



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center  
122 S. Front Street  
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049  
Columbus, OH 43216-1049

**RE: FINAL PERMIT TO INSTALL  
FAYETTE COUNTY  
Application No: 01-08952  
Fac ID: 0124010098**

**DATE: 6/14/2005**

Yusa Corporation  
K C Sugita  
151 Jamison Rd SW  
Washington Court House, OH 43160

**CERTIFIED MAIL**

Y	TOXIC REVIEW
	PSD
	SYNTHETIC MINOR
	CEMS
40 CFR Part 63, Subpart Mmmm	MACT
	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
309 South Fourth Street, Room 222  
Columbus, Ohio 43215

Sincerely,

Michael W. Ahern, Manager  
Permit Issuance and Data Management Section  
Division of Air Pollution Control

cc: USEPA

CDO



**Permit To Install  
Terms and Conditions**

**Issue Date: 6/14/2005  
Effective Date: 6/14/2005**

**FINAL PERMIT TO INSTALL 01-08952**

Application Number: 01-08952  
Facility ID: 0124010098  
Permit Fee: **\$400**  
Name of Facility: Yusa Corporation  
Person to Contact: K C Sugita  
Address: 151 Jamison Rd SW  
Washington Court House, OH 43160

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**151 Jamison Rd SW  
Washington Court House, Ohio**

Description of proposed emissions unit(s):  
**Auger Adhesive Paint Dip Machine Numbers 1 and 2.**

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. State and Federally Enforceable Permit To Install General Terms and Conditions

#### 1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the

previous calendar quarters. See B.9 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

## **2. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

## **3. Risk Management Plans**

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

## **4. Title IV Provisions**

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

## **5. Severability Clause**

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or

condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

## **6. General Requirements**

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. 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 federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

## **7. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit To Install fees within 30 days after the issuance of this Permit To Install.

## **8. Federal and State Enforceability**

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

## **9. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
  - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

## **10. Permit To Operate Application**

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or

modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

#### **11. Best Available Technology**

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

#### **12. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

**B. State Only Enforceable Permit To Install General Terms and Conditions**

**1. Compliance Requirements**

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

**2. Reporting Requirements**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

**3. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

**4. Termination of Permit To Install**

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

**5. Construction of New Sources(s)**

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

**6. Public Disclosure**

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

**7. Applicability**

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

**8. Construction Compliance Certification**

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) that the facility has been constructed in accordance with the Permit To Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

**9. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)**

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

**C. Permit To Install Summary of Allowable Emissions**

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)  
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons Per Year</u>
OC	25.1

## Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

### A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

Subpart MMMM—National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products

#### **40 CFR Part 63.3880 What is the purpose of this subpart?**

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

#### **40 CFR Part 63.3881 Am I subject to this subpart?**

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

(1) Surface coating is the application of coating to a substrate using, for example, spray guns or dip tanks. When application of coating to a substrate occurs, then surface coating also includes associated activities, such as surface preparation, cleaning, mixing, and storage. However, these activities do not comprise surface coating if they are not directly related to the application of the coating. Coating application with handheld, non-refillable aerosol containers, touch-up markers, marking pens, or the application of paper film or plastic film which may be pre-coated with an adhesive by the manufacturer are not coating operations for the purposes of this subpart.

[Language not specific to this process has been intentionally removed.]

(5) The rubber-to-metal coatings subcategory includes surface coating operations that are performed using coatings that meet the definition of rubber-to-metal coatings in 40 CFR Part63.3981.

(b) You are subject to this subpart if you own or operate a new, reconstructed, or existing affected source, as defined in 40 CFR Part63.3882, that uses 946 liters (250 gallons (gal)) per year, or more, of coatings that contain hazardous air pollutants (HAP) in the surface coating of miscellaneous metal parts and products defined in paragraph (a) of this section; and that is a major source, is located at a major source, or is part of a major source of emissions of HAP. A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year or any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year. You do not need to include coatings that meet the definition of non-HAP coating contained in 40 CFR Part63.3981 in determining whether you use 946 liters (250 gal) per year, or more, of coatings in the surface coating of miscellaneous metal parts and products.

[Language not specific to this process has been intentionally removed.]

(e) If you own or operate an affected source that meets the applicability criteria of this subpart and at the same facility you also perform surface coating that meets the applicability criteria of any other final surface coating NESHAP in this part you may choose to comply as specified in paragraph (e)(1), (2), or (3) of this section.

(1) You may have each surface coating operation that meets the applicability criteria of a separate NESHAP comply with that NESHAP separately.

(2) You may comply with the emission limitation representing the predominant surface coating activity at your facility, as determined according to paragraphs (e)(2)(i) and (ii) of this section. However, you may not establish high performance, rubber-to-metal, or extreme performance fluoropolymer coating operations as the predominant activity. You must not consider any surface coating activity that is subject to the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII) in determining the predominant surface coating activity at your facility.

(i) If a surface coating operation accounts for 90 percent or more of the surface coating activity at your facility (that is, the predominant activity), then compliance with the emission limitations of the predominant activity for all surface coating operations constitutes compliance with these and other applicable surface coating NESHAP. In determining predominant activity, you must include coating activities that meet the applicability criteria of other surface coating NESHAP and constitute more than 1 percent of total coating activities at your facility. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than 1 percent of coating activities need not be included in the determination of predominant activity but must be included in the compliance calculation.

(ii) You must use liters (gal) of solids used as a measure of relative surface coating activity over a representative period of operation. You may estimate the relative volume of coating solids used from parameters other than coating consumption and volume solids content (*e.g.*, design specifications for the parts or products coated and the number of items produced). The determination of predominant activity must accurately reflect current and projected coating operations and must be verifiable through appropriate documentation. The use of parameters other than coating consumption and volume solids content must be approved by the Administrator. You may use data for any reasonable time period of at least 1 year in determining the relative amount of coating activity, as long as they represent the way the source will continue to operate in the future and are approved by the Administrator. You must determine the predominant activity at your facility and submit the results of that determination with the initial notification required by 40 CFR Part63.3910(b). You must also determine predominant activity annually and include the determination in the next semi-annual compliance report required by 40 CFR Part63.3920(a).

(3) You may comply with a facility-specific emission limit calculated from the relative amount of coating activity that is subject to each emission limit. If you elect to comply using the facility-specific emission limit alternative, then compliance with the facility-specific emission limit and the emission limitations in this subpart for all surface coating operations constitutes compliance with this and other applicable surface coating NESHAP. The procedures for calculating the facility-specific emission limit are specified in 40 CFR Part63.3890. In calculating a facility-specific emission limit, you must include coating activities that meet the applicability criteria of other surface coating NESHAP and constitute more than 1 percent of total coating activities at your facility. You must not consider any surface coating activity that is subject to the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII) in determining a facility-specific emission limit for your facility. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than 1 percent of total coating activities need not be included in

the calculation of the facility-specific emission limit but must be included in the compliance calculations.

[69 FR 157, Jan. 2, 2004, as amended at 69 FR 22660, Apr. 26, 2004]

**40 CFR Part 63.3882 What parts of my plant does this subpart cover?**

(a) This subpart applies to each new, reconstructed, and existing affected source within each of the four subcategories listed in 40 CFR Part63.3881(a).

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

(1) All coating operations as defined in 40 CFR Part63.3981;

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

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

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

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

(d) An affected source is reconstructed if it meets the criteria as defined in 40 CFR Part63.2.

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

**40 CFR Part 63.3883 When do I have to comply with this subpart?**

The date by which you must comply with this subpart is called the compliance date. The compliance date for each type of affected source is specified in paragraphs (a) through (c) of this section. The compliance date begins the initial compliance period during which you conduct the initial compliance demonstration described in 40 CFR Part40 CFR Part63.3940, 63.3950, and 63.3960.

[Language not specific to this process has been intentionally removed.]

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

[Language not specific to this process has been intentionally removed.]

(d) You must meet the notification requirements in 40 CFR Part63.3910 according to the dates specified in that section and in subpart A of this part. Some of the notifications must be submitted before the compliance dates described in paragraphs (a) through (c) of this section.

**Emission Limitations**

**40 CFR Part 63.3890 What emission limits must I meet?**

[Language not specific to this process has been intentionally removed.]

(b) For an existing affected source, you must limit organic HAP emissions to the atmosphere from the affected source to the applicable limit specified in paragraphs (b)(1) through (5) of this section, except as specified in paragraph (c) of this section, determined according to the requirements in 40 CFR Part63.3941, 40 CFR Part63.3951, or 40 CFR Part63.3961.

[Language not specific to this process has been intentionally removed.]

(4) For each existing rubber-to-metal coating affected source, limit organic HAP emissions to no more than 4.5 kg (37.7 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

[Language not specific to this process has been intentionally removed.]

#### **40 CFR Part 63.3891 What are my options for meeting the emission limits?**

You must include all coatings (as defined in 40 CFR Part63.3981), thinners and/or other additives, and cleaning materials used in the affected source when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in 40 CFR Part63.3890. To make this determination, you must use at least one of the three compliance options listed in paragraphs (a) through (c) of this section. You may apply any of the compliance options to an individual coating operation, or to multiple coating operations as a group, or to the entire affected source. You may use different compliance options for different coating operations, or at different times on the same coating operation. You may employ different compliance options when different coatings are applied to the same part, or when the same coating is applied to different parts. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you must document this switch as required by 40 CFR Part63.3930(c), and you must report it in the next semiannual compliance report required in 40 CFR Part63.3920.

[Language not specific to this process has been intentionally removed.]

(c) *Emission rate with add-on controls option.* Demonstrate that, based on the coatings, thinners and/or other additives, and cleaning materials used in the coating operation(s), and the emissions reductions achieved by emission capture systems and add-on controls, the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in 40 CFR Part63.3890, calculated as a rolling 12-month emission rate and determined on a monthly basis. If you use this compliance option, you must also demonstrate that all emission capture systems and add-on control devices for the coating operation(s) meet the operating limits required in 40 CFR Part63.3892, except for solvent recovery systems for which you conduct liquid-liquid material balances according to 40 CFR Part63.3961(j), and that you meet the work practice standards required in 40 CFR Part63.3893. You must meet all the requirements of 40 CFR Part40 CFR Part63.3960 through 63.3968 to demonstrate compliance with the emission limits, operating limits, and work practice standards using this option.

#### **40 CFR Part 63.3892 What operating limits must I meet?**

[Language not specific to this process has been intentionally removed.]

(b) For any controlled coating operation(s) on which you use the emission rate with add-on controls option, except those for which you use a solvent recovery system and conduct a liquid-liquid material balance according to 40 CFR Part63.3961(j), you must meet the operating limits specified in Table 1 to this subpart. These operating limits apply to the emission capture and control systems on the coating operation(s) for which you use this option, and you must establish the operating limits during the performance test according to the requirements in 40 CFR Part63.3967. You must meet the operating limits at all times after you establish them.

(c) If you use an add-on control device other than those listed in Table 1 to this subpart, or wish to monitor an alternative parameter and comply with a different operating limit, you must apply to the Administrator for approval of alternative monitoring under 40 CFR Part63.8(f).

**40 CFR Part 63.3893 What work practice standards must I meet?**

[Language not specific to this process has been intentionally removed.]

