



# Florida Department of Environmental Protection

Southwest District Office  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926

Rick Scott  
Governor

Jennifer Carroll  
Lt. Governor

Herschel T. Vinyard Jr.  
Secretary

## NOTICE OF FINAL PERMIT

*In the Matter of an  
Application for Permit by:*

Madico Window Films, Inc.  
2630 Fairfield Avenue South  
St. Petersburg, FL 33712

*Responsible Official:*

Mr. Shawn Kitchell,  
Vice President of Operations

Permit No. 1030119-016-AV

Title V Air Operation Permit Revision  
Pinellas County

Enclosed is the final permit package for the Title V air operation permit revision for the Madico Window Film, Inc. facility. The existing facility is located in Pinellas County at 2544 Terminal Dr. South, St. Petersburg, Florida. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Hillsborough County, Florida.

Kelley M. Boatwright  
District Air Program Administrator  
Southwest District

KMB/ds/admin

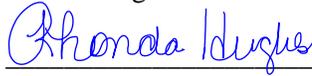
**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the Final Permit and Final Determination), or a link to these documents available electronically on a publicly accessible server, was sent by electronic mail with received receipt requested before the close of business on the date indicated below to the persons listed below:

- Mr. Shawn Kitchell, Madico Window Films, Inc. ([skitchell@madico.com](mailto:skitchell@madico.com))
- Mr. A.J. Jablonowski, Epsilon Associates ([ajablonowski@epsilonassociates.com](mailto:ajablonowski@epsilonassociates.com))
- Mr. George Lipka, P.E., Tetra Tech Inc. ([george.lipka@tetrattech.com](mailto:george.lipka@tetrattech.com))
- Mr. Gary Robbins, PCAQD ([grobbs@pinellascounty.org](mailto:grobbs@pinellascounty.org))

Clerk Stamp

**FILING AND ACKNOWLEDGMENT FILED**, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

 3/6/2013  
(Clerk) (Date)

In addition, this NOTICE OF FINAL PERMIT (including the FINAL Title V Air Operation Permit package) was posted electronically on DEP Darm\_Common drive and an email notification was sent to Barbara Friday, [[Barbara.Friday@dep.state.fl.us](mailto:Barbara.Friday@dep.state.fl.us)] for posting with the U.S.EPA Region 4 Office.

## FINAL DETERMINATION

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### PERMITTEE

Madico Window Films, Inc.  
2630 Fairfield Avenue South  
St. Petersburg, FL 33712

### PERMITTING AUTHORITY

Florida Department of Environmental Protection (Department)  
Air Resource Management  
Southwest District  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-7600

### PROJECT

Title V Air Operation Permit Revision No. 1030119-016-AV

The main purpose of this project is to revise the Title V Air Operation Permit to incorporate terms and conditions of Air Construction Permit No. 1030119-015-AC.

### NOTICE AND PUBLICATION

The Department distributed an Intent to Issue Title V Air Operation Permit package on January 8, 2013. The applicant published the Public Notice of Intent to Issue Air Permit in the Tampa Bay Times on January 16, 2013. The Department received the proof of publication on January 18, 2013. A proposed permit was issued for EPA review on January 16, 2013.

### COMMENTS

No comments were received from the applicant, the public, the Pinellas County Air Quality Division, or the EPA Region 4 Office.

### CONCLUSION

No changes were made to the draft/proposed. The permitting authority hereby issues the FINAL Permit, with no changes.

Madico Window Films, Inc.  
Facility ID No.: 1030119  
Pinellas County

Title V Air Operation Permit Revision  
Final Permit Project No.: 1030119-016-AV  
Revision to Title V Air Operation Permit No.: 1030119-012-AV

Permitting Authority:

Florida Department of Environmental Protection  
Southwest District  
13051 North Telecom Parkway  
Temple Terrace, FL 33637-0926

Telephone: 813-632-7600  
Fax: 813-632-7668

Compliance Authority:

Pinellas County Air Quality Division  
509 East Avenue South, Suite 138  
Clearwater, FL 33760

Telephone: 727-464-4422  
Fax: 727-464-4420

# Title V Air Operation Permit Revision

Final Permit No.: 1030119-016-AV

Revision to Title V Air Operation Permit No.: 1030119-012-AV

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# Florida Department of Environmental Protection

Southwest District Office  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926

Rick Scott  
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Secretary

**Permittee:**

Madico Window Films, Inc.  
2630 Fairfield Avenue South  
St. Petersburg, Florida 33712

**Final Permit No.:** 1030119-016-AV

**Facility ID No.:** 1030119

**SIC No(s).:** 26, 2672

**Project:** Title V Air Operation Permit Revision

This permit revision is being issued for the purpose of incorporating the terms and conditions of Air Construction Permit, No. 1030119-015-AC, which lowers the volatile organic compounds (VOC) emissions limit for Emissions Unit No. 003 from 245 to 74 tons per year, relaxes the facility's Regenerative Thermal Oxidizer (RTO) testing requirement from once every federal fiscal year to once every five years, and revises some of the related recordkeeping requirements. This existing facility is located at 2544 Terminal Drive South, St. Petersburg, Pinellas County; UTM Coordinates: Zone 17, 335.4 km East and 3071.9 km North; and, Latitude: 27° 45' 44" North and Longitude: 82° 40' 11" West.

This Title V Air Operation Permit Revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210 and 62-213. The above named permittee is hereby authorized to operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

**Referenced attachments made a part of this permit:**

- Appendix CAM, Compliance Assurance Monitoring Requirements
- Appendix I, List of Insignificant Emissions Units and/or Activities
- Appendix RR, Facility-wide Reporting Requirements (version dated 9-17-09)
- Appendix SS-1, Stack Sampling Facilities Version Dated 10/07/96
- Appendix TR, Facility-wide Testing Requirements (version dated 9-12-08)
- Appendix TV, Title V Conditions (version dated 02/16/12)
- Attachment A, Subpart JJJJ Applicability Table
- Attachment B, Description of Product Simulation During VOC Compliance Testing
- Attachment C, Operation and Maintenance (O&M) Plan
- Attachment D, 40 CFR 63 Subpart JJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAP): Paper and Other Web Coating
- Attachment EPA-450/2-78-041: Measurement of Volatile Organic Compounds
- Table 297.310-1, Calibration Schedule version dated 10/07/96

**Initial Effective Date:** September 14, 2010

**Revision Effective Date:** March 5, 2013

**Renewal Application Due Date:** February 1, 2015

**Expiration Date:** September 14, 2015

Kelley M. Boatwright  
District Air Program Administrator  
Southwest District

## SECTION I. FACILITY INFORMATION

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### Subsection A. Facility Description.

This facility manufactures metalized and reflective window coating films (window tinting) and is a source of volatile organic compounds (VOCs) and hazardous air pollutants (HAPs). The facility consists of one emissions unit that includes two coating lines, a mixing room and a regenerative thermal oxidizer (RTO) used to control emissions. Also included in this permit are miscellaneous insignificant emissions units and/or activities.

Based on the Title V Air Operation Permit Revision application received October 25, 2012, this facility is a major source of hazardous air pollutants (HAPs).

### Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

<u>E.U. ID No.</u>	<u>Brief Description</u>
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003	Coating Line Nos. 1 and 2, and the facility's mixing room are controlled by a regenerative thermal oxidizer.
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*Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.*

*Note: Construction Permit No. 1030119-010-AC replaced the facility's two catalytic oxidizers used to control emissions from coating line numbers 1 and 2 (E.U. Nos. 001 and 002) with one RTO. This modification also resulted in the replacement of E.U. Nos. 001 and 002 with E.U. No 003.*

### Subsection C. Relevant Documents.

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.

These documents are provided to the permittee for information purposes only:

- Appendix A, Abbreviations, Acronyms, Citations, and Identification Numbers
- Table H, Permit History
- Statement of Basis

These documents are on file with the permitting authority:

- Application for a Title V Air Operation Permit Renewal received February 8, 2010
- Additional Information Request dated March 19, 2010
- Additional Information Response received May 3, 2010
- Letter dated November 17, 2011, for an Administrative Correction to change the name of the facility
- Application for a Title V Air Operation Permit Revision received October 25, 2012

## SECTION II. FACILITY-WIDE CONDITIONS

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### The following conditions apply facility-wide:

1. APPENDIX TV-6, TITLE V CONDITIONS, is a part of this permit.
  2. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320(2), F.A.C.; Pinellas Co. Code, Sec. 58-178, and Construction Permit No. 1030119-010-AC]
  3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance for visible emissions pursuant to Chapter 62-297, F.A.C. [Rules 62-296.320(4)(b)1. & 4., F.A.C.]
  4. Prevention of Accidental Releases (Section 112(r) of CAA).
    - a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center  
Post Office Box 10162  
Fairfax, VA 22038  
Telephone: 703/227-7650
- and,
- b. The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.  
[40 CFR 68]
5. Insignificant Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit. [Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]
6. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
  - a. Ensure all lids, caps, covers on cans and other containers shall be properly fitted and maintained such that vapor emissions are minimized, and
  - b. Repairing all leaks in piping, process equipment and storage containers immediately and/or removing solvents to secure containers until repairs can be affected.[Rule 62-296.320(1), F.A.C.; and Construction Permit No. 1030119-010-AC]

## SECTION II. FACILITY-WIDE CONDITIONS

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7. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.  
[Rule 62-213.440, F.A.C.]
8. Statement of Compliance Submittal. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted to the Southwest District Office of the Department and to the EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C.  
[Rules 62-213.440(3) and 62-213.900, F.A.C.]
9. Compliance Submittals. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Southwest District and to the Pinellas County Air Quality Division (PCAQD) at the following addresses:

Department of Environmental Protection  
Southwest District Office  
13051 N. Telecom Parkway  
Temple Terrace, Florida 33637-0926  
Telephone: 813/632-7600; Fax: 813/632-7668

and,

Pinellas County Air Quality Division  
509 East Avenue South, Suite 138  
Clearwater, FL 33760  
Telephone: 727-464-4422; Fax: 727-464-4420

10. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency  
Region 4  
Air, Pesticides & Toxics Management Division  
Air and EPCRA Enforcement Branch  
Air Enforcement Section  
61 Forsyth Street  
Atlanta, Georgia 30303-8960  
Telephone: 404/562-9155; F: 404/562-9163

11. Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information.  
[Rule 62-213.420(4), F.A.C.]

