii) The changes to the BA Coating Line do not constitute a reconstruction because the fixed cost of the new equipment does not exceed 50% of the fixed capital cost required to construct an entirely new facility; and
  - (iii) The changes to the BA Coating Line do not constitute a modification. The NSPS modification provisions of 40 CFR 60.14 apply when a physical or operational change occurs which could result in an increase in the hourly potential emissions, unless such change qualifies for one of the exemptions at 40 CFR 60.14(e). The emission rate before and after a physical or operational change is evaluated by comparing the hourly potential emissions under maximum capacity immediately before the change to emissions at maximum capacity after the change. Under the General Provisions of the NSPS, only physical limitations on maximum capacity are considered in determining potential emissions. 3M has provided with adequate evidence to IDEM that there was a decrease in the hourly potential emissions based on the maximum capacity, as a result of the 1995 changes made to the BA Coater. The changes made to the BA Coater in 1995 decreased the maximum exhaust flow rate thereby decreasing the potential emissions from 2,332 lbs/hr to 752 lbs/hr.
- (2) BC-1 Coating Line is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.440, Subpart RR), because none of the equipment for this coating line was constructed, reconstructed, or modified after the December 30, 1980 rule applicability date.

- (3) BC-2 Coating Line is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.440, Subpart RR) because pursuant to CP-009-9364-00004, issued on July 10, 1998:
  - (i) The BC-2 Coating Line was originally constructed in 1963 (prior to the applicability date of December 30, 1980);
  - (ii) The changes to the BC-2 Coating Line do not constitute a reconstruction because the fixed cost of the new equipment does not exceed 50% of the fixed capital cost required to construct an entirely new facility; and
  - (iii) The changes to the BC-2 Coating Line do not constitute a modification. The NSPS modification provisions of 40 CFR 60.14 apply when a physical or operational change occurs which could result in an increase in the hourly potential emissions, unless such change qualifies for one of the exemptions at 40 CFR 60.14(e). The emission rate before and after a physical or operational change is evaluated by comparing the hourly potential emissions under maximum capacity immediately before the change to emissions at maximum capacity after the change. Under the General Provisions of the NSPS, only physical limitations on maximum capacity are considered in determining potential emissions. There was no change to the maximum capacity or hourly potential emissions based on the maximum capacity, as a result of the 1998 changes made to the BC-2 Coater.
- (4) The three (3) boilers (EU008, EU009, EU010), all constructed in 1986, are not subject to New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c, Subpart Dc) because the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million Btu per hour (Btu/hr) or less, but greater than or equal to 2.9 MW (10 million Btu/hr).
- (5) The storage tanks T001 and T006 are not subject to New Source Performance Standard, 326 IAC 12 (40 CFR 60.110 and 110a, Subparts K and Ka) because the tanks were constructed in 1988 and 1986, respectively, and the storage capacity of each tank is less than 40,000 gallons. The storage tanks T001 and T006 are not subject to New Source Performance Standard, 326 IAC 12 (40 CFR Part 60.110b, Subpart Kb), because they have a true vapor pressure of less than 15.0 kPa. Therefore these requirements are not included in this permit.
- (6) Storage tank T003 is not subject to New Source Performance Standard, 326 IAC 12 (40 CFR 60.110, 110a, and 110b, Subparts K, Ka and Kb) because it was constructed in 1976, prior to the rule applicability date of July 23, 1984 for Kb, and because the storage capacity of the tank is less than 40,000 gallons for K and Ka.
- (7) Storage tanks T008, T009, and T012 are not subject to New Source Performance Standard, 326 IAC 12 (40 CFR 60.110, 110a, and 110b, Subparts K, Ka and Kb) because the tanks were constructed in 1999, 1985 and 2000, respectively, and the storage tank capacity of each tank is less than 40 cubic meters for Kb.
- (8) Storage tanks T002, T004, T005, T007 and T011 are not subject to New Source Performance Standard, 326 IAC 12 (40 CFR 60.110, 110a, and 110b, Subparts K, Ka and Kb) because the tanks were constructed in 1997, 1997, 1997, 1992

and 1991, respectively, and the storage capacity of each tank is less than 40 cubic meters for Kb.

- (9) This source is not subject to New Source Performance Standard, 326 IAC 12, (40 CFR 60.430, Subpart QQ) because the affected facility to which the provisions of this subpart apply is for publication rotogravure printing press. This source does not use publication rotogravure printing press.
- (10) The degreasers are not subject to National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 63.460, Subpart T. The degreasers do not use any halogenated solvent cleaners.
- (11) This source is not subject to National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 63.701, Subpart EE. This source does not have any magnetic tape manufacturing operations.
- (12) This source is not subject to National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 63.820, Subpart KK. This source does not use publication rotogravure, product and packaging rotogravure, or wide-web flexographic printing presses.
- (13) This source is not subject to 326 IAC 2-2 (Prevention of Significant Deterioration). The source was initially constructed in 1957, prior to the August 7, 1977 (326 IAC 2-2, Prevention of Significant Deterioration) rule applicability date. Potential volatile organic compound (VOC) emissions from the source were greater than 250 tons per year on August 7, 1977 and are considered a PSD major source. The source had several modifications after the August 7, 1977 rule applicability date, none of which is a major modification pursuant this rule for the following reasons:
  - (A) The three (3) No. 2 Fuel Oil fired boilers, each constructed in 1986, did not trigger PSD applicability. The potential NO<sub>x</sub> emissions from each of the three (3) boilers were calculated to be 7.9 tpy, or 23.7 tpy (combined), when burning No. 2 Fuel Oil, based on the maximum boiler capacity and US EPA AP- 42 emissions factors, which is less than the PSD major modification significant emission rate threshold for NO<sub>x</sub> (as NO<sub>2</sub>) of 40 tpy. The sulfur content of the No. 2 fuel oil used for the three (3) boilers shall be limited such that combined sulfur dioxide emissions from the three (3) boilers do not exceed 40 tons (PSD major modification significant emission rate threshold for SO<sub>2</sub>) per year. Therefore, the construction of the three boilers was not subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration).
  - (B) Pursuant to CP-009-3127-00004, issued on March 7, 1994, the VCS Coating Line did not trigger PSD applicability. The controlled potential to emit VOC from this facility is equal to 9.20 tpy, after enforceable controls utilizing a thermal oxidizer for VOC emission control. This is less than PSD major modification significant emission rate threshold for VOC of 40 tpy. Therefore, the installation of VCS coating line was not subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration).

- (C) Pursuant to CP-009-3871-00004, issued on July 14, 1995, the modification of the BA Coating Line did not trigger PSD applicability. This modification was not a major modification pursuant to 326 IAC 2-2 because the source agreed to limit future actual VOC emissions from the BA Coating Line to no more than 39 tpy above the baseline actual emissions for the existing line. Pursuant to 40 CFR 52.21(B)(21) and 326 IAC 2-2-1(b), actual emissions are generally defined in terms of the two (2) year period preceding a modification when such time-frame represents normal operations. However, the same definition provides for the use of a different 2-year period if such is more representative of normal source operations. During the permit review process for CP009-3871, 3M provided information to IDEM to show that the BA Coater did not have actual emissions reflective of normal operations during any 2-year period after 1989, and that the proposed modification would result in more normal, pre-1989, operations. As such, IDEM, OAQ, agreed that the 2-year period, 1989-1990, would represent normal operations and the related average actual emission rate was determined as 967 tons VOC per year. For the BA Coating Line modification, the total VOC emission rate was limited to 967 tpy, plus 39 tpy, or 1,006 tpy. Therefore, the modification of the BA Coating Line was not subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration). This emission limit notwithstanding, the source also decided to use a thermal oxidizer on the BA Coating line with a VOC control efficiency (capture/destruction) of 75% after the modification. Therefore, the PTE for the BA Coating Line modification, after the installation of thermal oxidizer and in conjunction with VOC usage limit of 1006 tpy, was 252 tpy.
- (D) Pursuant to CP-009-5747-00004, issued on June 4, 1996, the Extrusion Line did not trigger PSD applicability. The controlled potential to emit VOC from this facility is equal to 14 tpy, after enforceable controls utilizing a thermal oxidizer for VOC emission control. This is less than PSD major modification significant emission rate threshold for VOC of 40 tpy. Therefore, the installation of Extrusion Line was not subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration).
- (E) Pursuant to CP-009-9364-00004, issued on July 10, 1998, the modification of the BC-2 Coating Line did not trigger PSD applicability. This modification was not a major modification pursuant to 326 IAC 2-2 because this source agreed to limit future VOC emissions from the BC-2 Coating Line to no more than 39 tpy above the baseline actual emissions for the line. Pursuant to 40 CFR 52.21(B)(21) and 326 IAC 2-2-1(b), actual emissions are generally defined in terms of the two (2) year period preceding a modification when such time-frame represents normal operations. However, the same definition provides for the use of a different 2-year period if such is more representative of normal source operations. During the permit review process for CP009-9364, 3M provided information to IDEM to show that the BC-2 Coater did not have actual emissions reflective of normal operations during any 2-year period after 1993, and that the proposed modification would result in more normal, pre-1993, operations. As such, IDEM, OAQ, agreed that the 2-year period, 1992-1993, would represent normal operations and the related average actual emission rate was determined as 446 tons VOC per year. For the BC-2 Coating Line modification, the total VOC emission rate was limited to 446 tpy, plus 39 tpy, or 485 tpy.

Therefore, the modification of the BC-2 Coating Line was not subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration).

- (14) This source is not subject to 326 IAC 2-4.1-1 (New Source Toxics Control). Pursuant to 326 IAC 2-4.1-1 (New Source Toxics Control), any new process or production unit, which in and of itself emits or has the PTE 10 tons per year of any HAP or 25 tons per year of the combination of HAPs, and is constructed or reconstructed after July 27, 1997, must be controlled using technologies consistent with Maximum Achievable Control Technology (MACT).
- All the emission units and pollution control equipment for this source were constructed before the July 27, 1997 rule applicability date. Therefore the requirements of this rule do not apply to this source.
- (15) The oven zones from the BA, BC-1, BC-2, VCS Coating Lines and the heaters from the Extrusion Line are not subject to 326 IAC 6-2-4 (Emission Limitations for Sources of Indirect Heating). The oven zones from the BA, BC-1, BC-2, VCS Coating Line and the heaters from the Extrusion Line are not indirect heating facilities.
- (16) The BC-1 and BC-2 Coating Lines are not subject to 326 IAC 8-1-6 (New Facilities; General Reduction Requirements). This rule requires all facilities constructed after January 1, 1980, which have potential VOC emission rates of 25 or more tons per year, and which are not otherwise regulated by other provisions of 326 IAC 8, to reduce VOC emissions using Best Available Control Technology (BACT). The two (2) Coating Lines were constructed before 1980, therefore, the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) do not apply.
- (17) The VCS Coating Line is not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements), because it is subject to the requirements of 326 IAC 8-2-5 (Paper Coating Operations).
- (18) The BC-1 and BC-2 Coating Lines are not subject to 326 IAC 8-2-5 (Paper Coating Operations). The two (2) Coating Lines are located in Blackford County and were constructed prior to the applicability date of January 1, 1980, specified in 326 IAC 8-2-1(a)(2).
- (19) This source is not subject to 326 IAC 8-4-3 (Petroleum Liquid Storage Facilities). This rule applies to all petroleum liquid storage vessels with capacities greater than one hundred fifty thousand (150,000) liters (thirty-nine thousand (39,000) gallons) containing volatile organic compounds whose true vapor pressure is greater than 10.5 kPa (1.52 psi). Tanks (T001-T011) are not subject to 326 IAC 8-4-3 (Petroleum Liquid Storage Facilities) because these petroleum liquid storage vessels have capacities less than 39,000 gallons.
- (20) This source is not subject to 326 IAC 8-6 (Organic Solvent Emission Limitations) This rule applies to sources existing as of January 1, 1980, located in Lake and Marion Counties, as well as to facilities commencing operation after October 7, 1974 and prior to January 1, 1980 that are located anywhere in the state, with potential VOC emissions of 100 tons per year or more, and not regulated by any other provision of Article 8. All the facilities for this source, located in Blackford County were either constructed before October 7, 1974 or after January 1, 1980. Therefore, this rule does not apply to this source.

- (21) This source is not subject to 326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark and Floyd Counties). The requirements of this rule apply to stationary sources located in Lake, Porter, Clark and Floyd Counties that emit or have the potential to emit VOCs at levels equal to or greater than 25 tons per year in Lake and Porter Counties; 100 tons per year in Clark and Floyd Counties; and to any coating facility that emits or has the potential to emit 10 tons per year or greater in Lake, Porter, Clark or Floyd County. The source is located in Blackford County. Therefore, this rule is not applicable to this source.
- (22) This source is not subject to 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels). On and after October 1, 1995, this rule applies to stationary vessels used to store volatile organic liquid (VOL) that are located in Clark, Floyd, Lake, or Porter County. Tanks (T001-T011) are not subject to 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels), because these tanks are located in Blackford County.
- (c) 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.
- (d) 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.
- (e) 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.
- (f) 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).
- (g) 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)]
- (h) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ has issued the modification. [326 IAC 2-7-12(b)(8)]

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

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- (a) All terms and conditions of permits established prior to T009-26248-00004 and issued pursuant to permitting programs approved into the state implementation plan have been either:
- (1) incorporated as originally stated,
  - (2) revised under 326 IAC 2-7-10.5, or
  - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

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

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

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

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

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

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

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

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

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

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- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
- (1) That this permit contains a material mistake.

- (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
- (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

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

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

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
  - (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
  - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

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

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

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

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

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

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

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

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- (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]**

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- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b),(c), or (e) without a prior permit revision, if each of the following conditions is met:
- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
  - (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
  - (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
  - (4) The Permittee notifies the:

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

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)

77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

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

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

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

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

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

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

- (c) Emission Trades [326 IAC 2-7-20(c)]  
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

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

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- (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.

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

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

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

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

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

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

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

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

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

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

- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

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

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

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

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

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

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

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 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.

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

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of

326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

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

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

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

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

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

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

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

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

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

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

#### **C.9 Compliance Requirements [326 IAC 2-1.1-11]**

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

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

#### **C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]**

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Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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

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

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

**C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

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

**C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

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

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

**C.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]**

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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 08, 2004.
- (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.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]**

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

**C.15 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]**

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- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
  - (1) initial inspection and evaluation;

- (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
  - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
- (1) monitoring results;
  - (2) review of operation and maintenance procedures and records; and/or
  - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
- (1) monitoring data;
  - (2) monitor performance data, if applicable; and
  - (3) corrective actions taken.

**C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]**

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

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

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

**C.17 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  
MC 61-50 IGCN 1003  
Indianapolis, Indiana 46204-2251

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

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

C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]  
[326 IAC 2-2][326 IAC 2-3]

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- (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 reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A), 40 CFR 51.165(a)(6)(vi)(B), 40 CFR 51.166(r)(6)(vi)(a), and/or 40 CFR 51.166(r)(6)(vi)(b)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, other than projects 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:
  - (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, document and maintain the following records:
    - (A) A description of the project.
    - (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.

- (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
- (i) Baseline actual emissions;
  - (ii) Projected actual emissions;
  - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1 (mm)(2)(A)(iii); and
  - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (d) If there is a reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A) and/or 40 CFR 51.166(r)(6)(vi)(a)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, other than projects 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:
- (1) 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
  - (2) 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.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:
- Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.
- (f) If the Permittee is required to comply with the recordkeeping provisions of (d) 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 (d)(1) and (2) in Section C - General Record Keeping Requirements.
  - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
  - (4) Any other information that the Permittee deems fit to include in this report.

Reports required in this part shall be submitted to:

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

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

## **Stratospheric Ozone Protection**

### **C.20 Compliance with 40 CFR 82 and 326 IAC 22-1**

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

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

**SECTION D.1**

**FACILITY OPERATION CONDITIONS - One Coating Line (EU001)**

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

- (a) One (1) BA Coating Line, identified as EU001, constructed in 1963, consisting of the following equipment:

Two (2) coating stations (coating stations 1 and 2), installed in 1963, and one (1) coating station (coating station 3), installed in 1995, each applying coatings with methods including, but not limited to, gravure, reverse roll, extrusion die, hopper/knife, and/or slot die, utilizing thermal oxidizer No. 2, identified as C002, for volatile organic compound (VOC) control, exhausting to stack S/V 888-002;

(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)]**

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**D.1.1 Prevention of Significant Deterioration (PSD) Requirements [326 IAC 2-2]**

- (a) Pursuant to Significant Permit Modification T009-20292-000045 issued on March 2, 2006, the total VOC input at the BA Coating Line shall be limited to 5,040 tons per twelve (12) consecutive month period with compliance determined at the end of each month, and the thermal oxidizer shall achieve a minimum overall control efficiency of 95% for VOC emission control. This limit limits the potential to emit VOC to 252 tons per year.
- (b) A fifteen (15) minute period per calendar month shall be allowed to exercise the purge stack dampers provided that a monthly summary including time and date of each exercising period is recorded and submitted to the OAQ upon request.
- (c) Compliance with this Condition shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

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**D.1.2 Volatile Organic Compounds (VOC) [326 IAC 8-2-5]**

- (a) Pursuant to 326 IAC 8-2-5 (Paper Coating Operations), the owner or operator shall not allow the discharge into the atmosphere VOC in excess of 2.9 pounds VOC per gallon of coating, excluding water, as delivered to the applicator.
- (1) Pursuant to 326 IAC 8-1-2 (b), the VOC emissions from the BA Coating Line shall be limited to no greater than the equivalent emissions, expressed as 4.79 pounds of VOC per gallon of coating solids.

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.

- (2) Pursuant to 326 IAC 8-1-2(c), the overall efficiency of the thermal oxidizer shall be no less than 66.5%, based on the worst case coating VOC content of 4.86 lbs/gallon coating less water, and calculated by the following equation:

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

Where:

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

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**D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)] [326 IAC 1-6-3]**

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

**Compliance Determination Requirements**

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

Pursuant to 326 IAC 8-1-2(a), the Permittee shall operate the thermal oxidizer to achieve compliance with condition D.1.1 and D.1.2.

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

Within one hundred and eighty (180) days after the issuance of the permit, the Permittee shall conduct a performance test to verify VOC control efficiency as per Condition D.1.1 (a) and D.1.2 (a) (2) for the thermal oxidizer utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

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

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**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. The output of this system shall be recorded as a 3-hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall take appropriate response steps in accordance with Section C - Response to Excursions or Exceedances whenever the 3-hour average temperature of the thermal oxidizer is below 1441 °F. A 3-hour average temperature that is below 1441 °F is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in Condition D.1.1 (a) and D.1.2 (a) (2), as approved by IDEM.

- (c) On and after the date the approved stack test results are available, the Permittee shall take appropriate response steps in accordance with Section C - Response to Excursions or Exceedances whenever the 3-hour average temperature of the thermal oxidizer is below the 3-hour average temperature as observed during the compliant stack test. A 3-hour average temperature that is below the 3-hour average temperature as observed during the compliant stack test is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

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#### **D.1.7 Record Keeping Requirements**

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- (a) To document compliance with Condition D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC emission and usage limits established in Condition 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 less water.
  - (2) The amount of coating material and solvent used on a monthly basis.
    - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
    - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
  - (3) The calculated weight of the VOC per volume of coating solids, for each coating (lb VOC / gal solids).
  - (4) The monthly cleanup solvent usage.
  - (5) The total VOC usage for each month.
  - (6) The weight of VOC emitted for each compliance period.
- (b) To document compliance with condition D.1.6, the Permittee shall maintain continuous temperature records (on a 3-hour average basis) for the thermal oxidizer and the 3-hour average temperature used to demonstrate compliance 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.

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#### **D.1.8 Reporting Requirements**

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A quarterly summary of the information to document compliance with Condition D.1.1 and D.1.2 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 - Two Coating Lines (EU002 & EU003)

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

- (b) One (1) BC-1 Coating Line, identified as EU002, constructed in 1963 and modified in 1986, consisting of the following equipment:

One (1) coating station, installed in 1963, and one (1) coating station installed in 1986, each applying coatings with methods including, but not limited to, pressure fed die, gravure, curtain and/or fluid bed, utilizing thermal oxidizer No. 1, identified as C001, for volatile organic compound (VOC) control, exhausting to stack S/V 888-001;

- (c) One (1) BC-2 Coating Line, identified as EU003, consisting of the following equipment:

One (1) coating station, installed in 1963, applying coatings with methods including, but not limited to, wrap cast, reverse roll, gravure, and/or reverse gravure, utilizing thermal oxidizer No. 1, identified as C001, for volatile organic compound (VOC) control, exhausting to stack S/V 888-001. This Coating Line was changed as per a permit issued on July 10, 1998;

(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 PSD Minor Limit for Volatile Organic Compounds (VOC) [326 IAC 2-2]

Pursuant to CP-009-9364-00004, issued on July 10, 1998, the following is a summary of the BC-2 Coating Line VOC emission limitation:

- (a) The VOC input to the BC-2 Coating Line when operating without controls added to the VOC input to the BC-2 coater when the capture system and thermal oxidizer are in operation shall be limited such that the potential to emit (PTE) VOCs based on the following equations does not exceed 485 tons per twelve (12) consecutive month period with compliance determined at the end of each month:

$$E_{VOC} = (u_u * W_{u,avg}) + (u_c * W_{c,avg} * (1 - c_{eff})) \quad (i)$$

$$PTE_{VOC} = (E_{VOC, this\ month} + E_{VOC, last\ 11\ months}) \quad (ii)$$

where:  $E_{VOC}$  = the monthly emissions of VOCs in tons per month

$u_u$  = The total amount of uncontrolled coatings used in tons per month (when the capture system or thermal oxidizer is not operating)

$W_{u,avg}$  = the monthly weighted average weight percent (%) VOC of uncontrolled coatings used

$u_c$  = the total amount of controlled coatings used in tons per month (when both the capture system and thermal oxidizer are operating)

$W_{c,avg}$  = the monthly usage weighted average weight percent (%) VOC of controlled coatings used

$c_{eff}$  = the overall control efficiency of the control system

$PTE_{VOC} =$  the potential to emit VOCs in tons per twelve (12) consecutive month period

- (b) Compliance with this VOC input limitation shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), not applicable.

**D.2.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)] [326 IAC 1-6-3]**

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

**Compliance Determination Requirements**

**D.2.3 Volatile Organic Compounds (VOC) [326 IAC 8-1-2]**

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Pursuant to 326 IAC 8-1-2(a), the Permittee shall operate the thermal oxidizer for the BC-2 Coating Line as required to achieve compliance with condition D.2.1.

**D.2.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]**

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Within one hundred and eighty (180) days after the issuance of the permit, the Permittee shall conduct a performance test to verify VOC control efficiency is always maintained at or above 78.8% as per condition D.2.1(a) for the thermal oxidizer for the BC-2 Coating Line, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

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

**D.2.5 Thermal Oxidizer Temperature**

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- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature. The output of this system shall be recorded as a 3-hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall take appropriate response steps in accordance with Section C - Response to Excursions or Exceedances whenever the 3-hour average temperature of the thermal oxidizer is below 1410 °F. A 3-hour average temperature that is below 1410 °F is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in condition D.2.1 (a) (BC-2 Coating Line), as approved by IDEM.
- (c) On and after the date the approved stack test results are available, the Permittee shall take appropriate response steps in accordance with Section C - Response to Excursions or Exceedances whenever the 3-hour average temperature of the thermal oxidizer is below the 3-hour average temperature as observed during the compliant stack test. A 3-hour average temperature that is below the 3-hour average temperature as observed during the compliant stack test is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

### **D.2.6 Record Keeping Requirements**

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- (a) To document compliance with condition D.2.1(a), the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC input limits established in condition D.2.1(a). 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 less water.
  - (2) The amount of coating material and solvent used on a monthly basis.
    - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
    - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
  - (3) The calculated weight of the VOC per volume of coating solids, for each coating (lb VOC / gal solids).
  - (4) The monthly cleanup solvent usage.
  - (5) The total VOC usage for each month.
  - (6) The weight of VOC emitted for each compliance period.
- (b) To document compliance with condition D.2.5, the Permittee shall maintain continuous temperature records (on a 3-hour average basis) for the thermal oxidizer and the 3-hour average temperature used to demonstrate compliance 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.2.7 Reporting Requirements**

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A quarterly summary of the information to document compliance with Condition D.2.1 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.3**

**FACILITY OPERATION CONDITIONS - One Coating Line (EU004)**

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

- (d) One (1) VCS Coating Line, identified as EU004, constructed in 1994, consisting of the following equipment:
- (1) One (1) compounding room, constructed in 1994, exhausting to stack S/V 001-001;
  - (2) One (1) coating station, installed in 1994, applying coatings with methods including, but not limited to, reverse roll, gravure, reverse gravure, flexographic, and/or pressure fed die methods, utilizing thermal oxidizer No. 2, C002, for volatile organic compound (VOC) control, exhausting to stack S/V 888-002;
  - (3) One (1) coating station, approved for construction in 2007, applying coatings with methods including, but not limited to, reverse roll, gravure, reverse gravure, flexographic, and/or pressure fed die methods, utilizing an enclosure and a thermal oxidizer No. 2, C002, for volatile organic compound (VOC) control, exhausting to stack S/V 888-002;
  - (4) Four (4) natural gas-fired drying ovens, two (2) constructed in 1994 with a rated capacity of 0.80 MMBtu/hr each, two (2) constructed in 2007, with a rated capacity of 0.55 MMBTU/hr and 0.88 MMBtu/hr.

Under 40 CFR 60, Subpart RR, this facility is considered an existing pressure sensitive tape and label materials coating line.

(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 Volatile Organic Compounds (VOC) [326 IAC 8-2-5]**

- (a) Pursuant to 326 IAC 8-2-5 (Paper Coating Operations), the owner or operator shall not allow the discharge into the atmosphere VOC in excess of 2.9 pounds VOC per gallon of coating, excluding water, as delivered to the applicator.
- (1) Pursuant to 326 IAC 8-1-2 (b), the VOC emissions from the VCS Coating Line when using solvent based coatings shall be limited to no greater than the equivalent emissions, expressed as 4.79 pounds of VOC per gallon of coating solids.

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.

Pursuant to 326 IAC 8-1-2(c), the overall efficiency of the thermal oxidizer shall be no less than 66.5%, based on the worst case coating VOC content of 4.86 lbs / gallon coating less water, and calculated by the following equation:

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

Where:

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

- (b) The thermal oxidizer shall be operated at all times to achieve the limit pursuant to 326 IAC 8-2-5 of 2.9 pounds of VOC emitted to the atmosphere per gallon of coating less water and the thermal oxidizer shall maintain a minimum 90% overall control efficiency pursuant to 326 IAC 8-1-2(c).

#### D.3.2 PSD Minor Limit for Volatile Organic Compounds (VOC) [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the total VOC input including clean-up solvents at the VCS Coating Line (EU004) shall be limited to 184 tons per year, and the thermal oxidizer shall achieve a minimum overall control efficiency of 95% for VOC emission control. Compliance with this limitation shall render the requirements of 326 IAC 2-2 (PSD) not applicable.

#### D.3.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)] [326 IAC 1-6-3]

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

### **Compliance Determination Requirements**

#### D.3.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-2]

Pursuant to 326 IAC 8-1-2(a), the Permittee shall operate the thermal oxidizer at all times when the VCS Coating Line is operating and not coating with water-based coating solutions, to achieve compliance with condition D.3.1.