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

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

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

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

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

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

(c) As provided in 40 CFR Part63.6(g), we, the U.S. Environmental Protection Agency, may choose to grant you permission to use an alternative to the work practice standards in this section.

**General Compliance Requirements**

**40 CFR Part 63.3900 What are my general requirements for complying with this subpart?**

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

[Language not specific to this process has been intentionally removed.]

(2) Any coating operation(s) for which you use the emission rate with add-on controls option, as specified in 40 CFR Part63.3891(c), must be in compliance with the emission limitations as specified in paragraphs (a)(2)(i) through (iii) of this section.

(i) The coating operation(s) must be in compliance with the applicable emission limit in 40 CFR Part63.3890 at all times except during periods of startup, shutdown, and malfunction.

(ii) The coating operation(s) must be in compliance with the operating limits for emission capture systems and add-on control devices required by 40 CFR Part63.3892 at all times except during periods of startup, shutdown, and malfunction, and except for solvent recovery systems for which you conduct liquid-liquid material balances according to 40 CFR Part63.3961(j).

(iii) The coating operation(s) must be in compliance with the work practice standards in 40 CFR Part63.3893 at all times.

(b) You must always operate and maintain your affected source, including all air pollution control and monitoring equipment you use for purposes of complying with this subpart, according to the provisions in 40 CFR Part63.6(e)(1)(i).

(c) If your affected source uses an emission capture system and add-on control device, you must develop and implement a written startup, shutdown, and malfunction plan according to the provisions in 40 CFR Part63.6(e)(3). The plan must address the startup, shutdown, and corrective actions in the event of a malfunction of the emission capture system or the add-on control device. The plan must also address any coating operation equipment that may cause increased emissions or that would affect capture efficiency if the process equipment malfunctions, such as conveyors that move parts among enclosures.

#### **40 CFR Part 63.3901 What parts of the General Provisions apply to me?**

The following General Provisions of 40 CFR Parts 63.1 through 63.15 shall apply, based on Table 2 of 40 CFR Part 63, Subpart MMMM: 63.1(a)(1)-(14), 63.1(b)(1)-(3), 63.1(c)(1), 63.1(c)(4)-(5), 63.1(e), 63.2, 63.3(a)-(c), 63.4(a)(1)-(5), 63.4(b)-(c), 63.5(a), 63.5(b)(1)-(6), 63.5(d), 63.5(e), 63.5(f), 63.6(a), 63.6(b)(1)-(7), 63.6(c)(1)-(5), 63.6(e)(1)-(2), 63.6(e)(3), 63.6(f)(1), 63.6(f)(2)-(3), 63.6(g)(1)-(3), 63.6(i)(1)-(6), 63.6(j), 63.7(a)(1), 63.7(a)(2), 63.7(a)(3), 63.7(b)-(e), 63.7(f), 63.7(g)-(h), 63.8(a)(1)-(3), 63.8(b), 63.8(c)(1)-(3), 63.8(c)(7), 63.8(f)(1)-(5), 63.9(a)-(d), 63.9(e), 63.9(h), 63.9(i), 63.9(j), 63.10(a), 63.10(b)(1), 63.10(b)(2)(i)-(v), 63.10(b)(2)(vi)-(xi), 63.10(b)(2)(xii), 63.10(b)(2)(xiv), 63.10(b)(3), 63.10(c)(1)-(6), 63.10(c)(9)-(15), 63.10(d)(1), 63.10(d)(2), 63.10(d)(4), 63.10(d)(5), 63.10(f), 63.12, 63.13, 63.14 and 63.15.

#### **Notifications, Reports, and Records**

##### **40 CFR Part 63.3910 What notifications must I submit?**

(a) *General.* You must submit the notifications in 40 CFR Part40 CFR Part63.7(b) and (c), 63.8(f)(4), and 63.9(b) through (e) and (h) that apply to you by the dates specified in those sections, except as provided in paragraphs (b) and (c) of this section.

(b) *Initial Notification.* You must submit the initial notification required by 40 CFR Part63.9(b) for a new or reconstructed affected source no later than 120 days after initial startup or 120 days after January 2, 2004, whichever is later. For an existing affected source, you must submit the initial notification no later than 1 year after January 2, 2004. If you are using compliance with the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (subpart IIII of this part) as provided for under 40 CFR Part63.3881(d) to constitute compliance with this subpart for any or all of your metal parts coating operations, then you must include a statement to this effect in your initial notification, and no other notifications are required under this subpart in regard to those metal parts coating operations. If you are complying with another NESHAP that constitutes the predominant activity at your facility under 40 CFR Part63.3881(e)(2) to constitute compliance with this subpart for your metal parts coating operations, then you must include a statement to this effect in your initial notification, and no other notifications are required under this subpart in regard to those metal parts coating operations.

(c) *Notification of compliance status.* You must submit the notification of compliance status required by 40 CFR Part63.9(h) no later than 30 calendar days following the end of the initial compliance period described in 40 CFR Part40 CFR Part63.3940, 63.3950, or 63.3960 that applies to your affected source. The notification of compliance status must contain the information specified in paragraphs (c)(1) through (11) of this section

and in 40 CFR Part63.9(h).

(1) Company name and address.

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

(3) Date of the report and beginning and ending dates of the reporting period. The reporting period is the initial compliance period described in 40 CFR Part40 CFR Part63.3940, 63.3950, or 63.3960 that applies to your affected source.

(4) Identification of the compliance option or options specified in 40 CFR Part63.3891 that you used on each coating operation in the affected source during the initial compliance period.

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

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

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

(ii) If you failed to meet the applicable emission limit in 40 CFR Part63.3890, include all the calculations you used to determine the kg (lb) of organic HAP emitted per liter (gal) coating solids used. You do not need to submit information provided by the materials' suppliers or manufacturers, or test reports.

(7) For each of the data items listed in paragraphs (c)(7)(i) through (iv) of this section that is required by the compliance option(s) you used to demonstrate compliance with the emission limit, include an example of how you determined the value, including calculations and supporting data. Supporting data may include a copy of the information provided by the supplier or manufacturer of the example coating or material, or a summary of the results of testing conducted according to 40 CFR Part63.3941(a), (b), or (c). You do not need to submit copies of any test reports.

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

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

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

(iv) The amount of waste materials and the mass of organic HAP contained in the waste materials for which you are claiming an allowance in Equation 1 of 40 CFR Part63.3951.

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

(i) For the compliant material option, provide an example calculation of the organic HAP content for one coating, using Equation 2 of 40 CFR Part63.3941.

[Language not specific to this process has been intentionally removed.]

(iii) For the emission rate with add-on controls option, provide the calculation of the total mass of organic

HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month, using Equations 1 and 1A through 1C of 40 CFR Part63.3951; the calculation of the total volume of coating solids used each month using Equation 2 of 40 CFR Part63.3951; the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of 40 CFR Part63.3961 and Equations 2, 3, and 3A through 3C of 40 CFR Part63.3961 as applicable; the calculation of the total mass of organic HAP emissions each month using Equation 4 of 40 CFR Part63.3961; and the calculation of the 12-month organic HAP emission rate using Equation 5 of 40 CFR Part63.3961.

(9) For the emission rate with add-on controls option, you must include the information specified in paragraphs (c)(9)(i) through (iv) of this section, except that the requirements in paragraphs (c)(9)(i) through (iii) of this section do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to 40 CFR Part63.3961(j).

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

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

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

(iv) A statement of whether or not you developed and implemented the work practice plan required by 40 CFR Part63.3893.

(10) If you are complying with a single emission limit representing the predominant activity under 40 CFR Part63.3890(c)(1), include the calculations and supporting information used to demonstrate that this emission limit represents the predominant activity as specified in 40 CFR Part63.3890(c)(1).

(11) If you are complying with a facility-specific emission limit under 40 CFR Part63.3890(c)(2), include the calculation of the facility-specific emission limit and any supporting information as specified in 40 CFR Part63.3890(c)(2).

[69 FR 157, Jan. 2, 2004, as amended at 69 FR 22660, Apr. 26, 2004]

#### **40 CFR Part 63.3920 What reports must I submit?**

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

(1) *Dates.* Unless the Administrator has approved or agreed to a different schedule for submission of reports under 40 CFR Part63.10(a), you must prepare and submit each semiannual compliance report according to

the dates specified in paragraphs (a)(1)(i) through (iv) of this section. Note that the information reported for each of the months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

(i) The first semiannual compliance report must cover the first semiannual reporting period which begins the day after the end of the initial compliance period described in 40 CFR Part63.3940, 40 CFR Part63.3950, or 40 CFR Part63.3960 that applies to your affected source and ends on June 30 or December 31, whichever date is the first date following the end of the initial compliance period.

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

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

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

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

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

(i) Company name and address.

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

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

(iv) Identification of the compliance option or options specified in 40 CFR Part63.3891 that you used on each coating operation during the reporting period. If you switched between compliance options during the reporting period, you must report the beginning and ending dates for each option you used.

(v) If you used the emission rate without add-on controls or the emission rate with add-on controls compliance option (40 CFR Part63.3891(b) or (c)), the calculation results for each rolling 12-month organic HAP emission rate during the 6-month reporting period.

(vi) If you used the predominant activity alternative (40 CFR Part63.3890(c)(1)), include the annual determination of predominant activity if it was not included in the previous semi-annual compliance report.

(vii) If you used the facility-specific emission limit alternative (40 CFR Part63.3890(c)(2)), include the calculation of the facility-specific emission limit for each 12-month compliance period during the 6-month reporting period.

(4) *No deviations.* If there were no deviations from the emission limitations in 40 CFR Part40 CFR Part63.3890, 63.3892, and 63.3893 that apply to you, the semiannual compliance report must include a statement that there were no deviations from the emission limitations during the reporting period. If you used the emission rate with add-on controls option and there were no periods during which the continuous parameter monitoring systems (CPMS) were out-of-control as specified in 40 CFR Part63.8(c)(7), the semiannual compliance report must include a statement that there were no periods during which the CPMS were out-of-control during the reporting period.

[Language not specific to this process has been intentionally removed.]

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

(i) The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in 40 CFR Part63.3890.

(ii) The calculations used to determine the 12-month organic HAP emission rate for each compliance period in which a deviation occurred. You must provide the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1 and 1A through 1C of 40 CFR Part63.3951; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to 40 CFR Part63.3951(e)(4); the calculation of the total volume of coating solids used each month using Equation 2 of 40 CFR Part63.3951; the calculation of the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of 40 CFR Part63.3961, and Equations 2, 3, and 3A through 3C of 40 CFR Part63.3961, as applicable; the calculation of the total mass of organic HAP emissions each month using Equation 4 of 40 CFR Part63.3961; and the calculation of the 12-month organic HAP emission rate using Equation 5 of 40 CFR Part63.3961. You do not need to submit the background data supporting these calculations (*e.g.*, information provided by materials suppliers or manufacturers, or test reports).

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

(iv) A brief description of the CPMS.