## SECTION II. FACILITY-WIDE CONDITIONS

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### **NOTES TO PERMITTEE:**

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

**IMPORTANT:** Please note the following Title V submittal requirements contained in Appendix RR and Appendix TV:

- Annual Operating Report (AOR) - see Appendix RR, item RR5.
- Annual Statement of Compliance - see Appendix RR, item RR7.
- Permit Renewal Application - see Appendix TV, item TV18.

## SECTION III. EMISSIONS UNIT(S) AND CONDITIONS

### Subsection A. Emissions Unit No. 003

**Subsection A. This section addresses the following emissions unit(s).**

**E.U. ID No.      Brief Description**

003                      Coating Line Nos. 1 and 2, and the facility's mixing room controlled by a regenerative thermal oxidizer.

The facility manufactures various types of window coating films (window tinting). The films are roller coated in web-coating machines. Coating Line No. 1 has one coating head and Coating Line No. 2 has three coating heads. Each coating line has a two-zone drying oven and each oven use air-to-air heat-exchange systems as the primary source of heat to dry the window tint films. When there is insufficient heat available from the air-to-air heat exchanges systems, the oven in Coating Line No. 1 uses natural-gas burners (present in the oven) as backup heat source and the oven in Coating Line No. 2 uses steam (provided by a back-up boiler fired exclusively on natural gas) as a backup heat source. The dryer oven zone operating temperatures range is from approximately 135 to 350 degrees F (typically maintained at 135-260 degrees F). Some product runs do not require the use of the ovens.

This emissions unit includes Coating Line Nos. 1 and 2, and the facility's mixing room. The enclosures for the coating lines and mixing room are Permanent Total Enclosures that meet the requirements given in EPA Method 204. VOC emissions from the process are controlled by a Langbein-Engelbracht Model #TR 3295 Regenerative Thermal Oxidizer (RTO). The RTO is in operation during coating and during clean up operations involving the use of VOC containing materials. The RTO has a design heat input rate of 6.0 MMBtu/hour and is fired with natural gas. The maximum VOC process feed rate to the RTO is 845 lb/hr (10.14 tons/day). The VOC feed rate to the RTO consists of 475 lb/hr of VOCs from Coating Line 1 and 370 lb/hr of VOCs from Coating Line 2. The RTO is rated for 32,000 SCFM and has a destruction efficiency of 98%. The combustion chamber operating temperature range is between 1400 and 1700 degrees F.

This emissions unit is subject to the VOC compliance assurance monitoring requirements included in Appendix CAM. The RTO operating temperature is the performance indicator that is measured and monitored continuously by the RTO Computer.

**IMPORTANT REGULATORY CLASSIFICATIONS** - This emissions unit is subject to Rule 62-296.503, F.A.C., Reasonably Available Control Technology (RACT), Paper Coating; 40 CFR 63 NESHAP Subpart JJJJ – National Emission Standard for Paper and Other Web Coating, adopted and incorporated by reference in Rule 62-204.800, F.A.C.; and Compliance Assurance Monitoring (CAM), adopted and incorporated by reference in Rule 62-204.800, F.A.C.

**SECTION III. EMISSIONS UNIT(S) AND CONDITIONS**

**Subsection A. Emissions Unit No. 003**

**The following specific conditions apply to the emissions unit(s) listed above:**

**Essential Potential to Emit (PTE) Parameters**

**A.1. Permitted Maximum VOC Loading Rate.** The Maximum VOC loading rate into the RTO is limited to 845 lbs/hr (daily average).

*{Permitting notes: (1) Demonstration of compliance with the above VOC loading rate limitation is necessary only during test periods provided the RTO is tested at or above 90% of the permitted maximum VOC loading rate. If the RTO is tested below 90% of the Permitted Maximum VOC loading rate, then daily average loading rate recordkeeping is required. Operation at or above 90% of the permitted maximum VOC loading rate represents the worst case operation scenario that cannot be achieved during actual production. (2) See Specific Condition A.14. for Operation During Testing requirements. (3) See Attachment B, Description of Product Simulation During VOC Compliance Testing.}*

[Rules 62-4.160(2) and 62-210.200 (Definition of Potential to Emit), F.A.C.; Construction Permit No. 1030119-015-AC]

**A.2. Hours of Operation.** This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year.  
[Rule 62-210.200 (Definition of Potential to Emit), F.A.C.; Construction Permit No. 1030119-010-AC]

**A.3. Circumvention of RTO Control Device.** The permittee shall not circumvent any air pollution control device or allow the emissions of air pollutants without the applicable air pollution control device (i.e., RTO) operating properly. This shall include the following:

- a. The enclosure and capture system shall be properly maintained and operated.
- b. The RTO and drying ovens shall be fired with natural gas only.
- c. The RTO shall be operated at all times when coating operations involve VOC containing materials.
- d. The RTO shall be operated during all clean-up operations involving VOC containing materials.

[Rules 62-210.650 and 62-4.070(3), F.A.C.; Construction Permit No. 1030119-010-AC]

**Emission Limitations and Standards**

**A.4. VOC Emissions Limit.** The facility-wide VOC emissions shall not exceed the following maximum limits:

<b>Pollutant</b>	<b>Maximum Annual Emissions (Tons per any consecutive 12-month period)</b>
VOC	74

[Rule 62-210.200 (Definition of Potential to Emit), F.A.C.; Construction Permit No. 1030119-015-AC]

**A.5. VOC RACT Emission Limiting Standard.** VOC emissions from each coating line shall not exceed 4.79 pounds per gallon of solids (2.9 pounds per gal of coating, excluding water), daily average, delivered to the coating applicator from a coating line.

[Rules 62-296.500(6) & 62-296.503(2), F.A.C.]

## SECTION III. EMISSIONS UNIT(S) AND CONDITIONS

### Subsection A. Emissions Unit No. 003

- A.6.** VOC RACT Control Technology Standards. The permittee shall satisfy the requirement of the “VOC RACT Emission Limiting Standard” listed in Specific Condition No. A.5. using the following control technologies;
- The application of low solvent content coating technology; or,
  - Incineration, provided that 90 percent of the volatile organic compounds (VOC measured as total combustible carbon) which enter the incinerator (RTO) are oxidized to carbon dioxide and water.

*{Permitting note: Please refer to 40 CFR 63, Subpart JJJJ, §63.3320, which provides for a more restrictive control efficiency for HAP emissions}*

[Rules 62-296.500(6) & 62-296.503(3), F.A.C.]

- A.7.** 40 CFR 63 NESHAP Requirements. This emissions unit is subject to and shall comply with the applicable requirements of 40 CFR 63 (NESHAP) Subpart JJJJ (Paper and Other Web Coating), as well as the applicable provisions\* of 40 CFR 63 Subpart A (General Provisions for 40 CFR 63 NESHAPs). The complete MACT standard is included as Attachment D, which is a part of this permit.

\*An applicability reference table is included as an attachment to this permit (Attachment A). The table is based upon information provided in a request for additional information response letter from Solamatrix Inc., dated May, 3, 2010. Please be aware that operational changes may affect or alter the applicable provisions and in some cases, may require a construction permit.

[Rules 62-204.800(11)(b)67, F.A.C.; 40 CFR 63, Subpart JJJJ]

#### Excess Emissions

*{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.}*

- A.8.** Excess emissions resulting from startup, shutdown, or malfunction shall be permitted providing (1) Best operational practices to minimize emissions are adhered to and (2) The duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for a longer duration. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may be reasonably prevented during startup, shutdown, or malfunction shall be prohibited. In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rules 62-210.700(1), 62-210.700(4) and 62-210.700(6), F.A.C.]

#### Test Methods and Procedures

- A.9.** RTO Destruction Efficiency Test. The RTO shall be tested to demonstrate compliance with the VOC destruction requirements of Specific Condition No. A.6.b. at least 270 days prior to but no more than 365 days prior to the expiration date of this permit.

[Rules 62-4.070(3) and 62-296.503, F.A.C.; Construction Permit No. 1030119-015-AC]