#### D.3.5 Testing Requirements [326 IAC 2-7-6 (1) (6)] [326 IAC 2-1.1-11]

Within one hundred and eighty (180) days after the initial startup of the coating station, the Permittee shall conduct a performance test to verify VOC control efficiency as required in condition D.3.1 for the thermal oxidizer using methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. The last compliance test for the thermal oxidizer was May 2004. Testing shall be conducted in accordance with Section C - Performance Testing.

#### D.3.6 VOC Emissions

Compliance with condition D.3.2 shall be demonstrated within 30 days of the end of each month. This shall be based on the total volatile organic compound emitted for the previous month, and adding it to the previous 11 months total VOC emitted to determine VOC emissions for the most

recent 12 consecutive month period. The VOC emissions for a month can be determined by using the following equation for VOC input:

$$\text{VOC emitted} = [(\text{VOC input}) \times (100 - \% \text{ overall control efficiency})]$$

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

#### **D.3.7 Thermal Oxidizer Temperature**

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- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature. The output of this system shall be recorded as a 3-hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall take appropriate response steps in accordance with Section C - Response to Excursions or Exceedances whenever the 3-hour average temperature of the thermal oxidizer is below 1410 °F. A 3-hour average temperature that is below 1410 °F is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in conditions D.3.1, as approved by IDEM.
- (c) On and after the date the approved stack test results are available, the Permittee shall take appropriate response steps in accordance with Section C - Response to Excursions or Exceedances whenever the 3-hour average temperature of the thermal oxidizer is below the 3-hour average temperature as observed during the compliant stack test. A 3-hour average temperature that is below the 3-hour average temperature as observed during the compliant stack test is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

#### **D.3.8 Record Keeping Requirements**

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- (a) To document compliance with condition D.3.1 and D.3.2, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC emission and usage limits established in condition D.3.1 and D.3.2. 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 less water.
  - (2) The amount of coating material and solvent used on a monthly basis.
    - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
    - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
  - (3) The calculated weight of the VOC per volume of coating solids, for each coating used (lb VOC / gal solids).
  - (4) The monthly cleanup solvent usage.

- (5) The total VOC input for each month.
- (6) The weight of VOC emitted for each compliance period.
- (b) To document compliance with condition D.3.7, the Permittee shall maintain continuous temperature records (on a 3-hour average basis) for the thermal oxidizer and the 3-hour average temperature used to demonstrate compliance 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.3.9 Reporting Requirements

A quarterly summary of the information to document compliance with condition D.3.2 shall be submitted to the addresses 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.4 FACILITY OPERATION CONDITIONS - One Extrusion Line (EU005)

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

- (e) One (1) Extrusion Line, identified as EU005, constructed in 1996, consisting of one (1) extruder, calendar rolls, and one (1) oven, utilizing thermal oxidizer No. 1, C001, for volatile organic compound (VOC) control, exhausting to stack S/V 888-002;

(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) [326 IAC 8-1-6]

Pursuant to CP 009-5147-00004, issued on June 4, 1996 and 326 IAC 8-1-6 (New Facilities; General Reduction Requirements), a thermal oxidizer with a minimum combustion chamber temperature of 1400° F, using a 3-hour rolling average or a more appropriate temperature as determined by the most recent stack test data, for a minimum overall efficiency of 90%, shall be operated at all times the Extrusion Line is in operation. This is accepted by OAQ as a Best Available Control Technology (BACT) for this facility.

#### D.4.2 PSD Minor Limit for Volatile Organic Compounds (VOC) [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the input of VOC, including coatings, dilution solvents, and cleaning solvents, shall be limited to 280 tons per twelve (12) consecutive month period, with compliance determined at the end of each month, and the thermal oxidizer shall achieve a minimum overall control efficiency of 95% for VOC emission control. Compliance with this condition shall limit the potential to emit VOC from the Extrusion Line to less than 40 tons per year. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) are not applicable.

#### D.4.3 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 this facility and its control device.

### Compliance Determination Requirements

#### D.4.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-2]

Pursuant to 326 IAC 8-1-2(a), the Permittee shall operate the thermal oxidizer at all times when the Extrusion Line is operating to achieve compliance with Condition D.4.1.

#### D.4.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within one hundred and eighty (180) days after the issuance of the permit, the Permittee shall conduct a performance test to verify VOC control efficiency as required in condition D.4.2 for the thermal oxidizer using methods as approved by the Commissioner. This test shall be repeated at least once every five years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

#### D.4.6 VOC Emissions

Compliance with condition D.4.1 shall be demonstrated within 30 days of the end of each month. This shall be based on the total volatile organic compound emitted for the previous month, and adding it to the previous 11 months total VOC emitted to determine VOC emissions for the most recent 12 consecutive month period. The VOC emissions for a month can be determined by using the following equation for VOC input:

$$\text{VOC emitted} = [(\text{VOC input}) \times (100 - \% \text{ overall control efficiency})]$$

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

### **D.4.7 Thermal Oxidizer Temperature**

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- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature. The output of this system shall be recorded as a 3-hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the hourly average temperature of 1441<sup>0</sup>F on a 3-hour average.
- (b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in conditions D.4.1, as approved by IDEM.
- (c) On and after the date the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature as observed during the compliant stack test.

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

### **D.4.8 Record Keeping Requirements**

---

- (a) To document compliance with Conditions D.4.1, D.4.2, and D.4.6, 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 conditions D.4.1, D.4.2, and D.4.6.
  - (1) The VOC content of each coating material and solvent used less water.
  - (2) The amount of coating material and solvent used on a monthly basis.
    - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
    - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
  - (3) The monthly cleanup solvent usage.
  - (4) The total VOC input for each month.
  - (5) The continuous temperature records (on a 3-hour average basis) for the thermal oxidizer and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

### **D.4.9 Reporting Requirements**

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A quarterly summary of the information to document compliance with conditions D.4.1 and D.4.2 shall be submitted to the addresses 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.5

## FACILITY OPERATION CONDITIONS - Three Boilers

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

- (g) Three (3) boilers, identified as EU008, EU009, and EU010, each constructed in 1986, each with a maximum heat input capacity of 12.553 MMBtu per hour, each combusting natural gas and No.2 Fuel Oil, exhausting to stacks S/V 001-005, 001-006, and 001-007, respectively;

(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.5.1 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1] [ 326 IAC 2-2]

Pursuant to 326 IAC 7-1.1-1:

- (a) The combined SO<sub>2</sub> emissions from the three (3) boilers shall be no greater than five-tenths (0.5) pound per million Btu for fuel oil combustion.
- (b) The maximum fuel oil sulfur content shall be limited to less than 0.24% sulfur by weight.

Compliance with D.5.1 (b) shall also satisfy the requirements of D.5.1 (a). Compliance with these limitations shall limit the SO<sub>2</sub> emissions from the three (3) boilers to less than 40 tons per twelve consecutive month period, with compliance determined at the end of each month. Compliance with this condition shall make the requirements of 326 IAC 2-2 (PSD) not applicable.

#### D.5.2 Particulate [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), the PM emissions from each of the three (3) boilers, based on a total heat input rate of 37.66 MMBtu per hour, shall be limited to 0.42 pounds per MMBtu heat input.

This limitation is based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}} \quad \text{where: } Pt = \text{Pounds of particulate matter emitted per MMBtu heat input.}$$

Q = Total source maximum operating capacity rating in MMBtu per hour.

#### D.5.3 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 this facility and any control device.

### Compliance Determination Requirements

#### D.5.4 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options:

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu heat input by:
- (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, or;
  - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

- (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
  - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the three (3) 12.553 MMBtu/hr boilers, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

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

#### **D.5.5 Visible Emissions Notations**

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- (a) Visible emission notations of the three (3) boiler stack exhausts shall be performed once per day during normal daylight operations when exhausting to the atmosphere and burning oil. 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.5.6 Record Keeping Requirements**

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- (a) To document compliance with Condition D.5.5, the Permittee shall maintain records of visible emission notations of the three (3) boiler stack exhausts once per day.
- (b) To document compliance with Conditions D.5.1, D.5.2, and D.5.4 the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the emission limits established in Conditions D.5.1, D.5.2, and D.5.4.
  - (1) Calendar dates covered in the compliance determination period;
  - (2) Actual fuel oil and natural gas usage since last compliance determination period;
  - (3) Sulfur dioxide emission rates;
  - (4) Analysis of fuel or a vendor analysis and a certification for sulfur content by weight; and

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

#### D.5.7 Reporting Requirements

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The natural gas boiler certification 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 six (6) month period being reported. The natural gas-fired boiler certification does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

**SECTION D.6**

**FACILITY OPERATION CONDITIONS - Degreasing**

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

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6, [326 IAC 8-3-2] [326 8-3-5]

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

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

**D.6.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]**

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.

**SECTION E.1**

**FACILITY OPERATION CONDITIONS**

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

- (a) One (1) BA Coating Line, identified as EU001, constructed in 1963, exhausting to stack S/V 888-002. Under 40 CFR 63.3280 Subpart JJJJ, this is considered an existing web coating line operation.
- (b) One (1) BC-1 Coating Line, identified as EU002, constructed in 1963 and modified in 1986, exhausting to stack S/V 888-001. Under 40 CFR 63.3280 Subpart JJJJ, this is considered an existing web coating line operation.
- (c) One (1) BC-2 Coating Line, identified as EU003, constructed in 1963, exhausting to stack S/V 888-001. Under 40 CFR 63.3280 Subpart JJJJ, this is considered an existing web coating line operation.
- (d) One (1) VCS Coating Line, identified as EU004, constructed in 1994 and 2007, exhausting to stack S/V 001-001 and stack S/V 888-001. Under 40 CFR 63.3280 Subpart JJJJ, this is considered an existing web coating line operation.
- (e) One (1) Extrusion Line, identified as EU005, constructed in 1996, exhausting to stack S/V 888-002. Under 40 CFR 63.3280 Subpart JJJJ, this is considered an existing web coating line operation.

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

**E.1.1 General Provisions Relating to NESHAP Subpart JJJJ [40 CFR Part 63, Subpart A]**

Pursuant to 40 CFR 63.3340, 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 JJJJ in accordance with schedule in 40 CFR 63 Subpart JJJJ.

**E.1.2 Paper and other Web Coating NESHAP [40 CFR Part 63, Subpart JJJJ]**

The Permittee which engages in paper and other web coating shall comply with the following provisions of 40 CFR Part 63, Subpart JJJJ (included as Attachment A of this permit).

- (1) 40 CFR 63.3280;
- (2) 40 CFR 63.3290;
- (3) 40 CFR 63.3300;
- (4) 40 CFR 63.3310;
- (5) 40 CFR 63.3320(a), (b)(1), (2) and (3) and (c);
- (6) 40 CFR 63.3321;
- (7) 40 CFR 63.3330(a);
- (8) 40 CFR 63.3340;
- (9) 40 CFR 63.3350;

- (10) 40 CFR 63.3360(a), (c), (d), and (e);
- (11) 40 CFR 63.3370(a), (b) and (c)(1) through (5);
- (12) 40 CFR 63.3400(a), (b)(1), c(1)(i) through (v), (2)(i) through (v) and (e); and
- (13) 40 CFR 63.3410(a)(1)(iii), (iv) and (vi).

**SECTION E.2**

**FACILITY OPERATION CONDITIONS**

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

- (a) One (1) VCS Coating Line, identified as EU004, constructed in 1994 and 2007, exhausting to stack S/V 001-001 and stack S/V 888-001. Under 40 CFR 60.440 Subpart RR, this is considered an existing pressure sensitive tape and label materials coating line operation.

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

**E.2.1 General Provisions Relating to NSPS Subpart RR [40 CFR Part 60, Subpart A]**

Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12, except as otherwise specified in 40 CFR Part 60, Subpart RR.

**E.2.2 Standards of Performance for Pressure Sensitive Tape and Label Materials Coating Operation NSPS [40 CFR Part 60, Subpart RR] [326 IAC 12]**

The Permittee which engages in pressure sensitive tape and label materials coating shall comply with the following provisions of 40 CFR Part 60, Subpart RR, (included as Attachment B of this permit).

- (1) 40 CFR 60.440;
- (2) 40 CFR 60.441;
- (3) 40 CFR 60.442;
- (4) 40 CFR 60.443;
- (5) 40 CFR 60.444;
- (6) 40 CFR 60.445;
- (7) 40 CFR 60.446; and
- (8) 40 CFR 60.447.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY**

**PART 70 OPERATING PERMIT  
CERTIFICATION**

Source Name: 3 M Hartford City  
Source Address: 304S 075E, Hartford City, Indiana 47348  
Mailing Address: 304S 075E, Hartford City, Indiana 47348  
Part 70 Permit No.: T009-26248-00004

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

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

**PART 70 OPERATING PERMIT  
EMERGENCY OCCURRENCE REPORT**

Source Name: 3 M Hartford City  
Source Address: 304S 075E, Hartford City, Indiana 47348  
Mailing Address: 304S 075E, Hartford City, Indiana 47348  
Part 70 Permit No.: T009-26248-00004

**This form consists of 2 pages**

**Page 1 of 2**

- |  |
|--|
| <input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12) <ul style="list-style-type: none"><li>C 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</li><li>C The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.</li></ul> |
|--|

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

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

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

Page 2 of 2

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

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

A certification is not required for this report.

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

**PART 70 OPERATING PERMIT  
SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION**

Source Name: 3 M Hartford City  
Source Address: 304S 075E, Hartford City, Indiana 47348  
Mailing Address: 304S 075E, Hartford City, Indiana 47348  
Part 70 Permit No.: T009-26248-00004

<input type="checkbox"/> Natural Gas Only <input type="checkbox"/> Alternate Fuel burned From: _____ To: _____
--

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:

A certification by the responsible official as defined by 326 IAC 2-7-1(34) is required for this report.

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

**Part 70 Quarterly Report**

Source Name: 3 M Hartford City  
Source Address: 304S 075E, Hartford City, Indiana 47348  
Mailing Address: 304S 075E, Hartford City, Indiana 47348  
Part 70 Permit No.: T009-26248-00004  
Facility: BA Coating Line  
Parameter: VOC input  
Limit: BA Coating Line VOC input shall be limited to 5,040 tons per  
twelve (12) consecutive month period with compliance  
determined at the end of each month.

Year: \_\_\_\_\_

Month	VOC Input (tons) This Month	VOC Input (tons) Previous 11 Months	VOC Input (tons) 12 Month total
Month 1			
Month 2			
Month 3			

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

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

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION  
Part 70 Quarterly Report**

Source Name: 3 M Hartford City  
Source Address: 304S 075E, Hartford City, Indiana 47348  
Mailing Address: 304S 075E, Hartford City, Indiana 47348  
Part 70 Permit No.: T009-26248-00004  
Facility: BC-2 Coating Line  
Parameter: VOC Emissions  
Limit: VOC emissions shall not exceed 485 tons per twelve (12) consecutive month period, with compliance determined at the end of each month based on the formula below.

Year: \_\_\_\_\_

Month	Uncontrolled Coatings Usage This Month (tons/month)	Volume Weighted Average VOC Content of Uncontrolled Coatings Used This Month (wt.%)	Weight of Uncontrolled VOCs Emitted This Month (tons/month)	Controlled Coatings Usage This Month (tons/month)	Volume Weighted Average VOC Content of Controlled Coatings Used This Month (wt.%)	Weight of Controlled VOCs Emitted This Month (tons/month)	Total Weight of Controlled and Uncontrolled VOCs Emitted This Month (tons/month)	Total Weight of Controlled and Uncontrolled VOCs Emitted Last 12 Months (tons/12 month)	Limit
									485
									485
									485

$$E_{VOC} = (u_u * W_{u,avg}) + (u_c * W_{c,avg} * (1-C_{eff})) \text{ (i)}$$

$$PTE_{VOC} = (E_{VOC, \text{this month}} + E_{VOC, \text{last 11-months}}) \text{ (ii)}$$

- where:
- $E_{VOC}$  = the monthly emissions of VOCs in tons per month
  - $u_u$  = The total amount of uncontrolled coatings used in tons per month (when the capture system or thermal oxidizer is not operating)
  - $W_{u,avg}$  = the monthly usage weighted average weight percent (%) VOC of uncontrolled coatings used
  - $u_c$  = the total amount of controlled coatings used in tons per month (when both the capture system and thermal oxidizer are operating)
  - $W_{c,avg}$  = the monthly usage weighted average weight percent (%) VOC of controlled coatings used
  - $C_{eff}$  = the overall control efficiency of the control system
  - $PTE_{VOC}$  = the potential to emit VOCs in tons per twelve (12) consecutive month period

No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

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

**Part 70 Quarterly Report**

Source Name: 3 M Hartford City  
Source Address: 304S 075E, Hartford City, Indiana 47348  
Mailing Address: 304S 075E, Hartford City, Indiana 47348  
Part 70 Permit No.: T009-26248-00004  
Facility: VCS Coating Line  
Parameter: VOC input  
Limit: The VCS Coating Line VOC input shall be limited to 184 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Year: \_\_\_\_\_

Month	VOC Input (tons) This Month	VOC Input (tons) Previous 11 Months	VOC Input (tons) 12 Month total
Month 1			
Month 2			
Month 3			

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

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

Attach a signed certification to complete this report.

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

**Part 70 Quarterly Report**

Source Name: 3 M Hartford City  
Source Address: 304S 075E, Hartford City, Indiana 47348  
Mailing Address: 304S 075E, Hartford City, Indiana 47348  
Part 70 Permit No.: T009-26248-00004  
Facility: Extrusion Line  
Parameter: VOC input  
Limit: Extrusion Line VOC input shall be limited to 280 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Year: \_\_\_\_\_

Month	VOC Input (tons) This Month	VOC Input (tons) Previous 11 Months	VOC Input (tons) 12 Month total
Month 1			
Month 2			
Month 3			

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

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

Attach a signed certification to complete this report.

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

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

Source Name: 3 M Hartford City  
Source Address: 304S 075E, Hartford City, Indiana 47348  
Mailing Address: 304S 075E, Hartford City, Indiana 47348  
Part 70 Permit No.: T009-26248-00004

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 deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

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

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**PART 70 OPERATING PERMIT RENEWAL  
OFFICE OF AIR QUALITY**

**3M Hartford City  
304S 075E  
Hartford City, Indiana 47348**

**Attachment A**

**Title 40: Protection of Environment**

**PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS  
AIR POLLUTANTS FOR SOURCE CATEGORIES**

**Subpart JJJJ—National Emission Standards for Hazardous Air  
Pollutants: Paper and Other Web Coating**

**T009-26248-00004**

## **Title 40: Protection of Environment**

### PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

#### **Subpart JJJJ—National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating**

**Source:** 67 FR 72341, Dec. 4, 2002, unless otherwise noted.

#### **What This Subpart Covers**

##### **§ 63.3280 What is in this subpart?**

This subpart describes the actions you must take to reduce emissions of organic hazardous air pollutants (HAP) from paper and other web coating operations. This subpart establishes emission standards for web coating lines and specifies what you must do to comply if you own or operate a facility with web coating lines that is a major source of HAP. Certain requirements apply to all who are subject to this subpart; others depend on the means you use to comply with an emission standard.

##### **§ 63.3290 Does this subpart apply to me?**

The provisions of this subpart apply to each new and existing facility that is a major source of HAP, as defined in §63.2, at which web coating lines are operated.

##### **§ 63.3300 Which of my emission sources are affected by this subpart?**

The affected source subject to this subpart is the collection of all web coating lines at your facility. This includes web coating lines engaged in the coating of metal webs that are used in flexible packaging, and web coating lines engaged in the coating of fabric substrates for use in pressure sensitive tape and abrasive materials. Web coating lines specified in paragraphs (a) through (g) of this section are not part of the affected source of this subpart.

(a) Any web coating line that is stand-alone equipment under subpart KK of this part (National Emission Standards for the Printing and Publishing Industry) which the owner or operator includes in the affected source under subpart KK.

(b) Any web coating line that is a product and packaging rotogravure or wide-web flexographic press under subpart KK of this part (national emission standards for the printing and publishing industry) which is included in the affected source under subpart KK.

(c) Web coating in lithography, screenprinting, letterpress, and narrow-web flexographic printing processes.

(d) Any web coating line subject to subpart EE of this part (national emission standards for magnetic tape manufacturing operations).

(e) Any web coating line that will be subject to the national emission standards for hazardous air pollutants (NESHAP) for surface coating of metal coil currently under development.

(f) Any web coating line that will be subject to the NESHAP for the printing, coating, and dyeing of fabric and other textiles currently under development. This would include any web coating line that coats both a paper or other web substrate and a fabric or other textile substrate, except for a fabric substrate used for pressure sensitive tape and abrasive materials.

(g) Any web coating line that is defined as research or laboratory equipment in §63.3310.

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### **§ 63.3310 What definitions are used in this subpart?**

All terms used in this subpart that are not defined in this section have the meaning given to them in the Clean Air Act (CAA) and in subpart A of this part.

*Always-controlled work station* means a work station associated with a dryer from which the exhaust is delivered to a control device with no provision for the dryer exhaust to bypass the control device unless there is an interlock to interrupt and prevent continued coating during a bypass. Sampling lines for analyzers, relief valves needed for safety purposes, and periodic cycling of exhaust dampers to ensure safe operation are not considered bypass lines.

*Applied* means, for the purposes of this subpart, the amount of organic HAP, coating material, or coating solids (as appropriate for the emission standards in §63.3320(b)) used by the affected source during the compliance period.

*As-applied* means the condition of a coating at the time of application to a substrate, including any added solvent.

*As-purchased* means the condition of a coating as delivered to the user.

*Capture efficiency* means the fraction of all organic HAP emissions generated by a process that is delivered to a control device, expressed as a percentage.

*Capture system* means a hood, enclosed room, or other means of collecting organic HAP emissions into a closed-vent system that exhausts to a control device.

*Car-seal* means a seal that is placed on a device that is used to change the position of a valve or damper (e.g., from open to closed) in such a way that the position of the valve or damper cannot be changed without breaking the seal.

*Coating material(s)* means all inks, varnishes, adhesives, primers, solvents, reducers, and other coating materials applied to a substrate via a web coating line. Materials used to form a substrate are not considered coating materials.

*Control device* means a device such as a solvent recovery device or oxidizer which reduces the organic HAP in an exhaust gas by recovery or by destruction.

*Control device efficiency* means the ratio of organic HAP emissions recovered or destroyed by a control device to the total organic HAP emissions that are introduced into the control device, expressed as a percentage.

*Day* means a 24-consecutive-hour period.

*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 limitation (including any 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 limitation (including any operating limit) or work practice standard in this subpart during start-up, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

*Existing affected source* means any affected source the construction or reconstruction of which is commenced on or before September 13, 2000, and has not undergone reconstruction as defined in §63.2.

*Fabric* means any woven, knitted, plaited, braided, felted, or non-woven material made of filaments, fibers, or yarns including thread. This term includes material made of fiberglass, natural fibers, synthetic fibers, or composite materials.

*Facility* means all contiguous or adjoining property that is under common ownership or control, including properties that are separated only by a road or other public right-of-way.

*Flexible packaging* means any package or part of a package the shape of which can be readily changed. Flexible packaging includes, but is not limited to, bags, pouches, labels, liners and wraps utilizing paper, plastic, film, aluminum foil, metalized or coated paper or film, or any combination of these materials.

*Formulation data* means data on the organic HAP mass fraction, volatile matter mass fraction, or coating solids mass fraction of a material that is generated by the manufacturer or means other than a test method specified in this subpart or an approved alternative method.

*HAP* means hazardous air pollutants.

*HAP applied* means the organic HAP content of all coating materials applied to a substrate by a web coating line at an affected source.

*Intermittently-controlled work station* means a work station associated with a dryer with provisions for the dryer exhaust to be delivered to or diverted from a control device through a bypass line, depending on the position of a valve or damper. Sampling lines for analyzers, relief valves needed for safety purposes, and periodic cycling of exhaust dampers to ensure safe operation are not considered bypass lines.

*Metal coil* means a continuous metal strip that is at least 0.15 millimeter (0.006 inch) thick which is packaged in a roll or coil prior to coating. After coating, it may or may not be rewound into a roll or coil. Metal coil does not include metal webs that are coated for use in flexible packaging.

*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.

*Never-controlled work station* means a work station that is not equipped with provisions by which any emissions, including those in the exhaust from any associated dryer, may be delivered to a control device.

*New affected source* means any affected source the construction or reconstruction of which is commenced after September 13, 2000.

*Overall organic HAP control efficiency* means the total efficiency of a capture and control system.

*Pressure sensitive tape* means a flexible backing material with a pressure-sensitive adhesive coating on one or both sides of the backing. Examples include, but are not limited to, duct/duct insulation tape and medical tape.

*Research or laboratory equipment* means any equipment for which the primary purpose is to conduct research and development into new processes and products where such equipment is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce except in a *de minimis* manner.

*Rewind or cutting station* means a unit from which substrate is collected at the outlet of a web coating line.

*Uncontrolled coating line* means a coating line consisting of only never-controlled work stations.

*Unwind or feed station* means a unit from which substrate is fed to a web coating line.

*Web* means a continuous substrate ( e.g., paper, film, foil) which is flexible enough to be wound or unwound as rolls.

*Web coating line* means any number of work stations, of which one or more applies a continuous layer of coating material across the entire width or any portion of the width of a web substrate, and any associated curing/drying equipment between an unwind or feed station and a rewind or cutting station.

*Work station* means a unit on a web coating line where coating material is deposited onto a web substrate.

## **Emission Standards and Compliance Dates**

### **§ 63.3320 What emission standards must I meet?**

(a) If you own or operate any affected source that is subject to the requirements of this subpart, you must comply with these requirements on and after the compliance dates as specified in §63.3330.

(b) You must limit organic HAP emissions to the level specified in paragraph (b)(1), (2), (3), or (4) of this section.

(1) No more than 5 percent of the organic HAP applied for each month (95 percent reduction) at existing affected sources, and no more than 2 percent of the organic HAP applied for each month (98 percent reduction) at new affected sources; or

(2) No more than 4 percent of the mass of coating materials applied for each month at existing affected sources, and no more than 1.6 percent of the mass of coating materials applied for each month at new affected sources; or

(3) No more than 20 percent of the mass of coating solids applied for each month at existing affected sources, and no more than 8 percent of the coating solids applied for each month at new affected sources.

(4) If you use an oxidizer to control organic HAP emissions, operate the oxidizer such that an outlet organic HAP concentration of no greater than 20 parts per million by volume (ppmv) by compound on a dry basis is achieved and the efficiency of the capture system is 100 percent.

(c) You must demonstrate compliance with this subpart by following the procedures in §63.3370.

### **§ 63.3321 What operating limits must I meet?**

(a) For any web coating line or group of web coating lines for which you use add-on control devices, unless you use a solvent recovery system and conduct a liquid-liquid material balance, you must meet the operating limits specified in Table 1 to this subpart or according to paragraph (b) of this section. These operating limits apply to emission capture systems and control devices, and you must establish the operating limits during the performance test according to the requirements in §63.3360(e)(3). You must meet the operating limits at all times after you establish them.

(b) 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).