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

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

- (vii) The date, time, and duration that each CPMS was out-of-control, including the information in 40 CFR Part63.8(c)(8).
- (viii) The date and time period of each deviation from an operating limit in Table 1 to this subpart; date and time period of any bypass of the add-on control device; and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
- (ix) A summary of the total duration of each deviation from an operating limit in Table 1 to this subpart and each bypass of the add-on control device during the semiannual reporting period, and the total duration as a percent of the total source operating time during that semiannual reporting period.
- (x) A breakdown of the total duration of the deviations from the operating limits in Table 1 of this subpart and bypasses of the add-on control device during the semiannual reporting period into those that were due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
- (xi) A summary of the total duration of CPMS downtime during the semiannual reporting period and the total duration of CPMS downtime as a percent of the total source operating time during that semiannual reporting period.
- (xii) A description of any changes in the CPMS, coating operation, emission capture system, or add-on control device since the last semiannual reporting period.
- (xiii) For each deviation from the work practice standards, a description of the deviation, the date and time period of the deviation, and the actions you took to correct the deviation.
- (xiv) A statement of the cause of each deviation.
- (b) *Performance test reports.* If you use the emission rate with add-on controls option, you must submit reports of performance test results for emission capture systems and add-on control devices no later than 60 days after completing the tests as specified in 40 CFR Part63.10(d)(2).
- (c) *Startup, shutdown, malfunction reports.* If you used the emission rate with add-on controls option and you had a startup, shutdown, or malfunction during the semiannual reporting period, you must submit the reports specified in paragraphs (c)(1) and (2) of this section.
- (1) If your actions were consistent with your startup, shutdown, and malfunction plan, you must include the information specified in 40 CFR Part63.10(d) in the semiannual compliance report required by paragraph (a) of this section.
- (2) If your actions were not consistent with your startup, shutdown, and malfunction plan, you must submit an immediate startup, shutdown, and malfunction report as described in paragraphs (c)(2)(i) and (ii) of this section.
- (i) You must describe the actions taken during the event in a report delivered by facsimile, telephone, or other means to the Administrator within 2 working days after starting actions that are inconsistent with the plan.
- (ii) You must submit a letter to the Administrator within 7 working days after the end of the event, unless you have made alternative arrangements with the Administrator as specified in 40 CFR Part63.10(d)(5)(ii). The letter must contain the information specified in 40 CFR Part63.10(d)(5)(ii).

#### **40 CFR Part 63.3930 What records must I keep?**

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

(a) A copy of each notification and report that you submitted to comply with this subpart, and the documentation supporting each notification and report. If you are using the predominant activity alternative under 40 CFR Part63.3890(c), you must keep records of the data and calculations used to determine the predominant activity. If you are using the facility-specific emission limit alternative under 40 CFR Part63.3890(c), you must keep records of the data used to calculate the facility-specific emission limit for the initial compliance demonstration. You must also keep records of any data used in each annual predominant activity determination and in the calculation of the facility-specific emission limit for each 12-month compliance period included in the semi-annual compliance reports.

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

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

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

[Language not specific to this process has been intentionally removed.]

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

(i) The calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1 and 1A through 1C of 40 CFR Part63.3951 and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to 40 CFR Part63.3951(e)(4);

(ii) The calculation of the total volume of coating solids used each month using Equation 2 of 40 CFR Part63.3951;

(iii) The calculation of the mass of organic HAP emission reduction by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of 40 CFR Part63.3961 and Equations 2, 3, and 3A through 3C of 40 CFR Part63.3961, as applicable;

(iv) The calculation of each month's organic HAP emission rate using Equation 4 of 40 CFR Part63.3961; and

(v) The calculation of each 12-month organic HAP emission rate using Equation 5 of 40 CFR Part63.3961.

(d) A record of the name and volume of each coating, thinner and/or other additive, and cleaning material

used during each compliance period. If you are using the compliant material option for all coatings at the source, you may maintain purchase records for each material used rather than a record of the volume used.

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

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

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

(h) If you use an allowance in Equation 1 of 40 CFR Part63.3951 for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage, and disposal facility (TSDF) according to 40 CFR Part63.3951(e)(4), you must keep records of the information specified in paragraphs (h)(1) through (3) of this section.

(1) The name and address of each TSDF to which you sent waste materials for which you use an allowance in Equation 1 of 40 CFR Part63.3951; a statement of which subparts under 40 CFR parts 262, 264, 265, and 266 apply to the facility; and the date of each shipment.

(2) Identification of the coating operations producing waste materials included in each shipment and the month or months in which you used the allowance for these materials in Equation 1 of 40 CFR Part63.3951.

(3) The methodology used in accordance with 40 CFR Part63.3951(e)(4) to determine the total amount of waste materials sent to or the amount collected, stored, and designated for transport to a TSDF each month; and the methodology to determine the mass of organic HAP contained in these waste materials. This must include the sources for all data used in the determination, methods used to generate the data, frequency of testing or monitoring, and supporting calculations and documentation, including the waste manifest for each shipment.

(i) [Reserved]

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

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

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

(2) The records in 40 CFR Part63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

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

(4) For each capture system that is a PTE, the data and documentation you used to support a determination that the capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and has a capture efficiency of 100 percent, as specified in 40 CFR Part63.3965(a).

(5) For each capture system that is not a PTE, the data and documentation you used to determine capture

efficiency according to the requirements specified in 40 CFR Part 40 CFR Part 63.3964 and 63.3965(b) through (e), including the records specified in paragraphs (k)(5)(i) through (iii) of this section that apply to you.

(i) *Records for a liquid-to-uncaptured gas protocol using a temporary total enclosure or building enclosure.* Records of the mass of total volatile hydrocarbon (TVH) as measured by Method 204A or 204F of appendix M to 40 CFR part 51 for each material used in the coating operation, and the total TVH for all materials used during each capture efficiency test run, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run, as measured by Method 204D or 204E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.

(ii) *Records for a gas-to-gas protocol using a temporary total enclosure or a building enclosure.* Records of the mass of TVH emissions captured by the emission capture system as measured by Method 204B or 204C of appendix M to 40 CFR part 51 at the inlet to the add-on control device, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run as measured by Method 204D or 204E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.

(iii) *Records for an alternative protocol.* Records needed to document a capture efficiency determination using an alternative method or protocol as specified in 40 CFR Part 63.3965(e), if applicable.

(6) The records specified in paragraphs (k)(6)(i) and (ii) of this section for each add-on control device organic HAP destruction or removal efficiency determination as specified in 40 CFR Part 63.3966.

(i) Records of each add-on control device performance test conducted according to 40 CFR Part 40 CFR Part 63.3964 and 63.3966.

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

(7) Records of the data and calculations you used to establish the emission capture and add-on control device operating limits as specified in 40 CFR Part 63.3967 and to document compliance with the operating limits as specified in Table 1 to this subpart.

(8) A record of the work practice plan required by 40 CFR Part 63.3893 and documentation that you are implementing the plan on a continuous basis.

#### **40 CFR Part 63.3931 In what form and for how long must I keep my records?**

(a) Your records must be in a form suitable and readily available for expeditious review, according to 40 CFR Part 63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database.

(b) As specified in 40 CFR Part 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to 40 CFR Part63.10(b)(1). You may keep the records off-site for the remaining 3 years.

[Language not specific to this process has been intentionally removed.]

### **Compliance Requirements for the Emission Rate Without Add-On Controls Option**

#### **40 CFR Part 63.3951 How do I demonstrate initial compliance with the emission limitations?**

You may use the emission rate without add-on controls option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. You must use either the compliant material option or the emission rate with add-on controls option for any coating operation in the affected source for which you do not use this option. To demonstrate initial compliance using the emission rate without add-on controls option, the coating operation or group of coating operations must meet the applicable emission limit in 40 CFR Part63.3890, but is not required to meet the operating limits or work practice standards in 40 CFR Part40 CFR Part63.3892 and 63.3893, respectively. You must conduct a separate initial compliance demonstration for each general use, magnet wire, rubber-to-metal, and extreme performance fluoropolymer coating operation unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in 40 CFR Part63.3890(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in 40 CFR Part63.3890(c), you must demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You must meet all the requirements of this section. When calculating the organic HAP emission rate according to this section, do not include any coatings, thinners and/or other additives, or cleaning materials used on coating operations for which you use the compliant material option or the emission rate with add-on controls option. You do not need to redetermine the mass of organic HAP in coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coating operation for which you use the emission rate without add-on controls option. If you use coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site, the amount of each used in a month may be reduced by the amount of each that is reclaimed. That is, the amount used may be calculated as the amount consumed to account for materials that are reclaimed.

(a) *Determine the mass fraction of organic HAP for each material.* Determine the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each month according to the requirements in 40 CFR Part63.3941(a).

(b) *Determine the volume fraction of coating solids.* Determine the volume fraction of coating solids (liter (gal) of coating solids per liter (gal) of coating) for each coating used during each month according to the requirements in 40 CFR Part63.3941(b).

(c) *Determine the density of each material.* Determine the density of each liquid coating, thinner and/or other additive, and cleaning material used during each month from test results using ASTM Method D1475-98, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" (incorporated by reference, see 40 CFR Part63.14), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If you are including powder coatings in the compliance determination, determine the density of powder coatings, using ASTM Method D5965-02,

“Standard Test Methods for Specific Gravity of Coating Powders” (incorporated by reference, see 40 CFR Part63.14), or information from the supplier. If there is disagreement between ASTM Method D1475–98 or ASTM Method D5965–02 test results and other such information sources, the test results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct. If you purchase materials or monitor consumption by weight instead of volume, you do not need to determine material density. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, 1C, and 2 of this section.

(d) *Determine the volume of each material used.* Determine the volume (liters) of each coating, thinner and/or other additive, and cleaning material used during each month by measurement or usage records. If you purchase materials or monitor consumption by weight instead of volume, you do not need to determine the volume of each material used. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, and 1C of this section.

(e) *Calculate the mass of organic HAP emissions.* The mass of organic HAP emissions is the combined mass of organic HAP contained in all coatings, thinners and/or other additives, and cleaning materials used during each month minus the organic HAP in certain waste materials. Calculate the mass of organic HAP emissions using Equation 1 of this section.

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Where:

$H_e$  = Total mass of organic HAP emissions during the month, kg.

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

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

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

$R_w$  = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDf for treatment or disposal during the month, kg, determined according to paragraph (e)(4) of this section. (You may assign a value of zero to  $R_w$  if you do not wish to use this allowance.)

(1) Calculate the kg organic HAP in the coatings used during the month using Equation 1A of this section:

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Where:

A = Total mass of organic HAP in the coatings used during the month, kg.

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

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

$W_{c,i}$  = Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating. For reactive adhesives as defined in 40 CFR Part63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

m = Number of different coatings used during the month.

(2) Calculate the kg of organic HAP in the thinners and/or other additives used during the month using Equation 1B of this section:



Where:

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

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

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

$W_{t,j}$  = Mass fraction of organic HAP in thinner and/or other additive, j, kg organic HAP per kg thinner and/or other additive. For reactive adhesives as defined in 40 CFR Part63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

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

(3) Calculate the kg organic HAP in the cleaning materials used during the month using Equation 1C of this section:



Where:

C = Total mass of organic HAP in the cleaning materials used during the month, kg.

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

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

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

p = Number of different cleaning materials used during the month.