## SECTION III. EMISSIONS UNIT(S) AND CONDITIONS

### Subsection A. Emissions Unit No. 003

- A.10. Capture Efficiency.** To demonstrate capture efficiency of the coating line enclosures, the permittee shall test the enclosures annually between October 1 and September 30 (once per federal fiscal year).  
[Rules 62-4.070(3), 62-296.503 and 62-297.450, F.A.C.; Construction Permit No. 1030119-010-AC]
- A.11. RTO Destruction Efficiency Test Methods.** VOC emissions testing at the RTO inlet and outlet shall be conducted using EPA Methods 1-4, and 25 or Attachment 3 of EPA 450/2-78-041. The testing may be conducted using the production simulation procedure in Attachment B of this permit. When conducting a compliance test while the line is under actual production using coatings, a sample of each coating shall be taken and an EPA Method 24 test shall be performed. The coating sample must be at least 1 liter and be representative of the coating as applied to the substrate. Data provided from the coating formulator may be submitted in lieu of the Method 24 test if the certification form in EPA 450/3-84-019 is properly completed for each affected coating.  
[Rules 62-296.503(4) and 62-297.620, F.A.C.]
- A.12. Capture Efficiency.** The permittee shall demonstrate the capture efficiency of the enclosure (for the coating lines) by one of the following methods:
- Permanent Total Enclosure.** Show the enclosures continue to meet the requirements given in EPA Method 204 for a Permanent Total Enclosure or
  - Capture Efficiency Test.** Conduct a capture efficiency test for a temporary total enclosure pursuant to Rule 62-297.450, F.A.C.
- [Rules 62-4.070(3), 62-296.503 and 62-297.450, F.A.C.]
- A.13. Total Enclosure Modifications.** A modification, as defined in Rule 62-210.200, F.A.C., or addition or replacement of air pollution control equipment, is prohibited without prior approval by the department, however if any other physical or operational change is made to the VOC capture system, the owner or operator shall notify the Air Permitting Section of the Department's Southwest District and the PCAQD of the change within 10 working days after making such change. If the change alters any of the total enclosure operating parameters documented in the most recent VOC emissions compliance tests approved by the PCAQD, the notification shall be accompanied by new Method 204 calculations which shows the total enclosure status is not altered. The Department may require the owner or operator of the affected activity, process, or emissions unit to conduct a new capture efficiency test and/or stack test if the Department has reason to believe (based on engineering calculations or empirical evidence) that a physical or operational change to the capture system has decreased the overall emissions reduction efficiency of the system.  
[Rules 62-210.200 (Definition of Modification), 62-210.300(1)(a), 62-297.450(4)(c) and 62-4.070(3), F.A.C.; Construction Permit No. 1030119-010-AC]
- A.14. Operation During Testing.** Compliance testing should be conducted while the RTO is operating within 90-100% of the maximum permitted VOC loading rate as specific in Specific Condition No. A.1. (845 lb/hour, daily average), if feasible. This may be accomplished through coating line operation or use of the approved production simulation (Attachment B). Compliance tests submitted for rates less than 90% of maximum permitted rate shall automatically amend the permit to reflect the tested rate plus 10% as the currently permitted VOC loading rate. Once the unit is so limited, operation at a higher rate is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the authority to operate at the permitted capacity. (Clarification: When a unit is limited to a VOC loading rate of 110% of the test rate, the permittee may provide a 15-day notice of their intent to conduct an

## SECTION III. EMISSIONS UNIT(S) AND CONDITIONS

### Subsection A. Emissions Unit No. 003

additional test. The notice may specify a 15-day period during which the unit will be allowed to operate at a higher rate for the purposes of testing.)

[Rules 62-297.310(2) and 62-4.070(3), F.A.C.; Construction Permit No. 1030119-010-AC]

**A.15. Compliance Test Reports.** The owner or operator of an emissions unit for which a compliance test is required shall file a report with the PCAQD on the results of each such test. The required test report shall be filed with the PCAQD as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide, at minimum, the information required in Rule 62-297.310(8), F.A.C. In addition the report shall include the following:

- a. The test data and calculations required to demonstrate compliance with Specific Condition No. A.6.b.
- b. The inlet and outlet gas temperature to and from the RTO during the tests and supporting temperature charts (or equivalent).
- c. Utilization rates of the coating(s) and solvents during the tests, in gal/hr.
- d. The VOC loading rate to the RTO, in lbs/hr for the test period (for Coating Line Nos. 1 & 2 combined).
- e. The VOC outlet concentration from the RTO and supporting calculations.
- f. The overall VOC reduction efficiency and VOC capture efficiency results required to demonstrate compliance with Specific Condition No. A.6.b., if applicable.
- g. The results of the Method 24 tests, if applicable.

Failure to submit this data or the actual operating conditions may invalidate the test.

[Rules 62-4.070(3) & 62-297.310(8), F.A.C.; Construction Permit No. 1030119-015-AC]

**A.16. Compliance Test Notification.** At least 15 days prior to the date on which any compliance test is due to begin, the permittee shall provide written notification of the test to the PCAQD. The notification must include the following information: the date, time, and location of each test; the name and telephone number of the facility's contact person who will be responsible for coordinating the test; and the name, company, and telephone number of the person conducting the test. The notification should also include the relevant emission unit number and test method(s).

[Rules 62-4.070(3) and 62-297.310(7)(a)9., F.A.C.]

**A.17. Capture Efficiency Test Notification.** The owner or operator of an affected activity, process, or emissions unit shall notify the PCAQD thirty (30) days prior to performing any capture efficiency and/or control efficiency tests.

[Rule 62-297.450(4)(d), F.A.C.]

#### **Monitoring of Operations**

**A.18. RTO Minimum Operating Temperature.** The RTO combustion chamber shall maintain a minimum operation temperature of 1400 degrees Fahrenheit at all times during coating operations.

[Rule 62-4.070(3), F.A.C. ; and Construction Permit No. 1030119-010-AC]

**A.19. RTO Operating Data.** The inlet and outlet temperatures across the RTO shall be measured continuously and recorded by a data logger.

[Rule 62-4.070(3), F.A.C.; and Construction Permit No. 1030119-010-AC]

## SECTION III. EMISSIONS UNIT(S) AND CONDITIONS

### Subsection A. Emissions Unit No. 003

#### Compliance Assurance Monitoring (CAM) Requirements

- A.20. CAM Requirements.** This emissions unit is subject to the CAM requirements contained in the attached Appendix CAM. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C. [40 CFR 64; and, Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

#### Recordkeeping and Reporting Requirements

- A.21. Operation and Maintenance (O&M) Plan.** The RTO shall be operated and maintained in accordance with the Operation and Maintenance (O&M) Plan included as Attachment C of this permit. This O&M Plan may be amended with the prior approval of the PCAQD. The O&M Plan documentation logs shall be maintained for a minimum of five years and shall be made available, for inspection by the Department and/or the PCAQD, upon request. At a minimum, the O&M Plan shall include (where applicable):
- a. The operating parameters of the pollution control device.
  - b. Timetable for the routine maintenance of the pollution control device as specified by the manufacturer.
  - c. Timetable for routine periodic observations of the pollution control device sufficient to ensure proper operations.
  - d. A list of the type and quantity of the required spare parts for the pollution control device, which are stored on the premises of the permit applicant.
  - e. A record log which will indicate, at a minimum:
    - 1) When maintenance and observations were performed.
    - 2) What maintenance and observations were performed.
    - 3) Who performed said maintenance and observations.
    - 4) Acceptable parameter ranges for each operational check

[Rule 62-4.070(3), F.A.C.; Pinellas County Code, Section 58-128; Construction Permit No. 1030119-010-AC]

- A.22. Recordkeeping.** The permittee shall maintain the following daily\* and monthly records:
- a. Daily Records.\* To document compliance with the operating and emissions limitations of Specific Condition Nos. A.1. and A.5., the permittee shall maintain the following records for each coating line:
    - 1) Facility Name, Facility ID (1030119), Emission Unit ID (003) and Date.
    - 2) The applicable rule [Rule 62-296.503, F.A.C., *Paper Coating (RACT)*].
    - 3) The source description (Line 1 or Line 2).
    - 4) The application method and substrate type (metal, plastic, paper, etc.).
    - 5) Each "As Applied" coatings and clean up solvents (by identification number) used, and the amount of each used in gallons.
    - 6) The VOC content, "As Applied", of each coating used, in lbs VOC/gal of coating and lbs VOC/gal of solids; the VOC content of each clean up solvent and diluent used, in lbs VOC/gal;

## SECTION III. EMISSIONS UNIT(S) AND CONDITIONS

### Subsection A. Emissions Unit No. 003

and the resultant daily average lbs VOC/gal of solids after controls, for coatings plus diluents, based on the latest approved test results.

*{\*Permitting Note: Per-batch records shall suffice to meet the daily records requirements}*

- b. Daily RTO Loading Rate Records. If RTO Destruction Efficiency Test is performed at a VOC loading rate that is less than 90% of the maximum permitted VOC loading rate specified in Specific Condition No. A.1., then the permittee shall maintain records of the hourly VOC input (daily avg.) to the RTO, in lbs/hr (for Lines 1 & 2 combined).
- c. Monthly Records. To document compliance with the emissions limitations of Specific Condition No. A.4., the permittee shall maintain the following records (based on the daily records above):
  - 1) Facility Name, Facility ID (1030119), Emission Unit ID (003) and Date.
  - 2) The source description (Line 1 or Line 2, or facility wide).
  - 3) The monthly VOC usage (lbs).
  - 4) The calculated VOC emissions for the month based on the latest approved test results.
  - 5) The calculated VOC emissions for the month for the most recent consecutive 12-month period based on the latest approved test results.

Records of all calculations used to determine VOC emissions, and supporting documentation ("As Supplied", "As Applied" sheets, MSDS sheets, EPA data sheets, purchase orders, etc.) shall be kept for each coating and solvent which includes sufficient information to determine VOC solvent emissions.

[Rules 62-296.500(2)(b) & 62-4.070(3), F.A.C.; Pinellas County Code Section 58-90; and Construction Permit No. 1030119-015-AC]

- A.23.** Excess Emissions Recordkeeping. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of this facility which results in excess emissions; any malfunction of the air pollution control equipment; and any periods during which a continuous monitoring system or monitoring device is inoperative. Records shall be maintained at the facility and be available for inspection by the Department upon request.

[Rules 62-4.070(3) and 62-210.700, F.A.C.]

- A.24.** Records Retention. All daily records required by this permit shall be completed within three business days and all monthly records shall be completed by the end of following month. All records required by this permit shall be maintained at the facility for at least five years, unless otherwise noted, and be made available to the Department upon request.

[Rules 62-4.070(3) & 62-213.440(1)(b)2.b., F.A.C.]