**§ 63.3330 When must I comply?**

(a) If you own or operate an existing affected source subject to the provisions of this subpart, you must comply by the compliance date. The compliance date for existing affected sources in this subpart is December 5, 2005. You must complete any performance test required in §63.3360 within the time limits specified in §63.7(a)(2).

(b) If you own or operate a new affected source subject to the provisions of this subpart, your compliance date is immediately upon start-up of the new affected source or by December 4, 2002, whichever is later. You must complete any performance test required in §63.3360 within the time limits specified in §63.7(a)(2).

(c) If you own or operate a reconstructed affected source subject to the provisions of this subpart, your compliance date is immediately upon startup of the affected source or by December 4, 2002, whichever is later. Existing affected sources which have undergone reconstruction as defined in §63.2 are subject to the requirements for new affected sources. The costs associated with the purchase and installation of air pollution control equipment are not considered in determining whether the existing affected source has been reconstructed. Additionally, the costs of retrofitting and replacing of equipment that is installed specifically to comply with this subpart are not considered reconstruction costs. You must complete any performance test required in §63.3360 within the time limits specified in §63.7(a)(2).

**General Requirements for Compliance With the Emission Standards and for Monitoring and Performance Tests**

**§ 63.3340 What general requirements must I meet to comply with the standards?**

Table 2 to this subpart specifies the provisions of subpart A of this part that apply if you are subject to this subpart, such as startup, shutdown, and malfunction plans (SSMP) in §63.6(e)(3) for affected sources using a control device to comply with the emission standards.

**§ 63.3350 If I use a control device to comply with the emission standards, what monitoring must I do?**

(a) A summary of monitoring you must do follows:

<b>If you operate a web coating line, and have the following:</b>	<b>Then you must:</b>
(1) Intermittently-controlled work stations	Record parameters related to possible exhaust flow bypass of control device and to coating use (§63.3350(c)).
(2) Solvent recovery unit	Operate continuous emission monitoring system and perform quarterly audits or determine volatile matter recovered and conduct a liquid-liquid material balance (§63.3350(d)).
(3) Control Device	Operate continuous parameter monitoring system (§63.3350(e)).
(4) Capture system	Monitor capture system operating parameter (§63.3350(f)).

(b) Following the date on which the initial performance test of a control device is completed to demonstrate continuing compliance with the standards, you must monitor and inspect each capture system and each control device used to comply with §63.3320. You must install and operate the monitoring equipment as specified in paragraphs (c) and (f) of this section.

(c) *Bypass and coating use monitoring.* If you own or operate web coating lines with intermittently-controlled work stations, you must monitor bypasses of the control device and the mass of each coating material

applied at the work station during any such bypass. If using a control device for complying with the requirements of this subpart, you must demonstrate that any coating material applied on a never-controlled work station or an intermittently-controlled work station operated in bypass mode is allowed in your compliance demonstration according to §63.3370(n) and (o). The bypass monitoring must be conducted using at least one of the procedures in paragraphs (c)(1) through (4) of this section for each work station and associated dryer.

(1) *Flow control position indicator.* Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that provides a record indicating whether the exhaust stream from the dryer was directed to the control device or was diverted from the control device. The time and flow control position must be recorded at least once per hour as well as every time the flow direction is changed. A flow control position indicator must be installed at the entrance to any bypass line that could divert the exhaust stream away from the control device to the atmosphere.

(2) *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. A visual inspection of the seal or closure mechanism must be performed at least once every month to ensure that the valve or damper is maintained in the closed position, and the exhaust stream is not diverted through the bypass line.

(3) *Valve closure continuous monitoring.* Ensure that any bypass line valve or damper is in the closed position through continuous monitoring of valve position when the emission source is in operation and is using a control device for compliance with the requirements of this subpart. The monitoring system must be inspected at least once every month to verify that the monitor will indicate valve position.

(4) *Automatic shutdown system.* Use an automatic shutdown system in which the web coating line is stopped when flow is diverted away from the control device to any bypass line when the control device is in operation. The automatic system must be inspected at least once every month to verify that it will detect diversions of flow and would shut down operations in the event of such a diversion.

(d) *Solvent recovery unit.* If you own or operate a solvent recovery unit to comply with §63.3320, you must meet the requirements in either paragraph (d)(1) or (2) of this section depending on how control efficiency is determined.

(1) *Continuous emission monitoring system (CEMS).* If you are demonstrating compliance with the emission standards in §63.3320 through continuous emission monitoring of a control device, you must install, calibrate, operate, and maintain the CEMS according to paragraphs (d)(1)(i) through (iii) of this section.

(i) Measure the total organic volatile matter mass flow rate at both the control device inlet and the outlet such that the reduction efficiency can be determined. Each continuous emission monitor must comply with performance specification 6, 8, or 9 of 40 CFR part 60, appendix B, as appropriate.

(ii) You must follow the quality assurance procedures in procedure 1, appendix F of 40 CFR part 60. In conducting the quarterly audits of the monitors as required by procedure 1, appendix F, you must use compounds representative of the gaseous emission stream being controlled.

(iii) You must have valid data from at least 90 percent of the hours during which the process is operated.

(2) *Liquid-liquid material balance.* If you are demonstrating compliance with the emission standards in §63.3320 through liquid-liquid material balance, you must install, calibrate, maintain, and operate according to the manufacturer's specifications a device that indicates the cumulative amount of volatile matter recovered by the solvent recovery device on a monthly basis. The device must be certified by the manufacturer to be accurate to within  $\pm 2.0$  percent by mass.

(e) *Continuous parameter monitoring system (CPMS).* If you are using a control device to comply with the emission standards in §63.3320, you must install, operate, and maintain each CPMS specified in paragraphs (e)(9) and (10) and (f) of this section according to the requirements in paragraphs (e)(1) through (8) of this section. You must install, operate, and maintain each CPMS specified in paragraph (c) of this section according to paragraphs (e)(5) through (7) of this section.

(1) Each 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 to have a valid hour of data.

(2) You must have valid data from at least 90 percent of the hours during which the process operated.

(3) You must determine the hourly average of all recorded readings according to paragraphs (e)(3)(i) and (ii) of this section.

(i) To calculate a valid hourly value, you must have at least three of four equally spaced data values from that hour from a continuous monitoring system (CMS) that is not out-of-control.

(ii) Provided all of the readings recorded in accordance with paragraph (e)(3) of this section clearly demonstrate continuous compliance with the standard that applies to you, then you are not required to determine the hourly average of all recorded readings.

(4) You must determine the rolling 3-hour average of all recorded readings for each operating period. To calculate the average for each 3-hour averaging period, you must have at least two of three of the hourly averages for that period using only average values that are based on valid data ( *i.e.*, not from out-of-control periods).

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

(6) At all times, you must maintain the monitoring system in proper working order including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(7) Except for monitoring malfunctions, associated repairs, or required quality assurance or control activities (including calibration checks or required zero and span adjustments), you must conduct all monitoring at all times that the unit is operating. Data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities shall not be used for purposes of calculating the emissions concentrations and percent reductions specified in §63.3370. You must use all the valid data collected during all other periods in assessing compliance of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(8) Any averaging period for which you do not have valid monitoring data and such data are required constitutes a deviation, and you must notify the Administrator in accordance with §63.3400(c).

(9) *Oxidizer*. If you are using an oxidizer to comply with the emission standards, you must comply with paragraphs (e)(9)(i) through (iii) of this section.

(i) Install, calibrate, maintain, and operate temperature monitoring equipment according to the manufacturer's specifications. The calibration of the chart recorder, data logger, or temperature indicator must be verified every 3 months or the chart recorder, data logger, or temperature indicator must be replaced. You must replace the equipment whether you choose not to perform the calibration or the equipment cannot be calibrated properly.

(ii) For an oxidizer other than a catalytic oxidizer, install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device must have an accuracy of  $\pm 1$  percent of the temperature being monitored in degrees Celsius, or  $\pm 1$  °Celsius, whichever is greater. The thermocouple or temperature sensor must be installed in the combustion chamber at a location in the combustion zone.

(iii) For a catalytic oxidizer, install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature with an accuracy of  $\pm 1$  percent of the temperature being monitored in degrees Celsius or  $\pm 1$  degree Celsius, whichever is greater. The thermocouple or temperature sensor must be installed in the vent stream at the

nearest feasible point to the inlet and outlet of the catalyst bed. Calculate the temperature rise across the catalyst.

(10) *Other types of control devices.* If you use a control device other than an oxidizer or wish to monitor an alternative parameter and comply with a different operating limit, you must apply to the Administrator for approval of an alternative monitoring method under §63.8(f).

(f) *Capture system monitoring.* If you are complying with the emission standards in §63.3320 through the use of a capture system and control device for one or more web coating lines, you must develop a site-specific monitoring plan containing the information specified in paragraphs (f)(1) and (2) of this section for these capture systems. You must monitor the capture system in accordance with paragraph (f)(3) of this section. You must make the monitoring plan available for inspection by the permitting authority upon request.

(1) The monitoring plan must:

(i) Identify the operating parameter to be monitored to ensure that the capture efficiency determined during the initial compliance test is maintained; and

(ii) Explain why this parameter is appropriate for demonstrating ongoing compliance; and

(iii) Identify the specific monitoring procedures.

(2) The monitoring plan must specify the operating parameter value or range of values that demonstrate compliance with the emission standards in §63.3320. The specified operating parameter value or range of values must represent the conditions present when the capture system is being properly operated and maintained.

(3) You must conduct all capture system monitoring in accordance with the plan.

(4) Any deviation from the operating parameter value or range of values which are monitored according to the plan will be considered a deviation from the operating limit.

(5) You must review and update the capture system monitoring plan at least annually.

**§ 63.3360 What performance tests must I conduct?**

(a) The performance test methods you must conduct are as follows:

<p><b>If you control organic HAP on any individual web coating line or any group of web coating lines by:</b></p>	<p><b>You must:</b></p>
<p>(1) Limiting organic HAP or volatile matter content of coatings</p>	<p>Determine the organic HAP or volatile matter and coating solids content of coating materials according to procedures in §63.3360(c) and (d). If applicable, determine the mass of volatile matter retained in the coated web or otherwise not emitted to the atmosphere according to §63.3360(g).</p>
<p>(2) Using a capture and control system</p>	<p>Conduct a performance test for each capture and control system to determine: the destruction or removal efficiency of each control device other than solvent recovery according to §63.3360(e), and the capture efficiency of each capture system according to §63.3360(f). If</p>

	applicable, determine the mass of volatile matter retained in the coated web or otherwise not emitted to the atmosphere according to §63.3360(g).
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(b) If you are using a control device to comply with the emission standards in §63.3320, you are not required to conduct a performance test to demonstrate compliance if one or more of the criteria in paragraphs (b)(1) through (3) of this section are met.

(1) The control device is equipped with continuous emission monitors for determining inlet and outlet total organic volatile matter concentration and capture efficiency has been determined in accordance with the requirements of this subpart such that an overall organic HAP control efficiency can be calculated, and the continuous emission monitors are used to demonstrate continuous compliance in accordance with §63.3350; or

(2) You have met the requirements of §63.7(h) (for waiver of performance testing; or

(3) The control device is a solvent recovery system and you comply by means of a monthly liquid-liquid material balance.

(c) *Organic HAP content.* If you determine compliance with the emission standards in §63.3320 by means other than determining the overall organic HAP control efficiency of a control device, you must determine the organic HAP mass fraction of each coating material “as-purchased” by following one of the procedures in paragraphs (c)(1) through (3) of this section, and determine the organic HAP mass fraction of each coating material “as-applied” by following the procedures in paragraph (c)(4) of this section. If the organic HAP content values are not determined using the procedures in paragraphs (c)(1) through (3) of this section, the owner or operator must submit an alternative test method for determining their values for approval by the Administrator in accordance with §63.7(f). The recovery efficiency of the test method must be determined for all of the target organic HAP and a correction factor, if necessary, must be determined and applied.

(1) *Method 311.* You may test the coating material in accordance with Method 311 of appendix A of this part. The Method 311 determination may be performed by the manufacturer of the coating material and the results provided to the owner or operator. The organic HAP content must be calculated according to the criteria and procedures in paragraphs (c)(1)(i) through (iii) of this section.

(i) Include each organic HAP determined to be present at greater than or equal to 0.1 mass percent for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and greater than or equal to 1.0 mass percent for other organic HAP compounds.

(ii) Express the mass fraction of each organic HAP you include according to paragraph (c)(1)(i) of this section as a value truncated to four places after the decimal point (for example, 0.3791).

(iii) Calculate the total mass fraction of organic HAP in the tested material by summing the counted individual organic HAP mass fractions and truncating the result to three places after the decimal point (for example, 0.763).

(2) *Method 24.* For coatings, determine the volatile organic content as mass fraction of nonaqueous volatile matter and use it as a substitute for organic HAP using Method 24 of 40 CFR part 60, appendix A. The Method 24 determination may be performed by the manufacturer of the coating and the results provided to you.

(3) *Formulation data.* You may use formulation data to determine the organic HAP mass fraction of a coating material. Formulation data may be provided to the owner or operator by the manufacturer of the material. In the event of an inconsistency between Method 311 (appendix A of 40 CFR part 63) test data and a facility's formulation data, and the Method 311 test value is higher, the Method 311 data will govern. Formulation data may be used provided that the information represents all organic HAP present at a level equal to or greater than 0.1 percent for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and equal to or greater than 1.0 percent for other organic HAP compounds in any raw material used.

(4) *As-applied organic HAP mass fraction.* If the as-purchased coating material is applied to the web without any solvent or other material added, then the as-applied organic HAP mass fraction is equal to the as-purchased organic HAP mass fraction. Otherwise, the as-applied organic HAP mass fraction must be calculated using Equation 1a of §63.3370.

(d) *Volatile organic and coating solids content.* If you determine compliance with the emission standards in §63.3320 by means other than determining the overall organic HAP control efficiency of a control device and you choose to use the volatile organic content as a surrogate for the organic HAP content of coatings, you must determine the as-purchased volatile organic content and coating solids content of each coating material applied by following the procedures in paragraph (d)(1) or (2) of this section, and the as-applied volatile organic content and coating solids content of each coating material by following the procedures in paragraph (d)(3) of this section.

(1) *Method 24.* You may determine the volatile organic and coating solids mass fraction of each coating applied using Method 24 (40 CFR part 60, appendix A.) The Method 24 determination may be performed by the manufacturer of the material and the results provided to you. If these values cannot be determined using Method 24, you must submit an alternative technique for determining their values for approval by the Administrator.

(2) *Formulation data.* You may determine the volatile organic content and coating solids content of a coating material based on formulation data and may rely on volatile organic content data provided by the manufacturer of the material. In the event of any inconsistency between the formulation data and the results of Method 24 of 40 CFR part 60, appendix A, and the Method 24 results are higher, the results of Method 24 will govern.

(3) *As-applied volatile organic content and coating solids content.* If the as-purchased coating material is applied to the web without any solvent or other material added, then the as-applied volatile organic content is equal to the as-purchased volatile content and the as-applied coating solids content is equal to the as-purchased coating solids content. Otherwise, the as-applied volatile organic content must be calculated using Equation 1b of §63.3370 and the as-applied coating solids content must be calculated using Equation 2 of §63.3370.

(e) *Control device efficiency.* If you are using an add-on control device other than solvent recovery, such as an oxidizer, to comply with the emission standards in §63.3320, you must conduct a performance test to establish the destruction or removal efficiency of the control device according to the methods and procedures in paragraphs (e)(1) and (2) of this section. During the performance test, you must establish the operating limits required by §63.3321 according to paragraph (e)(3) of this section.

(1) An initial performance test to establish the destruction or removal efficiency of the control device must be conducted such that control device inlet and outlet testing is conducted simultaneously, and the data are reduced in accordance with the test methods and procedures in paragraphs (e)(1)(i) through (ix) of this section. You must conduct three test runs as specified in §63.7(e)(3), and each test run must last at least 1 hour.

(i) Method 1 or 1A of 40 CFR part 60, appendix A, must be used for sample and velocity traverses to determine sampling locations.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G of 40 CFR part 60, appendix A, must be used to determine gas volumetric flow rate.

(iii) Method 3, 3A, or 3B of 40 CFR part 60, appendix A, must be used for gas analysis to determine dry molecular weight. You may also use as an alternative to Method 3B the manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas in ANSI/ASME PTC 19.10–1981, “Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus],” (incorporated by reference, see §63.14).

(iv) Method 4 of 40 CFR part 60, appendix A, must be used to determine stack gas moisture.

(v) The gas volumetric flow rate, dry molecular weight, and stack gas moisture must be determined during each test run specified in paragraph (f)(1)(vii) of this section.

(vi) Method 25 or 25A of 40 CFR part 60, appendix A, must be used to determine total gaseous non-methane organic matter concentration. Use the same test method for both the inlet and outlet measurements which must be conducted simultaneously. You must submit notice of the intended test method to the Administrator for approval along with notification of the performance test required under §63.7(b). You must use Method 25A if any of the conditions described in paragraphs (e)(1)(vi)(A) through (D) of this section apply to the control device.

(A) The control device is not an oxidizer.

(B) The control device is an oxidizer but an exhaust gas volatile organic matter concentration of 50 ppmv or less is required to comply with the emission standards in §63.3320; or

(C) The control device is an oxidizer but the volatile organic matter concentration at the inlet to the control system and the required level of control are such that they result in exhaust gas volatile organic matter concentrations of 50 ppmv or less; or

(D) The control device is an oxidizer but because of the high efficiency of the control device the anticipated volatile organic matter concentration at the control device exhaust is 50 ppmv or less, regardless of inlet concentration.

(vii) Except as provided in §63.7(e)(3), each performance test must consist of three separate runs with each run conducted for at least 1 hour under the conditions that exist when the affected source is operating under normal operating conditions. For the purpose of determining volatile organic compound concentrations and mass flow rates, the average of the results of all the runs will apply.

(viii) Volatile organic matter mass flow rates must be determined for each run specified in paragraph (e)(1)(vii) of this section using Equation 1 of this section:

$$M_f = Q_{sd} C_c [12][0.0416][10^{-6}] \quad \text{Eq. 1}$$

Where:

$M_f$  = Total organic volatile matter mass flow rate, kilograms (kg)/hour (h).

$Q_{sd}$  = Volumetric flow rate of gases entering or exiting the control device, as determined according to §63.3360(e)(1)(ii), dry standard cubic meters (dscm)/h.

$C_c$  = Concentration of organic compounds as carbon, ppmv.

12.0 = Molecular weight of carbon.

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

(ix) For each run, emission control device destruction or removal efficiency must be determined using Equation 2 of this section:

$$E = \frac{M_{fi} - M_{fo}}{M_{fi}} \times 100 \quad \text{Eq. 2}$$

Where:

E = Organic volatile matter control efficiency of the control device, percent.

$M_{fi}$  = Organic volatile matter mass flow rate at the inlet to the control device, kg/h.

$M_{fo}$  = Organic volatile matter mass flow rate at the outlet of the control device, kg/h.

(x) The control device destruction or removal efficiency is determined as the average of the efficiencies determined in the test runs and calculated in Equation 2 of this section.

(2) You must record such process information as may be necessary to determine the conditions in existence at the time of the performance test. Operations during periods of startup, shutdown, and malfunction will not constitute representative conditions for the purpose of a performance test.

(3) *Operating limits.* If you are using one or more add-on control device other than a solvent recovery system for which you conduct a liquid-liquid material balance to comply with the emission standards in §63.3320, you must establish the applicable operating limits required by §63.3321. These operating limits apply to each add-on emission control device, and you must establish the operating limits during the performance test required by paragraph (e) of this section according to the requirements in paragraphs (e)(3)(i) and (ii) of this section.

(i) *Thermal oxidizer.* If your add-on control device is a thermal oxidizer, establish the operating limits according to paragraphs (e)(3)(i)(A) and (B) of this section.

(A) 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.

(B) 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.

(ii) *Catalytic oxidizer.* If your add-on control device is a catalytic oxidizer, establish the operating limits according to paragraphs (e)(3)(ii)(A) and (B) or paragraphs (e)(3)(ii)(C) and (D) of this section.

(A) 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.

(B) 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.

(C) As an alternative to monitoring the temperature difference across the catalyst bed, you may 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 (e)(3)(ii)(D) 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.

(D) You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s) for which you elect to monitor according to paragraph (e)(3)(ii)(C) of this section. The plan must address, at a minimum, the elements specified in paragraphs (e)(3)(ii)(D)( 1 ) through ( 3 ) of this section.

- ( 1 ) Annual sampling and analysis of the catalyst activity ( *i.e.*, conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures,
- ( 2 ) Monthly inspection of the oxidizer system including the burner assembly and fuel supply lines for problems, and
- ( 3 ) Annual internal and monthly external visual inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found, you must take corrective action consistent with the manufacturer's recommendations and conduct a new performance test to determine destruction efficiency in accordance with this section.

(f) *Capture efficiency.* If you demonstrate compliance by meeting the requirements of §63.3370(e), (f), (g), (h), (i)(2), (k), (n)(2) or (3), or (p), you must determine capture efficiency using the procedures in paragraph (f)(1), (2), or (3) of this section, as applicable.

(1) You may assume your capture efficiency equals 100 percent if your capture system is a permanent total enclosure (PTE). You must confirm that your capture system is a PTE by demonstrating that it meets the requirements of section 6 of EPA Method 204 of 40 CFR part 51, appendix M, and that all exhaust gases from the enclosure are delivered to a control device.

(2) You may determine capture efficiency according to the protocols for testing with temporary total enclosures that are specified in Methods 204 and 204A through F of 40 CFR part 51, appendix M. You may exclude never-controlled work stations from such capture efficiency determinations.

(3) You may use any capture efficiency protocol and test methods that satisfy the criteria of either the Data Quality Objective or the Lower Confidence Limit approach as described in appendix A of subpart KK of this part. You may exclude never-controlled work stations from such capture efficiency determinations.

(g) *Volatile matter retained in the coated web or otherwise not emitted to the atmosphere.* You may choose to take into account the mass of volatile matter retained in the coated web after curing or drying or otherwise not emitted to the atmosphere when determining compliance with the emission standards in §63.3320. If you choose this option, you must develop a testing protocol to determine the mass of volatile matter retained in the coated web or otherwise not emitted to the atmosphere and submit this protocol to the Administrator for approval. You must submit this protocol with your site-specific test plan under §63.7(f). If you intend to take into account the mass of volatile matter retained in the coated web after curing or drying or otherwise not emitted to the atmosphere and demonstrate compliance according to §63.3370(c)(3), (c)(4), (c)(5), or (d), then the test protocol you submit must determine the mass of organic HAP retained in the coated web or otherwise not emitted to the atmosphere. Otherwise, compliance must be shown using the volatile organic matter content as a surrogate for the HAP content of the coatings.

(h) *Control devices in series.* If you use multiple control devices in series to comply with the emission standards in §63.3320, the performance test must include, at a minimum, the inlet to the first control device in the series, the outlet of the last control device in the series, and all intermediate streams ( *e.g.*, gaseous exhaust to the atmosphere or a liquid stream from a recovery device) that are not subsequently treated by any of the control devices in the series.

### Requirements for Showing Compliance

#### § 63.3370 How do I demonstrate compliance with the emission standards?

(a) A summary of how you must demonstrate compliance follows:

<b>If you choose to demonstrate compliance by:</b>	<b>Then you must demonstrate that:</b>	<b>To accomplish this:</b>
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<p>(1) Use of "as-purchased" compliant coating materials</p>	<p>(i) Each coating material used at an existing affected source does not exceed 0.04 kg organic HAP per kg coating material, and each coating material used at a new affected source does not exceed 0.016 kg organic HAP per kg coating material as-purchased; or</p>	<p>Follow the procedures set out in §63.3370(b).</p>
	<p>(ii) Each coating material used at an existing affected source does not exceed 0.2 kg organic HAP per kg coating solids, and each coating material used at a new affected source does not exceed 0.08 kg organic HAP per kg coating solids as-purchased</p>	<p>Follow the procedures set out in §63.3370(b).</p>
<p>(2) Use of "as-applied" compliant coating materials</p>	<p>(i) Each coating material used at an existing affected source does not exceed 0.04 kg organic HAP per kg coating material, and each coating material used at a new affected source does not exceed 0.016 kg organic HAP per kg coating material as-applied; or</p>	<p>Follow the procedures set out in §63.3370(c)(1). Use either Equation 1a or b of §63.3370 to determine compliance with §63.3320(b)(2) in accordance with §63.3370(c)(5)(i).</p>
	<p>(ii) Each coating material used at an existing affected source does not exceed 0.2 kg organic HAP per kg coating solids, and each coating material used at a new affected source does not exceed 0.08 kg organic HAP per kg coating solids as-applied; or</p>	<p>Follow the procedures set out in §63.3370(c)(2). Use Equations 2 and 3 of §63.3370 to determine compliance with §63.3320(b)(3) in accordance with §63.3370(c)(5)(i).</p>
	<p>(iii) Monthly average of all coating materials used at an existing affected source does not exceed 0.04 kg organic HAP per kg coating material, and monthly average of all coating materials used at a new affected source does not exceed 0.016 kg organic HAP per kg coating material as-applied on a monthly average basis; or</p>	<p>Follow the procedures set out in §63.3370(c)(3). Use Equation 4 of §63.3370 to determine compliance with §63.3320(b)(2) in accordance with §63.3370(c)(5)(ii).</p>
	<p>(iv) Monthly average of all coating materials used at an existing affected source does not exceed 0.2 kg organic HAP per kg coating solids, and monthly average of all coating materials used at a new affected source does not exceed 0.08 kg organic HAP per kg coating solids as-applied on a monthly average basis</p>	<p>Follow the procedures set out in §63.3370(c)(4). Use Equation 5 of §63.3370 to determine compliance with §63.3320(b)(3) in accordance with §63.3370(c)(5)(ii).</p>

(3) Tracking total monthly organic HAP applied	Total monthly organic HAP applied does not exceed the calculated limit based on emission limitations	Follow the procedures set out in §63.3370(d). Show that total monthly HAP applied (Equation 6 of §63.3370) is less than the calculated equivalent allowable organic HAP (Equation 13a or b of §63.3370).
(4) Use of a capture system and control device	(i) Overall organic HAP control efficiency is equal to 95 percent at an existing affected source and 98 percent at a new affected source on a monthly basis; or oxidizer outlet organic HAP concentration is no greater than 20 ppmv by compound and capture efficiency is 100 percent; or operating parameters are continuously monitored; or	Follow the procedures set out in §63.3370(e) to determine compliance with §63.3320(b)(1) according to §63.3370(i) if using a solvent recovery device, or §63.3370(j) if using a control device and CPMS, or §63.3370(k) if using an oxidizer.
	(ii) Overall organic HAP emission rate does not exceed 0.2 kg organic HAP per kg coating solids for an existing affected source or 0.08 kg organic HAP per kg coating solids for a new affected source on a monthly average as-applied basis;	Follow the procedures set out in §63.3370(f) to determine compliance with §63.3320(b)(3) according to §63.3370(i) if using a solvent recovery device, or §63.3370(k) if using an oxidizer.
	(iii) Overall organic HAP emission rate does not exceed 0.04 kg organic HAP per kg coating material for an existing affected source or 0.016 kg organic HAP per kg coating material for a new affected source on a monthly average as-applied basis; or	Follow the procedures set out in §63.3370(g) to determine compliance with §63.3320(b)(2) according to §63.3370(i) if using a solvent recovery device, or §63.3370(k) if using an oxidizer.
	(iv) Overall organic HAP emission rate does not exceed the calculated limit based on emission limitations	Follow the procedures set out in §63.3370(h). Show that the monthly organic HAP emission rate is less than the calculated equivalent allowable organic HAP emission rate (Equation 13a or b of §63.3370). Calculate the monthly organic HAP emission rate according to §63.3370(i) if using a solvent recovery device, or §63.3370(k) if using an oxidizer.
(5) Use of multiple capture and/or control devices	(i) Overall organic HAP control efficiency is equal to 95 percent at an existing affected source and 98 percent at a new affected source on a monthly basis; or	Follow the procedures set out in §63.3370(e) to determine compliance with §63.3320(b)(1) according to §63.3370(e)(1) or (2).
	(ii) Average equivalent organic HAP emission rate does not exceed 0.2 kg organic HAP per kg coating solids for an existing affected source or 0.08 kg organic HAP per kg coating	Follow the procedures set out in §63.3370(f) to determine compliance with §63.3320(b)(3) according to §63.3370(n).

	solids for a new affected source on a monthly average as-applied basis; or	
	(iii) Average equivalent organic HAP emission rate does not exceed 0.04 kg organic HAP per kg coating material for an existing affected source or 0.016 kg organic HAP per kg coating material for a new affected source on a monthly average as-applied basis; or	Follow the procedures set out in §63.3370(g) to determine compliance with §63.3320(b)(2) according to §63.3370(n).
	(iv) Average equivalent organic HAP emission rate does not exceed the calculated limit based on emission limitations	Follow the procedures set out in §63.3370(h). Show that the monthly organic HAP emission rate is less than the calculated equivalent allowable organic HAP emission rate (Equation 13a or b of §63.3370) according to §63.3370(n).
(6) Use of a combination of compliant coatings and control devices	(i) Average equivalent organic HAP emission rate does not exceed 0.2 kg organic HAP per kg coating solids for an existing affected source or 0.08 kg organic HAP per kg coating solids for a new affected source on a monthly average as-applied basis; or	Follow the procedures set out in §63.3370(f) to determine compliance with §63.3320(b)(3) according to §63.3370(n).
	(ii) Average equivalent organic HAP emission rate does not exceed 0.04 kg organic HAP per kg coating material for an existing affected source or 0.016 kg organic HAP per kg coating material for a new affected source on a monthly average as-applied basis; or	Follow the procedures set out in §63.3370(g) to determine compliance with §63.3320(b)(2) according to §63.3370(n).
	(iii) Average equivalent organic HAP emission rate does not exceed the calculated limit based on emission limitations	Follow the procedures set out in §63.3370(h). Show that the monthly organic HAP emission rate is less than the calculated equivalent allowable organic HAP emission rate (Equation 13a or b of §63.3370) according to §63.3370(n).