(4) If you choose to account for the mass of organic HAP contained in waste materials sent or designated for shipment to a hazardous waste TSDF in Equation 1 of this section, then you must determine the mass according to paragraphs (e)(4)(i) through (iv) of this section.

(i) You may only include waste materials in the determination that are generated by coating operations in the affected source for which you use Equation 1 of this section and that will be treated or disposed of by a facility that is regulated as a TSDF under 40 CFR part 262, 264, 265, or 266. The TSDF may be either off-site or on-site. You may not include organic HAP contained in wastewater.

(ii) You must determine either the amount of the waste materials sent to a TSDF during the month or the amount collected and stored during the month and designated for future transport to a TSDF. Do not include in your determination any waste materials sent to a TSDF during a month if you have already included them in the amount collected and stored during that month or a previous month.

(iii) Determine the total mass of organic HAP contained in the waste materials specified in paragraph (e)(4)(ii) of this section.

(iv) You must document the methodology you use to determine the amount of waste materials and the total mass of organic HAP they contain, as required in 40 CFR Part63.3930(h). If waste manifests include this information, they may be used as part of the documentation of the amount of waste materials and mass of organic HAP contained in them.

(f) *Calculate the total volume of coating solids used.* Determine the total volume of coating solids used, liters, which is the combined volume of coating solids for all the coatings used during each month, using Equation 2 of this section:



Where:

$V_{st}$  = Total volume of coating solids used during the month, liters.

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

$V_{s,i}$  = Volume fraction of coating solids for coating, i, liter solids per liter coating, determined according to 40 CFR Part63.3941(b).

m = Number of coatings used during the month.

(g) *Calculate the organic HAP emission rate.* Calculate the organic HAP emission rate for the compliance period, kg (lb) organic HAP emitted per liter (gal) coating solids used, using Equation 3 of this section:



Where:

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

$H_e$  = Total mass of organic HAP emissions from all materials used during month, y, kg, as calculated by Equation 1 of this section.

$V_{st}$  = Total volume of coating solids used during month, y, liters, as calculated by Equation 2 of this section.

y = Identifier for months.

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

(h) *Compliance demonstration.* The organic HAP emission rate for the initial compliance period calculated using Equation 3 of this section must be less than or equal to the applicable emission limit for each subcategory in 40 CFR Part63.3890 or the predominant activity or facility-specific emission limit allowed in 40 CFR Part63.3890(c). You must keep all records as required by 40 CFR Part40 CFR Part63.3930 and 63.3931. As part of the notification of compliance status required by 40 CFR Part63.3910, you must identify the coating operation(s) for which you used the emission rate without add-on controls option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in 40 CFR Part63.3890, determined according to the procedures in this section.

### **Compliance Requirements for the Emission Rate With Add-On Controls Option**

#### **40 CFR Part 63.3960 By what date must I conduct performance tests and other initial compliance demonstrations?**

(a) *New and reconstructed affected sources.* For a new or reconstructed affected source, you must meet the requirements of paragraphs (a)(1) through (4) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in 40 CFR Part63.3883. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to 40 CFR Part63.3961(j), you must conduct a performance test of each capture system and add-on control device according to 40 CFR Part40 CFR Part63.3964, 63.3965, and 63.3966 and establish the operating limits required by 40 CFR Part63.3892 no later than 180 days after the applicable compliance date specified in 40 CFR Part63.3883. For a solvent recovery system for which you conduct liquid-liquid material balances according to 40 CFR Part63.3961(j), you must initiate the first material balance no later than the applicable compliance date specified in 40 CFR Part63.3883. For magnet wire coating operations you may, with approval, conduct a performance test of one

representative magnet wire coating machine for each group of identical or very similar magnet wire coating machines.

(2) You must develop and begin implementing the work practice plan required by 40 CFR Part63.3893 no later than the compliance date specified in 40 CFR Part63.3883.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of 40 CFR Part63.3961. The initial compliance period begins on the applicable compliance date specified in 40 CFR Part63.3883 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You must determine the mass of organic HAP emissions and volume of coatings solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to 40 CFR Part40 CFR Part63.3964, 63.3965, and 63.3966; results of liquid-liquid material balances conducted according to 40 CFR Part63.3961(j); calculations according to 40 CFR Part63.3961 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in 40 CFR Part63.3890; the operating limits established during the performance tests and the results of the continuous parameter monitoring required by 40 CFR Part63.3968; and documentation of whether you developed and implemented the work practice plan required by 40 CFR Part63.3893.

(4) You do not need to comply with the operating limits for the emission capture system and add-on control device required by 40 CFR Part63.3892 until after you have completed the performance tests specified in paragraph (a)(1) of this section. Instead, you must maintain a log detailing the operation and maintenance of the emission capture system, add-on control device, and continuous parameter monitors during the period between the compliance date and the performance test. You must begin complying with the operating limits for your affected source on the date you complete the performance tests specified in paragraph (a)(1) of this section. For magnet wire coating operations, you must begin complying with the operating limits for all identical or very similar magnet wire coating machines on the date you complete the performance test of a representative magnet wire coating machine. The requirements in this paragraph (a)(4) do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements in 40 CFR Part63.3961(j).

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

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in 40 CFR Part63.3883. Except for magnet wire coating operations and solvent recovery systems for which you conduct liquid-liquid material balances according to 40 CFR Part63.3961(j), you must conduct a performance test of each capture system and add-on control device according to the procedures in 40 CFR Part40 CFR Part63.3964, 63.3965, and 63.3966 and establish the operating limits required by 40 CFR Part63.3892 no later than the compliance date specified in 40 CFR Part63.3883. For magnet wire coating operations, you may, with approval, conduct a performance test of a single magnet wire coating machine that represents identical or very similar magnet wire coating machines. For a solvent recovery system for which you conduct liquid-liquid material balances according to 40 CFR Part63.3961(j), you must initiate the first material balance no later than the compliance date specified in 40 CFR Part63.3883.

(2) You must develop and begin implementing the work practice plan required by 40 CFR Part63.3893 no

later than the compliance date specified in 40 CFR Part63.3883.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of 40 CFR Part63.3961. The initial compliance period begins on the applicable compliance date specified in 40 CFR Part63.3883 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You must determine the mass of organic HAP emissions and volume of coatings solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to 40 CFR Part40 CFR Part63.3964, 63.3965, and 63.3966; results of liquid-liquid material balances conducted according to 40 CFR Part63.3961(j); calculations according to 40 CFR Part63.3961 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in 40 CFR Part63.3890; the operating limits established during the performance tests and the results of the continuous parameter monitoring required by 40 CFR Part63.3968; and documentation of whether you developed and implemented the work practice plan required by 40 CFR Part63.3893.

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

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

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

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

#### **40 CFR Part 63.3961 How do I demonstrate initial compliance?**

(a) You may use the emission rate with add-on controls option for any coating operation, for any group of coating operations in the affected source, or for all of the coating operations in the affected source. You may include both controlled and uncontrolled coating operations in a group for which you use this option. You must use either the compliant material option or the emission rate without add-on controls option for any coating operation in the affected source for which you do not use the emission rate with add-on controls option. To demonstrate initial compliance, the coating operation(s) for which you use the emission rate with add-on controls option must meet the applicable emission limitations in 40 CFR Part40 CFR Part63.3890, 63.3892, and 63.3893. You must conduct a separate initial compliance demonstration for each general use, magnet wire, rubber-to-metal, and extreme performance fluoropolymer coating operation, unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in 40 CFR Part63.3890(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in 40 CFR Part63.4490(c), you must demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You must meet all the requirements of this section. When calculating the organic HAP emission rate according to this section, do not include any coatings, thinners and/or other additives, or cleaning materials used on coating operations for which you use the compliant material option or the

emission rate without add-on controls option. You do not need to redetermine the mass of organic HAP in coatings, thinners and/or other additives, or cleaning materials that have been reclaimed onsite (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coatings operation(s) for which you use the emission rate with add-on controls option. If you use coatings, thinners and/or other additives, or cleaning materials that have been reclaimed onsite, the amount of each used in a month may be reduced by the amount of each that is reclaimed. That is, the amount used may be calculated as the amount consumed to account for materials that are reclaimed.

(b) *Compliance with operating limits.* Except as provided in 40 CFR Part63.3960(a)(4), and except for solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements of paragraph (j) of this section, you must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by 40 CFR Part63.3892, using the procedures specified in 40 CFR Part40 CFR Part63.3967 and 63.3968.

(c) *Compliance with work practice requirements.* You must develop, implement, and document your implementation of the work practice plan required by 40 CFR Part63.3893 during the initial compliance period, as specified in 40 CFR Part63.3930.

(d) *Compliance with emission limits.* You must follow the procedures in paragraphs (e) through (n) of this section to demonstrate compliance with the applicable emission limit in 40 CFR Part63.3890 for each affected source in each subcategory.

(e) *Determine the mass fraction of organic HAP, density, volume used, and volume fraction of coating solids.* Follow the procedures specified in 40 CFR Part63.3951(a) through (d) to determine the mass fraction of organic HAP, density, and volume of each coating, thinner and/or other additive, and cleaning material used during each month; and the volume fraction of coating solids for each coating used during each month.

(f) *Calculate the total mass of organic HAP emissions before add-on controls.* Using Equation 1 of 40 CFR Part63.3951, calculate the total mass of organic HAP emissions before add-on controls from all coatings, thinners and/or other additives, and cleaning materials used during each month in the coating operation or group of coating operations for which you use the emission rate with add-on controls option.

(g) *Calculate the organic HAP emission reduction for each controlled coating operation.* Determine the mass of organic HAP emissions reduced for each controlled coating operation during each month. The emission reduction determination quantifies the total organic HAP emissions that pass through the emission capture system and are destroyed or removed by the add-on control device. Use the procedures in paragraph (h) of this section to calculate the mass of organic HAP emission reduction for each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances. For each controlled coating operation using a solvent recovery system for which you conduct a liquid-liquid material balance, use the procedures in paragraph (j) of this section to calculate the organic HAP emission reduction.

(h) *Calculate the organic HAP emission reduction for each controlled coating operation not using liquid-liquid material balance.* Use Equation 1 of this section to calculate the organic HAP emission reduction for each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances. The calculation applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coatings, thinners and/or other additives, and cleaning materials that are used in the coating operation served by the emission capture system and add-on control device during each month. You must

assume zero efficiency for the emission capture system and add-on control device for any period of time a deviation specified in 40 CFR Part63.3963(c) or (d) occurs in the controlled coating operation, including a deviation during a period of startup, shutdown, or malfunction, unless you have other data indicating the actual efficiency of the emission capture system and add-on control device and the use of these data is approved by the Administrator. Equation 1 of this section treats the materials used during such a deviation as if they were used on an uncontrolled coating operation for the time period of the deviation.

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Where:

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

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

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

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

$R_W$  = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the compliance period, kg, determined according to 40 CFR Part63.3951(e)(4). (You may assign a value of zero to  $R_W$  if you do not wish to use this allowance.)

$H_{UNC}$  = Total mass of organic HAP in the coatings, thinners and/or other additives, and cleaning materials used during all deviations specified in 40 CFR Part63.3963(c) and (d) that occurred during the month in the controlled coating operation, kg, as calculated in Equation 1D of this section.