APPENDIX A

ABBREVIATIONS, ACRONYMS, CITATIONS AND IDENTIFICATION NUMBERS

Abbreviations and Acronyms:

<b>° F:</b> degrees Fahrenheit	<b>ID:</b> identification
<b>acfm:</b> actual cubic feet per minute	<b>ISO:</b> International Standards Organization (refers to those conditions at 288 Kelvin, 60% relative humidity and 101.3 kilopascals pressure.)
<b>AOR:</b> Annual Operating Report	<b>kPa:</b> kilopascals
<b>ARMS:</b> Air Resource Management System (Department's database)	<b>LAT:</b> Latitude
<b>BACT:</b> best available control technology	<b>lb:</b> pound
<b>Btu:</b> British thermal units	<b>lbs/hr:</b> pounds per hour
<b>CAA:</b> Clean Air Act	<b>LONG:</b> Longitude
<b>CAAA:</b> Clean Air Act Amendments of 1990	<b>MACT:</b> maximum achievable technology
<b>CAM:</b> compliance assurance monitoring	<b>mm:</b> millimeter
<b>CEMS:</b> continuous emissions monitoring system	<b>MMBtu:</b> million British thermal units
<b>cfm:</b> cubic feet per minute	<b>MSDS:</b> material safety data sheets
<b>CFR:</b> Code of Federal Regulations	<b>MW:</b> megawatt
<b>CO:</b> carbon monoxide	<b>NESHAP:</b> National Emissions Standards for Hazardous Air Pollutants
<b>COMS:</b> continuous opacity monitoring system	<b>NO<sub>x</sub>:</b> nitrogen oxides
<b>DARM:</b> Division of Air Resources Management	<b>NSPS:</b> New Source Performance Standards
<b>DCA:</b> Department of Community Affairs	<b>O&amp;M:</b> operation and maintenance
<b>DEP:</b> Department of Environmental Protection	<b>O<sub>2</sub>:</b> oxygen
<b>Department:</b> Department of Environmental Protection	<b>ORIS:</b> Office of Regulatory Information Systems
<b>dscfm:</b> dry standard cubic feet per minute	<b>OS:</b> Organic Solvent
<b>EPA:</b> Environmental Protection Agency	<b>Pb:</b> lead
<b>ESP:</b> electrostatic precipitator (control system for reducing particulate matter)	<b>PM:</b> particulate matter
<b>EU:</b> emissions unit	<b>PM<sub>10</sub>:</b> particulate matter with a mean aerodynamic diameter of 10 microns or less
<b>F.A.C.:</b> Florida Administrative Code	<b>PSD:</b> prevention of significant deterioration
<b>F.D.:</b> forced draft	<b>psi:</b> pounds per square inch
<b>F.S.:</b> Florida Statutes	<b>PTE:</b> potential to emit
<b>FGR:</b> flue gas recirculation	<b>RACT:</b> reasonably available control technology
<b>Fl:</b> fluoride	<b>RATA:</b> relative accuracy test audit
<b>ft<sup>2</sup>:</b> square feet	<b>RMP:</b> Risk Management Plan
<b>ft<sup>3</sup>:</b> cubic feet	<b>RO:</b> Responsible Official
<b>gpm:</b> gallons per minute	<b>SAM:</b> sulfuric acid mist
<b>gr:</b> grains	<b>scf:</b> standard cubic feet
<b>HAP:</b> hazardous air pollutant	<b>scfm:</b> standard cubic feet per minute
<b>Hg:</b> mercury	<b>SIC:</b> standard industrial classification code
<b>I.D.:</b> induced draft	

**APPENDIX A**

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**ABBREVIATIONS, ACRONYMS, CITATIONS AND IDENTIFICATION NUMBERS**

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**SNCR:** selective non-catalytic reduction (control system used for reducing emissions of nitrogen oxides)

**SOA:** Specific Operating Agreement

**SO<sub>2</sub>:** sulfur dioxide

**TPH:** tons per hour

**TPY:** tons per year

**UTM:** Universal Transverse Mercator coordinate system

**VE:** visible emissions

**VOC:** volatile organic compounds

**x:** By or times

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**Citations:**

*The following examples illustrate the methods used in this permit to abbreviate and cite the references of rules, regulations, guidance memorandums, permit numbers and ID numbers.*

Code of Federal Regulations:

*Example: [40 CFR 60.334]*

Where:	40	refers to	Title 40
	CFR	refers to	Code of Federal Regulations
	60	refers to	Part 60
	60.334	refers to	Regulation 60.334

Florida Administrative Code (F.A.C.) Rules:

*Example: [Rule 62-213.205, F.A.C.]*

Where:	62	refers to	Title 62
	62-213	refers to	Chapter 62-213
	62-213.205	refers to	Rule 62-213.205, F.A.C.

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**Identification Numbers:**

Facility Identification (ID) Number:

*Example: Facility ID No.: 1050221*

*Where:*

105 =	3-digit number code identifying the facility is located in Polk County
0221 =	4-digit number assigned by state database.

Permit Numbers:

*Example: 1050221-002-AV, or  
1050221-001-AC*

**APPENDIX A**

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**ABBREVIATIONS, ACRONYMS, CITATIONS AND IDENTIFICATION NUMBERS**

*Where:*

- AC = Air Construction Permit
- AV = Air Operation Permit (Title V Source)
- 105 = 3-digit number code identifying the facility is located in Polk County
- 0221= 4-digit number assigned by permit tracking database
- 001 or 002= 3-digit sequential project number assigned by permit tracking database

*Example:* PSD-FL-185

PA95-01

AC53-208321

*Where:*

- PSD = Prevention of Significant Deterioration Permit
- PA = Power Plant Siting Act Permit
- AC53 = old Air Construction Permit numbering identifying the facility is located in Polk County

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## APPENDIX CAM

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### COMPLIANCE ASSURANCE MONITORING REQUIREMENTS

Pursuant to Rule 62-213.440(1)(b)1.a., F.A.C., the CAM plans that are included in this appendix contain the monitoring requirements necessary to satisfy 40 CFR 64. Conditions 1. – 17. are generic conditions applicable to all emissions units that are subject to the CAM requirements. Specific requirements related to each emissions unit are contained in the attached tables, as submitted by the applicant and approved by the Department.

#### **40 CFR 64.6 Approval of Monitoring.**

1. The attached CAM plan(s), as submitted by the applicant, is/are approved for the purposes of satisfying the requirements of 40 CFR 64.3.  
[40 CFR 64.6(a)]
2. The attached CAM plan(s) include the following information:
  - (i) The indicator(s) to be monitored (such as temperature, pressure drop, emissions, or similar parameter);
  - (ii) The means or device to be used to measure the indicator(s) (such as temperature measurement device, visual observation, or CEMS); and
  - (iii) The performance requirements established to satisfy 40 CFR 64.3(b) or (d), as applicable.  
[40 CFR 64.6(c)(1)]
3. The attached CAM plan(s) describe the means by which the owner or operator will define an exceedance of the permitted limits or an excursion from the stated indicator ranges and averaging periods for purposes of responding to (see **CAM Conditions 5. - 9.**) and reporting exceedances or excursions (see **CAM Conditions 10. – 14.**).  
[40 CFR 64.6(c)(2)]
4. The permittee is required to conduct the monitoring specified in the attached CAM plan(s) and shall fulfill the obligations specified in the conditions below (see **CAM Conditions 5. - 17.**).  
[40 CFR 64.6(c)(3)]

#### **40 CFR 64.7 Operation of Approved Monitoring.**

5. **Commencement of operation.** The owner or operator shall conduct the monitoring required under this appendix upon the effective date of this Title V permit.  
[40 CFR 64.7(a)]
6. **Proper maintenance.** At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.  
[40 CFR 64.7(b)]
7. **Continued operation.** Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.  
[40 CFR 64.7(c)]

COMPLIANCE ASSURANCE MONITORING REQUIREMENTS

8. Response to excursions or exceedances.

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

[40 CFR 64.7(d)(1) & (2)]

9. Documentation of need for improved monitoring. If the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[40 CFR 64.7(e)]

**40 CFR 64.8 Quality Improvement Plan (QIP) Requirements.**

10. Based on the results of a determination made under **CAM Condition 8.a.**, above, the permitting authority may require the owner or operator to develop and implement a QIP. Consistent with **CAM Condition 4.**, an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a reporting period, may require the implementation of a QIP. The threshold may be set at a higher or lower percent or may rely on other criteria for purposes of indicating whether a pollutant-specific emissions unit is being maintained and operated in a manner consistent with good air pollution control practices.

[40 CFR 64.8(a)]

11. Elements of a QIP:

- a. The owner or operator shall maintain a written QIP, if required, and have it available for inspection.
- b. The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:
  - (i) Improved preventive maintenance practices.
  - (ii) Process operation changes.
  - (iii) Appropriate improvements to control methods.
  - (iv) Other steps appropriate to correct control performance.
  - (v) More frequent or improved monitoring (only in conjunction with one or more steps under **CAM Condition 11.b(i)** through **(iv)**, above).

[40 CFR 64.8(b)]

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## APPENDIX CAM

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### COMPLIANCE ASSURANCE MONITORING REQUIREMENTS

12. If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the permitting authority if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.  
[40 CFR 64.8(c)]
13. Following implementation of a QIP, upon any subsequent determination pursuant to **CAM Condition 8.b.**, the permitting authority may require that an owner or operator make reasonable changes to the QIP if the QIP is found to have:
- Failed to address the cause of the control device performance problems; or
  - Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- [40 CFR 64.8(d)]
14. Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.  
[40 CFR 64.8(e)]

#### **40 CFR 64.9 Reporting And Recordkeeping Requirements.**

15. General reporting requirements.
- The owner or operator shall submit monitoring reports semi-annually to the permitting authority in accordance with Rule 62-213.440(1)(b)3.a., F.A.C. The semi-annual reporting periods are established as January 1 through June 30, and July 1 through December 31.
  - A report for monitoring under this part shall include, at a minimum, the information required under Rule 62-213.440(1)(b)3.a., F.A.C., and the following information, as applicable:
    - Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
    - Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
    - A description of the actions taken to implement a QIP during the reporting period as specified in **CAM Conditions 10.** through **14.** Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.
- [40 CFR 64.9(a)]
16. General recordkeeping requirements.
- The owner or operator shall comply with the recordkeeping requirements specified in Rule 62-213.440(1)(b)2., F.A.C. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to **CAM Conditions 10.** through **14.** and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
  - Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.
- [40 CFR 64.9(b)]

#### **40 CFR 64.10 Savings Provisions.**

17. It should be noted that nothing in this appendix shall:

## APPENDIX CAM

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### COMPLIANCE ASSURANCE MONITORING REQUIREMENTS

- a. Excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act. The requirements of this appendix shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purpose of determining the monitoring to be imposed under separate authority under the Act, including monitoring in permits issued pursuant to title I of the Act. The purpose of this part is to require, as part of the issuance of a permit under Title V of the Act, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of this part.
- b. Restrict or abrogate the authority of the Administrator or the permitting authority to impose additional or more stringent monitoring, recordkeeping, testing, or reporting requirements on any owner or operator of a source under any provision of the Act, including but not limited to sections 114(a)(1) and 504(b), or state law, as applicable.
- c. Restrict or abrogate the authority of the Administrator or permitting authority to take any enforcement action under the Act for any violation of an applicable requirement or of any person to take action under section 304 of the Act.