(b) *As-purchased "compliant" coating materials.* (1) If you comply by using coating materials that individually meet the emission standards in §63.3320(b)(2) or (3), you must demonstrate that each coating material applied during the month at an existing affected source contains no more than 0.04 mass fraction organic HAP or 0.2 kg organic HAP per kg coating solids, and that each coating material applied during the month at a new affected source contains no more than 0.016 mass fraction organic HAP or 0.08 kg organic HAP per kg coating solids on an as-purchased basis as determined in accordance with §63.3360(c).

(2) You are in compliance with emission standards in §63.3320(b)(2) and (3) if each coating material applied at an existing affected source is applied as-purchased and contains no more than 0.04 kg organic HAP per kg coating material or 0.2 kg organic HAP per kg coating solids, and each coating material applied at a new affected source is applied as-purchased and contains no more than 0.016 kg organic HAP per kg coating material or 0.08 kg organic HAP per kg coating solids.

(c) *As-applied "compliant" coating materials.* If you comply by using coating materials that meet the emission standards in §63.3320(b)(2) or (3) as-applied, you must demonstrate compliance by following one of the procedures in paragraphs (c)(1) through (4) of this section. Compliance is determined in accordance with paragraph (c)(5) of this section.

(1) *Each coating material as-applied meets the mass fraction of coating material standard (§63.3320(b)(2)).* You must demonstrate that each coating material applied at an existing affected source during the month contains no more than 0.04 kg organic HAP per kg coating material applied, and each coating material applied at a new affected source contains no more than 0.016 kg organic HAP per kg coating material applied as determined in accordance with paragraphs (c)(1)(i) and (ii) of this section. You must calculate the as-applied organic HAP content of as-purchased coating materials which are reduced, thinned, or diluted prior to application.

(i) Determine the organic HAP content or volatile organic content of each coating material applied on an as-purchased basis in accordance with §63.3360(c).

(ii) Calculate the as-applied organic HAP content of each coating material using Equation 1a of this section:

$$C_{ahi} = \frac{\left( C_{hi}M_i + \sum_{j=1}^q C_{hij}M_{ij} \right)}{M_i + \sum_{j=1}^q M_{ij}} \quad \text{Eq. 1a}$$

Where:

$C_{ahi}$  = Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.

$C_{hi}$  = Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, kg/kg.

$M_i$  = Mass of as-purchased coating material, i, applied in a month, kg.

$q$  = number of different materials added to the coating material.

$C_{hij}$  = Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.

$M_{ij}$  = Mass of material, j, added to as-purchased coating material, i, in a month, kg.

$M_i$  = Mass of as-purchased coating material, i, applied in a month, kg.

or calculate the as-applied volatile organic content of each coating material using Equation 1b of this section:

$$C_{avi} = \frac{\left( C_{vi}M_i + \sum_{j=1}^q C_{vij}M_{ij} \right)}{M_i + \sum_{j=1}^q M_{ij}} \quad \text{Eq. 1b}$$

Where:

$C_{avi}$  = Monthly average, as-applied, volatile organic content of coating material, i, expressed as a mass fraction, kg/kg.

$C_{vi}$  = Volatile organic content of coating material, i, expressed as a mass fraction, kg/kg.

$M_i$  = Mass of as-purchased coating material, i, applied in a month, kg.

q = Number of different materials added to the coating material.

$C_{vij}$  = Volatile organic content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.

$M_{ij}$  = Mass of material, j, added to as-purchased coating material, i, in a month, kg.

(2) *Each coating material as-applied meets the mass fraction of coating solids standard (§63.3320(b)(3)).* You must demonstrate that each coating material applied at an existing affected source contains no more than 0.20 kg of organic HAP per kg of coating solids applied and each coating material applied at a new affected source contains no more than 0.08 kg of organic HAP per kg of coating solids applied. You must demonstrate compliance in accordance with paragraphs (c)(2)(i) and (ii) of this section.

(i) Determine the as-applied coating solids content of each coating material following the procedure in §63.3360(d). You must calculate the as-applied coating solids content of coating materials which are reduced, thinned, or diluted prior to application, using Equation 2 of this section:

$$C_{asi} = \frac{\left( C_{si}M_i + \sum_{j=1}^q C_{sij}M_{ij} \right)}{M_i + \sum_{j=1}^q M_{ij}} \quad \text{Eq. 2}$$

Where:

$C_{si}$  = Coating solids content of coating material, i, expressed as a mass fraction, kg/kg.

$M_i$  = Mass of as-purchased coating material, i, applied in a month, kg.

q = Number of different materials added to the coating material.

$C_{sij}$  = Coating solids content of material, j, added to as-purchased coating material, i, expressed as a mass-fraction, kg/kg.

$M_{ij}$  = Mass of material, j, added to as-purchased coating material, i, in a month, kg.

(ii) Calculate the as-applied organic HAP to coating solids ratio using Equation 3 of this section:

$$H_{si} = \frac{C_{ahi}}{C_{asi}} \quad \text{Eq. 3}$$

Where:

$H_{si}$  = As-applied, organic HAP to coating solids ratio of coating material, i.

$C_{ahi}$  = Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.

$C_{asi}$  = Monthly average, as-applied, coating solids content of coating material, i, expressed as a mass fraction, kg/kg.

(3) *Monthly average organic HAP content of all coating materials as-applied is less than the mass percent limit (§63.3320(b)(2)).* Demonstrate that the monthly average as-applied organic HAP content of all coating materials applied at an existing affected source is less than 0.04 kg organic HAP per kg of coating material applied, and all coating materials applied at a new affected source are less than 0.016 kg organic HAP per kg of coating material applied, as determined by Equation 4 of this section:

$$H_L = \frac{\sum_{i=1}^p C_{hi} M_i + \sum_{j=1}^q C_{hij} M_{ij} - M_{vret}}{\sum_{i=1}^p M_i + \sum_{j=1}^q M_{ij}} \quad \text{Eq. 4}$$

Where:

$H_L$  = Monthly average, as-applied, organic HAP content of all coating materials applied, expressed as kg organic HAP per kg of coating material applied, kg/kg.

$p$  = Number of different coating materials applied in a month.

$C_{hi}$  = Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, kg/kg.

$M_i$  = Mass of as-purchased coating material, i, applied in a month, kg.

$q$  = Number of different materials added to the coating material.

$C_{hij}$  = Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.

$M_{ij}$  = Mass of material, j, added to as-purchased coating material, i, in a month, kg.

$M_{vret}$  = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.

(4) *Monthly average organic HAP content of all coating materials as-applied is less than the mass fraction of coating solids limit (§63.3320(b)(3)).* Demonstrate that the monthly average as-applied organic HAP content on the basis of coating solids applied of all coating materials applied at an existing affected source is less than 0.20 kg organic HAP per kg coating solids applied, and all coating materials applied at a new affected source are less than 0.08 kg organic HAP per kg coating solids applied, as determined by Equation 5 of this section:

$$H_s = \frac{\sum_{i=1}^p C_{hi} M_i + \sum_{j=1}^q C_{hij} M_j - M_{vret}}{\sum_{i=1}^p C_{si} M_i + \sum_{j=1}^q C_{sij} M_j} \quad \text{Eq. 5}$$

Where:

$H_s$  = Monthly average, as-applied, organic HAP to coating solids ratio, kg organic HAP/kg coating solids applied.

$p$  = Number of different coating materials applied in a month.

$C_{hi}$  = Organic HAP content of coating material,  $i$ , as-purchased, expressed as a mass fraction, kg/kg.

$M_i$  = Mass of as-purchased coating material,  $i$ , applied in a month, kg.

$q$  = Number of different materials added to the coating material.

$C_{hij}$  = Organic HAP content of material,  $j$ , added to as-purchased coating material,  $i$ , expressed as a mass fraction, kg/kg.

$M_{ij}$  = Mass of material,  $j$ , added to as-purchased coating material,  $i$ , in a month, kg.

$M_{vret}$  = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.

$C_{si}$  = Coating solids content of coating material,  $i$ , expressed as a mass fraction, kg/kg.

$C_{sij}$  = Coating solids content of material,  $j$ , added to as-purchased coating material,  $i$ , expressed as a mass-fraction, kg/kg.

(5) The affected source is in compliance with emission standards in §63.3320(b)(2) or (3) if:

(i) The organic HAP content of each coating material as-applied at an existing affected source is no more than 0.04 kg organic HAP per kg coating material or 0.2 kg organic HAP per kg coating solids, and the organic HAP content of each coating material as-applied at a new affected source contains no more than 0.016 kg organic HAP per kg coating material or 0.08 kg organic HAP per kg coating solids; or

(ii) The monthly average organic HAP content of all as-applied coating materials at an existing affected source are no more than 0.04 kg organic HAP per kg coating material or 0.2 kg organic HAP per kg coating solids, and the monthly average organic HAP content of all as-applied coating materials at a new affected source is no more than 0.016 kg organic HAP per kg coating material or 0.08 kg organic HAP per kg coating solids.

(d) *Monthly allowable organic HAP applied.* Demonstrate that the total monthly organic HAP applied as determined by Equation 6 of this section is less than the calculated equivalent allowable organic HAP as determined by Equation 13a or b in paragraph (l) of this section:

$$H_m = \sum_{i=1}^p C_{hi} M_i + \sum_{j=1}^q C_{hij} M_j - M_{\text{vret}} \quad \text{Eq. 6}$$

Where:

$H_m$  = Total monthly organic HAP applied, kg.

$p$  = Number of different coating materials applied in a month.

$C_{hi}$  = Organic HAP content of coating material,  $i$ , as-purchased, expressed as a mass fraction, kg/kg.

$M_i$  = Mass of as-purchased coating material,  $i$ , applied in a month, kg.

$q$  = Number of different materials added to the coating material.

$C_{hij}$  = Organic HAP content of material,  $j$ , added to as-purchased coating material,  $i$ , expressed as a mass fraction, kg/kg.

$M_{ij}$  = Mass of material,  $j$ , added to as-purchased coating material,  $i$ , in a month, kg.

$M_{\text{vret}}$  = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.

(e) *Capture and control to reduce emissions to no more than allowable limit (§63.3320(b)(1)).* Operate a capture system and control device and demonstrate an overall organic HAP control efficiency of at least 95 percent at an existing affected source and at least 98 percent at a new affected source for each month, or operate a capture system and oxidizer so that an outlet organic HAP concentration of no greater than 20 ppmv by compound on a dry basis is achieved as long as the capture efficiency is 100 percent as detailed in §63.3320(b)(4). Unless one of the cases described in paragraph (e)(1), (2), or (3) of this section applies to the affected source, you must either demonstrate compliance in accordance with the procedure in paragraph (i) of this section when emissions from the affected source are controlled by a solvent recovery device, or the procedure in paragraph (k) of this section when emissions are controlled by an oxidizer or demonstrate compliance for a web coating line by operating each capture system and each control device and continuous parameter monitoring according to the procedures in paragraph (j) of this section.

(1) If the affected source has only always-controlled work stations and operates more than one capture system or more than one control device, you must demonstrate compliance in accordance with the provisions of either paragraph (n) or (p) of this section.

(2) If the affected source operates one or more never-controlled work stations or one or more intermittently-controlled work stations, you must demonstrate compliance in accordance with the provisions of paragraph (n) of this section.

(3) An alternative method of demonstrating compliance with §63.3320(b)(1) is the installation of a PTE around the web coating line that achieves 100 percent capture efficiency and ventilation of all organic HAP emissions from the total enclosure to an oxidizer with an outlet organic HAP concentration of no greater than 20 ppmv by compound on a dry basis. If this method is selected, you must demonstrate compliance by following the procedures in paragraphs (e)(3)(i) and (ii) of this section. Compliance is determined according to paragraph (e)(3)(iii) of this section.

(i) Demonstrate that a total enclosure is installed. An enclosure that meets the requirements in §63.3360(f)(1) will be considered a total enclosure.

(ii) Determine the organic HAP concentration at the outlet of your total enclosure using the procedures in paragraph (e)(3)(ii)(A) or (B) of this section.

(A) Determine the control device efficiency using Equation 2 of §63.3360 and the applicable test methods and procedures specified in §63.3360(e).

(B) Use a CEMS to determine the organic HAP emission rate according to paragraphs (i)(2)(i) through (x) of this section.

(iii) You are in compliance if the installation of a total enclosure is demonstrated and the organic HAP concentration at the outlet of the incinerator is demonstrated to be no greater than 20 ppmv by compound on a dry basis.

(f) *Capture and control to achieve mass fraction of coating solids applied limit (§63.3320(b)(3)).* Operate a capture system and control device and limit the organic HAP emission rate from an existing affected source to no more than 0.20 kg organic HAP emitted per kg coating solids applied, and from a new affected source to no more than 0.08 kg organic HAP emitted per kg coating solids applied as determined on a monthly average as-applied basis. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controlled work stations, then you must demonstrate compliance in accordance with the provisions of paragraph (n) of this section. Otherwise, you must demonstrate compliance following the procedure in paragraph (i) of this section when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (k) of this section when emissions are controlled by an oxidizer.

(g) *Capture and control to achieve mass fraction limit (§63.3320(b)(2)).* Operate a capture system and control device and limit the organic HAP emission rate to no more than 0.04 kg organic HAP emitted per kg coating material applied at an existing affected source, and no more than 0.016 kg organic HAP emitted per kg coating material applied at a new affected source as determined on a monthly average as-applied basis. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controlled work stations, then you must demonstrate compliance in accordance with the provisions of paragraph (n) of this section. Otherwise, you must demonstrate compliance following the procedure in paragraph (i) of this section when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (k) of this section when emissions are controlled by an oxidizer.

(h) *Capture and control to achieve allowable emission rate.* Operate a capture system and control device and limit the monthly organic HAP emissions to less than the allowable emissions as calculated in accordance with paragraph (l) of this section. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controlled work stations, then you must demonstrate compliance in accordance with the provisions of paragraph (n) of this section. Otherwise, the owner or operator must demonstrate compliance following the procedure in paragraph (i) of this section when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (k) of this section when emissions are controlled by an oxidizer.

(i) *Solvent recovery device compliance demonstration.* If you use a solvent recovery device to control emissions, you must show compliance by following the procedures in either paragraph (i)(1) or (2) of this section:

(1) *Liquid-liquid material balance.* Perform a monthly liquid-liquid material balance as specified in paragraphs (i)(1)(i) through (v) of this section and use the applicable equations in paragraphs (i)(1)(vi) through (ix) of this section to convert the data to units of the selected compliance option in paragraphs (e) through (h) of this section. Compliance is determined in accordance with paragraph (i)(1)(x) of this section.

(i) Determine the mass of each coating material applied on the web coating line or group of web coating lines controlled by a common solvent recovery device during the month.

(ii) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating material applied, or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each coating material as-applied during the month following the procedure in §63.3360(c).

(iii) Determine the volatile organic content of each coating material as-applied during the month following the procedure in §63.3360(d).

(iv) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied or emission of less than the calculated allowable organic HAP, determine the coating solids content of each coating material applied during the month following the procedure in §63.3360(d).

(v) Determine and monitor the amount of volatile organic matter recovered for the month according to the procedures in §63.3350(d).

(vi) *Recovery efficiency.* Calculate the volatile organic matter collection and recovery efficiency using Equation 7 of this section:

$$R_v = \frac{M_v + M_{vret}}{\sum_{i=1}^p C_{vi}M_i + \sum_{i=1}^q C_{vij}M_{ij}} \times 100 \quad \text{Eq. 7}$$

Where:

$R_v$  = Organic volatile matter collection and recovery efficiency, percent.

$M_v$  = Mass of volatile matter recovered in a month, kg.

$M_{vret}$  = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.

$p$  = Number of different coating materials applied in a month.

$C_{vi}$  = Volatile organic content of coating material,  $i$ , expressed as a mass fraction, kg/kg.

$M_i$  = Mass of as-purchased coating material,  $i$ , applied in a month, kg.

$q$  = Number of different materials added to the coating material.

$C_{vij}$  = Volatile organic content of material,  $j$ , added to as-purchased coating material,  $i$ , expressed as a mass fraction, kg/kg.

$M_{ij}$  = Mass of material,  $j$ , added to as-purchased coating material,  $i$ , in a month, kg.

(vii) *Organic HAP emitted.* Calculate the organic HAP emitted during the month using Equation 8 of this section:

$$H_e = \left[ 1 - \frac{R_v}{100} \right] \left[ \sum_{i=1}^p C_{hi} M_i + \sum_{j=1}^q C_{hij} M_{ij} - M_{vret} \right] \quad \text{Eq. 8}$$

Where:

$H_e$  = Total monthly organic HAP emitted, kg.

$R_v$  = Organic volatile matter collection and recovery efficiency, percent.

$p$  = Number of different coating materials applied in a month.

$C_{hi}$  = Organic HAP content of coating material,  $i$ , as-purchased, expressed as a mass fraction, kg/kg.

$M_i$  = Mass of as-purchased coating material,  $i$ , applied in a month, kg.

$q$  = Number of different materials added to the coating material.

$C_{hij}$  = Organic HAP content of material,  $j$ , added to as-purchased coating material,  $i$ , expressed as a mass fraction, kg/kg.

$M_{ij}$  = Mass of material,  $j$ , added to as-purchased coating material,  $i$ , in a month, kg.

$M_{vret}$  = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.

(viii) *Organic HAP emission rate based on coating solids applied.* Calculate the organic HAP emission rate based on coating solids applied using Equation 9 of this section:

$$L = \frac{H_e}{\sum_{i=1}^p C_{si} M_i + \sum_{j=1}^q C_{sij} M_{ij}} \quad \text{Eq. 9}$$

Where:

$L$  = Mass organic HAP emitted per mass of coating solids applied, kg/kg.

$H_e$  = Total monthly organic HAP emitted, kg.

$p$  = Number of different coating materials applied in a month.

$C_{si}$  = Coating solids content of coating material,  $i$ , expressed as a mass fraction, kg/kg.

$M_i$  = Mass of as-purchased coating material,  $i$ , applied in a month, kg.

$q$  = Number of different materials added to the coating material.

$C_{sij}$  = Coating solids content of material, j, added to as-purchased coating material, i, expressed as a mass-fraction, kg/kg.

$M_{ij}$  = Mass of material, j, added to as-purchased coating material, i, in a month, kg.

(ix) *Organic HAP emission rate based on coating materials applied.* Calculate the organic HAP emission rate based on coating material applied using Equation 10 of this section:

$$S = \frac{H_e}{\sum_{i=1}^p M_i + \sum_{j=1}^q M_{ij}} \quad \text{Eq. 10}$$

Where:

S = Mass organic HAP emitted per mass of material applied, kg/kg.

$H_e$  = Total monthly organic HAP emitted, kg.

p = Number of different coating materials applied in a month.

$M_i$  = Mass of as-purchased coating material, i, applied in a month, kg.

q = Number of different materials added to the coating material.

$M_{ij}$  = Mass of material, j, added to as-purchased coating material, i, in a month, kg.

(x) You are in compliance with the emission standards in §63.3320(b) if:

(A) The volatile organic matter collection and recovery efficiency is 95 percent or greater at an existing affected source and 98 percent or greater at a new affected source; or

(B) The organic HAP emission rate based on coating solids applied is no more than 0.20 kg organic HAP per kg coating solids applied at an existing affected source and no more than 0.08 kg organic HAP per kg coating solids applied at a new affected source; or

(C) The organic HAP emission rate based on coating material applied is no more than 0.04 kg organic HAP per kg coating material applied at an existing affected source and no more than 0.016 kg organic HAP per kg coating material applied at a new affected source; or

(D) The organic HAP emitted during the month is less than the calculated allowable organic HAP as determined using paragraph (l) of this section.

(2) *Continuous emission monitoring of capture system and control device performance.* Demonstrate initial compliance through a performance test on capture efficiency and continuing compliance through continuous emission monitors and continuous monitoring of capture system operating parameters following the procedures in paragraphs (i)(2)(i) through (vii) of this section. Use the applicable equations specified in paragraphs (i)(2)(viii) through (x) of this section to convert the monitoring and other data into units of the selected compliance option in paragraphs (e) through (h) of this section. Compliance is determined in accordance with paragraph (i)(2)(xi) of this section.

(i) *Control device efficiency.* Continuously monitor the gas stream entering and exiting the control device to determine the total organic volatile matter mass flow rate ( e.g., by determining the concentration of the vent gas in grams per cubic meter and the volumetric flow rate in cubic meters per second such that the total

organic volatile matter mass flow rate in grams per second can be calculated) such that the control device efficiency of the control device can be calculated for each month using Equation 2 of §63.3360.

(ii) *Capture efficiency monitoring.* Whenever a web coating line is operated, continuously monitor the operating parameters established in accordance with §63.3350(f) to ensure capture efficiency.

(iii) Determine the percent capture efficiency in accordance with §63.3360(f).

(iv) *Control efficiency.* Calculate the overall organic HAP control efficiency achieved for each month using Equation 11 of this section:

$$R = \frac{(E)(CE)}{100} \quad \text{Eq. 11}$$

Where:

R = Overall organic HAP control efficiency, percent.

E = Organic volatile matter control efficiency of the control device, percent.

CE = Organic volatile matter capture efficiency of the capture system, percent.

(v) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating materials applied, or emission of less than the calculated allowable organic HAP, determine the mass of each coating material applied on the web coating line or group of web coating lines controlled by a common control device during the month.

(vi) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating material applied, or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each coating material as-applied during the month following the procedure in §63.3360(c).

(vii) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied or emission of less than the calculated allowable organic HAP, determine the coating solids content of each coating material as-applied during the month following the procedure in §63.3360(d).

(viii) *Organic HAP emitted.* Calculate the organic HAP emitted during the month for each month using Equation 12 of this section:

$$H_e = (1 - R) \left( \sum_{i=1}^p C_{ahi} M_i \right) - M_{wet} \quad \text{Eq. 12}$$

Where:

$H_e$  = Total monthly organic HAP emitted, kg.

R = Overall organic HAP control efficiency, percent.

p = Number of different coating materials applied in a month.

$C_{ahi}$  = Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.

$M_i$  = Mass of as-purchased coating material,  $i$ , applied in a month, kg.

$M_{vret}$  = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in this section.

(ix) *Organic HAP emission rate based on coating solids applied.* Calculate the organic HAP emission rate based on coating solids applied using Equation 9 of this section.

(x) *Organic HAP emission rate based on coating materials applied.* Calculate the organic HAP emission rate based on coating material applied using Equation 10 of this section.

(xi) *Compare actual performance to the performance required by compliance option.* The affected source is in compliance with the emission standards in §63.3320(b) for each month if the capture system is operated such that the average capture system operating parameter is greater than or less than (as appropriate) the operating parameter value established in accordance with §63.3350(f); and

(A) The organic volatile matter collection and recovery efficiency is 95 percent or greater at an existing affected source and 98 percent or greater at a new affected source; or

(B) The organic HAP emission rate based on coating solids applied is no more than 0.20 kg organic HAP per kg coating solids applied at an existing affected source and no more than 0.08 kg organic HAP per kg coating solids applied at a new affected source; or

(C) The organic HAP emission rate based on coating material applied is no more than 0.04 kg organic HAP per kg coating material applied at an existing affected source and no more than 0.016 kg organic HAP per kg coating material applied at a new affected source; or

(D) The organic HAP emitted during the month is less than the calculated allowable organic HAP as determined using paragraph (I) of this section.

(j) *Capture and control system compliance demonstration procedures using a CPMS.* If you use an add-on control device, you must demonstrate initial compliance for each capture system and each control device through performance tests and demonstrate continuing compliance through continuous monitoring of capture system and control device operating parameters as specified in paragraphs (j)(1) through (3) of this section. Compliance is determined in accordance with paragraph (j)(4) of this section.

(1) Determine the control device destruction or removal efficiency using the applicable test methods and procedures in §63.3360(e).

(2) Determine the emission capture efficiency in accordance with §63.3360(f).

(3) Whenever a web coating line is operated, continuously monitor the operating parameters established according to §63.3350(e) and (f).

(4) You are in compliance with the emission standards in §63.3320(b) if the control device is operated such that the average operating parameter value is greater than or less than (as appropriate) the operating parameter value established in accordance with §63.3360(e) for each 3-hour period, and the capture system operating parameter is operated at an average value greater than or less than (as appropriate) the operating parameter value established in accordance with §63.3350(f); and

(i) The overall organic HAP control efficiency is 95 percent or greater at an existing affected source and 98 percent or greater at a new affected source; or

(ii) The organic HAP emission rate based on coating solids applied is no more than 0.20 kg organic HAP per kg coating solids applied at an existing affected source and no more than 0.08 kg organic HAP per kg coating solids applied at a new affected source; or

(iii) The organic HAP emission rate based on coating material applied is no more than 0.04 kg organic HAP per kg coating material applied at an existing affected source and no more than 0.016 kg organic HAP per kg coating material applied at a new affected source; or

(iv) The organic HAP emitted during the month is less than the calculated allowable organic HAP as determined using paragraph (l) of this section.