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent. Use the test methods and procedures specified in 40 CFR Part40 CFR Part63.3964 and 63.3965 to measure and record capture efficiency.

DRE = Organic HAP destruction or removal efficiency of the add-on control device, percent. Use the test methods and procedures in 40 CFR Part40 CFR Part63.3964 and 63.3966 to measure and record the organic HAP destruction or removal efficiency.

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

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Where:

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

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

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

$W_{c,i}$  = Mass fraction of organic HAP in coating, i, kg per kg. For reactive adhesives as defined in 40 CFR Part63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

m = Number of different coatings used.

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



Where:

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

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

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

$W_{t,j}$  = Mass fraction of organic HAP in thinner and/or other additive, j, kg per kg. For reactive adhesives as defined in 40 CFR Part63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

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

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



Where:

$C_C$  = Total mass of organic HAP in the cleaning materials used in the controlled coating operation during the

month, kg.

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

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

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

p = Number of different cleaning materials used.

(4) Calculate the mass of organic HAP in the coatings, thinners and/or other additives, and cleaning materials used in the controlled coating operation during deviations specified in 40 CFR Part63.3963(c) and (d), using Equation 1D of this section:



Where:

$H_{UNC}$  = Total mass of organic HAP in the coatings, thinners and/or other additives, and cleaning materials used during all deviations specified in 40 CFR Part63.3963(c) and (d) that occurred during the month in the controlled coating operation, kg.

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

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

$W_h$  = Mass fraction of organic HAP in coating, thinner and/or other additives, or cleaning material, h, kg organic HAP per kg coating. For reactive adhesives as defined in 40 CFR Part63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

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

(i) [Reserved]

(j) *Calculate the organic HAP emission reduction for each controlled coating operation using liquid-liquid material balances.* For each controlled coating operation using a solvent recovery system for which you conduct liquid-liquid material balances, calculate the organic HAP emission reduction by applying the volatile organic matter collection and recovery efficiency to the mass of organic HAP contained in the coatings, thinners and/or other additives, and cleaning materials that are used in the coating operation controlled by the solvent recovery system during each month. Perform a liquid-liquid material balance for each month as specified in paragraphs (j)(1) through (6) of this section. Calculate the mass of organic HAP emission reduction by the solvent recovery system as specified in paragraph (j)(7) of this section.

(1) For each solvent recovery system, install, calibrate, maintain, and operate according to the manufacturer's specifications, a device that indicates the cumulative amount of volatile organic matter recovered by the solvent recovery system each month. The device must be initially certified by the manufacturer to be accurate

to within  $\pm 2.0$  percent of the mass of volatile organic matter recovered.

(2) For each solvent recovery system, determine the mass of volatile organic matter recovered for the month, based on measurement with the device required in paragraph (j)(1) of this section.

(3) Determine the mass fraction of volatile organic matter for each coating, thinner and/or other additive, and cleaning material used in the coating operation controlled by the solvent recovery system during the month, kg volatile organic matter per kg coating. You may determine the volatile organic matter mass fraction using Method 24 of 40 CFR part 60, appendix A, or an EPA approved alternative method, or you may use information provided by the manufacturer or supplier of the coating. In the event of any inconsistency between information provided by the manufacturer or supplier and the results of Method 24 of 40 CFR part 60, appendix A, or an approved alternative method, the test method results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(4) Determine the density of each coating, thinner and/or other additive, and cleaning material used in the coating operation controlled by the solvent recovery system during the month, kg per liter, according to 40 CFR Part 63.3951(c).

(5) Measure the volume of each coating, thinner and/or other additive, and cleaning material used in the coating operation controlled by the solvent recovery system during the month, liters.

(6) Each month, calculate the solvent recovery system's volatile organic matter collection and recovery efficiency, using Equation 2 of this section:



Where:

$R_V$  = Volatile organic matter collection and recovery efficiency of the solvent recovery system during the month, percent.

$M_{VR}$  = Mass of volatile organic matter recovered by the solvent recovery system during the month, kg.

$Vol_i$  = Volume of coating, i, used in the coating operation controlled by the solvent recovery system during the month, liters.

$D_i$  = Density of coating, i, kg per liter.

$WV_{c,i}$  = Mass fraction of volatile organic matter for coating, i, kg volatile organic matter per kg coating. For reactive adhesives as defined in 40 CFR Part 63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

$Vol_j$  = Volume of thinner and/or other additive, j, used in the coating operation controlled by the solvent recovery system during the month, liters.

$D_j$  = Density of thinner and/or other additive, j, kg per liter.

$WV_{t,j}$  = Mass fraction of volatile organic matter for thinner and/or other additive, j, kg volatile organic matter per kg thinner and/or other additive. For reactive adhesives as defined in 40 CFR Part 63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

$Vol_k$  = Volume of cleaning material, k, used in the coating operation controlled by the solvent recovery system during the month, liters.

$D_k$  = Density of cleaning material, k, kg per liter.

$WV_{s,k}$  = Mass fraction of volatile organic matter for cleaning material, k, kg volatile organic matter per kg cleaning material.

m = Number of different coatings used in the coating operation controlled by the solvent recovery system during the month.

n = Number of different thinners and/or other additives used in the coating operation controlled by the solvent recovery system during the month.

p = Number of different cleaning materials used in the coating operation controlled by the solvent recovery system during the month.

(7) Calculate the mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system during the month, using Equation 3 of this section and according to paragraphs (j)(7)(i) through (iii) of this section:



Where:

$H_{CSR}$  = Mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system using a liquid-liquid material balance during the month, kg.

$A_{CSR}$  = Total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 3A of this section.

$B_{CSR}$  = Total mass of organic HAP in the thinners and/or other additives used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 3B of this section.

$C_{CSR}$  = Total mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 3C of this section.

$R_V$  = Volatile organic matter collection and recovery efficiency of the solvent recovery system, percent, from Equation 2 of this section.

(i) Calculate the mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, kg, using Equation 3A of this section.



Where:

$A_{CSR}$  = Total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{c,i}$  = Total volume of coating, i, used during the month in the coating operation controlled by the solvent recovery system, liters.

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

$W_{c,i}$  = Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating. For reactive adhesives as defined in 40 CFR Part63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

m = Number of different coatings used.

(ii) Calculate the mass of organic HAP in the thinners and/or other additives used in the coating operation controlled by the solvent recovery system, kg, using Equation 3B of this section:



Where:

$B_{CSR}$  = Total mass of organic HAP in the thinners and/or other additives used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{t,j}$  = Total volume of thinner and/or other additive, j, used during the month in the coating operation controlled by the solvent recovery system, liters.

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

$W_{t,j}$  = Mass fraction of organic HAP in thinner and/or other additive, j, kg lb organic HAP per kg thinner and/or other additive. For reactive adhesives as defined in 40 CFR Part63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

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

(iii) Calculate the mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system during the month, kg, using Equation 3C of this section:

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Where:

$C_{CSR}$  = Total mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{s,k}$  = Total volume of cleaning material, k, used during the month in the coating operation controlled by the solvent recovery system, liters.

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

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

p = Number of different cleaning materials used.

(k) *Calculate the total volume of coating solids used.* Determine the total volume of coating solids used, liters, which is the combined volume of coating solids for all the coatings used during each month in the coating operation or group of coating operations for which you use the emission rate with add-on controls option, using Equation 2 of 40 CFR Part63.3951.

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

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where:

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

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

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

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

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

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

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



Where:

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

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

$V_{\text{st},y}$  = Total volume of coating solids used during month,  $y$ , liters, from Equation 2 of 40 CFR Part63.3951.

$y$  = Identifier for months.

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

(n) *Compliance demonstration.* The organic HAP emission rate for the initial compliance period, calculated using Equation 5 of this section, must be less than or equal to the applicable emission limit for each subcategory in 40 CFR Part63.3890 or the predominant activity or facility-specific emission limit allowed in 40 CFR Part63.3890(c). You must keep all records as required by 40 CFR Part40 CFR Part63.3930 and 63.3931. As part of the notification of compliance status required by 40 CFR Part63.3910, you must identify the coating operation(s) for which you used the emission rate with add-on controls option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in 40 CFR Part63.3890, and you achieved the operating limits required by 40 CFR Part63.3892 and the work practice standards required by 40 CFR Part63.3893.

#### **40 CFR Part 63.3962 [Reserved]**

#### **40 CFR Part 63.3963 How do I demonstrate continuous compliance with the emission limitations?**

(a) To demonstrate continuous compliance with the applicable emission limit in 40 CFR Part63.3890, the organic HAP emission rate for each compliance period, determined according to the procedures in 40 CFR Part63.3961, must be equal to or less than the applicable emission limit in 40 CFR Part63.3890. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in 40 CFR Part63.3960 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in 40 CFR Part63.3961 on a monthly basis using data from the previous 12 months of operation. If you are complying with a facility-specific emission limit under 40 CFR

Part63.3890(c), you must also perform the calculation using Equation 1 in 40 CFR Part63.3890(c)(2) on a monthly basis using the data from the previous 12 months of operation.

(b) If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in 40 CFR Part63.3890, this is a deviation from the emission limitation for that compliance period that must be reported as specified in 40 CFR Part40 CFR Part63.3910(c)(6) and 63.3920(a)(7).

(c) You must demonstrate continuous compliance with each operating limit required by 40 CFR Part63.3892 that applies to you, as specified in Table 1 to this subpart, when the coating line is in operation.

(1) If an operating parameter is out of the allowed range specified in Table 1 to this subpart, this is a deviation from the operating limit that must be reported as specified in 40 CFR Part40 CFR Part63.3910(c)(6) and 63.3920(a)(7).

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

(d) You must meet the requirements for bypass lines in 40 CFR Part63.3968(b) for controlled coating operations for which you do not conduct liquid-liquid material balances. If any bypass line is opened and emissions are diverted to the atmosphere when the coating operation is running, this is a deviation that must be reported as specified in 40 CFR Part40 CFR Part63.3910(c)(6) and 63.3920(a)(7). For the purposes of completing the compliance calculations specified in 40 CFR Part40 CFR Part63.3961(h), you must treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation as indicated in Equation 1 of 40 CFR Part63.3961.

(e) You must demonstrate continuous compliance with the work practice standards in 40 CFR Part63.3893. If you did not develop a work practice plan, or you did not implement the plan, or you did not keep the records required by 40 CFR Part63.3930(k)(8), this is a deviation from the work practice standards that must be reported as specified in 40 CFR Part40 CFR Part63.3910(c)(6) and 63.3920(a)(7).

(f) As part of each semiannual compliance report required in 40 CFR Part63.3920, you must identify the coating operation(s) for which you used the emission rate with add-on controls option. If there were no deviations from the emission limitations, submit a statement that you were in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in 40 CFR Part63.3890, and you achieved the operating limits required by 40 CFR Part63.3892 and the work practice standards required by 40 CFR Part63.3893 during each compliance period.

(g) During periods of startup, shutdown, or malfunction of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency, you must operate in accordance with the startup, shutdown, and malfunction plan required by 40 CFR Part63.3900(c).

(h) [Reserved]

(i) [Reserved]

(j) You must maintain records as specified in 40 CFR Part40 CFR Part63.3930 and 63.3931.