[40 CFR 64.10]

COMPLIANCE ASSURANCE MONITORING REQUIREMENTS

**Madico Window Films, Inc.**  
**Compliance Assurance Monitoring (CAM) Plan**

**Emissions Unit ID No. 003**

Coating Lines Nos 1 and 2, the facility's mix room ~~and laboratory~~

VOC emissions controlled by a  
Langbein-Engelbracht Model #TR 3295  
Regenerative Thermal Oxidizer (RTO)

**Monitoring Approach**

**APPENDIX CAM**

**COMPLIANCE ASSURANCE MONITORING REQUIREMENTS**

	<u><b>Indicator No. 1</b></u>	<u><b>Indicator No. 2</b></u>
<b>I. Indicator</b>	RTO Operating Temperature	Work Practice; Automatic door closure mechanism and Permanent Total Enclosure (PTE) differential pressure.
<b>Measurement Approach</b>	The measuring device is a thermocouple. The RTO computer monitors and records the operating temperature continuously	Visually observe each opening to the Permanent Total Enclosure (PTE) (Doors & Openings). Post “Keep Closed” signs on access points. Record PTE differential pressure every 30 minutes while in operation. The PTE differential pressure will be measured by digital electronic pressure gauges and by Magnehelic pressure gauges. The pressure is measured from inside to outside of the PTE.
<b>II. Indicator Range</b>	An excursion is defined as temperature readings less than 1,516 °F for a 3 hour average while Line #1 and/or #2 are in coating operation mode. If this condition occurs the immediate action is to increase the set point.	All openings to the PTE are closed except when they are in use. Use during operation of the coating line shall be limited to only essential operation-related activities through (for each PTE) one door and the film opening only. Automatic door closure mechanism shall be functional during all times of coating line operation. Acceptable PTE differential pressure is greater than or equal to 0.007 inches of water column of negative air pressure. An Automatic door excursion would occur if the closure mechanism did not function at any time while line #1 or line #2 or the mixing room was operational. A pressure excursion would occur if the differential pressure was less than 0.007 inches of water column of negative air pressure during operation. The immediate action that would be triggered if an excursion occurred would be to shut the line down for either a closure mechanism problem or PTE differential pressure less than 0.007 inches of water column of negative air pressure.
<b>QIP Threshold</b>	If the RTO 3 hour temperature average falls below 1,516 °F for 5% or more of the time for valid data in a 6 month period.	No periods during coating line operation, excluding startup, shutdown, or malfunctions, when (for each PTE) any opening other than a single door (only when necessary to enter and leave the PTE) and the film opening are open. No period of coating line operation when automatic door closure mechanism is not functional and not being used. If the PTE differential pressure is less than 0.007 inches of water column of negative air pressure then the Plant Engineer and the Environmental Compliance Manager shall be notified and the problem investigated, repaired and reported as required to the PCDEM, FDEP and EPA.

**APPENDIX CAM**

**COMPLIANCE ASSURANCE MONITORING REQUIREMENTS**

<b>III. Performance Criteria</b>		
<b>A. Data Representativeness</b>	The thermocouple is located in the burner chamber of the RTO. The device must have an accuracy of $\pm 1$ percent of the temperature being monitored in degrees Celsius, or $\pm 1$ °Celsius, whichever is greater.	N/A
<b>B. Verification of Operational Status</b>	The RTO computer indicates the operational status of the RTO.	N/A
<b>C. QA/QC Practices and Criteria</b>	Annual Calibration or Replacement of the RTO operating thermocouple and maintain and operate the thermocouple using the manufacturer's specifications	Annual Performance Test (Method 204)
<b>D. Monitoring Frequency</b>	Every minute, minimum of three 15 minute readings per hour for a valid hour.	Daily Log and Annual Method 204 Performance Test.
<b>E. Data Collection Procedure</b>	Recorded continuously through the RTO's computer. Only use data when the lines are operational	Keep log of PTE pressures manually on a daily basis every half hour for electronic pressure gauges and for Magnehelic gauges. Manually confirm that automatic doors are functioning properly using a daily checklist during times of operation for either line or the mixing room. Any deviation from specified indicator range shall warrant immediate investigation to identify PTE openings and operational status of automatic door closure mechanism as in-use or as a malfunction. Log shall include description of malfunction, the duration of malfunction occurrence, and corrective action taken.

Permitting Note: See Specific Condition No. A.18. of the Title V Operation permit for additional RTO operating requirements.

**COMPLIANCE ASSURANCE MONITORING REQUIREMENTS**

Monitoring Approach Justification

Rationale for Selection of Performance Indicators

The Regenerative Thermal Oxidizer (RTO) burner chamber temperature was selected because it is indicative of the thermal incinerator operation (combustion occurring within the chamber). If the chamber temperature decreases below 1641 degrees Fahrenheit, then we cannot be assured that at least 95% destruction efficiency is occurring, based on the most recent stack test.

It has been shown that the control efficiency achieved by a thermal incinerator is a function of its operating temperature. By maintaining the operating temperature at or above a minimum, a level of control efficiency can be expected to be achieved.

The work practice comprised of an annual stack test to verify destruction efficiency. Maintenance is performed per the manufacturer's recommendations. In addition, a daily observation of the RTO computer burner temperature confirms that the burner chamber temperature is monitored and confirms proper operation of the burners and thus destruction efficiency is maintained.

## APPENDIX I

### LIST OF INSIGNIFICANT EMISSIONS UNITS AND/OR ACTIVITIES

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, or that meet the criteria specified in Rule 62-210.300(3)(b)1., F.A.C., Generic Emissions Unit Exemption, are exempt from the permitting requirements of Chapters 62-210, 62-212 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

#### Brief Description of Emissions Units and/or Activities

1. Backup Boiler\* - natural gas fired Bryan Steam Corp. Model No. 210-S-150 FDG with a maximum heat rate input of 1.68 MMBtu/hr.
2. Natural Gas burners - backup heat source in the oven in Coating Line No. 1.
3. Laboratory - Laboratory hood used for small scale testing and quality assurance.

NESHAP Applicability Note: The following note applied to the applicability of NESHAP 40 CFR 63 Subpart DDDDD, which was subsequently vacated by the United States Court of Appeals for the District of Columbia in its mandate issued 07/30/07. This applicability note is left in this permit for information purposes and for future reference should 40 CFR 63 Subpart DDDDD be re-promulgated by EPA.

\* 40 CFR 63 Subpart DDDDD NESHAP Applicability Note: This facility boiler is subject to 40 CFR 63 Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters (effective date 11/12/04), since it is a boiler located at a major source of HAPs. The boiler is in the "Existing small gaseous fuel boilers and process heaters" category in accordance with the definitions in 40 CFR 63.7575, since it fires natural gas and has a rated heat input capacity of less than 10 MMBtu/hour. As stipulated in 40 CFR 63.7506(c), at this time, units in this category are not subject to the initial notification requirements, nor are they subject to any of the requirements in this subpart, or Subpart A, General Provisions, of this part (i.e. there are no applicable requirements - they are not subject to the emission limits, work practice standards, performance testing, monitoring, SSM Plans, site-specific monitoring plans, recordkeeping and reporting requirements of this subpart or any other requirements in Subpart A).

**APPENDIX RR**

**FACILITY-WIDE REPORTING REQUIREMENTS**

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**RR1. Reporting Schedule.** This table summarizes information for convenience purposes only. It does not supersede any of the terms or conditions of this permit.

<b>Report</b>	<b>Reporting Deadline(s)</b>	<b>Related Condition(s)</b>
Plant Problems/Permit Deviations	Immediately upon occurrence (See RR2.d.)	RR2, RR3
Malfunction Excess Emissions Report	Quarterly (if requested)	RR3
Semi-Annual Monitoring Report	Every 6 months	RR4
Annual Operating Report	April 1	RR5
Annual Emissions Fee Form and Fee	March 1	RR6
Annual Statement of Compliance	Within 60 days after the end of each calendar year (or more frequently if specified by Rule 62-213.440(2), F.A.C., or by any other applicable requirement); and  Within 60 days after submittal of a written agreement for transfer of responsibility, or  Within 60 days after permanent shutdown.	RR7
Notification of Administrative Permit Corrections	As needed	RR8
Notification of Startup after Shutdown for More than One Year	Minimum of 60 days prior to the intended startup date or, if emergency startup, as soon as possible after the startup date is ascertained	RR9
Permit Renewal Application	225 days prior to the expiration date of permit	TV17
Test Reports	Maximum 45 days following compliance tests	TR8

*{Permitting Note: See permit Section III. Emissions Units and Specific Conditions, for any additional Emission Unit-specific reporting requirements.}*

**RR2. Reports of Problems.**

- a. Plant Operation-Problems. If the permittee is temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department. Notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules.
- b. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
  - (1) A description of and cause of noncompliance; and
  - (2) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.
- c. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes

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aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

- d. "Immediately" shall mean the same day, if during a workday (i.e., 8:00 a.m. - 5:00 p.m.), or the first business day after the incident, excluding weekends and holidays; and, for purposes of Rule 62-4.160(15) and 40 CFR 70.6(a)(3)(iii)(B), "promptly" or "prompt" shall have the same meaning as "immediately". [Rule 62-4.130, Rule 62-4.160(8), Rule 62-4.160(15), and Rule 62-213.440(1)(b), F.A.C.; 40 CFR 70.6(a)(3)(iii)(B)]

**RR3. Reports of Deviations from Permit Requirements.** The permittee shall report in accordance with the requirements of Rule 62-210.700(6), F.A.C. (below), and Rule 62-4.130, F.A.C. (condition RR2.), deviations from permit requirements, including those attributable to upset conditions as defined in the permit. Reports shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. *Rule 62-210.700(6):* In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. (See condition RR2.). A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rules 62-213.440(1)(b)3.b., and 62-210.700(6)F.A.C.]