(k) *Oxidizer compliance demonstration procedures.* If you use an oxidizer to control emissions, you must show compliance by following the procedures in paragraph (k)(1) of this section. Use the applicable equations specified in paragraph (k)(2) of this section to convert the monitoring and other data into units of the selected compliance option in paragraph (e) through (h) of this section. Compliance is determined in accordance with paragraph (k)(3) of this section.

(1) Demonstrate initial compliance through performance tests of capture efficiency and control device efficiency and continuing compliance through continuous monitoring of capture system and control device operating parameters as specified in paragraphs (k)(1)(i) through (vi) of this section:

(i) Determine the oxidizer destruction efficiency using the procedure in §63.3360(e).

(ii) Determine the capture system capture efficiency in accordance with §63.3360(f).

(iii) *Capture and control efficiency monitoring.* Whenever a web coating line is operated, continuously monitor the operating parameters established in accordance with §63.3350(e) and (f) to ensure capture and control efficiency.

(iv) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating materials applied, or emission of less than the calculated allowable organic HAP, determine the mass of each coating material applied on the web coating line or group of web coating lines controlled by a common oxidizer during the month.

(v) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating material applied, or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each coating material as-applied during the month following the procedure in §63.3360(c).

(vi) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied or emission of less than the calculated allowable organic HAP, determine the coating solids content of each coating material applied during the month following the procedure in §63.3360(d).

(2) Convert the information obtained under paragraph (p)(1) of this section into the units of the selected compliance option using the calculation procedures specified in paragraphs (k)(2)(i) through (iv) of this section.

(i) *Control efficiency.* Calculate the overall organic HAP control efficiency achieved using Equation 11 of this section.

(ii) *Organic HAP emitted.* Calculate the organic HAP emitted during the month using Equation 12 of this section.

(iii) *Organic HAP emission rate based on coating solids applied.* Calculate the organic HAP emission rate based on coating solids applied for each month using Equation 9 of this section.

(iv) *Organic HAP based on coating materials applied.* Calculate the organic HAP emission rate based on coating material applied using Equation 10 of this section.

(3) You are in compliance with the emission standards in §63.3320(b) if the oxidizer is operated such that the average operating parameter value is greater than the operating parameter value established in accordance with §63.3360(e) for each 3-hour period, and the capture system operating parameter is operated at an average value greater than or less than (as appropriate) the operating parameter value established in accordance with §63.3350(f); and

(i) The overall organic HAP control efficiency is 95 percent or greater at an existing affected source and 98 percent or greater at a new affected source; or

(ii) The organic HAP emission rate based on coating solids applied is no more than 0.20 kg organic HAP per kg coating solids applied at an existing affected source and no more than 0.08 kg organic HAP per kg coating solids applied at a new affected source; or

(iii) The organic HAP emission rate based on coating material applied is no more than 0.04 kg organic HAP per kg coating material applied at an existing affected source and no more than 0.016 kg organic HAP per kg coating material applied at a new affected source; or

(iv) The organic HAP emitted during the month is less than the calculated allowable organic HAP as determined using paragraph (l) of this section.

(l) *Monthly allowable organic HAP emissions.* This paragraph provides the procedures and calculations for determining monthly allowable organic HAP emissions for use in demonstrating compliance in accordance with paragraph (d), (h), (i)(1)(x)(D), (i)(2)(xi)(D), or (k)(3)(iv) of this section. You will need to determine the amount of coating material applied at greater than or equal to 20 mass percent coating solids and the amount of coating material applied at less than 20 mass percent coating solids. The allowable organic HAP limit is then calculated based on coating material applied at greater than or equal to 20 mass percent coating solids complying with 0.2 kg organic HAP per kg coating solids at an existing affected source or 0.08 kg organic HAP per kg coating solids at a new affected source, and coating material applied at less than 20 mass percent coating solids complying with 4 mass percent organic HAP at an existing affected source and 1.6 mass-percent organic HAP at a new affected source as follows:

(1) Determine the as-purchased mass of each coating material applied each month.

(2) Determine the as-purchased coating solids content of each coating material applied each month in accordance with §63.3360(d)(1).

(3) Determine the as-purchased mass fraction of each coating material which was applied at 20 mass percent or greater coating solids content on an as-applied basis.

(4) Determine the total mass of each solvent, diluent, thinner, or reducer added to coating materials which were applied at less than 20 mass percent coating solids content on an as-applied basis each month.

(5) Calculate the monthly allowable organic HAP emissions using Equation 13a of this section for an existing affected source:

$$H_a = 0.20 \left[ \sum_{i=1}^P M_i G_i C_{si} \right] + 0.04 \left[ \sum_{i=1}^P M_i (1 - G_i) + \sum_{j=1}^q M_{L_j} \right] \quad \text{Eq. 13a}$$

Where:

$H_a$  = Monthly allowable organic HAP emissions, kg.

$p$  = Number of different coating materials applied in a month.

$M_i$  = mass of as-purchased coating material,  $i$ , applied in a month, kg.

$G_i$  = Mass fraction of each coating material,  $i$ , which was applied at 20 mass percent or greater coating solids content, on an as-applied basis, kg/kg.

$C_{si}$  = Coating solids content of coating material,  $i$ , expressed as a mass fraction, kg/kg.

$q$  = Number of different materials added to the coating material.

$M_{Lj}$  = Mass of non-coating-solids-containing coating material,  $j$ , added to coating-solids-containing coating materials which were applied at less than 20 mass percent coating solids content, on an as-applied basis, in a month, kg.

or Equation 13b of this section for a new affected source:

$$H_a = 0.08 \left[ \sum_{i=1}^p M_i G_i C_{si} \right] + 0.016 \left[ \sum_{i=1}^p M_i (1 - G_i) + \sum_{j=1}^q M_{Lj} \right] \quad \text{Eq. 13b}$$

Where:

$H_a$  = Monthly allowable organic HAP emissions, kg.

$p$  = Number of different coating materials applied in a month.

$M_i$  = Mass of as-purchased coating material,  $i$ , applied in a month, kg.

$G_i$  = Mass fraction of each coating material,  $i$ , which was applied at 20 mass percent or greater coating solids content, on an as-applied basis, kg/kg.

$C_{si}$  = Coating solids content of coating material,  $i$ , expressed as a mass fraction, kg/kg.

$q$  = Number of different materials added to the coating material.

$M_{Lj}$  = Mass of non-coating-solids-containing coating material,  $j$ , added to coating-solids-containing coating materials which were applied at less than 20 mass percent coating solids content, on an as-applied basis, in a month, kg.

(m) [Reserved]

(n) *Combinations of capture and control.* If you operate more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controlled work stations, you must calculate organic HAP emissions according to the procedures in paragraphs (n)(1) through (4) of this section, and use the calculation procedures specified in paragraph (n)(5) of this section to convert the monitoring and other data into units of the selected control option in paragraphs (e) through (h) of this section. Use the procedures specified in paragraph (n)(6) of this section to demonstrate compliance.

(1) *Solvent recovery system using liquid-liquid material balance compliance demonstration.* If you choose to comply by means of a liquid-liquid material balance for each solvent recovery system used to control one or more web coating lines, you must determine the organic HAP emissions for those web coating lines controlled by that solvent recovery system either:

(i) In accordance with paragraphs (i)(1)(i) through (iii) and (v) through (vii) of this section, if the web coating lines controlled by that solvent recovery system have only always-controlled work stations; or

(ii) In accordance with paragraphs (i)(1)(ii), (iii), (v), and (vi) and (o) of this section, if the web coating lines controlled by that solvent recovery system have one or more never-controlled or intermittently-controlled work stations.

(2) *Solvent recovery system using performance test compliance demonstration and CEMS.* To demonstrate compliance through an initial test of capture efficiency, continuous monitoring of a capture system operating parameter, and a CEMS on each solvent recovery system used to control one or more web coating lines, you must:

(i) For each capture system delivering emissions to that solvent recovery system, monitor the operating parameter established in accordance with §63.3350(f) to ensure capture system efficiency; and

(ii) Determine the organic HAP emissions for those web coating lines served by each capture system delivering emissions to that solvent recovery system either:

(A) In accordance with paragraphs (i)(2)(i) through (iii), (v), (vi), and (viii) of this section, if the web coating lines served by that capture and control system have only always-controlled work stations; or

(B) In accordance with paragraphs (i)(2)(i) through (iii), (vi), and (o) of this section, if the web coating lines served by that capture and control system have one or more never-controlled or intermittently-controlled work stations.

(3) *Oxidizer.* To demonstrate compliance through performance tests of capture efficiency and control device efficiency, continuous monitoring of capture system, and CPMS for control device operating parameters for each oxidizer used to control emissions from one or more web coating lines, you must:

(i) Monitor the operating parameter in accordance with §63.3350(e) to ensure control device efficiency; and

(ii) For each capture system delivering emissions to that oxidizer, monitor the operating parameter established in accordance with §63.3350(f) to ensure capture efficiency; and

(iii) Determine the organic HAP emissions for those web coating lines served by each capture system delivering emissions to that oxidizer either:

(A) In accordance with paragraphs (k)(1)(i) through (vi) of this section, if the web coating lines served by that capture and control system have only always-controlled work stations; or

(B) In accordance with paragraphs (k)(1)(i) through (iii), (v), and (o) of this section, if the web coating lines served by that capture and control system have one or more never-controlled or intermittently-controlled work stations.

(4) *Uncontrolled coating lines.* If you own or operate one or more uncontrolled web coating lines, you must determine the organic HAP applied on those web coating lines using Equation 6 of this section. The organic HAP emitted from an uncontrolled web coating line is equal to the organic HAP applied on that web coating line.

(5) Convert the information obtained under paragraphs (n)(1) through (4) of this section into the units of the selected compliance option using the calculation procedures specified in paragraphs (n)(5)(i) through (iv) of this section.

(i) *Organic HAP emitted.* Calculate the organic HAP emissions for the affected source for the month by summing all organic HAP emissions calculated according to paragraphs (n)(1), (2)(ii), (3)(iii), and (4) of this section.

(ii) *Coating solids applied.* If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied or emission of less than the calculated allowable organic HAP, the owner or operator must determine the coating solids content of each coating material applied during the month following the procedure in §63.3360(d).

(iii) *Organic HAP emission rate based on coating solids applied.* Calculate the organic HAP emission rate based on coating solids applied for each month using Equation 9 of this section.

(iv) *Organic HAP based on materials applied.* Calculate the organic HAP emission rate based on material applied using Equation 10 of this section.

(6) *Compliance.* The affected source is in compliance with the emission standards in §63.3320(b) for the month if all operating parameters required to be monitored under paragraphs (n)(1) through (3) of this section were maintained at the values established under §§63.3350 and 63.3360; and

(i) The total mass of organic HAP emitted by the affected source based on coating solids applied is no more than 0.20 kg organic HAP per kg coating solids applied at an existing affected source and no more than 0.08 kg organic HAP per kg coating solids applied at a new affected source; or

(ii) The total mass of organic HAP emitted by the affected source based on material applied is no more than 0.04 kg organic HAP per kg material applied at an existing affected source and no more than 0.016 kg organic HAP per kg material applied at a new affected source; or

(iii) The total mass of organic HAP emitted by the affected source during the month is less than the calculated allowable organic HAP as determined using paragraph (l) of this section; or

(iv) The total mass of organic HAP emitted by the affected source was not more than 5 percent of the total mass of organic HAP applied for the month at an existing affected source and no more than 2 percent of the total mass of organic HAP applied for the month at a new affected source. The total mass of organic HAP applied by the affected source in the month must be determined using Equation 6 of this section.

(o) *Intermittently-controlled and never-controlled work stations.* If you have been expressly referenced to this paragraph by paragraphs (n)(1)(ii), (n)(2)(ii)(B), or (n)(3)(iii)(B) of this section for calculation procedures to determine organic HAP emissions for your intermittently-controlled and never-controlled work stations, you must:

(1) Determine the sum of the mass of all coating materials as-applied on intermittently-controlled work stations operating in bypass mode and the mass of all coating materials as-applied on never-controlled work stations during the month.

(2) Determine the sum of the mass of all coating materials as-applied on intermittently-controlled work stations operating in a controlled mode and the mass of all coating materials applied on always-controlled work stations during the month.

(3) *Liquid-liquid material balance compliance demonstration.* For each web coating line or group of web coating lines for which you use the provisions of paragraph (n)(1)(ii) of this section, you must calculate the organic HAP emitted during the month using Equation 14 of this section:

$$H_e = \left[ \sum_{i=1}^P M_{Ci} C_{aki} \right] \left[ 1 - \frac{R_v}{100} \right] + \left[ \sum_{i=1}^P M_{Bi} C_{aki} \right] - M_{\text{vret}} \quad \text{Eq. 14}$$

Where:

$H_e$  = Total monthly organic HAP emitted, kg.

$p$  = Number of different coating materials applied in a month.

$M_{ci}$  = Sum of the mass of coating material,  $i$ , as-applied on intermittently-controlled work stations operating in controlled mode and the mass of coating material,  $i$ , as-applied on always-controlled work stations, in a month, kg.

$C_{ahi}$  = Monthly average, as-applied, organic HAP content of coating material,  $i$ , expressed as a mass fraction, kg/kg.

$R_v$  = Organic volatile matter collection and recovery efficiency, percent.

$M_{Bi}$  = Sum of the mass of coating material,  $i$ , as-applied on intermittently-controlled work stations operating in bypass mode and the mass of coating material,  $i$ , as-applied on never-controlled work stations, in a month, kg.

$C_{ahi}$  = Monthly average, as-applied, organic HAP content of coating material,  $i$ , expressed as a mass fraction, kg/kg.

$M_{vret}$  = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in this section.

(4) *Performance test to determine capture efficiency and control device efficiency.* For each web coating line or group of web coating lines for which you use the provisions of paragraph (n)(2)(ii)(B) or (n)(3)(iii)(B) of this section, you must calculate the organic HAP emitted during the month using Equation 15 of this section:

$$H_e = \left[ \sum_{i=1}^p M_{ci} C_{ahi} \right] \left[ 1 - \frac{R}{100} \right] + \left[ \sum_{i=1}^p M_{Bi} C_{ahi} \right] - M_{vret} \quad \text{Eq. 15}$$

Where:

$H_e$  = Total monthly organic HAP emitted, kg.

$p$  = Number of different coating materials applied in a month.

$M_{ci}$  = Sum of the mass of coating material,  $i$ , as-applied on intermittently-controlled work stations operating in controlled mode and the mass of coating material,  $i$ , as-applied on always-controlled work stations, in a month, kg.

$C_{ahi}$  = Monthly average, as-applied, organic HAP content of coating material,  $i$ , expressed as a mass fraction, kg/kg.

$R$  = Overall organic HAP control efficiency, percent.

$M_{Bi}$  = Sum of the mass of coating material,  $i$ , as-applied on intermittently-controlled work stations operating in bypass mode and the mass of coating material,  $i$ , as-applied on never-controlled work stations, in a month, kg.

$C_{ahi}$  = Monthly average, as-applied, organic HAP content of coating material,  $i$ , expressed as a mass fraction, kg/kg.

$M_{\text{ret}}$  = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in this section.

(p) *Always-controlled work stations with more than one capture and control system.* If you operate more than one capture system or more than one control device and only have always-controlled work stations, then you are in compliance with the emission standards in §63.3320(b)(1) for the month if for each web coating line or group of web coating lines controlled by a common control device:

(1) The volatile matter collection and recovery efficiency as determined by paragraphs (i)(1)(i), (iii), (v), and (vi) of this section is at least 95 percent at an existing affected source and at least 98 percent at a new affected source; or

(2) The overall organic HAP control efficiency as determined by paragraphs (i)(2)(i) through (iv) of this section for each web coating line or group of web coating lines served by that control device and a common capture system is at least 95 percent at an existing affected source and at least 98 percent at a new affected source; or

(3) The overall organic HAP control efficiency as determined by paragraphs (k)(1)(i) through (iii) and (k)(2)(i) of this section for each web coating line or group of web coating lines served by that control device and a common capture system is at least 95 percent at an existing affected source and at least 98 percent at a new affected source.

## **Notifications, Reports, and Records**

### **§ 63.3400 What notifications and reports must I submit?**

(a) Each owner or operator of an affected source subject to this subpart must submit the reports specified in paragraphs (b) through (g) of this section to the Administrator:

(b) You must submit an initial notification as required by §63.9(b).

(1) Initial notification for existing affected sources must be submitted no later than 1 year before the compliance date specified in §63.3330(a).

(2) Initial notification for new and reconstructed affected sources must be submitted as required by §63.9(b).

(3) For the purpose of this subpart, a title V or part 70 permit application may be used in lieu of the initial notification required under §63.9(b), provided the same information is contained in the permit application as required by §63.9(b) and the State to which the permit application has been submitted has an approved operating permit program under part 70 of this chapter and has received delegation of authority from the EPA to implement and enforce this subpart.

(4) If you are using a permit application in lieu of an initial notification in accordance with paragraph (b)(3) of this section, the permit application must be submitted by the same due date specified for the initial notification.

(c) You must submit a semiannual compliance report according to paragraphs (c)(1) and (2) of this section.

(1) Compliance report dates.

(i) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.3330 and ending on June 30 or December 31, whichever date is the first date following the end of the calendar half immediately following the compliance date that is specified for your affected source in §63.3330.

(ii) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the calendar half immediately following the compliance date that is specified for your affected source in §63.3330.

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

(iv) Each subsequent 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.

(v) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and the permitting authority has established dates for submitting semiannual reports pursuant to §70.6(a)(3)(iii)(A) or §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 dates in paragraphs (c)(1)(i) through (iv) of this section.

(2) The compliance report must contain the information in paragraphs (c)(2)(i) through (vi) of this section:

(i) Company name and address.

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

(iii) Date of report and beginning and ending dates of the reporting period.

(iv) If there are no deviations from any emission limitations (emission limit or operating limit) that apply to you, a statement that there were no deviations from the emission limitations during the reporting period, and that no CMS was inoperative, inactive, malfunctioning, out-of-control, repaired, or adjusted.

(v) For each deviation from an emission limitation (emission limit or operating limit) that applies to you and that occurs at an affected source where you are not using a CEMS to comply with the emission limitations in this subpart, the compliance report must contain the information in paragraphs (c)(2)(i) through (iii) of this section, and:

(A) The total operating time of each affected source during the reporting period.

(B) Information on the number, duration, and cause of deviations (including unknown cause), if applicable, and the corrective action taken.

(C) Information on the number, duration, and cause for CPMS downtime incidents, if applicable, other than downtime associated with zero and span and other calibration checks.

(vi) For each deviation from an emission limit occurring at an affected source where you are using a CEMS to comply with the emission limit in this subpart, you must include the information in paragraphs (c)(2)(i) through (iii) and (vi)(A) through (J) of this section.

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

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

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

(D) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(E) A summary of the total duration (in hours) of each deviation during the reporting period and the total duration of each deviation as a percent of the total source operating time during that reporting period.

(F) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(G) A summary of the total duration (in hours) of CEMS and CPMS downtime during the reporting period and the total duration of CEMS and CPMS downtime as a percent of the total source operating time during that reporting period.

(H) A breakdown of the total duration of CEMS and CPMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes.

(I) The date of the latest CEMS and CPMS certification or audit.

(J) A description of any changes in CEMS, CPMS, or controls since the last reporting period.

(d) You must submit a Notification of Performance Tests as specified in §§63.7 and 63.9(e) if you are complying with the emission standard using a control device and you are required to conduct a performance test of the control device. This notification and the site-specific test plan required under §63.7(c)(2) must identify the operating parameters to be monitored to ensure that the capture efficiency of the capture system and the control efficiency of the control device determined during the performance test are maintained. Unless EPA objects to the parameter or requests changes, you may consider the parameter approved.

(e) You must submit a Notification of Compliance Status as specified in §63.9(h).

(f) You must submit performance test reports as specified in §63.10(d)(2) if you are using a control device to comply with the emission standard and you have not obtained a waiver from the performance test requirement or you are not exempted from this requirement by §63.3360(b). The performance test reports must be submitted as part of the notification of compliance status required in §63.3400(e).

(g) You must submit startup, shutdown, and malfunction reports as specified in §63.10(d)(5), except that the provisions in subpart A of this part pertaining to startups, shutdowns, and malfunctions do not apply unless a control device is used to comply with this subpart.

(1) If actions taken by an owner or operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are not consistent with the procedures specified in the affected source's SSMP required by §63.6(e)(3), the owner or operator must state such information in the report. The startup, shutdown, or malfunction report must consist of a letter containing the name, title, and signature of the responsible official who is certifying its accuracy and must be submitted to the Administrator.

(2) Separate startup, shutdown, and malfunction reports are not required if the information is included in the report specified in paragraph (c)(2)(vi) of this section.

### **§ 63.3410 What records must I keep?**

(a) Each owner or operator of an affected source subject to this subpart must maintain the records specified in paragraphs (a)(1) and (2) of this section on a monthly basis in accordance with the requirements of §63.10(b)(1):

(1) Records specified in §63.10(b)(2) of all measurements needed to demonstrate compliance with this standard, including:

(i) Continuous emission monitor data in accordance with the requirements of §63.3350(d);

(ii) Control device and capture system operating parameter data in accordance with the requirements of §63.3350(c), (e), and (f);

(iii) Organic HAP content data for the purpose of demonstrating compliance in accordance with the requirements of §63.3360(c);

(iv) Volatile matter and coating solids content data for the purpose of demonstrating compliance in accordance with the requirements of §63.3360(d);

(v) Overall control efficiency determination using capture efficiency and control device destruction or removal efficiency test results in accordance with the requirements of §63.3360(e) and (f); and

(vi) Material usage, organic HAP usage, volatile matter usage, and coating solids usage and compliance demonstrations using these data in accordance with the requirements of §63.3370(b), (c), and (d).

(2) Records specified in §63.10(c) for each CMS operated by the owner or operator in accordance with the requirements of §63.3350(b).

(b) Each owner or operator of an affected source subject to this subpart must maintain records of all liquid-liquid material balances performed in accordance with the requirements of §63.3370. The records must be maintained in accordance with the requirements of §63.10(b).

**Delegation of Authority**

**§ 63.3420 What authorities may be delegated to the States?**

(a) In delegating implementation and enforcement authority to a State under 40 CFR part 63, subpart E, the authorities contained in paragraph (b) of this section must be retained by the Administrator and not transferred to a State.

(b) Authority which will not be delegated to States: §63.3360(c), approval of alternate test method for organic HAP content determination; §63.3360(d), approval of alternate test method for volatile matter determination.

**Table 1 to Subpart JJJJ of Part 63—Operating Limits if Using Add-On Control Devices and Capture System**

If you are required to comply with operating limits by §63.3321, you must comply with the applicable operating limits in the following table:

<b>For the following device:</b>	<b>You must meet the following operating limit:</b>	<b>And you must demonstrate continuous compliance with operating limits by:</b>
1. Thermal oxidizer	a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to §63.3360(e)(3)(i)	i. Collecting the combustion temperature data according to §63.3350(e)(9); ii. Reducing the data to 3-hour block averages; and iii. Maintain the 3-hour average combustion temperature at or above the temperature limit.
2. Catalytic oxidizer	a. The average temperature at the inlet to the catalyst bed in any 3-hour period must not fall	i. Collecting the catalyst bed inlet temperature data according

	below the combustion temperature limit established according to §63.3360(e)(3)(ii)	to §63.3350(e)(9); ii. Reducing the data to 3-hour block averages; and iii. Maintain the 3-hour average catalyst bed inlet temperature at or above the temperature limit.
	b. The temperature rise across the catalyst bed must not fall below the limit established according to §63.3360(e)(3)(ii)	i. Collecting the catalyst bed inlet and outlet temperature data according to §63.3350(e)(9); ii. Reducing the data to 3-hour block averages; and iii. Maintain the 3-hour average temperature rise across the catalyst bed at or above the limit.
3. Emission capture system	Submit monitoring plan to the Administrator that identifies operating parameters to be monitored according to §63.3350(f)	Conduct monitoring according to the plan (§63.3350(f)(3)).

**Table 2 to Subpart JJJJ of Part 63—Applicability of 40 CFR Part 63 General Provisions to Subpart JJJJ**

You must comply with the applicable General Provisions requirements according to the following table:

General provisions reference	Applicable to subpart JJJJ	Explanation
§63.1(a)(1)–(4)	Yes.	
§63.1(a)(5)	No	Reserved.
§63.1(a)(6)–(8)	Yes.	
§63.1(a)(9)	No	Reserved.
§63.1(a)(10)–(14)	Yes.	
§63.1(b)(1)	No	Subpart JJJJ specifies applicability.
§63.1(b)(2)–(3)	Yes.	
§63.1(c)(1)	Yes.	
§63.1(c)(2)	No	Area sources are not subject to emission standards of subpart JJJJ.
§63.1(c)(3)	No	Reserved.
§63.1(c)(4)	Yes.	
§63.1(c)(5)	Yes.	
§63.1(d)	No	Reserved.
§63.1(e)	Yes.	

§63.1(e)(4)	No.	
§63.2	Yes	Additional definitions in subpart JJJJ.
§63.3(a)–(c)	Yes.	
§63.4(a)(1)–(3)	Yes.	
§63.4(a)(4)	No	Reserved.
§63.4(a)(5)	Yes.	
§63.4(b)–(c)	Yes.	
§63.5(a)(1)–(2)	Yes.	
§63.5(b)(1)	Yes.	
§63.5(b)(2)	No	Reserved.
§63.5(b)(3)–(6)	Yes.	
§63.5(c)	No	Reserved.
§63.5(d)	Yes.	
§63.5(e)	Yes.	
§63.5(f)	Yes.	
§63.6(a)	Yes	Applies only when capture and control system is used to comply with the standard.
§63.6(b)(1)–(5)	No	
§63.6(b)(6)	No	Reserved.
§63.6(b)(7)	Yes.	
§63.6(c)(1)–(2)	Yes.	
§63.6(c)(3)–(4)	No	Reserved.
§63.6(c)(5)	Yes.	
§63.6(d)	No	Reserved.
§63.6(e)	Yes	Provisions pertaining to SSMP, and CMS do not apply unless an add-on control system is used to comply with the emission limitations.
§63.6(f)	Yes.	
§63.6(g)	Yes.	
§63.6(h)	No	Subpart JJJJ does not require continuous opacity monitoring systems (COMS).
§63.6(i)(1)–(14)	Yes.	
§63.6(i)(15)	No	Reserved.