#### **40 CFR Part 63.3964 What are the general requirements for performance tests?**

(a) You must conduct each performance test required by 40 CFR Part 63.3960 according to the requirements in 40 CFR Part 63.7(e)(1) and under the conditions in this section, unless you obtain a waiver of the performance test according to the provisions in 40 CFR Part 63.7(h).

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

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

(b) You must conduct each performance test of an emission capture system according to the requirements in 40 CFR Part 63.3965. You must conduct each performance test of an add-on control device according to the requirements in 40 CFR Part 63.3966.

#### **40 CFR Part 63.3965 How do I determine the emission capture system efficiency?**

You must use the procedures and test methods in this section to determine capture efficiency as part of the performance test required by 40 CFR Part 63.3960.

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

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

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

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

(c) *Liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.* The liquid-to-uncaptured-gas protocol compares the mass of liquid TVH in materials used in the coating operation to the

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

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

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

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



Where:

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

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

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

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

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

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

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

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

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



Where:

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

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

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

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

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

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

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

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

(ii) If multiple emission streams from the capture system enter the add-on control device without a single

common duct, then the emissions entering the add-on control device must be simultaneously measured in each duct and the total emissions entering the add-on control device must be determined.

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

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

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

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



Where:

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

TVH<sub>captured</sub> = Total mass of TVH captured by the emission capture system as measured at the inlet to the add-on control device during the emission capture efficiency test run, kg.

TVH<sub>uncaptured</sub> = Total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.

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

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

#### **40 CFR Part 63.3966 How do I determine the add-on control device emission destruction or removal efficiency?**

You must use the procedures and test methods in this section to determine the add-on control device emission destruction or removal efficiency as part of the performance test required by 40 CFR Part 63.3960. You must conduct three test runs as specified in 40 CFR Part 63.7(e)(3) and each test run must last at least 1 hour. If the source is a magnet wire coating machine, you may use the procedures in section 3.0 of appendix A to this subpart as an alternative.

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

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

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

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

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

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

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

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

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

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

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

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



Where:

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

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

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

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

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



Where:

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

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

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

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

#### **40 CFR Part 63.3967 How do I establish the emission capture system and add-on control device operating limits during the performance test?**

During the performance test required by 40 CFR Part 63.3960 and described in 40 CFR Part 40 CFR Part 63.3964, 63.3965, and 63.3966, you must establish the operating limits required by 40 CFR Part 63.3892 according to this section, unless you have received approval for alternative monitoring and operating limits under 40 CFR Part 63.8(f) as specified in 40 CFR Part 63.3892.

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

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

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

(b) *Catalytic oxidizers.* If your add-on control device is a catalytic oxidizer, establish the operating limits

according to either paragraphs (b)(1) and (2) or paragraphs (b)(3) and (4) of this section. If the source is a magnet wire coating machine, you may use the procedures in section 3.0 of appendix A to this subpart as an alternative.

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

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

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

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

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

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

(iii) Annual internal inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found during the annual internal inspection of the catalyst, you must replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations. If the catalyst bed is replaced and is not of like or better kind and quality as the old catalyst then you must conduct a new performance test to determine destruction efficiency according to 40 CFR Part 63.3966. If a catalyst bed is replaced and the replacement catalyst is of like or better kind and quality as the old catalyst, then a new performance test to determine destruction efficiency is not required and you may continue to use the previously established operating limits for that catalytic oxidizer.

(c) *Regenerative carbon adsorbers*. If your add-on control device is a regenerative carbon adsorber, establish the operating limits according to paragraphs (c)(1) and (2) of this section.

(1) You must monitor and record the total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each regeneration cycle, and the carbon bed temperature after each carbon bed regeneration and cooling cycle for the regeneration cycle either immediately preceding or immediately following the performance test.

(2) The operating limits for your regenerative carbon adsorber are the minimum total desorbing gas mass flow recorded during the regeneration cycle and the maximum carbon bed temperature recorded after the cooling cycle.

(d) *Condensers*. If your add-on control device is a condenser, establish the operating limits according to paragraphs (d)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the condenser outlet (product side) gas temperature at least once every 15 minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average condenser outlet (product side) gas temperature maintained during the performance test. This average condenser outlet gas temperature is the maximum operating limit for your condenser.

(e) *Concentrators*. If your add-on control device includes a concentrator, you must establish operating limits for the concentrator according to paragraphs (e)(1) through (4) of this section.

(1) During the performance test, you must monitor and record the desorption concentrate stream gas temperature at least once every 15 minutes during each of the three runs of the performance test.

(2) Use the data collected during the performance test to calculate and record the average temperature. This is the minimum operating limit for the desorption concentrate gas stream temperature.

(3) During the performance test, you must monitor and record the pressure drop of the dilute stream across the concentrator at least once every 15 minutes during each of the three runs of the performance test.

(4) Use the data collected during the performance test to calculate and record the average pressure drop. This is the minimum operating limit for the dilute stream across the concentrator.

(f) *Emission capture systems*. For each capture device that is not part of a PTE that meets the criteria of 40 CFR Part 63.3965(a), establish an operating limit for either the gas volumetric flow rate or duct static pressure, as specified in paragraphs (f)(1) and (2) of this section. The operating limit for a PTE is specified in Table 1 to this subpart. If the source is a magnet wire coating machine, you may use the procedures in section 2.0 of appendix A to this subpart as an alternative.

(1) During the capture efficiency determination required by 40 CFR Part 63.3960 and described in 40 CFR Part 40 CFR Part 63.3964 and 63.3965, you must monitor and record either the gas volumetric flow rate or the duct static pressure for each separate capture device in your emission capture system at least once every 15 minutes during each of the three test runs at a point in the duct between the capture device and the add-on control device inlet.

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

#### **40 CFR Part 63.3968 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?**

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

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period.

You must have a minimum of four equally spaced successive cycles of CPMS operation in 1 hour.

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

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

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

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

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

(7) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the CPMS to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for which the monitoring system is out-of-control and data are not available for required calculations is a deviation from the monitoring requirements.

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

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

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

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

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

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

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

(2) If any bypass line is opened, you must include a description of why the bypass line was opened and the length of time it remained open in the semiannual compliance reports required in 40 CFR Part63.3920.

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

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

(2) For a catalytic oxidizer, install gas temperature monitors upstream and/or downstream of the catalyst bed as required in 40 CFR Part63.3967(b).

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

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

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

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

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

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

(d) *Regenerative carbon adsorbers.* If you are using a regenerative carbon adsorber as an add-on control device, you must monitor the total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each regeneration cycle, the carbon bed temperature after each regeneration and cooling cycle, and comply with paragraphs (a)(3) through (5) and (d)(1) through (3) of this section.

(1) The regeneration desorbing gas mass flow monitor must be an integrating device having a measurement sensitivity of plus or minus 10 percent capable of recording the total regeneration desorbing gas mass flow

for each regeneration cycle.

(2) The carbon bed temperature monitor must be capable of recording the temperature within 15 minutes of completing any carbon bed cooling cycle.

(3) For all regenerative carbon adsorbers, you must meet the requirements in paragraphs (c)(3)(i) through (v) of this section for each temperature monitoring device.

(e) *Condensers*. If you are using a condenser, you must monitor the condenser outlet (product side) gas temperature and comply with paragraphs (a) and (e)(1) and (2) of this section.

(1) The temperature monitor must provide a gas temperature record at least once every 15 minutes.

(2) For all condensers, you must meet the requirements in paragraphs (c)(3)(i) through (v) of this section for each temperature monitoring device.

(f) *Concentrators*. If you are using a concentrator, such as a zeolite wheel or rotary carbon bed concentrator, you must comply with the requirements in paragraphs (f)(1) and (2) of this section.

(1) You must install a temperature monitor in the desorption gas stream. The temperature monitor must meet the requirements in paragraphs (a) and (c)(3) of this section.

(2) You must install a device to monitor pressure drop across the zeolite wheel or rotary carbon bed. The pressure monitoring device must meet the requirements in paragraphs (a) and (g)(2) of this section.

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

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

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

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

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

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

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

(vi) Perform leak checks monthly.

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

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

- (i) Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure drop across each opening you are monitoring.
- (ii) Use a pressure sensor with an accuracy of at least 0.5 inches of water column or 5 percent of the measured value, whichever is larger.
- (iii) Perform an initial calibration of the sensor according to the manufacturer's requirements.
- (iv) Conduct a validation check before initial operation or upon relocation or replacement of a sensor. Validation checks include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.
- (v) Conduct accuracy audits every quarter and after every deviation. Accuracy audits include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.
- (vi) Perform monthly leak checks on pressure connections. A pressure of at least 1.0 inches of water column to the connection must yield a stable sensor result for at least 15 seconds.
- (vii) Perform a visual inspection of the sensor at least monthly if there is no redundant sensor.

### **Other Requirements and Information**

#### **40 CFR Part 63.3980 Who implements and enforces this subpart?**

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

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

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

(1) Approval of alternatives to the requirements in 40 CFR Part63.3881 through 3883 and 40 CFR Part63.3890 through 3893.

(2) Approval of major alternatives to test methods under 40 CFR Part63.7(e)(2)(ii) and (f) and as defined in 40 CFR Part63.90.

(3) Approval of major alternatives to monitoring under 40 CFR Part63.8(f) and as defined in 40 CFR Part63.90.

(4) Approval of major alternatives to recordkeeping and reporting under 40 CFR Part63.10(f) and as defined in 40 CFR Part63.90.

#### **40 CFR Part 63.3981 What definitions apply to this subpart?**

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

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

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

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

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

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

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

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

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

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

*Coating operation* means equipment used to apply cleaning materials to a substrate to prepare it for coating

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

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

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

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

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

- (1) Fails to meet any requirement or obligation established by this subpart including but not limited to, any emission limit or operating limit or work practice standard;
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or
- (3) Fails to meet any emission limit, or operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

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

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

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

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

*Facility maintenance* means the routine repair or renovation (including the surface coating) of the tools,

equipment, machinery, and structures that comprise the infrastructure of the affected facility and that are necessary for the facility to function in its intended capacity.

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

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

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

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

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

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

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

*Manufacturer's formulation data* means data on a material (such as a coating) that are supplied by the material manufacturer based on knowledge of the ingredients used to manufacture that material, rather than based on testing of the material with the test methods specified in 40 CFR Part 63.3941. Manufacturer's formulation data may include, but are not limited to, information on density, organic HAP content, volatile organic matter content, and coating solids content.

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

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

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

*Organic HAP content* means the mass of organic HAP emitted per volume of coating solids used for a coating calculated using Equation 2 of 40 CFR Part 63.3941. The organic HAP content is determined for the coating in the condition it is in when received from its manufacturer or supplier and does not account for any alteration after receipt. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, organic HAP content is the mass of organic HAP that is emitted, rather than the organic HAP content of the coating as it is received.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

If you are required to comply with operating limits by 40 CFR Part 63.3892(c), you must comply with the applicable operating limits in the following table:

[Language not specific to this process has been intentionally removed.]