**RR4. Semi-Annual Monitoring Reports.** The permittee shall submit reports of any required monitoring at least every six (6) months. All instances of deviations from permit requirements must be clearly identified in such reports. [Rule 62-213.440(1)(b)3.a., F.A.C.]

**RR5. Annual Operating Report.**

- a. The permittee shall submit to the Compliance Authority, each calendar year, on or before April 1, a completed DEP Form No 62-210.900(5), "Annual Operating Report for Air Pollutant Emitting Facility", for the preceding calendar year.
- b. Emissions shall be computed in accordance with the provisions of Rule 62-210.370(2), F.A.C. [Rules 62-210.370(2) & (3), and 62-213.440(3)(a)2., F.A.C.]

**RR6. Annual Emissions Fee Form and Fee.** Each Title V source permitted to operate in Florida must pay between January 15 and March 1 of each year, an annual emissions fee in an amount determined as set forth in Rule 62-213.205(1), F.A.C.

- a. If the Department has not received the fee by February 15 of the year following the calendar year for which the fee is calculated, the Department will send the primary responsible official of the Title V source a written warning of the consequences for failing to pay the fee by March 1. If the fee is not postmarked by March 1 of the year due, the Department shall impose, in addition to the fee, a penalty of 50 percent of the amount of the fee unpaid plus interest on such amount computed in accordance with Section 220.807, F.S. If the Department determines that a submitted fee was inaccurately calculated, the Department shall either refund to the permittee any amount overpaid or notify the permittee of any amount underpaid. The Department shall not impose a penalty or interest on any amount underpaid, provided that the permittee has timely remitted payment of at least 90 percent of the amount determined to be due and remits full payment within 60 days after receipt of notice of the amount underpaid. The Department shall waive the collection of underpayment and shall not refund overpayment of the fee, if the amount is less than 1 percent of the fee due, up to \$50.00. The Department shall make every effort to provide a timely assessment of the adequacy of the submitted fee. Failure to pay timely any required annual emissions fee, penalty, or interest constitutes grounds for permit revocation pursuant to Rule 62-4.100, F.A.C.
- b. Any documentation of actual hours of operation, actual material or heat input, actual production amount, or actual emissions used to calculate the annual emissions fee shall be retained by the owner for a minimum of five (5) years and shall be made available to the Department upon request.
- c. A completed DEP Form 62-213.900(1), "Major Air Pollution Source Annual Emissions Fee Form", must be submitted by a responsible official with the annual emissions fee. [Rules 62-213.205(1), (1)(g), (1)(i) & (1)(j), F.A.C.]

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**RR7. Annual Statement of Compliance.**

- a. The permittee shall submit a Statement of Compliance with all terms and conditions of the permit that includes all the provisions of 40 CFR 70.6(c)(5)(iii), incorporated by reference at Rule 62-204.800, F.A.C., using DEP Form No. 62-213.900(7). Such statement shall be accompanied by a certification in accordance with Rule 62-213.420(4), F.A.C., for Title V requirements and with Rule 62-214.350, F.A.C., for Acid Rain requirements. Such statements shall be submitted (postmarked) to the Department and EPA:
  - (1) Annually, within 60 days after the end of each calendar year during which the Title V permit was effective, or more frequently if specified by Rule 62-213.440(2), F.A.C., or by any other applicable requirement; and
  - (2) Within 60 days after submittal of a written agreement for transfer of responsibility as required pursuant to 40 CFR 70.7(d)(1)(iv), adopted and incorporated by reference at Rule 62-204.800, F.A.C., or within 60 days after permanent shutdown of a facility permitted under Chapter 62-213, F.A.C.; provided that, in either such case, the reporting period shall be the portion of the calendar year the permit was effective up to the date of transfer of responsibility or permanent facility shutdown, as applicable.
- b. In lieu of individually identifying all applicable requirements and specifying times of compliance with, non-compliance with, and deviation from each, the responsible official may use DEP Form No. 62-213.900(7) as such statement of compliance so long as the responsible official identifies all reportable deviations from and all instances of non-compliance with any applicable requirements and includes all information required by the federal regulation relating to each reportable deviation and instance of non-compliance.
- c. The responsible official may treat compliance with all other applicable requirements as a surrogate for compliance with Rule 62-296.320(2), Objectionable Odor Prohibited.  
[Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

**RR8. Notification of Administrative Permit Corrections.**

- a. A facility owner shall notify the Department by letter of minor corrections to information contained in a permit. Such notifications shall include:
  - (1) Typographical errors noted in the permit;
  - (2) Name, address or phone number change from that in the permit;
  - (3) A change requiring more frequent monitoring or reporting by the permittee;
  - (4) A change in ownership or operational control of a facility, subject to the following provisions:
    - (a) The Department determines that no other change in the permit is necessary;
    - (b) The permittee and proposed new permittee have submitted an Application for Transfer of Air Permit, and the Department has approved the transfer pursuant to Rule 62-210.300(7), F.A.C.; and
    - (c) The new permittee has notified the Department of the effective date of sale or legal transfer.
  - (5) Changes listed at 40 CFR 72.83(a)(1), (2), (6), (9) and (10), adopted and incorporated by reference at Rule 62-204.800, F.A.C., and changes made pursuant to Rules 62-214.340(1) and (2), F.A.C., to Title V sources subject to emissions limitations or reductions pursuant to 42 USC ss. 7651-7651o;
  - (6) Changes listed at 40 CFR 72.83(a)(11) and (12), adopted and incorporated by reference at Rule 62-204.800, F.A.C., to Title V sources subject to emissions limitations or reductions pursuant to 42 USC ss. 7651-7651o, provided the notification is accompanied by a copy of any EPA determination concerning the similarity of the change to those listed at Rule 62-210.360(1)(e), F.A.C.; and
  - (7) Any other similar minor administrative change at the source.
- b. Upon receipt of any such notification, the Department shall within 60 days correct the permit and provide a corrected copy to the owner.
- c. After first notifying the owner, the Department shall correct any permit in which it discovers errors of the types listed at Rules 62-210.360(1)(a) and (b), F.A.C., and provide a corrected copy to the owner.

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- d. For Title V source permits, other than general permits, a copy of the corrected permit shall be provided to EPA and any approved local air program in the county where the facility or any part of the facility is located.

[Rule 62-210.360, F.A.C.]

**RR9. Notification of Startup.** The owners or operator of any emissions unit or facility which has a valid air operation permit which has been shut down more than one year, shall notify the Department in writing of the intent to start up such emissions unit or facility, a minimum of 60 days prior to the intended startup date.

- a. The notification shall include information as to the startup date, anticipated emission rates or pollutants released, changes to processes or control devices which will result in changes to emission rates, and any other conditions which may differ from the valid outstanding operation permit.
- b. If, due to an emergency, a startup date is not known 60 days prior thereto, the owner shall notify the Department as soon as possible after the date of such startup is ascertained.

[Rule 62-210.300(5), F.A.C.]

**RR10. Report Submission.** The permittee shall submit all compliance related notifications and reports required of this permit to the Compliance Authority. {See front of permit for address and phone number. }

**RR11. EPA Report Submission.** Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to: Air, Pesticides & Toxics Management Division, United States Environmental Protection Agency, Region 4, Sam Nunn Atlanta Federal Center, 61 Forsyth Street SW, Atlanta, GA 30303-8960. Phone: 404/562-9077.

**RR12. Acid Rain Report Submission.** Acid Rain Program Information shall be submitted, as necessary, to: Department of Environmental Protection, 2600 Blair Stone Road, Mail Station #5510, Tallahassee, Florida 32399-2400. Phone: 850/488-6140. Fax: 850/922-6979.

**RR13. Report Certification.** All reports shall be accompanied by a certification by a responsible official, pursuant to Rule 62-213.420(4), F.A.C. [Rule 62-213.440(1)(b)3.c, F.A.C.]

**RR14. Certification by Responsible Official (RO).** In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information. [Rule 62-213.420(4), F.A.C.]

**RR15. Confidential Information.** Whenever an applicant submits information under a claim of confidentiality pursuant to Section 403.111, F.S., the applicant shall also submit a copy of all such information and claim directly to EPA. Any permittee may claim confidentiality of any data or other information by complying with this procedure. [Rules 62-213.420(2), and 62-213.440(1)(d)6., F.A.C.]

**RR16. Forms and Instructions.** The forms used by the Department in the Title V source operation program are adopted and incorporated by reference in Rule 62-213.900, F.A.C. The forms are listed by rule number, which is also the form number, and with the subject, title, and effective date. Copies of forms may be obtained by writing to the Department of Environmental Protection, Division of Air Resource Management, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, by contacting the appropriate permitting authority or by accessing the Department's web site at: <http://www.dep.state.fl.us/air/rules/forms.htm>.