§63.6(i)(16)	Yes.	
§63.6(j)	Yes.	
§63.7	Yes.	
§63.8(a)(1)–(2)	Yes.	
§63.8(a)(3)	No	Reserved.
§63.8(a)(4)	No.	
§63.8(b)	Yes.	
§63.8(c)(1)–(3)	Yes	§63.8(c)(1)(i) & (ii) only apply if you use capture and control systems and are required to have a start-up, shutdown, and malfunction plan.
§63.8(c)(4)	Yes.	
§63.8(c)(5)	No	Subpart JJJJ does not require COMS.
§63.8(c)(6)–(c)(8)	Yes	Provisions for COMS are not applicable.
§63.8(d)–(f)	Yes	§63.8(f)(6) only applies if you use CEMS.
§63.8(g)	Yes	Only applies if you use CEMS.
§63.9(a)	Yes.	
§63.9(b)(1)	Yes.	
§63.9(b)(2)	Yes	Except §63.3400(b)(1) requires submittal of initial notification for existing affected sources no later than 1 year before compliance date.
§63.9(b)(3)–(5)	Yes.	
§63.9(c)–(e)	Yes.	
§63.9(f)	No	Subpart JJJJ does not require opacity and visible emissions observations.
§63.9(g)	Yes	Provisions for COMS are not applicable.
§63.9(h)(1)–(3)	Yes.	
§63.9(h)(4)	No	Reserved.
§63.9(h)(5)–(6)	Yes.	
§63.9(i)	Yes.	
§63.9(j)	Yes.	
§63.10(a)	Yes.	
§63.10(b)(1)–(3)	Yes	§63.10(b)(2)(i) through (v) only apply if you use a capture and control system.
§63.10(c)(1)	Yes.	

§63.10(c)(2)–(4)	No	Reserved.
§63.10(c)(5)–(8)	Yes.	
§63.10(c)(9)	No	Reserved.
§63.10(c)(10)–(15)	Yes.	
§63.10(d)(1)–(2)	Yes.	
§63.10(d)(3)	No	Subpart JJJJ does not require opacity and visible emissions observations.
§63.10(d)(4)–(5)	Yes.	
§63.10(e)(1)–(2)	Yes	Provisions for COMS are not applicable.
§63.10(e)(3)–(4)	No.	
§63.10(f)	Yes.	
§63.11	No.	
§63.12	Yes.	
§63.13	Yes.	
§63.14	Yes	Subpart JJJJ includes provisions for alternative ASME test methods that are incorporated by reference.
§63.15	Yes.	

**PART 70 OPERATING PERMIT RENEWAL  
OFFICE OF AIR QUALITY**

**3M Hartford City  
304S 075E  
Hartford City, Indiana 47348**

**Attachment B**

**Title 40: Protection of Environment**

**PART 60—STANDARDS OF PERFORMANCE FOR NEW  
STATIONARY SOURCES**

**Subpart RR—Standards of Performance for Pressure Sensitive  
Tape and Label Surface Coating Operations**

**T009-26248-00004**

## **Title 40: Protection of Environment**

### **PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES**

#### **Subpart RR—Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations**

**Source:** 48 FR 48375, Oct. 18, 1983, unless otherwise noted.

#### **§ 60.440 Applicability and designation of affected facility.**

(a) The affected facility to which the provisions of this subpart apply is each coating line used in the manufacture of pressure sensitive tape and label materials.

(b) Any affected facility which inputs to the coating process 45 Mg (50 tons) of VOC or less per 12 month period is not subject to the emission limits of §60.442(a), however, the affected facility is subject to the requirements of all other applicable sections of this subpart. If the amount of VOC input exceeds 45 Mg (50 tons) per 12 month period, the coating line will become subject to §60.442(a) and all other sections of this subpart.

(c) This subpart applies to any affected facility which begins construction, modification, or reconstruction after December 30, 1980.

[48 FR 48375, Oct. 18, 1983, as amended at 65 FR 61761, Oct. 17, 2000]

#### **§ 60.441 Definitions and symbols.**

(a) Except as otherwise required by the context, terms used in this subpart are defined in the Act, in subpart A of this part, or in this section as follows:

*Coating applicator* means an apparatus used to apply a surface coating to a continuous web.

*Coating line* means any number or combination of adhesive, release, or precoat coating applicators, flashoff areas, and ovens which coat a continuous web, located between a web unwind station and a web rewind station, to produce pressure sensitive tape and label materials.

*Coating solids applied* means the solids content of the coated adhesive, release, or precoat as measured by Method 24.

*Flashoff area* means the portion of a coating line after the coating applicator and usually before the oven entrance.

*Fugitive volatile organic compounds* means any volatile organic compounds which are emitted from the coating applicator and flashoff areas and are not emitted in the oven.

*Hood or enclosure* means any device used to capture fugitive volatile organic compounds.

*Oven* means a chamber which uses heat or irradiation to bake, cure, polymerize, or dry a surface coating.

*Precoat* means a coating operation in which a coating other than an adhesive or release is applied to a surface during the production of a pressure sensitive tape or label product.

*Solvent applied in the coating* means all organic solvent contained in the adhesive, release, and precoat formulations that is metered into the coating applicator from the formulation area.

*Total enclosure* means a structure or building around the coating applicator and flashoff area or the entire coating line for the purpose of confining and totally capturing fugitive VOC emissions.

VOC means volatile organic compound.

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

a=the gas stream vents exiting the emission control device.

b=the gas stream vents entering the emission control device.

$C_{aj}$ =the concentration of VOC (carbon equivalent) in each gas stream (j) exiting the emission control device, in parts per million by volume.

$C_{bi}$ =the concentration of VOC (carbon equivalent) in each gas stream (i) entering the emission control device, in parts per million by volume.

$C_{fk}$ =the concentration of VOC (carbon equivalent) in each gas stream (k) emitted directly to the atmosphere, in parts per million by volume.

G=the calculated weighted average mass (kg) of VOC per mass (kg) of coating solids applied each calendar month.

$M_{ci}$ =the total mass (kg) of each coating (i) applied during the calendar month as determined from facility records.

$M_r$ =the total mass (kg) of solvent recovered for a calendar month.

$Q_{aj}$ =the volumetric flow rate of each effluent gas stream (j) exiting the emission control device, in dry standard cubic meters per hour.

$Q_{bi}$ =the volumetric flow rate of each effluent gas stream (i) entering the emission control device, in dry standard cubic meters per hour.

$Q_{fk}$ =the volumetric flow rate of each effluent gas stream (k) emitted to the atmosphere, in dry standard cubic meters per hour.

R=the overall VOC emission reduction achieved for a calendar month (in percent).

$R_q$ =the required overall VOC emission reduction (in percent).

$W_{oi}$ =the weight fraction of organics applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data.

$W_{si}$ =the weight fraction of solids applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data.

[48 FR 48375, Oct. 18, 1983, as amended at 65 FR 61761, Oct. 17, 2000]

**§ 60.442 Standard for volatile organic compounds.**

(a) On and after the date on which the performance test required by §60.8 has been completed each owner or operator subject to this subpart shall:

(1) Cause the discharge into the atmosphere from an affected facility not more than 0.20 kg VOC/kg of coating solids applied as calculated on a weighted average basis for one calendar month; or

(2) Demonstrate for each affected facility;

(i) A 90 percent overall VOC emission reduction as calculated over a calendar month; or

(ii) The percent overall VOC emission reduction specified in §60.443(b) as calculated over a calendar month.

**§ 60.443 Compliance provisions.**

(a) To determine compliance with §60.442 the owner or operator of the affected facility shall calculate a weighted average of the mass of solvent used per mass of coating solids applied for a one calendar month period according to the following procedures:

(1) Determine the weight fraction of organics and the weight fraction of solids of each coating applied by using Reference Method 24 or by the coating manufacturer's formulation data.

(2) Compute the weighted average by the following equation:

$$G = \frac{\sum_{i=1}^n W_{oi} M_{ci}}{\sum_{i=1}^n W_{si} M_{ci}}$$

(3) For each affected facility where the value of G is less than or equal to 0.20 kg VOC per kg of coating solids applied, the affected facility is in compliance with §60.442(a)(1).

(b) To determine compliance with §60.442(a)(2), the owner or operator shall calculate the required overall VOC emission reduction according to the following equation:

$$R_q = \frac{G - 0.20}{G} \times 100$$

If  $R_q$  is less than or equal to 90 percent, then the required overall VOC emission reduction is  $R_q$ . If  $R_q$  is greater than 90 percent, then the required overall VOC emission reduction is 90 percent.

(c) Where compliance with the emission limits specified in §60.442(a)(2) is achieved through the use of a solvent recovery system, the owner or operator shall determine the overall VOC emission reduction for a one calendar month period by the following equation:

$$R = \sum_{i=1}^n \frac{M_r}{W_{oi} M_{ci}} \times 100$$

If the R value is equal to or greater than the  $R_q$  value specified in paragraph (b) of this section, then compliance with §60.442(a)(2) is demonstrated.

(d) Where compliance with the emission limit specified in §60.442(a)(2) is achieved through the use of a solvent destruction device, the owner or operator shall determine calendar monthly compliance by comparing the monthly required overall VOC emission reduction specified in paragraph (b) of this section to the overall VOC emission reduction demonstrated in the most recent performance test which complied with §60.442(a)(2). If the monthly required overall VOC emission reduction is less than or equal to the overall VOC reduction of the most recent performance test, the affected facility is in compliance with §60.442(a)(2).

(e) Where compliance with §60.442(a)(2) is achieved through the use of a solvent destruction device, the owner or operator shall continuously record the destruction device combustion temperature during coating operations for thermal incineration destruction devices or the gas temperature upstream and downstream of the incinerator catalyst bed during coating operations for catalytic incineration destruction devices. For thermal incineration destruction devices the owner or operator shall record all 3-hour periods (during actual coating operations) during which the average temperature of the device is more than 28 °C (50 °F) below the average temperature of the device during the most recent performance test complying with §60.442(a)(2). For catalytic incineration destruction devices, the owner or operator shall record all 3-hour periods (during actual coating operations) during which the average temperature of the device immediately before the catalyst bed is more than 28 °C (50 °F) below the average temperature of the device during the most recent performance test complying with §60.442(a)(2), and all 3-hour periods (during actual coating operations) during which the average temperature difference across the catalyst bed is less than 80 percent of the average temperature difference of the device during the most recent performance test complying with §60.442(a)(2).

(f) After the initial performance test required for all affected facilities under §60.8, compliance with the VOC emission limitation and percentage reduction requirements under §60.442 is based on the average emission reduction for one calendar month. A separate compliance test is completed at the end of each calendar month after the initial performance test, and a new calendar month's average VOC emission reduction is calculated to show compliance with the standard.

(g) If a common emission control device is used to recover or destroy solvent from more than one affected facility, the performance of that control device is assumed to be equal for each of the affected facilities. Compliance with §60.442(a)(2) is determined by the methods specified in paragraphs (c) and (d) of this section and is performed simultaneously on all affected facilities.

(h) If a common emission control device is used to recover solvent from an existing facility (or facilities) as well as from an affected facility (or facilities), the overall VOC emission reduction for the affected facility (or facilities), for the purpose of compliance, shall be determined by the following procedures:

(1) The owner or operator of the existing facility (or facilities) shall determine the mass of solvent recovered for a calendar month period from the existing facility (or facilities) prior to the connection of the affected facility (or facilities) to the emission control device.

(2) The affected facility (or facilities) shall then be connected to the emission control device.

(3) The owner or operator shall determine the total mass of solvent recovered from both the existing and affected facilities over a calendar month period. The mass of solvent determined in paragraph (h)(1) of this section from the existing facility shall be subtracted from the total mass of recovered solvent to obtain the mass of solvent recovered from the affected facility (or facilities). The overall VOC emission reduction of the affected facility (or facilities) can then be determined as specified in paragraph (c) of this section.

(i) If a common emission control device(s) is used to destruct solvent from an existing facility (or facilities) as well as from an affected facility (or facilities), the overall VOC emission reduction for the

affected facility (or facilities), for the purpose of compliance, shall be determined by the following procedures:

(1) The owner or operator shall operate the emission control device with both the existing and affected facilities connected.

(2) The concentration of VOC (in parts per million by volume) after the common emission control device shall be determined as specified in §60.444(c). This concentration is used in the calculation of compliance for both the existing and affected facilities.

(3) The volumetric flow out of the common control device attributable to the affected facility (or facilities) shall be calculated by first determining the ratio of the volumetric flow entering the common control device attributable to the affected facility (facilities) to the total volumetric flow entering the common control device from both existing and affected facilities. The multiplication of this ratio by the total volumetric flow out of the common control device yields the flow attributable to the affected facility (facilities). Compliance is determined by the use of the equation specified in §60.444(c).

(j) Startups and shutdowns are normal operation for this source category. Emissions from these operations are to be included when determining if the standard specified at §60.442(a)(2) is being attained.

[48 FR 48375, Oct. 18, 1983, as amended at 65 FR 61761, Oct. 17, 2000]

#### **§ 60.444 Performance test procedures.**

(a) The performance test for affected facilities complying with §60.442 without the use of add-on controls shall be identical to the procedures specified in §60.443(a).

(b) The performance test for affected facilities controlled by a solvent recovery device shall be conducted as follows:

(1) The performance test shall be a one calendar month test and not the average of three runs as specified in §60.8(f).

(2) The weighted average mass of VOC per mass of coating solids applied for a one calendar month period shall be determined as specified in §60.443(a) (1) and (2).

(3) Calculate the required percent overall VOC emission reduction as specified in §60.443(b).

(4) Inventory VOC usage and VOC recovery for a one calendar month period.

(5) Determine the percent overall VOC emission reduction as specified in §60.443(c).

(c) The performance test for affected facilities controlled by a solvent destruction device shall be conducted as follows:

(1) The performance of the solvent destruction device shall be determined by averaging the results of three test runs as specified in §60.8(f).

(2) Determine for each affected facility prior to each test run the weighted average mass of VOC per mass of coating solids applied being used at the facility. The weighted average shall be determined as specified in §60.443(a). In this application the quantities of  $W_{oi}$ ,  $W_{si}$ , and  $M_{ci}$  shall be determined for the time period of each test run and not a calendar month as specified in §60.441.

(3) Calculate the required percent overall VOC emission reduction as specified in §60.443(b).

(4) Determine the percent overall VOC emission reduction of the solvent destruction device by the following equation and procedures:

$$R = \frac{\sum_{i=1}^n Q_i C_{i1} - \sum_{j=1}^m Q_j C_{j2}}{\sum_{i=1}^n Q_i C_{i1} + \sum_{k=1}^p Q_k C_{k1}} \times 100$$

(i) The owner or operator of the affected facility shall construct the overall VOC emission reduction system so that all volumetric flow rates and total VOC emissions can be accurately determined by the applicable test methods and procedures specified in §60.446(b).

(ii) The owner or operator of an affected facility shall construct a temporary total enclosure around the coating line applicator and flashoff area during the performance test for the purpose of capturing fugitive VOC emissions. If a permanent total enclosure exists in the affected facility prior to the performance test and the Administrator is satisfied that the enclosure is totally capturing fugitive VOC emissions, then no additional total enclosure will be required for the performance test.

(iii) For each affected facility where the value of R is greater than or equal to the value of  $R_q$  calculated in §60.443(b), compliance with §60.442(a)(2) is demonstrated.

#### § 60.445 Monitoring of operations and recordkeeping.

(a) The owner or operator of an affected facility subject to this subpart shall maintain a calendar month record of all coatings used and the results of the reference test method specified in §60.446(a) or the manufacturer's formulation data used for determining the VOC content of those coatings.

(b) The owner or operator of an affected facility controlled by a solvent recovery device shall maintain a calendar month record of the amount of solvent applied in the coating at each affected facility.

(c) The owner or operator of an affected facility controlled by a solvent recovery device shall install, calibrate, maintain, and operate a monitoring device for indicating the cumulative amount of solvent recovered by the device over a calendar month period. The monitoring device shall be accurate within  $\pm 2.0$  percent. The owner or operator shall maintain a calendar month record of the amount of solvent recovered by the device.

(d) The owner or operator of an affected facility operating at the conditions specified in §60.440(b) shall maintain a 12 month record of the amount of solvent applied in the coating at the facility.

(e) The owner or operator of an affected facility controlled by a thermal incineration solvent destruction device shall install, calibrate, maintain, and operate a monitoring device which continuously indicates and records the temperature of the solvent destruction device's exhaust gases. The monitoring device shall have an accuracy of the greater of  $\pm 0.75$  percent of the temperature being measured expressed in degrees Celsius or  $\pm 2.5$  °C.

(f) The owner or operator of an affected facility controlled by a catalytic incineration solvent destruction device shall install, calibrate, maintain, and operate a monitoring device which continuously indicates and records the gas temperature both upstream and downstream of the catalyst bed.

(g) The owner or operator of an affected facility controlled by a solvent destruction device which uses a hood or enclosure to capture fugitive VOC emissions shall install, calibrate, maintain, and operate a monitoring device which continuously indicates that the hood or enclosure is operating. No continuous monitor shall be required if the owner or operator can demonstrate that the hood or enclosure system is interlocked with the affected facility's oven recirculation air system.

(h) Records of the measurements required in §§60.443 and 60.445 must be retained for at least two years following the date of the measurements.

**§ 60.446 Test methods and procedures.**

(a) The VOC content per unit of coating solids applied and compliance with §60.422(a)(1) shall be determined by either Method 24 and the equations specified in §60.443 or by manufacturers' formulation data. In the event of any inconsistency between a Method 24 test and manufacturers' formulation data, the Method 24 test will govern. The Administrator may require an owner or operator to perform Method 24 tests during such months as he deems appropriate. For Method 24, the coating sample must be a one liter sample taken into a one liter container at a point where the sample will be representative of the coating applied to the web substrate.

(b) Method 25 shall be used to determine the VOC concentration, in parts per million by volume, of each effluent gas stream entering and exiting the solvent destruction device or its equivalent, and each effluent gas stream emitted directly to the atmosphere. Methods 1, 2, 3, and 4 shall be used to determine the sampling location, volumetric flowrate, molecular weight, and moisture of all sampled gas streams. For Method 25, the sampling time for each of three runs must be at least 1 hour. The minimum sampling volume must be 0.003 dscm except that shorter sampling times or smaller volumes, when necessitated by process variables or other factors, may be approved by the Administrator.

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

[48 FR 48375, Oct. 18, 1983, as amended at 65 FR 61761, Oct. 17, 2000]

**§ 60.447 Reporting requirements.**

(a) For all affected facilities subject to compliance with §60.442, the performance test data and results from the performance test shall be submitted to the Administrator as specified in §60.8(a) of the General Provisions (40 CFR part 60, subpart A).

(b) Following the initial performance test, the owner or operator of each affected facility shall submit quarterly reports to the Administrator of exceedances of the VOC emission limits specified in §60.442. If no such exceedances occur during a particular quarter, a report stating this shall be submitted to the Administrator semiannually.

(c) The owner or operator of each affected facility shall also submit reports at the frequency specified in §60.7(c) when the incinerator temperature drops as defined under §60.443(e). If no such periods occur, the owner or operator shall state this in the report.

(d) The requirements of this subsection remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected sources within the State will be relieved of the obligation to comply with this subsection, provided that they comply with the requirements established by the State.

[48 FR 48375, Oct. 18, 1983, as amended at 55 FR 51383, Dec. 13, 1990]

Indiana Department of Environmental Management  
Office of Air Quality

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

Source Background and Description

Source Name:	3M Hartford City
Source Location:	304S 075E, Hartford City, Indiana 47348
County:	Blackford
SIC Code:	2672, 2899, 3081
Permit Renewal No.:	T009-26248-00004
Permit Reviewer:	Michael S. Brooks

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from 3M Hartford City relating to the operation of a stationary tape, label and extruded web manufacturing plant.

**History**

On March 11th, 2008, 3M Hartford City submitted an application to the OAQ requesting to renew its operating permit. Initial Part 70 operating permit No. T009-7712-00004 was issued on December 9, 2003.

**Permitted Emission Units and Pollution Control Equipment**

- (a) One (1) BA Coating Line, identified as EU001, constructed in 1963, consisting of the following equipment:

two (2) coating stations (coating stations 1 and 2), installed in 1963, and one (1) coating station (coating station 3), installed in 1995, each applying coatings with methods including, but not limited to, gravure, reverse roll, extrusion die, hopper/knife, and/or slot die, utilizing thermal oxidizer No. 2, identified as C002, for volatile organic compound (VOC) control, exhausting to stack S/V 888-002.

Under 40 CFR 63.3280, Subpart JJJJ, this facility is considered an existing major source of HAP at which web coating lines are operated.

- (b) One (1) BC-1 Coating Line, identified as EU002, constructed in 1963 and modified in 1986, consisting of the following equipment:

one (1) coating station, installed in 1963, and one (1) coating station installed in 1986, each applying coatings with methods including, but not limited to, pressure fed die, gravure, curtain and/or fluid bed, utilizing thermal oxidizer No. 1, identified as C001, for volatile organic compound (VOC) control, exhausting to stack S/V 888-001.

Under 40 CFR 63.3280, Subpart JJJJ, this facility is considered an existing major source of HAP at which web coating lines are operated.

- (c) One (1) BC-2 Coating Line, identified as EU003, consisting of the following equipment:

one (1) coating station, installed in 1963, and modified in 1998, applying coatings with methods including, but not limited to, wrap cast, reverse roll, gravure, and/or reverse gravure, utilizing thermal oxidizer No. 1, identified as C001, for volatile organic compound (VOC) control, exhausting to stack S/V 888-001.

Under 40 CFR 63.3280, Subpart JJJJ, this facility is considered an existing major source of HAP at which web coating lines are operated.

- (d) One (1) VCS Coating Line, identified as EU004, constructed in 1994, consisting of the following equipment:
- (1) One (1) compounding room, constructed in 1994, exhausting to stack S/V 001-001;
  - (2) One (1) coating station, installed in 1994, applying coatings with methods including, but not limited to, reverse roll, gravure, reverse gravure, flexographic, and/or pressure fed die methods, utilizing thermal oxidizer No. 2, C002, for volatile organic compound (VOC) control, exhausting to stack S/V 888-002;
  - (3) One (1) coating station, approved for construction in 2007, applying coatings with methods including, but not limited to, reverse roll, gravure, reverse gravure, flexographic, and/or pressure fed die methods, utilizing an enclosure and a thermal oxidizer No. 2, C002, for volatile organic compound (VOC) control, exhausting to stack S/V 888-002; and
  - (4) Four (4) natural gas-fired drying ovens, two (2) constructed in 1994 with a rated capacity of 0.80 MMBtu/hr each, two (2) constructed in 2007, with a rated capacity of 0.55 MMBTU/hr and 0.88 MMBtu/hr.

Under 40 CFR 60, Subpart RR, this facility is considered an existing pressure sensitive tape and label materials coating line and under 40 CFR 63.3280, Subpart JJJJ, this facility is considered an existing major source of HAP at which web coating lines are operated.

- (e) One (1) Extrusion Line, identified as EU005, constructed in 1996, consisting of one (1) extruder, calendar rolls, and one (1) oven, utilizing thermal oxidizer No. 1, C001, for volatile organic compound (VOC) control, exhausting to stack S/V 888-002;

Under 40 CFR 63.3280, Subpart JJJJ, this facility is considered an existing major source of HAP at which web coating lines are operated.

- (f) One (1) compounding/mix & mill area, identified as EU007, containing a variety of mixing vessels, each constructed between 1957-1995, used for mixing in the compounding area;
- (g) Three (3) boilers, identified as EU008, EU009, and EU010, each constructed in 1986, each with a maximum heat input capacity of 12.553 MMBtu per hour, each combusting natural gas and No.2 Fuel Oil, exhausting to stacks S/V 001-005, 001-006, and 001-007, respectively;
- (h) Six (6) outdoor bulk storage tanks, identified as T001, T003, T006, T008, T009 and T012, each constructed in 1988, 1976, 1986, 1999, 1985 and 2000, respectively, each with a maximum tank capacity of 30,000, 20,000, 30,000, 275, 275 and 275 gallons, respectively, each containing volatile organic liquids with maximum true vapor pressure less than 15.0 kPa; and
- (i) Five (5) indoor bulk storage tanks, identified as T002, T004, T005, T007, and T011 constructed in 1997, 1997, 1997, 1992, and 1991 respectively, with a maximum tank capacity of 300, 300, 300, 7500, and 1500 gallons, respectively, each containing volatile organic liquids with maximum true vapor pressure less than 15.0 kPa.

### **Insignificant Activities**

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6; [326 IAC 8-3-2] [326 IAC 8-3-5]
- (b) The following equipment related to manufacturing activities not resulting in the emissions of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment; [326 IAC 6-3-2(e)]
- (c) Trimmers that do not produce fugitive emissions that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone; [326 IAC 6-3-2(e)]
- (d) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4-3]
- (e) Emergency Generator constructed April 1, 2008, with a maximum heat input capacity of 427 MMBtu per hour, combusting natural gas.

### **Existing Approvals**

Since the issuance of the Part 70 Operating Permit T009-7712-00004 on December 9, 2003, the source has constructed or has been operating under the following approvals as well:

- (a) Significant Permit Modification No. 009-20292-00004, issued on March 2, 2006;
- (b) Significant Permit Modification No. 009-20900-00004, issued on May 18, 2007;
- (c) Minor Source Modification No. 009-24853-00004, issued on July 23, 2007; and
- (d) Significant Permit Modification No. 009-24417-00004, issued on October 10, 2007.

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

### **The following condition has been revised:**

Condition D.6.2 regarding the degreasing operation.

Reason revised:

The degreasing operations are not subject to 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control). The degreasing operations are located in Blackford County and were constructed prior to the rule applicability date of July 1, 1990. Therefore this condition and associated conditions here have been revised and clarified in this permit.

### **Enforcement Issue**

There are no enforcement actions pending.

### **Emission Calculations**

See Appendix A of this document for detailed emission calculations.

### **County Attainment Status**

The source is located in Blackford County.

Pollutant	Designation
SO <sub>2</sub>	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O <sub>3</sub>	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard. <sup>1</sup>
PM <sub>10</sub>	Unclassifiable effective November 15, 1990.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Not designated.
<sup>1</sup> Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM2.5.	

*(Air Pollution Control Board; 326 IAC 1-4-6; filed Dec 26, 2007, 1:43 p.m.: 20080123-IR-326070308FRA)*

(a) Ozone Standards

- (1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
- (2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, and St. Joseph counties as attainment for the 8-hour ozone standard.
- (3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, and Shelby counties as attainment for the 8-hour ozone standard.
- (4) 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. Blackford 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) Blackford 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) Other Criteria Pollutants

Blackford County has been classified as attainment or unclassifiable in Indiana for the remaining criteria pollutants. 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, fugitive emissions are not counted toward the determination of PSD applicability.

### Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	tons/year
PM	4.80
PM <sub>10</sub>	6.50
SO <sub>2</sub>	84.04
VOC	10,603.65
CO	73.16
NO <sub>x</sub>	67.25

HAPs	Potential To Emit (tons/year)
Toluene	greater than 10
Methanol	greater than 10
N-Hexane	5.22
Formaldehyde	greater than 10
Benzene	.27
Ethyl Benzene	greater than 10
Methyl Isobutyl Ketone	greater than 10
Xylene	greater than 10
TOTAL	greater than 25

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of VOCs is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants are less than 100 tons per year.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is equal to or greater than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (d) Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-7, fugitive emissions are not counted toward the determination of Part 70 applicability.

### Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

**Potential to Emit After Issuance**

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

<b>Process/ Emission Unit</b>	<b>PM</b>	<b>PM<sub>10</sub></b>	<b>SO<sub>2</sub></b>	<b>VOC</b>	<b>CO</b>	<b>NO<sub>x</sub></b>	<b>HAPs Single/Combined</b>
BA Coating Line	0	0	0	252	0	0	>10/25
BC-1 Coating Line	0	0	0	2800	6.41	0	>10/25
BC-2 Coating Line	0	0	0	485	0	0	>10/25
VCS Coating Line	0	0	0	9.2	0	0	<10/25
Extrusion Line	0	0	0	14	.1	.3	0
Compounding	0	0	0	6.08	0	0	<10/25
Storage Tanks	0	0	0	1.93	0	0	<10/25
Emergency Generator	.2	.8	.1	.6	9	0	0
Boilers (#1,2,3)	2.4	1.3	<40	.9	13.9	23.6	0
Thermal Oxidizers	.4	1.5	.1	1.1	16.6	19.7	0
I.A.	1.8	1.8	.14	1.3	19.87	23.65	0
<b>Total</b>	<b>4.8</b>	<b>5.4</b>	<b>&lt;40</b>	<b>3572.11</b>	<b>65.88</b>	<b>66.95</b>	<b>&gt;10/25</b>
<b>Major Source Threshold</b>	<b>&gt;250</b>	<b>&gt;250</b>	<b>&gt;250</b>	<b>&gt;250</b>	<b>&gt;250</b>	<b>&gt;250</b>	<b>&gt;10/25</b>

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

**Federal Rule Applicability**

**NSPS:**

- (a) The coating lines used in the manufacture of pressure sensitive tape and label materials are subject to the New Source Performance Standards for Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations constructed, modified, or reconstructed after December 30, 1980, (40 CFR 60.440, Subpart RR), which is incorporated by reference as 326 IAC 12. The specific facilities subject to this rule include the following:
  - (1) The VCS Coating Line consisting of one (1) compounding room and two (2) coating stations, constructed in 1994 and 2007, is subject to this rule because

the equipment for this coating line was constructed after the December 30, 1980 rule applicability date. Therefore, pursuant to this rule the owner/operator of the source shall either discharge no greater than 0.2 kg VOC/kg of coating solids applied or attain 90% overall VOC emission reduction. Pursuant to CP-009-3127-00004, issued on March 7, 1994, the source has chosen to comply with this rule by:

- (A) Using a thermal oxidizer (minimum of 90% overall destruction efficiency), whenever the solvent-based coating solution is used, or
  - (B) Not discharging greater than 0.2 kg VOC/kg of coating solids applied whenever the water-based coating solution is used.
- (2) BA Coating Line is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.440, Subpart RR) because of the following reasons:
- (A) The BA Coating Line was originally constructed in 1963 (prior to the applicability date of December 30, 1980);
  - (B) The changes to the BA Coating Line do not constitute a reconstruction because the fixed cost of the new equipment does not exceed 50% of the fixed capital cost required to construct an entirely new facility; and
  - (C) The changes to the BA Coating Line do not constitute a modification. The NSPS modification provisions of 40 CFR 60.14 apply when a physical or operational change occurs which could result in an increase in the hourly potential emissions, unless such change qualifies for one of the exemptions at 40 CFR 60.14(e). The emission rate before and after a physical or operational change is evaluated by comparing the hourly potential emissions under maximum capacity immediately before the change to emissions at maximum capacity after the change. Under the General Provisions of the NSPS, only physical limitations on maximum capacity are considered in determining potential emissions. 3M has provided with adequate evidence to IDEM that there was a decrease in the hourly potential emissions based on the maximum capacity, as a result of the 1995 changes made to the BA Coater. The changes made to the BA Coater in 1995 decreased the maximum exhaust flow rate thereby decreasing the potential emissions from 2,332 lbs/hr to 752 lbs/hr.
- (3) BC-1 Coating Line is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.440, Subpart RR), because none of the equipment for this coating line was constructed, reconstructed, or modified after the December 30, 1980 rule applicability date.
- (A) The BC-1 Coating Line was originally constructed in 1963 (prior to the applicability date of December 30, 1980);
  - (B) The changes to the BC-1 Coating Line do not constitute a reconstruction because the fixed cost of the new equipment does not exceed 50% of the fixed capital cost required to construct an entirely new facility; and
  - (C) The changes to the BC-1 Coating Line do not constitute a modification. The NSPS modification provisions of 40 CFR 60.14 apply when a physical or operational change occurs which could result in an increase in the hourly potential emissions, unless such change qualifies for one of

the exemptions at 40 CFR 60.14(e). The emission rate before and after a physical or operational change is evaluated by comparing the hourly potential emissions under maximum capacity immediately before the change to emissions at maximum capacity after the change. Under the General Provisions of the NSPS, only physical limitations on maximum capacity are considered in determining potential emissions. There was no change to the maximum capacity or hourly potential emissions based on the maximum capacity, as a result of the 1986 changes made to the BC-1 Coater.

- (4) BC-2 Coating Line is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.440, Subpart RR) because pursuant to CP-009-9364-00004, issued on July 10, 1998:
  - (A) The BC-2 Coating Line was originally constructed in 1963 (prior to the applicability date of December 30, 1980);
  - (B) The changes to the BC-2 Coating Line do not constitute a reconstruction because the fixed cost of the new equipment does not exceed 50% of the fixed capital cost required to construct an entirely new facility; and
  - (C) The changes to the BC-2 Coating Line do not constitute a modification. The NSPS modification provisions of 40 CFR 60.14 apply when a physical or operational change occurs which could result in an increase in the hourly potential emissions, unless such change qualifies for one of the exemptions at 40 CFR 60.14(e). The emission rate before and after a physical or operational change is evaluated by comparing the hourly potential emissions under maximum capacity immediately before the change to emissions at maximum capacity after the change. Under the General Provisions of the NSPS, only physical limitations on maximum capacity are considered in determining potential emissions. There was no change to the maximum capacity or hourly potential emissions based on the maximum capacity, as a result of the 1998 changes made to the BC-2 Coater.
- (b) The boilers which are classified as steam generating units are subject to the New Source Performance Standards for Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units constructed, modified, or reconstructed after June 9, 1989, (40 CFR 60.40c, Subpart Dc), which is incorporated by reference as 326 IAC 12. The specific facilities subject to this rule include the following:
  - (1) The three (3) boilers identified as EU008, EU009, and EU010 are not subject to the requirements of the New Source Performance Standards, 326 IAC 12, (40 CFR 60.40c, Subpart Dc), because none of the equipment was constructed, reconstructed, or modified after the June 9, 1989 rule applicability date. Therefore, these requirements are not included in this permit.
- (c) The storage vessels are subject to the New Source Performance Standard for Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978, (40 CFR Part 60.110, Subpart K) which is incorporated by reference as 326 IAC 12. The specific facilities subject to this rule include the following:
  - (1) The storage tanks T001 and T006 are not subject to New Source Performance Standard, 326 IAC 12 (40 CFR 60.110 and 110a, Subparts K and Ka), because the tanks were constructed in 1988 and 1986, respectively, and the storage capacity of each tank is less than 40,000 gallons. The storage tanks T001 and

- T006 are not subject to New Source Performance Standard, 326 IAC 12 (40 CFR Part 60.110b, Subpart Kb), because they have a true vapor pressure of less than 15.0 kPa. Therefore these requirements are not included in this permit.
- (2) Storage tank T003 is not subject to New source Performance Standard, 326 IAC 12 (40 CFR 60.110, 110a, and 110b, Subparts K, Ka and Kb) because it was constructed in 1976, prior to the rule applicability date of July 23, 1984 for subpart Kb, and because the storage capacity of the tank is less than 40,000 gallons for subparts K and Ka. Therefore these requirements are not included in this permit.
- (3) Storage tanks T008, T009, and T012 are not subject to New source Performance Standard, 326 IAC 12 (40 CFR 60.110, 110a, and 110b, Subparts K, Ka and Kb) because the tanks were constructed in 1999, 1985 and 2000, respectively, and the storage capacity of each tank is less than 75 cubic meters for Kb. Therefore, these requirements are not included in this permit.
- (4) Storage tanks T002, T004, T005, T007 and T011 are not subject to New Source Performance Standard, 326 IAC 12 (40 CFR 60.110, 110a, and 110b, Subparts K, Ka and Kb) because the tanks were constructed in 1997, 1997, 1997, 1992 and 1991, respectively, and the storage capacity of each tank is less than 75 cubic meters for Kb. The storage tanks T001 and T002 are not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Parts 60.110, 110a and 110b, Subparts K, Ka and Kb), because both tanks were constructed in 1957, prior to the applicability date of June 11, 1973 for Subparts K, Ka and Kb. Therefore, these requirements are not included in this permit.
- (d) The coating lines used in the manufacture of pressure sensitive tape and label materials do not engage in the manufacturing of magnetic tape. Therefore, the source is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.710, Subpart SSS).

**NESHAP:**

- (e) This source is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAPs), Paper and Other Web (Surface Coating), 40 CFR 63.3280 (Subpart JJJJ). The provisions of this Subpart apply to each new and existing facility that is a major source of HAP, as defined in 40 CFR 63.2, Subpart A, at which web coating lines are operated. All the coating lines for this source (i.e., the BA Coating Line, identified as EU001, the BC-1 Coating Line, identified as EU002, the BC-2 Coating Line, identified as EU003, the VCS Coating Line, identified as EU004 and the Extrusion line, identified as EU005), identified as a major source of HAP, are web coating lines. Therefore, the requirements of this rule apply to this source. All the facilities for this source were constructed before September 13, 2000; therefore it is an existing affected source. The compliance date of this subpart is December 5, 2005. The specific affected facilities include:
- (1) One (1) BA Coating Line, identified as EU001, constructed in 1963, consisting of the following equipment:
- Two (2) coating stations (coating stations 1 and 2), installed in 1963, and one (1) coating station (coating station 3), installed in 1995, each applying coatings with methods including, but not limited to, gravure, reverse roll, extrusion die, hopper/knife, and/or slot die, utilizing thermal oxidizer No. 2, identified as C002, for volatile organic compound (VOC) control, exhausting to stack S/V 888-002;

- (2) One (1) BC-1 Coating Line, identified as EU002, constructed in 1963, consisting of the following equipment:  
  
One (1) coating station, installed in 1963, applying coatings with methods including, but not limited to, pressure fed die, gravure, curtain and/or fluid bed, utilizing thermal oxidizer No. 1, identified as C001, for volatile organic compound (VOC) control, exhausting to stack S/V 888-001;
- (3) One (1) BC-2 Coating Line, identified as EU003, consisting of the following equipment:  
  
One (1) coating station, installed in 1963, applying coatings with methods including, but not limited to, wrap cast, reverse roll, gravure, and/or reverse gravure, utilizing thermal oxidizer No. 1, identified as C001, for volatile organic compound (VOC) control, exhausting to stack S/V888-001. This Coating Line was changed as per a permit issued on July 10, 1998;
- (4) One (1) VCS Coating Line, identified as EU004, constructed in 1994, consisting of the following equipment:  
  
One (1) compounding room, constructed in 1994, exhausting to stack S/V 001-001; One (1) coating station, installed in 1994, applying coatings with methods including, but not limited to, reverse roll, gravure, reverse gravure, flexographic, and/or pressure fed die methods, utilizing thermal oxidizer No. 1, C001, for volatile organic compound (VOC) control, exhausting to stack S/V 888-001; and
- (5) One (1) Extrusion Line, identified as EU005, constructed in 1996, consisting of one (1) extruder, calendar rolls, and one (1) oven, utilizing thermal oxidizer No. 1, C001, for volatile organic compound (VOC) control, exhausting to stack S/V 888-002;

This source is subject to the following portions of Subpart JJJJ.

- (1) 40 CFR 63.3280;
- (2) 40 CFR 63.3290;
- (3) 40 CFR 63.3300;
- (4) 40 CFR 63.3310;
- (5) 40 CFR 63.3320(a), (b)(1), (2) and (3) and (c);
- (6) 40 CFR 63.3321;
- (7) 40 CFR 63.3330(a);
- (8) 40 CFR 63.3340;
- (9) 40 CFR 63.3350;
- (10) 40 CFR 63.3360(a), (c), (d), and (e);
- (11) 40 CFR 63.3370(a), (b) and (c)(1) through (5);
- (12) 40 CFR 63.3400(a), (b)(1), c(1)(i) through (v), (2)(i) through (v) and (e); and

(13) 40 CFR 63.3410(a)(1)(iii), (iv) and (vi).

- (f) The degreasers are not subject to National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 63.460, Subpart T. The degreasers do not use any halogenated solvent cleaners.

**CAM:**

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

The BA, BC-1, BC-2, and VCS Coating Lines and the Extrusion Line, each meet the requirements for CAM, however, each of these lines are subject to a MACT standard under 40 CFR 63, and pursuant to 40 CFR 64.2(b)(1)(i), these units are exempt from the requirements of 40 CFR 64. Therefore, this rule does not apply to this source.

**State Rule Applicability - Entire Source**

**326 IAC 1-6-3 (Preventive Maintenance Plan)**

The source has submitted a Preventive Maintenance Plan (PMP) on November 5, 1996. This PMP has been verified to fulfill the requirements of 326 IAC 1-6-3 (Preventive Maintenance Plan).

**326 IAC 2-2 (Prevention of Significant Deterioration, (PSD))**

The source was initially constructed in 1957, prior to the August 7, 1977 rule applicability date. Pursuant to 326 IAC 2-2 (PSD), this source is a major stationary source since it is not one of the 28 listed source categories and it has the potential to emit greater than 250 tons per year (tpy) of VOC. The source had several modifications after the August 7, 1977 rule applicability date, none of which is a major modification pursuant this rule for the following reasons:

- (a) The three (3) No. 2 fuel oil fired boilers each constructed in 1986 did not trigger PSD applicability. The NO<sub>x</sub> emissions from each of the three (3) boilers are equal to 7.9 tpy, or 23.7 tpy (combined), when burning No.2 fuel oil, and this is less than the PSD major modification significant emission rate threshold for NO<sub>x</sub> (as NO<sub>2</sub>) of 40 tpy. Pursuant to Registered Construction and Operation Status, issued on August 28, 1986, the combination of the quantity and sulfur content of the No. 2 fuel oil used for the three (3) boilers shall be such that combined sulfur dioxide emissions from the three (3) boilers do not exceed 25 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. This is less than the PSD major modification significant emission rate threshold for SO<sub>2</sub> of 40 tpy. Therefore, the construction of the three boilers was not subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration). These limits were made federally enforceable as part of Part 70 permit T009-7712-00004.
- (b) Pursuant to CP-009-3127-00004, issued on March 7, 1994, the VCS Coating Line did not trigger PSD applicability. The controlled potential to emit VOC from this facility is equal to 9.20 tpy, after enforceable controls utilizing a thermal oxidizer for VOC emission control. This is less than PSD major modification significant emission rate threshold for VOC of 40 tpy. Therefore, the installation of VCS coating line was not subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration).

- (c) Pursuant to CP-009-3871-00004, issued on July 14, 1995, the modification of the BA Coating Line did not trigger PSD applicability. This modification was not a major modification pursuant to 326 IAC 2-2 because the source agreed to limit future actual VOC emissions from the BA Coating Line to no more than 39 tpy above the baseline actual emissions for the existing line. Pursuant to 326 IAC 2-2-1(b), actual emissions are generally defined in terms of the two (2) year period preceding a modification when such time-frame represents normal operations. However, the same definition provides for the use of a different 2-year period if such is more representative of normal source operations. During the permit review process for CP009-3871-00004, 3M provided information to IDEM to show that the BA Coater did not have actual emissions reflective of normal operations during any 2-year period after 1990, and that the proposed modification would result in more normal, pre-1990, operations. As such, IDEM, OAQ, agreed that the 2-year period, 1989-1990, would represent normal operations and the related average actual emission rate was determined as 967 tons VOC per year. For the BA Coating Line modification, the total VOC emission rate was limited to 967 tpy, plus 39 tpy, or 1,006 tpy. Therefore, the modification of the BA Coating Line was not subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration). This emission limit notwithstanding, the source also decided to use a thermal oxidizer on the BA Coating line with VOC control efficiency (capture/destruction) of 75% after the modification. Therefore, the PTE for the BA Coating Line modification, after the installation of thermal oxidizer and in conjunction with VOC usage limit of 1006 tpy, was 252 tpy. 3M was issued a Part 70 permit no. T009-7712-00004 on December 9, 2003, for a stationary tapes, labels and extruded web manufacturing source. The Part 70 Permit limited the VOC emissions from the BA Coating Line to 252 tons per year. This emission limit was based on 75 % overall control efficiency of the thermal oxidizer controlling VOC emissions from the BA Coating Line. However, according to a stack test conducted by 3M on May 5-6, 2004, the overall control efficiency of the thermal oxidizer was determined to be 98.2%. The BA Coating Line is subject to the NESHAP, JJJJ which requires 95% minimum overall control efficiency of the Thermal Oxidizer. Based on 95 % minimum overall control efficiency the source requested to increase the usage limit to 5,040 tons per year. Pursuant to Significant Permit Modification T009-20292-000045 the sources usage limit for the BA coating line was increased to 5,040 tpy maintaining a 95% minimum overall control efficiency of the Thermal Oxidizer.
- (d) Pursuant to CP-009-5147-00004, issued on June 4, 1996, the Extrusion Line did not trigger PSD applicability. The controlled potential to emit VOC from this facility is equal to 14 tpy, after enforceable controls utilizing a thermal oxidizer for VOC emission control. This is less than PSD major modification significant emission rate threshold for VOC of 40 tpy. Therefore, the installation of Extrusion Line was not subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration).
- (e) Pursuant to CP-009-9364-00004, issued on July 10, 1998, the modification of the BC-2 Coating Line did not trigger PSD applicability. This modification was not a major modification pursuant to 326 IAC 2-2 because this source agreed to limit future VOC emissions from the BC-2 Coating Line to no more than 39 tpy above the baseline actual emissions for the line. Pursuant to 326 IAC 2-2-1(b), actual emissions are generally defined in terms of the two (2) year period preceding a modification when such time-frame represents normal operations. However, the same definition provides for the use of a different 2-year period if such is more representative of normal source operations. During the permit review process for CP009-9364, 3M provided information to IDEM to show that the BC-2 Coater did not have actual emissions reflective of normal operations during any 2-year period after 1993, and that the proposed modification would result in more normal, pre-1993, operations. As such, IDEM, OAQ, agreed that the 2-year period, 1992-1993, would represent normal operations and the related average actual emission rate was determined as 446 tons VOC per year. For the BC-2 Coating Line modification, the total VOC emission rate was limited to 446 tpy, plus 39 tpy, or 485 tpy. Therefore,

the modification of the BC-2 Coating Line was not subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration).

#### 326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit under 326 IAC 2-7, Part 70 program. Pursuant to this rule, the Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. The source has the potential to emit greater than 250 tpy of VOC. Therefore with the compliance schedule specified in 326 IAC 2-6-3(a) (1), an emission statement must be submitted annually by July 1 beginning in 2008 and every year thereafter. Therefore, the next emission statement for this source must be submitted by July 1, 2008. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

#### 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 non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### 326 IAC 1-5-2 (Emergency Reduction Plans)

The source is subject to 326 IAC 1-5-2. The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on March 08, 2004.

### **State Rule Applicability – Individual Facilities**

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

The operation of the BC-1 Coating Line will emit 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 and BC-2 Coating Lines will emit greater than twenty-five (25) tons per year for a combination of HAPs; however, pursuant to 326 IAC 2-4.1-1(b)(2), because BC-1 and BC-2 Coating Lines are specifically regulated by NESHAP 40 CFR 63.3280 (Subpart JJJJ), which was issued pursuant to Section 112(d) of the CAA, BC-1 and BC-2 Coating Lines are exempt from the requirements of 326 IAC 2-4.1.

#### 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating)

- (a) This rule establishes limitations for sources of indirect heating, receiving permits to construct on or after September 21, 1983. The three (3) natural gas and No. 2 fuel oil fired boilers, identified as EU008, EU009 and EU010, each with a maximum heat input capacity of 12.553 million Btu per hour (MMBtu/hr), are subject 326 IAC 6-2-4 (Particulate Emissions Limitations for Sources of Indirect Heating), because they were all constructed at the same time, in 1986, after the September 21, 1983 rule applicability date.

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), the PM emissions from each of the three (3) boilers, based on a total heat input rate of 37.66 MMBtu per hour, shall be limited to 0.42 pounds per MMBtu heat input.

This limitation is based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}} \quad \text{where: } Pt = \text{Pounds of particulate matter emitted per MMBtu heat input.}$$

Q = Total source maximum operating capacity rating in MMBtu per hour.  
Q = 37.66 MMBtu/hr

$$Pt = \frac{1.09}{(37.66)^{0.26}} = 0.42 \text{ pound per MMBtu heat input.}$$

The potential particulate matter emissions from each of the three (3) boilers are 0.002 pound per MMBtu heat input, when burning natural gas. Therefore, these boilers will be able to comply with 326 IAC 6-2-4.

The potential particulate matter emissions from each of the three (3) boilers are 0.01 pound per MMBtu heat input, when burning No. 2 Fuel Oil. Therefore, these boilers will be able to comply with 326 IAC 6-2-4.

- (b) The oven zones from the BA, BC-1, BC-2, VCS Coating Lines and the heaters from the Extrusion Line are not subject to 326 IAC 6-2 (Emission Limitations for Sources of Indirect Heating). The oven zones from the BA, BC-1, BC-2, VCS Coating Line and the heaters from the Extrusion Line are not indirect heating facilities.

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

Pursuant to 326 IAC 6-3-2(e), the allowable particulate emissions rate from the welding operation not exempt by 326 IAC 6-3-1 or already regulated by 326 IAC 6-3-2(b) through (d), and which has a maximum process weight rate less than 100 pounds per hour, shall not exceed 0.551 pounds per hour.

#### 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

This rule applies to all facilities with a potential to emit greater than twenty-five (25) tons per year or ten (10) pounds per hour of sulfur dioxide. The three (3) boilers (EU008, EU009, and EU010) are subject to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations) since each boiler has a potential to emit SO<sub>2</sub> at 25 tons per year. Therefore, pursuant to this rule:

- (a) The combined SO<sub>2</sub> emissions from the three (3) boilers shall be limited to five-tenths (0.5) pound per million Btu for fuel oil combustion.
- (b) The maximum fuel oil sulfur content shall be limited to 0.5 % sulfur by weight.

#### 326 IAC 3-7-4 (Fuel oil sampling; analysis methods)

- (a) The three (3) No. 2 fuel oil fired boilers, identified as EU008, EU009 and EU010, each with a maximum heat input capacity of 12.553 million Btu per hour (MMBtu/hr), are subject to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu heat input by:
- (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, or;
  - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
    - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
    - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the three (3) 12.553 MMBtu/hr boilers, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

#### 326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

- (a) The Extrusion Line is subject to 326 IAC 8-1-6 (New Facilities; General Reduction Requirements). Pursuant to CP-009-5147-00004, issued on June 4, 1996, a thermal oxidizer with a minimum combustion chamber temperature of 1400° F, for a minimum overall efficiency of 90%, shall be operated at all times the Extrusion Line is in operation. This is accepted by OAQ as a Best Available Control Technology (BACT) for this facility.
- (b) The BC-1 and BC-2 Coating Lines are not subject to 326 IAC 8-1-6 (New Facilities; General Reduction Requirements). This rule requires all facilities constructed after January 1, 1980, which have potential VOC emission rates of 25 or more tons per year, and which are not otherwise regulated by other provisions of 326 IAC 8, to reduce VOC emissions using Best Available Control Technology (BACT). The two (2) Coating Lines were constructed before 1980, therefore, the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) do not apply.
- (c) The BA Coating Line and the VCS Coating Line are not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements), because they are subject to the requirements of 326 IAC 8-2-5 (Paper Coating Operations).

#### 326 IAC 8-2-5 (Paper Coating Operations)

This rule establishes emission limitations for web coating or saturation processes of paper, plastic, metal foil, and pressure sensitive tapes and labels regardless of substrate, not listed in a specific county and constructed after January 1, 1980. Pursuant to 326 IAC 8-2-5 (Paper Coating Operations), the volatile organic compound (VOC) content of coatings applied to labels of any substrate, or pressure sensitive tapes, or paper, plastic or metal foil by means of web coating shall be limited to 2.9 pounds VOC per gallon of coating less water delivered to the applicator.

- (a) The BA Coating Line is subject to the requirements of 326 IAC 8-2-5 (Paper Coating Operations), because the paper coating operation at the BA Coating Line has 100% saturation, and the third coating station for this Coating Line was installed in 1995, after the January 1, 1980 rule applicability date. Pursuant to 326 IAC 8-2-5 (Paper Coating Operations), the VOC emissions after control shall not be greater than 2.9 pounds per gallon of coating, excluding water. Pursuant to CP-009-3871-00004, issued on July 14, 1995, the source has chosen to comply with this rule by:
  - (1) Using a thermal oxidizer (minimum of 75% overall destruction efficiency), whenever the solvent-based coating solution is used; and
  - (2) Not to discharge greater than 2.9 pounds per gallon coating excluding water applies whenever the water-based coating solution is used.

The source has installed a thermal oxidizer and demonstrates compliance with the applicable VOC content limitation by employing a compliance method found in 326 IAC 8-1-2(a)(2) and an equivalent limitation outlined in 326 IAC 8-1-2(b) and (c), as follows:

- (1) Pursuant to 326 IAC 8-1-2 (b), the VOC emissions from the BA Coating Line 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:

- E = Equivalent emission limit in pounds of VOC per gallon of coating solids, as applied.
- L = Applicable emission limit from this article in pounds of VOC per gallon of coating.
- D = Baseline solvent density of VOC in the coating and shall be equal to seven and thirty-six hundredths (7.36) pounds of VOC per gallon of solvent.

$$E = 2.9 / (1 - (2.9/7.36)) = 4.79 \text{ lb VOC / gallon of solids}$$

Therefore, the pounds of VOC per gallon of coating solids shall be limited to less than 4.79 pounds of VOC per gallon of coating solids as applied.

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

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

Where:

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

Based on the information provided by the source the VOC content of the worst case coating used before controls at the BA Coating Line is 4.86 lbs VOC/gal.

Therefore:

$$V = 4.86 / (1 - (4.86/7.36)) = 14.31 \text{ lb VOC/gallon of solids}$$

$$O = \frac{14.31 - 4.79}{14.31} \times 100 = 66.5 \%$$

The overall efficiency of the thermal oxidizer shall not be less than 66.5%. The source is using a thermal oxidizer for the BA Coating Line with a control efficiency of 75%. Therefore, the BA Coating Line is able to comply with 326 IAC 8-2-5 (Paper Coating Operations).

- (b) The VCS Coating Line constructed in 1994, applying coatings with methods including, but not limited to gravure, reverse roll, extrusion die, hopper/knife, and/or slot die, is subject

to 326 IAC 8-2-5 (Paper Coating Operations), because the paper coating operations at the VCS Coating Line has 100% saturation. The VOC emissions after control shall not be greater than 2.9 pounds per gallon of coating, excluding water. Pursuant to CP-009-3127-00004, issued on March 7, 1994, the source has chosen to comply with this rule by:

- (1) Using a thermal oxidizer (minimum of 90% overall destruction efficiency), whenever the solvent-based coating solution is used; and
- (2) Not to discharge greater than 2.9 pounds per gallon coating excluding water applies whenever the water-based coating solution is used.

Based on the information presented in CP-009-3127-00004, issued on March 7, 1994, the water based coating solutions for the VCS Coating Line contain negligible volatile organic compounds (VOC) and have VOC content of less than 2.9 pounds per gallon of coating.