For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .
-----		
1. Thermal oxidizer.....	a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to 40 CFR Part 63.3967(a).	i. Collecting the combustion temperature data according to 40 CFR Part 63.3968(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average combustion temperature at or above the temperature limit.
6. Emission capture system that is a PTE according to 40 CFR Part 63.3965(a).	a. The direction of the air flow at all times must be into the enclosure; and either	i. Collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to 40 CFR Part 63.3968(b)(1) or the pressure drop across the enclosure according to 40 CFR Part 63.3968(g)(2); and ii. Maintaining the facial velocity of air flow through all natural draft

openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.

b. The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minutes; or

i. See items 6.a.i and 6.a.ii.

c. The pressure drop across the enclosure must be at least 0.007 inch H<sub>2</sub>O, as established in Method 204 of appendix M to 40 CFR part 51.

i. See items 6.a.i and 6.a.ii.

7. Emission capture system that is not a PTE according to 40 CFR Part 63.3965(a).

a. The average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to 40 CFR Part 63.3967(f).

i. Collecting the gas volumetric flow rate or duct static pressure for each capture device according to 40 CFR Part 63.3968(g);  
ii. Reducing the data to 3-hour block averages; and  
iii. Maintaining the 3-hour average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limited.

**Table 2 to Subpart M MMM of Part 63—Applicability of General Provisions to Subpart M MMM of Part 63**

Applicability of the General Provisions is addressed above in 40 CFR Part 63.3901 "What parts of the General Provisions apply to me?"

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

You may use the mass fraction values in the following table for solvent blends for which you do not have test

data or manufacturer's formulation data and which match either the solvent blend name or the chemical abstract series (CAS) number. If a solvent blend matches both the name and CAS number for an entry, that entry's organic HAP mass fraction must be used for that solvent blend. Otherwise, use the organic HAP mass fraction for the entry matching either the solvent blend name or CAS number, or use the organic HAP mass fraction from table 4 to this subpart if neither the name or CAS number match.

Solvent/solvent blend	CAS. No.	Average organic HAP mass fraction	Typical organic HAP, percent by mass
1. Toluene.....	108-88-31.0	Toluene.	
2. Xylene(s).....	1330-20-7	1.0	Xylenes, ethylbenzene.
3. Hexane.....	110-54-3	0.5	n-hexane.
4. n-Hexane.....	110-54-3	1.0	n-hexane.
5. Ethylbenzene.....	100-41-4	1.0	Ethylbenzene.
6. Aliphatic 140.....	.....	0	None.
7. Aromatic 100.....	0.02	1% xylene, 1% cumene.	
8. Aromatic 150.....	.....	0.09	Naphthalene.
9. Aromatic naphtha.....	64742-95-6	0.02	1% xylene, 1% cumene.
10. Aromatic solvent.....	64742-94-5	0.1	Naphthalene.
11. Exempt mineral spirits.....	8032-32-4	0	None.
12. Ligroines (VM & P).....	8032-32-4	0	None.
13. Lactol spirits.....	64742-89-6	0.15	Toluene.
14. Low aromatic white spirit.....	64742-82-1	0	None.
15. Mineral spirits.....	64742-88-7	0.01	Xylenes.
16. Hydrotreated naphtha.....	64742-48-9	0	None.
17. Hydrotreated light distillate....	64742-47-8	0.001	Toluene.
18. Stoddard solvent.....	8052-41-3	0.01	Xylenes.
19. Super high-flash naphtha.....	64742-95-6	0.05	Xylenes.
20. Varsol® solvent.....	8052-49-3	0.01	0.5% xylenes, 0.5% ethylbenzene.
21. VM & P naphtha.....	64742-89-8	0.06	3% toluene, 3% xylene.
22. Petroleum distillate mixture.....	68477-31-6	0.08	4% naphthalene, 4% biphenyl.

**Table 4 to Subpart MMMM of Part 63—Default Organic HAP Mass Fraction for Petroleum Solvent Groups<sup>a</sup>**

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

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

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

<sup>b</sup> Mineral Spirits 135, Mineral Spirits 150 EC, Naphtha, Mixed

Hydrocarbon, Aliphatic Hydrocarbon, Aliphatic Naphtha, Naphthol Spirits, Petroleum Spirits, Petroleum Oil, Petroleum Naphtha, Solvent Naphtha, Solvent Blend.  
c Medium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.

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

### 1.0 Introduction.

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

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

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

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

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

1.6 When it is difficult or infeasible to make gas measurements at the inlet to the control device, measuring capture efficiency with a gas-to-gas protocol (see 40 CFR Part 63.3965(d)) which relies on direct measurement of the captured gas stream will also be difficult or infeasible. In these situations, capture efficiency measurement is more appropriately done with a procedure which does not rely on direct measurement of the captured gas stream.

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

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

1.9 Magnet wire facilities may have many (*e.g.*, 20 to 70 or more) individual coating lines each with its own

capture and control system. With approval, representative capture efficiency and control device efficiency testing of one magnet wire coating machine out of a group of identical or very similar magnet wire coating machines may be performed rather than testing every individual magnet wire coating machine. The operating parameters must be established for each tested magnet wire coating machine during each capture efficiency test and each control device efficiency test. The operating parameters established for each tested magnet wire coating machine also serve as the operating parameters for untested or very similar magnet wire coating machines represented by a tested magnet wire coating machine.

## 2.0 Capture Efficiency.

2.1 If the capture system is a permanent total enclosure as described in 40 CFR Part63.3965(a), then its capture efficiency may be assumed to be 100 percent.

2.2 If the capture system is not a permanent total enclosure, then capture efficiency must be determined using the liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure in 40 CFR Part63.3965(c), or an alternative capture efficiency protocol (see 40 CFR Part63.3965(e)) which does not rely on direct measurement of the captured gas stream.

2.3 As an alternative to establishing and monitoring the capture efficiency operating parameters in 40 CFR Part63.3967(f), the monitoring described in either section 2.4 or 2.5, and the monitoring described in sections 2.6 and 2.7 may be used for magnet wire coating machines.

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

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

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

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

## 3.0 Control Device Efficiency.

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

3.2 Following the procedures in Method 204F, distill a sample of each coating, thinner, additive, or cleaning material used during each test run to separate the volatile portion. Determine the weight fraction carbon content of each distillate using ASTM Method D5291-02, "Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Petroleum Products and Lubricants" (incorporated by reference, see 40 CFR Part63.14).

3.3 Analyze each coating, thinner, additive or cleaning material used during each test run using Method 311. For each volatile compound detected in the gas chromatographic analysis of each coating, thinner, additive, or cleaning material calculate the weight fraction of that whole compound in the coating, thinner, additive, or

cleaning material. For each volatile compound detected in the gas chromatographic analysis of each coating, thinner, additive, or cleaning material calculate the weight fraction of the carbon in that compound in the coating, thinner, additive, or cleaning material. Calculate the weight fraction carbon content of each coating, thinner, additive, or cleaning material as the ratio of the sum of the carbon weight fractions divided by the sum of the whole compound weight fractions.

3.4 Determine the mass fraction of total volatile hydrocarbon (TVH<sub>i</sub>) in each coating, thinner, additive, or cleaning material, i, used during each test run using Method 24. The mass fraction of total volatile hydrocarbon equals the weight fraction volatile matter (W<sub>v</sub> in Method 24) minus the weight fraction water (W<sub>w</sub> in Method 24), if any, present in the coating. The ASTM Method D6053–00, “Standard Test Method for Determination of Volatile Organic Compound (VOC) Content of Electrical Insulating Varnishes” (incorporated by reference, see 40 CFR Part63.14), may be used as an alternative to Method 24 for magnet wire enamels. The specimen size for testing magnet wire enamels with ASTM Method D6053–00 must be 2.0 ± 0.1 grams.

3.5 Determine the volume (VOL<sub>i</sub>) or mass (MASS<sub>i</sub>) of each coating, thinner, additive, or cleaning material, i, used during each test run.

3.6 Calculate the total volatile hydrocarbon input (TVHC<sub>inlet</sub>) to the control device during each test run, as carbon, using Equation 1:



where:

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

VOL<sub>i</sub> = Volume of coating, thinner, additive, or cleaning material, i, used in the coating operation during the test run, liters.

D<sub>i</sub> = Density of coating, thinner, additive, or cleaning material, i, used in the coating operation during the test run, kg per liter.

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

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

3.7 If the mass, MASS<sub>i</sub>, of each coating, solvent, additive, or cleaning material, i, used during the test run is measured directly then MASS<sub>i</sub> can be substituted for VOL<sub>i</sub> × D<sub>i</sub> in Equation 1 in section 3.6.

3.8 Determine the TVHC output (TVHC<sub>outlet</sub>) from the control device, as carbon, during each test run using the methods in 40 CFR Part63.3966(a) and the procedure for determining M<sub>fo</sub> in 40 CFR Part63.3966(d). TVHC<sub>outlet</sub> equals M<sub>fo</sub> times the length of the test run in hours.

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



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

3.11 As an alternative to establishing and monitoring the destruction efficiency operating parameters for catalytic oxidizers in 40 CFR Part63.3967(b), the monitoring described in sections 3.12 and 3.13 may be used for magnet wire coating machines equipped with catalytic oxidizers.

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

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

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

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

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

Table 1\_Catalyst Monitoring Requirements

-----  
And the catalyst

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

3.17 During the performance test, you must determine the average concentration of organic compounds as carbon in the magnet wire oven exhaust stack gases ( $C_c$  in Equation 1 in 40 CFR Part63.3966(d)) and the destruction efficiency of the catalytic oxidizer, and calculate the operating limit for oven exhaust stack gas concentration as follows. You must identify the highest organic HAP content coating used on this magnet wire coating machine or any identical or very similar magnet wire coating machines to which the same destruction efficiency test results will be applied. Calculate the percent emission reduction necessary to meet the magnet wire coating emission limit when using this coating. Calculate the average concentration of organic compounds as carbon in the magnet wire oven exhaust stack gases that would be equivalent to exactly meeting the magnet wire coating emissions limit when using the highest organic HAP content coating. The maximum operating limit for oven exhaust stack gas concentration equals 90 percent of this calculated concentration.

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

3.19 If a catalyst bed is replaced and the replacement catalyst is not of like or better kind and quality as the old catalyst, then you must conduct a new performance test to determine destruction efficiency according to 40 CFR Part63.3966 and establish new operating limits for that catalytic oxidizer unless destruction

efficiency test results and operating limits for an identical or very similar unit (including consideration of the replacement catalyst) are available and approved for use for the catalytic oxidizer with the replacement catalyst.

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

**B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions**

**None**

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<b><u>Operations, Property, and/or Equipment</u></b>	<b><u>Applicable Rules/Requirements</u></b>	<b><u>Applicable Emissions Limitations/Control Measures</u></b>
K038 - auger adhesive paint dip machine no. 1	OAC rule 3745-31-05(A)(3)	66 lbs/day and 12.0 tons per year (TPY) of organic compounds (OCs), including cleanup materials  The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(U)(1) and 40 CFR Part 63, Subpart Mmmm.
	OAC rule 3745-21-09(U)(1)	Not applicable; see Section A.I.2.a below.
	40 CFR Part 63, Subpart Mmmm	37.7 lbs HAP/gal coating solids used during each 12-month compliance period; see Part II.A. for the specific MACT requirements.