- a. Major Air Pollution Source Annual Emissions Fee Form (Effective 10/12/2008).
- b. Statement of Compliance Form (Effective 06/02/2002).
- c. Responsible Official Notification Form (Effective 06/02/2002).

[Rule 62-213.900, F.A.C.: Forms (1), (7) and (8)]

## APPENDIX SS-1

### STACK SAMPLING FACILITIES (version dated 10/07/96)

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Stack Sampling Facilities Provided by the Owner of an Emissions Unit. This section describes the minimum requirements for stack sampling facilities that are necessary to sample point emissions units. Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. Emissions units must provide these facilities at their expense. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E.

(a) Permanent Test Facilities. The owner or operator of an emissions unit for which a compliance test, other than a visible emissions test, is required on at least an annual basis, shall install and maintain permanent stack sampling facilities.

(b) Temporary Test Facilities. The owner or operator of an emissions unit that is not required to conduct a compliance test on at least an annual basis may use permanent or temporary stack sampling facilities. If the owner chooses to use temporary sampling facilities on an emissions unit, and the Department elects to test the unit, such temporary facilities shall be installed on the emissions unit within 5 days of a request by the Department and remain on the emissions unit until the test is completed.

(c) Sampling Ports.

1. All sampling ports shall have a minimum inside diameter of 3 inches.

2. The ports shall be capable of being sealed when not in use.

3. The sampling ports shall be located in the stack at least 2 stack diameters or equivalent diameters downstream and at least 0.5 stack diameter or equivalent diameter upstream from any fan, bend, constriction or other flow disturbance.

4. For emissions units for which a complete application to construct has been filed prior to December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 15 feet or less. For stacks with a larger diameter, four sampling ports, each 90 degrees apart, shall be installed. For emissions units for which a complete application to construct is filed on or after December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 10 feet or less. For stacks with larger diameters, four sampling ports, each 90 degrees apart, shall be installed. On horizontal circular ducts, the ports shall be located so that the probe can enter the stack vertically, horizontally or at a 45 degree angle.

5. On rectangular ducts, the cross sectional area shall be divided into the number of equal areas in accordance with EPA Method 1. Sampling ports shall be provided which allow access to each sampling point. The ports shall be located so that the probe can be inserted perpendicular to the gas flow.

(d) Work Platforms.

1. Minimum size of the working platform shall be 24 square feet in area. Platforms shall be at least 3 feet wide.

2. On circular stacks with 2 sampling ports, the platform shall extend at least 110 degrees around the stack.

3. On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees around the stack.

4. All platforms shall be equipped with an adequate safety rail (ropes are not acceptable), toeboard, and hinged floor-opening cover if ladder access is used to reach the platform. The safety rail directly in line with the sampling ports shall be removable so that no obstruction exists in an area 14 inches below each sample port and 6 inches on either side of the sampling port.

(e) Access to Work Platform.

1. Ladders to the work platform exceeding 15 feet in length shall have safety cages or fall arresters with a minimum of 3 compatible safety belts available for use by sampling personnel.

2. Walkways over free-fall areas shall be equipped with safety rails and toeboards.

(f) Electrical Power.

1. A minimum of two 120-volt AC, 20-amp outlets shall be provided at the sampling platform within 20 feet of each sampling port.

2. If extension cords are used to provide the electrical power, they shall be kept on the plant's property and be available immediately upon request by sampling personnel.

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**STACK SAMPLING FACILITIES (version dated 10/07/96)**

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(g) Sampling Equipment Support.

1. A three-quarter inch eyebolt and an angle bracket shall be attached directly above each port on vertical stacks and above each row of sampling ports on the sides of horizontal ducts.

a. The bracket shall be a standard 3 inch x 3 inch x one-quarter inch equal-legs bracket which is 1 and one-half inches wide. A hole that is one-half inch in diameter shall be drilled through the exact center of the horizontal portion of the bracket. The horizontal portion of the bracket shall be located 14 inches above the centerline of the sampling port.

b. A three-eighth inch bolt which protrudes 2 inches from the stack may be substituted for the required bracket. The bolt shall be located 15 and one-half inches above the centerline of the sampling port.

c. The three-quarter inch eyebolt shall be capable of supporting a 500 pound working load. For stacks that are less than 12 feet in diameter, the eyebolt shall be located 48 inches above the horizontal portion of the angle bracket. For stacks that are greater than or equal to 12 feet in diameter, the eyebolt shall be located 60 inches above the horizontal portion of the angle bracket. If the eyebolt is more than 120 inches above the platform, a length of chain shall be attached to it to bring the free end of the chain to within safe reach from the platform.

2. A complete monorail or dual rail arrangement may be substituted for the eyebolt and bracket.

3. When the sample ports are located in the top of a horizontal duct, a frame shall be provided above the port to allow the sample probe to be secured during the test.

[Rule 62-297.310(6), F.A.C.]

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Unless otherwise specified in the permit, the following testing requirements apply to each emissions unit for which testing is required. The terms “stack” and “duct” are used interchangeably in this appendix.

**TR1. Required Number of Test Runs.** For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]

**TR2. Operating Rate During Testing.** Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. [Rule 62-297.310(2), F.A.C.]

**TR3. Calculation of Emission Rate.** For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

**TR4. Applicable Test Procedures.**

a. *Required Sampling Time.*

- (1) Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
- (2) **Opacity Compliance Tests.** When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
  - (a) For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
  - (b) The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
  - (c) The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an

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- applicable opacity standard shall be twelve minutes.
- b. *Minimum Sample Volume.* Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.
  - c. *Required Flow Rate Range.* For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
  - d. *Calibration of Sampling Equipment.* Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.

<b>TABLE 297.310-1 CALIBRATION SCHEDULE</b>			
<b>ITEM</b>	<b>MINIMUM CALIBRATION FREQUENCY</b>	<b>REFERENCE INSTRUMENT</b>	<b>TOLERANCE</b>
Liquid in glass thermometer	Annually	ASTM Hg in glass ref. thermometer or equivalent or thermometric points	+/-2%
Bimetallic thermometer	Quarterly	Calib. liq. in glass	5° F
Thermocouple	Annually	ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer	5° F
Barometer	Monthly	Hg barometer or NOAA station	+/-1% scale
Pitot Tube	When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Fig. 2-2 & 2-3
Probe Nozzles	Before each test or when nicked, dented, or corroded	Micrometer	+/- 0.001" mean of at least three readings; Max. deviation between readings, 0.004"
Dry Gas Meter and Orifice Meter	1. Full Scale: When received, when 5% change observed, annually	Spirometer or calibrated wet test or dry gas test meter	2%
	2. One Point: Semiannually		
	3. Check after each test series	Comparison check	5%

- e. *Allowed Modification to EPA Method 5.* When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

[Rule 62-297.310(4), F.A.C.]

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**TR5. Determination of Process Variables.**

- a. *Required Equipment.* The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- b. *Accuracy of Equipment.* Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

**TR6. Sampling Facilities.** Permittees that are required to sample mass emissions from point sources shall install stack sampling ports and provide sampling facilities that meet the requirements of this condition. Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must also comply with all applicable Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E.

- a. *Permanent Test Facilities.* The owner or operator of an emissions unit for which a compliance test, other than a visible emissions test, is required on at least an annual basis, shall install and maintain permanent stack sampling facilities.
- b. *Temporary Test Facilities.* The owner or operator of an emissions unit that is not required to conduct a compliance test on at least an annual basis may use permanent or temporary stack sampling facilities. If the owner chooses to use temporary sampling facilities on an emissions unit, and the Department elects to test the unit, such temporary facilities shall be installed on the emissions unit within 5 days of a request by the Department and remain on the emissions unit until the test is completed.
- c. *Sampling Ports.*
  - (1) All sampling ports shall have a minimum inside diameter of 3 inches.
  - (2) The ports shall be capable of being sealed when not in use.
  - (3) The sampling ports shall be located in the stack at least 2 stack diameters or equivalent diameters downstream and at least 0.5 stack diameter or equivalent diameter upstream from any fan, bend, constriction or other flow disturbance.
  - (4) For emissions units for which a complete application to construct has been filed prior to December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 15 feet or less. For stacks with a larger diameter, four sampling ports, each 90 degrees apart, shall be installed. For emissions units for which a complete application to construct is filed on or after December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 10 feet or less. For stacks with larger diameters, four sampling ports, each 90 degrees apart, shall be installed. On horizontal circular ducts, the ports shall be located so that the probe can enter the stack vertically, horizontally or at a 45 degree angle.
  - (5) On rectangular ducts, the cross sectional area shall be divided into the number of equal areas in accordance with EPA Method 1. Sampling ports shall be provided which allow access to each sampling point. The ports shall be located so that the probe can be inserted perpendicular to the gas flow.
- d. *Work Platforms.*
  - (1) Minimum size of the working platform shall be 24 square feet in area. Platforms shall be at least 3 feet wide.
  - (2) On circular stacks with 2 sampling ports, the platform shall extend at least 110 degrees around the stack.
  - (3) On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees

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- around the stack.
- (4) All platforms shall be equipped with an adequate safety rail (ropes are not acceptable), toe board, and hinged floor-opening cover if ladder access is used to reach the platform. The safety rail directly in line with the sampling ports shall be removable so that no obstruction exists in an area 14 inches below each sample port and 6 inches on either side of the sampling port.
- e. *Access to Work Platform.*
- (1) Ladders to the work platform exceeding 15 feet in length shall have safety cages or fall arresters with a minimum of 3 compatible safety belts available for use by sampling personnel.
- (2) Walkways over free-fall areas shall be equipped with safety rails and toe boards.
- f. *Electrical Power.*
- (1) A minimum of two 120-volt AC, 20-amp outlets shall be provided at the sampling platform within 20 feet of each sampling port.
- (2) If extension cords are used to provide the electrical power, they shall be kept on the plant's property and be available immediately upon request by sampling personnel.
- g. *Sampling Equipment Support.*
- (1) A three-quarter inch eyebolt and an angle bracket shall be attached directly above each port on vertical stacks and above each row of sampling ports on the sides of horizontal ducts.
- (a) The bracket shall be a standard 3 inch × 3 inch × one-quarter inch equal-legs bracket which is 1 and one-half inches wide. A hole that is one-half inch in diameter shall be drilled through the exact center of the horizontal portion of the bracket. The horizontal portion of the bracket shall be located 14 inches above the centerline of the sampling port.
- (b) A three-eighth inch bolt which protrudes 2 inches from the stack may be substituted for the required bracket. The bolt shall be located 15 and one-half inches above the centerline of the sampling port.
- (c) The three-quarter inch eyebolt shall be capable of supporting a 500 pound working load. For stacks that are less than 12 feet in diameter, the eyebolt shall be located 48 inches above the horizontal portion of the angle bracket. For stacks that are greater than or equal to 12 feet in diameter, the eyebolt shall be located 60 inches above the horizontal portion of the angle bracket. If the eyebolt is more than 120 inches above the platform, a length of chain shall be attached to it to bring the free end of the chain to within safe reach from the platform.
- (2) A complete monorail or dual rail arrangement may be substituted for the eyebolt and bracket.
- (3) When the sample ports are located in the top of a horizontal duct, a frame shall be provided above the port to allow the sample probe to be secured during the test.