The source has installed a thermal oxidizer for solvent based coatings and demonstrates compliance with the applicable VOC content limitation by employing a compliance method found in 326 IAC 8-1-2(a)(2) and an equivalent limitation outlined in 326 IAC 8-1-2(b) and (c), as follows:

- (1) Pursuant to 326 IAC 8-1-2 (b), the VOC emissions from the VCS Coating Line 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:

- E = Equivalent emission limit in pounds of VOC per gallon of coating solids, as applied.
- L = Applicable emission limit from this article in pounds of VOC per gallon of coating.
- D = Baseline solvent density of VOC in the coating and shall be equal to seven and thirty-six hundredths (7.36) pounds of VOC per gallon of solvent.

$$E = 2.9 / (1-(2.9/7.36)) = 4.79 \text{ lb VOC / gallon of solids}$$

Therefore, the pounds of VOC per gallon of coating solids shall be limited to less than 4.79 pounds of VOC per gallon of coating solids as applied.

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

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

Where:

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

- 1-4 in units of pounds of VOC per gallon of coating solids as applied.
- E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.
- O = Equivalent overall efficiency of the capture system and control device as a percentage.

Based on the information provided by the source the VOC content of the worst case coating used before controls at the VCS Coating Line is 4.86 lbs VOC/gal.

Therefore:

$$V = 4.86 / (1 - (4.86/7.36)) = 14.31 \text{ lb VOC/gallon of solids}$$

$$O = \frac{14.31 - 4.79}{14.31} \times 100 = 66.5 \%$$

The overall efficiency of the thermal oxidizer shall not be less than 66.5%. The source is using a thermal oxidizer for the VCS Coating Line with a control efficiency of 90%. Therefore, the VCS Coating Line is able to comply with 326 IAC 8-2-5 (Paper Coating Operations).

- (c) The BC-1 and BC-2 Coating Lines are not subject to 326 IAC 8-2-5 (Paper Coating Operations). The two (2) coating lines are located in Blackford County and were constructed prior to the rule applicability date of January 1, 1980, specified in 326 IAC 8-2-1(a)(2).

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

The source, which is located in Blackford County and maintains one (1) cold cleaning parts washer with a capacity less than 145 gallons (i.e., insignificant activities), is subject to the applicable rule requirements since the cleaner was installed after the January 1, 1980 rule applicability date. As such, and 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.

The degreasing operations are not subject to 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control). The degreasing operations are located in Blackford County and were constructed prior to the rule applicability date of July 1, 1990.

#### 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.

- (a) The BA Coating Line has applicable compliance monitoring conditions as specified below:
- (1) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature. The output of this system shall be recorded as a 3-hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall take appropriate response steps in accordance with Section C - Response to Excursions or Exceedances whenever the 3-hour average temperature of the thermal oxidizer is below 1441<sup>0</sup>F. A 3-hour average temperature that is below 1441<sup>0</sup>F is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
  - (2) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits specified in 326 IAC 8-2-5 (Paper Coating Operations) and 326 IAC 2-2 (Prevention of Significant Deterioration), as approved by IDEM.
  - (3) On and after the date the approved stack test results are available, the Permittee shall take appropriate response steps in accordance with Section C - Response to Excursions or Exceedances whenever the 3-hour average temperature of the thermal oxidizer is below the 3-hour average temperature as observed during the compliant stack test. A 3-hour average temperature that is below the 3-hour average temperature as observed during the compliant stack test is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

These monitoring conditions are necessary because the BA Coating Line must operate properly to ensure compliance with 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 8-2-5 (Paper Coating Operations) and 326 IAC 2-7 (Part 70).

- (b) The BC-1 and BC-2 Coating Lines have applicable compliance monitoring conditions as specified below:
- (1) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature. The output of this system shall be recorded as a 3-hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall take appropriate response steps in accordance with Section C - Response to Excursions or Exceedances whenever the 3-hour average temperature of the thermal oxidizer is below 1410<sup>0</sup>F. A 3-hour average temperature that is below 1410<sup>0</sup>F is not a deviation from this permit. Failure to take response steps in

accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

- (2) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits specified in 326 IAC 2-2 (Prevention of Significant Deterioration), as approved by IDEM.
- (3) On and after the date the approved stack test results are available, the Permittee shall take appropriate response steps in accordance with Section C - Response to Excursions or Exceedances whenever the 3-hour average temperature of the thermal oxidizer is below the 3-hour average temperature as observed during the compliant stack test. A 3-hour average temperature that is below the 3-hour average temperature as observed during the compliant stack test is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

These monitoring conditions are necessary because the BC-1 and BC Coating Line must operate properly to ensure compliance with 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-7 (Part 70).

- (c) The VCS Coating Line has applicable compliance monitoring conditions as specified below:
  - (1) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature. The output of this system shall be recorded as a 3-hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall take appropriate response steps in accordance with Section C - Response to Excursions or Exceedances whenever the 3-hour average temperature of the thermal oxidizer is below 1410<sup>0</sup>F. A 3-hour average temperature that is below 1410<sup>0</sup>F is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
  - (2) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits specified in 326 IAC 8-2-5 (Paper Coating Operations), 326 IAC 2-2 (Prevention of Significant Deterioration), as approved by IDEM.
  - (3) On and after the date the approved stack test results are available, the Permittee shall take appropriate response steps in accordance with Section C - Response to Excursions or Exceedances whenever the 3-hour average temperature of the thermal oxidizer is below the 3-hour average temperature as observed during the compliant stack test. A 3-hour average temperature that is below the 3-hour average temperature as observed during the compliant stack test is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

These monitoring conditions are necessary because the VCS Coating Line must operate properly to ensure compliance with 326 IAC 2-2 (Prevention of Significant Deterioration), 326 IAC 8-2-5 (Paper Coating Operations) and 326 IAC 2-7 (Part 70).

- (d) The Extrusion Line has applicable compliance monitoring conditions as specified below:
- (1) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature. The output of this system shall be recorded as a 3-hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the hourly average temperature of 1441<sup>0</sup>F on a 3-hour average.
  - (2) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits specified in 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) and 326 IAC 2-2 (Prevention of Significant Deterioration), as approved by IDEM.
  - (3) On and after the date the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature as observed during the compliant stack test.

These monitoring conditions are necessary because the Extrusion Line must operate properly to ensure compliance with 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 8-1-6 (New Facilities; General Reduction Requirements).

### **Recommendation**

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

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

An application for the purposes of this review was received on March 11, 2008.

### **Conclusion**

The operation of this stationary tape, label and extruded web manufacturing plant shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No. 009-26248-00004.

### Appendix A: Emission Calculations Compounding/Mix & Mill Emission Calculations

Company Name: 3 M Hartford City Plant  
Address City IN Zip: 304S 075E, Hartford City, IN 47348  
Part 70 No.: T 009-26248-00004  
Reviewer: Michael S. Brooks  
Date: 14-Apr-2007

#### Operating Data (provided by the source):

##### Total Solvent Input:

BA Coating Line	5040	tons/yr	
BC-1 Coating Line	2800	tons/yr	
BC-2 Coating Line	2287.74	tons/yr	
VCS Coating Line	184	tons/yr	
PTFE Extrusion Line	140	tons/yr	
<b>TOTAL</b>	<b>10451.74</b>	<b>tons/yr</b>	
	<b>3483913.333</b>	<b>gal/yr</b>	solvent density = 6 lb/gal
Maximum Throughput	6967826.667	gal/yr	
Maximum Daily Temperature	85	deg. F	
Methanol Vapor Pressure	3.06	psi (@85 deg. F.)	
Total Tank Storage Capacity	72625	gal	

#### VOC Emission Calculations

$$Lw, \text{ Working Loss} = (2.38 * 10^{-5}) * Mv * Pva * Q * Kn * Kp$$

Mv =	Vapor Molecular Wt.	32	lb/lb-mol	(for methanol)	N, Turnovers = Total throughput (gal) / Total tank capacity (gal)
Pva =	Vapor Pressure	3.06	psi		N = 95.94253586
Q =	Net Throughput	6967826.667	gal/yr		Kn, Turnover Factor = (180 + N) / (6 * N)
Kn =	Turnover factor	0.75	(always less than or equal to 1)		Kn = 0.479353836
Kp =	Working Loss Product Factor	1	(for all organic liquids)		
<b>Lw =</b>	<b>Working Loss</b>	<b>12178.86913</b>	<b>lb VOC/yr</b>		
		<b>6.089434566</b>	<b>ton/yr</b>		

##### Methodology:

Maximum throughput is assumed to be twice the facility solvent usage to account for opening tank lids to add solids during batch cycle.  
Methanol has the highest vapor pressure of the chemicals used at the Hartford City Plant, therefore, was used as the "worst case solvent".  
Calculations for Working Loss is based on AP-42, Chapter 7.1.

#### HAP Emission Calculations

HAP	Weight %	Total HAP (tons/yr)
Benzene	0.002	0.012178869
Ethyl Benzene	0.25	1.522358641
N-Hexane	0.05	0.304471728
<b>Methanol</b>	<b>1</b>	<b>6.089434566</b>
<b>Methyl Isobutyl Ketone</b>	<b>1</b>	<b>6.089434566</b>
<b>Toluene</b>	<b>1</b>	<b>6.089434566</b>
<b>Xylene</b>	<b>1</b>	<b>6.089434566</b>

(Bold) Worst Case Solvents

##### Methodology:

HAP Emissions (tons/yr) = Weight % \* VOC Working Loss (ton/yr)

Emission Calculations  
 Natural Gas Combustion  
 MM Btu/hr 0.3 - < 100  
 Insignificant Activity

page 1 of 2

Company Name: 3 M Hartford City Plant  
 Address City IN Zip: 304 S 075E, Hartford City, IN 47348  
 Part 70 No.: T 009-26248-00004  
 Reviewer: Michael S. Brooks  
 Date: 9-Apr-2008

Heat Input Capacity  
 MMBtu/hr

Potential Throughput  
 MMCF/yr

**BA Coating Line**

Oven Zone (each)	2.75	24.09
(combined - 6 total)	16.5	144.54

**BC-1 Coating Line**

Oven Zone #1	8.53	74.72
Oven Zone #2	5.686	49.81
Oven Zone #3	3.2	28.03

**BC-2 Coating Line**

Oven Zone #4a	3.8	33.29
Oven Zone #4b	5.8	50.81
Oven Zone #5	3.3	28.91
Oven Zone #6	0.87	7.62

**VCS Coating Line**

Oven Zone #1	0.8	7.01
Oven Zone #2	0.8	7.01

**Extrusion Line**

Infrared heater (each)	0.786	6.89
(combined - 6 total)	4.716	41.31

**Emission Calculations  
Natural Gas Combustion  
MM Btu/hr 0.3 - < 100  
Insignificant Activity**

page 2 of 2

**Company Name: 3 M Hartford City Plant  
Address City IN Zip: 304 S 075E, Hartford City, IN 47348  
Part 70 No.: T 009-26248-00004  
Reviewer: Michael S. Brooks  
Date: 9-Apr-2008**

Emission Factor in lb/MMCF	Pollutant					
	PM 7.6	PM10 7.6	SO2 0.6	NOx 100	VOC 5.5	CO 84
Potential Emission in tons/yr						
<b>BA Coating Line</b>						
Oven Zone (each)	0.09	0.09	0.01	1.20	0.07	1.01
(combined - 6 total)	0.55	0.55	0.04	7.23	0.40	6.07
<b>BC-1 Coating Line</b>						
Oven Zone #1	0.28	0.28	0.02	3.74	0.21	3.14
Oven Zone #2	0.19	0.19	0.01	2.49	0.14	2.09
Oven Zone #3	0.11	0.11	0.01	1.40	0.08	1.18
<b>BC-2 Coating Line</b>						
Oven Zone #4a	0.13	0.13	0.01	1.66	0.09	1.40
Oven Zone #4b	0.19	0.19	0.02	2.54	0.14	2.13
Oven Zone #5	0.11	0.11	0.01	1.45	0.08	1.21
Oven Zone #6	0.03	0.03	0.00	0.38	0.02	0.32
<b>VCS Coating Line</b>						
Oven Zone #1	0.03	0.03	0.00	0.35	0.02	0.29
Oven Zone #2	0.03	0.03	0.00	0.35	0.02	0.29
<b>Extrusion Line</b>						
Infrared heater (each)	0.03	0.03	0.00	0.34	0.02	0.29
(combined - 6 total)	0.16	0.16	0.01	2.07	0.11	1.74
<b>Total Potential Emissions in tons/yr</b>	<b>1.80</b>	<b>1.80</b>	<b>0.14</b>	<b>23.65</b>	<b>1.30</b>	<b>19.87</b>

Methodology:

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: uncontrolled = 100, Low Nox Burner = 50, Flue gas recirculation = 32

All PM is assumed to be less than 1.0 micrometer in diameter. Therefore, the PM emission factors may be used to estimate PM10, PM2.5, and PM1 emissions.

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

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

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



**Appendix A: Emissions Calculations**

**Natural Gas Combustion Only**

**MM BTU/HR <100**

**Thermal Oxidizers #1&2**

**Company Name: 3M Hartford City**

**Address City IN Zip: 304S 075E Hartford City, IN. 47348**

**Permit Number: T009-26248-00004**

**Reviewer: Michael S. Brooks**

**Date: April 7th, 2008**

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

45.0

394.2

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.4	1.5	0.1	19.7	1.1	16.6

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

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

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

**Appendix A: Emissions Calculations**

**Natural Gas Combustion Only**

**MM BTU/HR <100**

**HAPs Emissions**

**Thermal Oxidizers #1&2**

**Company Name: 3M Hartford City**

**Address City IN Zip: 304S 075E Hartford City, IN. 47348**

**Permit Number: T009-26248-00004**

**Reviewer: Michael S. Brooks**

**Date: April 7th, 2008**

	HAPs - Organics				
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	4.139E-04	2.365E-04	1.478E-02	3.548E-01	6.701E-04

	HAPs - Metals				
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	9.855E-05	2.168E-04	2.759E-04	7.490E-05	4.139E-04

Methodology is the same as previous page.

The five highest organic and metal HAPs emission factors are provided above.  
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations**  
**Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)**

#1 and #2 Fuel Oil

Industrial Boilers #1,2,&3

**Company Name:** 3M Hartford City

**Address, City IN Zip:** 304S 075E Hartford City, IN. 47348

**Permit Number:** T009-26248-00004

**Reviewer:** Michael S. Brooks

**Date:** April 7th, 2008

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
kgals/year

S = Weight % Sulfur  
0.5

37.7

2358.942857

Emission Factor in lb/kgal	Pollutant				
	PM*	SO2	NOx	VOC	CO
	2.0	71 (142.0S)	20.0	0.34	5.0
Potential Emission in tons/yr	2.4	83.7	23.6	0.4	5.9

**Methodology**

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu

Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)

\*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.

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

**Appendix A: Emissions Calculations**  
**Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)**

#1 and #2 Fuel Oil

**HAPs Emissions**

**Industrial Boilers #1,2,&3**

**Company Name: 3M Hartford City**

**Address, City IN Zip: 304S 075E Hartford City, IN. 47348**

**Permit Number: T009-26248-00004**

**Reviewer: Michael S. Brooks**

**Date: April 7th, 2008**

	HAPs - Metals				
Emission Factor in lb/mmBtu	Arsenic 4.0E-06	Beryllium 3.0E-06	Cadmium 3.0E-06	Chromium 3.0E-06	Lead 9.0E-06
Potential Emission in tons/yr	6.61E-04	4.95E-04	4.95E-04	4.95E-04	1.49E-03

	HAPs - Metals (continued)			
Emission Factor in lb/mmBtu	Mercury 3.0E-06	Manganese 6.0E-06	Nickel 3.0E-06	Selenium 1.5E-05
Potential Emission in tons/yr	4.95E-04	9.91E-04	4.95E-04	2.48E-03

**Methodology**

No data was available in AP-42 for organic HAPs.

Potential Emissions (tons/year) = Throughput (mmBtu/hr)\*Emission Factor (lb/mmBtu)\*8,760 hrs/yr / 2,000 lb/ton

**Appendix A: Emissions Calculations**

**Natural Gas Combustion Only**

**MM BTU/HR <100**

**Industrial Boilers #1,2,&3**

**Company Name: 3M Hartford City**

**Address City IN Zip: 304S 075E Hartford City, IN. 47348**

**Permit Number: T009-26248-00004**

**Reviewer: Michael S. Brooks**

**Date: April 7th, 2007**

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

37.7

330.3

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.3	1.3	0.1	16.5	0.9	13.9

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

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

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

**Appendix A: Emissions Calculations**

**Natural Gas Combustion Only**

**MM BTU/HR <100**

**HAPs Emissions**

**Industrial Boilers #1,2,&3**

**Company Name: 3M Hartford City**

**Address City IN Zip: 304S 075E Hartford City, IN. 47348**

**Permit Number: T009-26248-00004**

**Reviewer: Michael S. Brooks**

**Date: April 7th, 2007**

	HAPs - Organics				
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	3.468E-04	1.982E-04	1.238E-02	2.972E-01	5.614E-04

	HAPs - Metals				
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	8.256E-05	1.816E-04	2.312E-04	6.275E-05	3.468E-04

Methodology is the same as previous page.

The five highest organic and metal HAPs emission factors are provided above.  
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emission Calculations  
Natural Gas Combustion Only  
MMBTU/HR >100**

**Emergency Generator**

**Company Name: 3 M Hartford City Plant  
Address City IN Zip: 304S 075E, Hartford City, IN 47348  
Part 70 No.: T 009-26248-00004  
Reviewer: Michael S. Brooks  
Date: 9-Apr-2008**

Heat Input Capacity  
MMBtu/hr

427.0

Potential Throughput  
MMCF/yr

213.5

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	0.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.2	0.8	0.1	0.0	0.6	9.0

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

\*\*Emission Factors for NOx: Uncontrolled = 280 (pre-NSPS) or 190 (post-NSPS), Low NOx Burner = 140, Flue gas recirculation = 100  
(See Table 1.4-1)

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 5,000 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-01-006-01, 1-01-006-04

(AP-42 Supplement D 3/98)

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

See page 12 for HAPs emissions calculations.

**Appendix A: Emission Calculations**

**Natural Gas Combustion Only**

**MMBTU/HR >100**

**Emergency Generator**

**HAPs Emissions**

**Company Name: 3 M Hartford City Plant**

**Address City IN Zip: 304S 075E, Hartford City, IN 47348**

**Part 70 No.: T 009-26248-00004**

**Reviewer: Michael S. Brooks**

**Date: 9-Apr-2008**

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	2.24E-04	1.28E-04	8.01E-03	1.92E-01	3.63E-04

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	5.34E-05	1.17E-04	1.49E-04	4.06E-05	2.24E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emission Calculations  
Tank HAP Emissions - Maximum PTE**

Company Name: 3 M Hartford City Plant  
Address City IN Zip: 304 S 075E, Hartford City, IN 47348  
Part 70 No.: T 009-26248-00004  
Reviewer: Michael S. Brooks  
Date: 9-Apr-2008

Tank Number	Tank ID Number	Outdoor/ Indoor	Product Stored	** Hazardous Air Pollutants (in tons per year)								
				Benzene	Ethyl Benzene	Formaldehyde	N-Hexane	Methanol	MIBK	Toluene	Xylene	Total
1	T001	Outdoor	Toluene	---	---	---	---	---	---	0.74	---	0.74
3	T003	Outdoor	MEK	---	---	---	---	---	---	---	---	0
6	T006	Outdoor	No. 2 Fuel Oil	---	---	---	---	---	---	---	---	0
8	T008	Outdoor	Diesel Fuel	---	---	---	---	---	---	---	---	---
9	T009	Outdoor	Gasoline	---	---	---	---	---	---	---	---	---
12	T012	Outdoor	Diesel Fuel	---	---	---	---	---	---	---	---	---
7	T007	Indoor	Waste*	0.06	0.06	---	0.06	0.06	0.06	0.06	0.06	0.06
4	T004	Indoor	MEK	---	---	---	---	---	---	---	---	0
2	T002	Indoor	Toluene	---	---	---	---	---	---	0.05	---	0.05
5	T005	Indoor	Heptane	---	---	---	---	---	---	---	---	0
11	T011	Indoor	Inactive	---	---	---	---	---	---	---	---	---
<b>Total HAP (tons per year)</b>				<b>0.06</b>	<b>0.06</b>	<b>0</b>	<b>0.06</b>	<b>0.06</b>	<b>0.06</b>	<b>0.85</b>	<b>0.06</b>	<b>0.85</b>

Note: All storage tank emissions estimated using EPA's TANKS 3.0 software program.

\* Waste tank emissions were predicted for methanol, since methanol has the highest vapor pressure of the solvents stored in the tank.

\*\* Hazardous Air Pollutant Emissions are provided for each solvent that could be stored in the tank.

**Appendix A: Emission Calculations  
Tank VOC Emissions - Maximum PTE**

Company Name: 3 M Hartford City Plant  
Address City IN Zip: 304 S 075E, Hartford City, IN 47348  
Part 70 No.: T 009-26248-00004  
Reviewer: Michael S. Brooks  
Date: 9-Apr-2008

Tank Number	Tank ID Number	Outdoor/ Indoor	Product Stored	Losses (Tons per Year)		Total VOC Tons/yr
				Standing	Working	
1	T001	Outdoor	Toluene	0.19	0.55	0.74
3	T003	Outdoor	MEK	0.1	0.71	0.81
6	T006	Outdoor	No. 2 Fuel Oil	0.00	0.00	0.00
8	T008	Outdoor	Diesel	0.00	0.00	0.00
9	T009	Outdoor	Gasoline	0.00	0.00	0.00
12	T012	Outdoor	Diesel	0.00	0.00	0.00
7	T007	Indoor	Waste*	0.01	0.05	0.06
4	T004	Indoor	MEK	0.00	0.15	0.15
2	T002	Indoor	Toluene	0.00	0.05	0.05
5	T005	Indoor	Heptane	0.00	0.12	0.12
11	T011	Indoor	Inactive			
<b>Total VOC</b>				<b>0.30</b>	<b>1.63</b>	<b>1.93</b>

Note: All storage tank emissions estimated using EPA's TANKS 3.0 software program.

\* Waste tank emissions were predicted for methanol, since methanol has the highest vapor pressure of the solvents stored in the tank.

**Appendix A: Emission Calculations**  
**Emissions Summary**  
 Company Name: 3 M Hartford City Plant  
 Address City IN Zip: 304S 075E, Hartford City, IN 47348  
 Part 70 No.: T 009-26248-00004  
 Reviewer: Michael S. Brooks  
 Date: 9-Apr-2008

**Uncontrolled Potential Emissions (tons/year)**

Pollutant	Emissions Generating Activity											TOTAL
	BA Coating Line 3 Coating Stations	BC-1 Coating Line 2 Coating Station	BC-2 Coating Line 1 Coating Station	VCS Coating Line 1 Coating Station	Extrusion Line	Compounding	Storage Tanks	3 Boilers (#1,2,3) (Natural Gas or No. 2 Fuel)	Emergency Generator	2 Thermal Oxidizers (Natural Gas)	Insignificant Activities	
PM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.40	0.20	0.40	1.80	4.80
PM10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.40	0.80	1.50	1.80	6.50
SO2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	83.70	0.10	0.10	0.14	84.04
NOx	0.00	0.00	0.00	0.00	0.30	0.00	0.00	23.60	0.00	19.70	23.65	67.25
VOC	5,040.00	2,800.00	2,287.74	184.00	280.00	6.08	1.93	0.90	0.60	1.10	1.30	10,603.65
CO	7.08	6.41	0.00	0.00	0.30	0.00	0.00	13.90	9.00	16.60	19.87	73.16
Xylene	50.40	28.00	22.88	1.84	0.00	0.06	0.06	0.00	0.00	0.00	0.00	103.24
Toluene	50.40	28.00	22.88	1.84	0.00	0.06	0.85	0.00	0.00	0.00	0.00	104.03
Benzene	0.10	0.06	0.05	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.27
N-Hexane	2.52	1.40	1.14	0.09	0.00	0.00	0.06	0.00	0.00	0.00	0.00	5.22
Ethyl Benzene	12.60	7.00	5.72	0.46	0.00	0.02	0.06	0.00	0.00	0.00	0.00	25.85
Methanol	50.40	28.00	22.88	1.84	0.00	0.06	0.06	0.00	0.00	0.00	0.00	103.24
MIBK	50.40	28.00	22.88	1.84	0.00	0.06	0.06	0.00	0.00	0.00	0.00	103.24
Formaldehyde	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Total emissions based on rated capacity at 8,760 hours/year.

BA Coating Line emissions are based on CP-009-3871-00004, issued on July 14, 1995.

BC-2 Coating Line emissions are based on CP-009-9364-00004, issued on July 10, 1998.

VCS Coating Line emissions are based on CP-009-3127-00004 issued on March 7, 1994.

PTFE Extrusion Line emissions are based on CP-009-5147-00004, issued on June 4, 1996.

**Controlled Potential Emissions (tons/year)**

Pollutant	Emissions Generating Activity											TOTAL
	BA Coating Line 3 Coating Stations	BC-1 Coating Line 2 Coating Station	BC-2 Coating Line 1 Coating Station	VCS Coating Line 1 Coating Station	Extrusion Line	Compounding	Storage Tanks (T001-T003, T006-T011)	Boilers (#1,2,3) (Natural Gas or No. 2 Fuel)	Emergency Generator	Thermal Oxidizers (Natural Gas)	Insignificant Activities	
PM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.40	0.20	0.40	1.80	4.80
PM10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.30	0.80	1.50	1.80	5.40
SO2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	83.70	0.10	0.10	0.14	84.04
NOx	0.00	0.00	0.00	0.00	0.30	0.00	0.00	23.60	0.00	19.70	23.65	67.25
VOC	252.00	2,800.00	485.00	9.20	14.00	6.08	1.93	0.90	0.60	1.10	1.30	3,572.11
CO	0.00	6.41	0.00	0.00	0.10	0.00	0.00	13.90	9.00	16.60	19.87	65.88
Xylene	2.52	28.00	4.85	0.09	0.00	0.06	0.06	0.00	0.00	0.00	0.00	35.58
Toluene	2.52	28.00	4.85	0.09	0.00	0.06	0.85	0.00	0.00	0.00	0.00	36.37
Benzene	0.01	0.06	0.01	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.13
N-Hexane	0.13	1.40	0.24	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	1.84
Ethyl Benzene	0.63	7.00	1.21	0.02	0.00	0.02	0.06	0.00	0.00	0.00	0.00	8.94
Methanol	2.52	28.00	4.85	0.09	0.00	0.06	0.06	0.00	0.00	0.00	0.00	35.58
MIBK	2.52	28.00	4.85	0.09	0.00	0.06	0.06	0.00	0.00	0.00	0.00	35.58
Formaldehyde	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Total emissions based on rated capacity at 8,760 hours/year, after control.

BA Coating Line emissions are based on CP-009-3871-00004, issued on July 14, 1995.

BC-2 Coating Line emissions are based on CP-009-9364-00004, issued on July 10, 1998.

VCS Coating Line emissions are based on CP-009-3127-00004 issued on March 7, 1994.

Extrusion Line emissions are based on CP-009-5147-00004, issued on June 4, 1996.