2. **Additional Terms and Conditions**

- 2.a Pursuant to OAC rule 3745-21-09(U)(2)(e)(iii), the requirements of OAC rule 3745-21-09(U)(1) shall not apply to any miscellaneous metal parts coating line which never uses more than 10 gallons per day.

**II. Operational Restrictions**

1. The permittee shall comply with the workpractice standards as required by 40 CFR Part 63.3893 specified in Part II.A of this permit.

**III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information for the coating operation on a daily basis:

- a. the name and identification number of each coating employed in the coating line;
  - b. the number of gallons of each coating and cleanup material employed; and
  - c. the total volume, in gallons, of all of the coatings employed in the coating line.
2. The permittee shall collect and record the following information for the coating operation on a monthly basis:
- a. the company identification for each coating and cleanup material employed;
  - b. the number of gallons of each coating and cleanup material employed;
  - c. the OC content of each coating and cleanup material, in pounds per gallon; and
  - d. the HAP content of each coating and cleanup material, in pounds per gallon of coating solids.

[Note: The coating information must be for the coatings as employed, to include all coatings, thinners and/or other additives, and cleaning materials used in the source.]

3. The permittee shall collect and record the following information on an annual basis for the purpose of determining annual OC emissions:
- a. the total OC emission rate for all coatings and cleanup materials in tons per year.
4. The permittee shall keep records of operation as required by 40 CFR Parts 63.3930 and 63.3931 specified in Part II.A of this permit.
5. The permittee shall comply with the continuous parameter monitoring system installation, operation, and maintenance requirements of 40 CFR 63.3968 specified in Part II.A of this permit.

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports which identify any day in which the permittee used more than 10 gallons of coatings and cleanup materials. The report shall include a copy of such record and shall be sent to the Ohio EPA, Central District Office within 45 days after the event occurs.
2. The permittee shall submit annual reports which specify the total OC emissions from this emissions unit for the previous calendar year. This report shall be included in the Title V Fee Emission Report and shall be submitted by April 15 of each year.
3. The permittee shall submit semiannual compliance reports, as required by 40 CFR Part 63.3920, which address the *General Requirements* and specify *Deviations* and/or *No Deviations* of the allowable HAP emission rate specified in Section A.I.1 above. This report shall be submitted 30 days after the end of each reporting period.

4. The permittee shall submit notifications as required by 40 CFR Part 63.3910 and all applicable reports required by 40 CFR Part 63.3920 specified in Part II.A of this permit.

## **V. Testing Requirements**

1. Compliance with the emissions limitations in Section A.I.1. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emissions Limitation:  
66 lbs/day of OC

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation:

$$(10 \text{ gals/day}) * (6.6 \text{ lbs OC/gal}) = 66 \text{ lbs OC/day}$$

where:

10 gals/day = maximum allowable coating and cleanup usage

6.6 lbs OC/gal = maximum OC content of the coating and cleanup materials

- b. Emissions Limitation:  
12.0 tons per year of OC

Applicable Compliance Method:

Compliance with the annual emissions limitation shall be assumed as long as compliance is maintained with the daily emissions limitation. The annual emissions limitation was established by multiplying the short term emissions limitation by 365 days per year and dividing by 2000 pounds per ton.

- c. Emission Limitation:  
37.7 lbs HAP/gal coating solids used during each 12-month compliance period

Applicable Compliance Method:

Compliance shall be determined based on the requirements of 40 CFR Parts 63.3951, 63.3961 and 63.3963 specified in Part II.A of this permit.

The permittee has elected to use the "emission rate with add-on controls option" to comply with this limitation. Existing spray adhesive equipment at the facility are controlled by two thermal oxidizers. Per the MACT, a facility may use this option "for any coating operation, for any group of coating operations in the affected source, or for all of the coating operations in the affected source. The permittee may include both controlled and uncontrolled coating operations in a group for which the permittee uses this option." The affected sources considered in the compliance determination will be the collection of equipment, activities, or both, within a single contiguous area and under common control. The permittee must demonstrate that the total of all adhesives and solvents used, in sources throughout the facility that are subject to 40 CFR Part 63, Subpart M, meet the overall emission limitations after applying emissions reductions achieved by emission capture systems and add-on controls.

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**Issued: 6/14/2005**

**Facility ID: 0124010098**

Emissions Unit ID: K038

2. The OC content of the coatings, thinners, other additives, and clean-up materials shall be determined according to OAC rule 3745-21-10(B). USEPA Methods 24 shall be used to determine the OC contents for coatings. If an owner or operator determines that Method 24 40 CFR Part 60, Appendix A cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.
3. The permittee shall conduct emissions testing based on the requirements of 40 CFR Parts 63.3960 and 63.3964 specified in Part II.A of this permit.

**VI. Miscellaneous Requirements**

**None**

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K038 - auger adhesive paint dip machine no. 1	None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for this emissions unit was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: MIBK  
 TLV (mg/m3): 204.83  
 Maximum Hourly Emission Rate (lbs/hr): 2.85  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 48.46  
 MAGLC (ug/m3): 4,877

Pollutant: Xylene  
 TLV (mg/m3): 434.2  
 Maximum Hourly Emission Rate (lbs/hr): 0.44  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 7.476

MAGLC (ug/m3): 10,338

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
  - a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.
4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"
  - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<b><u>Operations, Property, and/or Equipment</u></b>	<b><u>Applicable Rules/Requirements</u></b>	<b><u>Applicable Emissions Limitations/Control Measures</u></b>
K039 - auger adhesive paint dip machine no. 2	OAC rule 3745-31-05(A)(3)	72 lbs/day and 13.1 tons per year (TPY) of organic compounds (OCs), including cleanup materials.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(U)(1) and 40 CFR Part 63, Subpart Mmmm.
	OAC rule 3745-21-09(U)(1)	Not applicable; see Section A.I.2.a below.
	40 CFR Part 63, Subpart Mmmm	37.7 lbs HAP/gal coating solids used during each 12-month compliance period; see Part II.A. for the specific MACT requirements.

2. **Additional Terms and Conditions**

- 2.a Pursuant to OAC rule 3745-21-09(U)(2)(e)(iii), the requirements of OAC rule 3745-21-09(U)(1) shall not apply to any miscellaneous metal parts coating line which never uses more than 10 gallons per day.

**II. Operational Restrictions**

1. The permittee shall comply with the work practice standards as required by 40 CFR Part 63.3893 specified in Part II.A of this permit.

**III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information for the coating operation on a daily basis:

- a. the name and identification number of each coating employed in the coating line;
  - b. the number of gallons of each coating and cleanup material employed; and
  - c. the total volume, in gallons, of all of the coatings employed in the coating line.
2. The permittee shall collect and record the following information for the coating operation on a monthly basis:
- a. the company identification for each coating and cleanup material employed;
  - b. the number of gallons of each coating and cleanup material employed;
  - c. the OC content of each coating and cleanup material, in pounds per gallon; and
  - d. the HAP content of each coating and cleanup material, in pounds per gallon of coating solids.

[Note: The coating information must be for the coatings as employed, to include all coatings, thinners and/or other additives, and cleaning materials used in the source.]

3. The permittee shall collect and record the following information on an annual basis for the purpose of determining annual OC emissions:
- a. the total OC emission rate for all coatings and cleanup materials in tons per year.
4. The permittee shall keep records of operation as required by 40 CFR Parts 63.3930 and 63.3931 specified in Part II.A of this permit.
5. The permittee shall comply with the continuous parameter monitoring system installation, operation, and maintenance requirements of 40 CFR 63.3968 specified in Part II.A of this permit.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify any day in which the permittee used more than 10 gallons of coatings and cleanup materials. The report shall include a copy of such record and shall be sent to the Ohio EPA, Central District Office within 45 days after the event occurs.
2. The permittee shall submit annual reports which specify the total OC emissions from this emissions unit for the previous calendar year. This report shall be included in the Title V Fee Emission Report and shall be submitted by April 15 of each year.
3. The permittee shall submit semiannual compliance reports, as required by 40 CFR Part 63.3920, which address the *General Requirements* and specify *Deviations* and/or *No Deviations* of the allowable HAP emission rate specified in Section A.I.1 above. This report shall be submitted 30 days after the end of each reporting period.

4. The permittee shall submit notifications as required by 40 CFR Part 63.3910 and all applicable reports required by 40 CFR Part 63.3920 specified in Part II.A of this permit.

**V. Testing Requirements**

1. Compliance with the emissions limitations in Section A.I.1. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emissions Limitation:  
72 lbs/day of OC

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation:

$$(10 \text{ gals/day}) * (7.2 \text{ lbs OC/gal}) = 72 \text{ lbs OC/day}$$

where:

10 gals/day = maximum allowable coating and cleanup usage

7.2 lbs OC/gal = maximum OC content of the coating and cleanup materials

- b. Emissions Limitation:  
13.1 tons per year of OC

Applicable Compliance Method:

Compliance with the annual emissions limitation shall be assumed as long as compliance is maintained with the daily emissions limitation. The annual emissions limitation was established by multiplying the short term emissions limitation by 365 days per year and dividing by 2000 pounds per ton.

- c. Emission Limitation:  
37.7 lbs HAP/gal coating solids used during each 12-month compliance period

Applicable Compliance Method:

Compliance shall be determined based on the requirements of 40 CFR Parts 63.3951, 63.3961 and 63.3963 specified in Part II.A of this permit.

The permittee has elected to use the "emission rate with add-on controls option" to comply with this limitation. Existing spray adhesive equipment at the facility are controlled by two thermal oxidizers. Per the MACT, a facility may use this option "for any coating operation, for any group of coating operations in the affected source, or for all of the coating operations in the affected source. The permittee may include both controlled and uncontrolled coating operations in a group for which the permittee uses this option." The affected sources considered in the compliance determination will be the collection of equipment, activities, or both, within a single contiguous area and under common control. The permittee must demonstrate that the total of all adhesives and solvents used, in sources throughout the facility that are subject to 40 CFR Part 63, Subpart M, meet the overall emission limitations after applying emissions reductions achieved by emission capture systems and add-on controls.

**Yusa Corporation**

**PTI Application: 01-08952**

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**Facility ID: 0124010098**

**Emissions Unit ID: K039**

2. The OC content of the coatings, thinners, other additives, and clean-up materials shall be determined according to OAC rule 3745-21-10(B). USEPA Methods 24 shall be used to determine the OC contents for coatings. If an owner or operator determines that Method 24 40 CFR Part 60, Appendix A cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.
3. The permittee shall conduct emissions testing based on the requirements of 40 CFR Parts 63.3960 and 63.3964 specified in Part II.A of this permit.

**VI. Miscellaneous Requirements**

**None**

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K039 - auger adhesive paint dip machine no. 2	None	None

**2. Additional Terms and Conditions**

**2.a None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for this emissions unit was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Xylene  
 TLV (mg/m3): 434.2  
 Maximum Hourly Emission Rate (lbs/hr): 2.95  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 50.17  
 MAGLC (ug/m3): 10,338

Pollutant: Ethyl Benzene  
 TLV (mg/m3): 434.2  
 Maximum Hourly Emission Rate (lbs/hr): 0.69  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 11.73

MAGLC (ug/m3): 10,338

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
  - a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.
4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"
  - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None