[Rule 62-297.310(6), F.A.C.]

**TR7. Frequency of Compliance Tests.** The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

- a. *General Compliance Testing.*
- (1) The owner or operator of a new or modified emissions unit that is subject to an emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining an operation permit for such emissions unit.
- (2) For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid and/or solid fuel for more than 400 hours other than during startup.
- (3) The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct

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an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to sub-subparagraph 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

- (a) Did not operate; or
  - (b) In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours.
- (4) During each federal fiscal year (October 1 – September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
- (a) Visible emissions, if there is an applicable standard;
  - (b) Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
  - (c) Each NESHAP pollutant, if there is an applicable emission standard.
- (5) An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.
- (6) For fossil fuel steam generators on a semi-annual particulate matter emission compliance testing schedule, a compliance test shall not be required for any six-month period in which liquid and/or solid fuel is not burned for more than 200 hours other than during startup.
- (7) For emissions units electing to conduct particulate matter emission compliance testing quarterly pursuant to paragraph 62-296.405(2)(a), F.A.C., a compliance test shall not be required for any quarter in which liquid and/or solid fuel is not burned for more than 100 hours other than during startup.
- (8) Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.
- (9) The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
- (10) An annual compliance test conducted for visible emissions shall not be required for units exempted from air permitting pursuant to subsection 62-210.300(3), F.A.C.; units determined to be insignificant pursuant to subparagraph 62-213.300(2)(a)1., A.C., or paragraph 62-213.430(6)(b), F.A.C.; or units permitted under the General Permit provisions in paragraph 62-210.300(4)(a) or Rule 62-213.300, F.A.C., unless the general permit specifically requires such testing.
- b. *Special Compliance Tests.* When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
- c. *Waiver of Compliance Test Requirements.* If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a

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bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of paragraph 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.]

**TR8. Test Reports.**

- a. The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
- b. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- c. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information.
  - (1) The type, location, and designation of the emissions unit tested.
  - (2) The facility at which the emissions unit is located.
  - (3) The owner or operator of the emissions unit.
  - (4) The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
  - (5) The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
  - (6) The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
  - (7) A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
  - (8) The date, starting time and duration of each sampling run.
  - (9) The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
  - (10) The number of points sampled and configuration and location of the sampling plane.
  - (11) For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
  - (12) The type, manufacturer and configuration of the sampling equipment used.
  - (13) Data related to the required calibration of the test equipment.
  - (14) Data on the identification, processing and weights of all filters used.
  - (15) Data on the types and amounts of any chemical solutions used.
  - (16) Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
  - (17) The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
  - (18) All measured and calculated data required to be determined by each applicable test procedure for each run.
  - (19) The detailed calculations for one run that relate the collected data to the calculated emission rate.
  - (20) The applicable emission standard and the resulting maximum allowable emission rate for the emissions unit plus the test result in the same form and unit of measure.
  - (21) A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who

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conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

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**Operation**

- TV1. General Prohibition.** A permitted installation may only be operated, maintained, constructed, expanded or modified in a manner that is consistent with the terms of the permit. [Rule 62-4.030, Florida Administrative Code (F.A.C.)]
- TV2. Validity.** This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department. [Rule 62-4.160(2), F.A.C.]
- TV3. Proper Operation and Maintenance.** The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules. [Rule 62-4.160(6), F.A.C.]
- TV4. Not Federally Enforceable. Health, Safety and Welfare.** To ensure protection of public health, safety, and welfare, any construction, modification, or operation of an installation which may be a source of pollution, shall be in accordance with sound professional engineering practices pursuant to Chapter 471, F.S. [Rule 62-4.050(3), F.A.C.]
- TV5. Continued Operation.** An applicant making timely and complete application for permit, or for permit renewal, shall continue to operate the source under the authority and provisions of any existing valid permit or Florida Electrical Power Plant Siting Certification, and in accordance with applicable requirements of the Acid Rain Program and applicable requirements of the CAIR Program, until the conclusion of proceedings associated with its permit application or until the new permit becomes effective, whichever is later, provided the applicant complies with all the provisions of subparagraphs 62-213.420(1)(b)3., F.A.C. [Rules 62-213.420(1)(b)2., F.A.C.]
- TV6. Changes Without Permit Revision.** Title V sources having a valid permit issued pursuant to Chapter 62-213, F.A.C., may make the following changes without permit revision, provided that sources shall maintain source logs or records to verify periods of operation:
- a. Permitted sources may change among those alternative methods of operation allowed by the source's permit as provided by the terms of the permit;
  - b. A permitted source may implement operating changes, as defined in Rule 62-210.200, F.A.C., after the source submits any forms required by any applicable requirement and provides the Department and EPA with at least 7 days written notice prior to implementation. The source and the Department shall attach each notice to the relevant permit;
    - (1) The written notice shall include the date on which the change will occur, and a description of the change within the permitted source, the pollutants emitted and any change in emissions, and any term or condition becoming applicable or no longer applicable as a result of the change;
    - (2) The permit shield described in Rule 62-213.460, F.A.C., shall not apply to such changes;
  - c. Permitted sources may implement changes involving modes of operation only in accordance with Rule 62-213.415, F.A.C.
- [Rule 62-213.410, F.A.C.]
- TV7. Circumvention.** No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]

**Compliance**

- TV8. Compliance with Chapter 403, F.S., and Department Rules.** Except as provided at Rule 62-213.460, Permit Shield, F.A.C., the issuance of a permit does not relieve any person from complying with the requirements of Chapter 403, F.S., or Department rules. [Rule 62-4.070(7), F.A.C.]

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- TV9.** Compliance with Federal, State and Local Rules. Except as provided at Rule 62-213.460, F.A.C., issuance of a permit does not relieve the owner or operator of a facility or an emissions unit from complying with any applicable requirements, any emission limiting standards or other requirements of the air pollution rules of the Department or any other such requirements under federal, state, or local law. [Rule 62-210.300, F.A.C.]
- TV10.** Binding and enforceable. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions. [Rule 62-4.160(1), F.A.C.]
- TV11.** Timely information. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly. [Rule 62-4.160(15), F.A.C.]
- TV12.** Halting or reduction of source activity. It shall not be a defense for a permittee in an enforcement action that maintaining compliance with any permit condition would necessitate halting of or reduction of the source activity. [Rule 62-213.440(1)(d)3., F.A.C.]
- TV13.** Final permit action. Any Title V source shall comply with all the terms and conditions of the existing permit until the Department has taken final action on any permit renewal or any requested permit revision, except as provided at Rule 62-213.412(2), F.A.C. [Rule 62-213.440(1)(d)4., F.A.C.]
- TV14.** Sudden and unforeseeable events beyond the control of the source. A situation arising from sudden and unforeseeable events beyond the control of the source which causes an exceedance of a technology-based emissions limitation because of unavoidable increases in emissions attributable to the situation and which requires immediate corrective action to restore normal operation, shall be an affirmative defense to an enforcement action in accordance with the provisions and requirements of 40 CFR 70.6(g)(2) and (3), hereby adopted and incorporated by reference. [Rule 62-213.440(1)(d)5., F.A.C.]
- TV15.** Permit Shield. Except as provided in Chapter 62-213, F.A.C., compliance with the terms and conditions of a permit issued pursuant to Chapter 62-213, F.A.C., shall, as of the effective date of the permit, be deemed compliance with any applicable requirements in effect, provided that the source included such applicable requirements in the permit application. Nothing in this condition or in any permit shall alter or affect the ability of EPA or the Department to deal with an emergency, the liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance, or the requirements of the Federal Acid Rain Program or the CAIR Program. [Rule 62-213.460, F.A.C.]
- TV16.** Compliance With Federal Rules. A facility or emissions unit subject to any standard or requirement of 40 CFR, Part 60, 61, 63 or 65, adopted and incorporated by reference at Rule 62-204.800, F.A.C., shall comply with such standard or requirement. Nothing in this chapter shall relieve a facility or emissions unit from complying with such standard or requirement, provided, however, that where a facility or emissions unit is subject to a standard established in Rule 62-296, F.A.C., such standard shall also apply. [Rule 62-296.100(3), F.A.C.]

**Permit Procedures**

- TV17.** Permit Revision Procedures. The permittee shall revise its permit as required by Rules 62-213.400, 62-213.412, 62-213.420, 62-213.430 & 62-4.080, F.A.C.; and, in addition, the Department shall revise permits as provided in Rule 62-4.080, F.A.C. & 40 CFR 70.7(f).
- TV18.** Permit Renewal. The permittee shall renew its permit as required by Rules 62-4.090, 62.213.420(1) and 62-213.430(3), F.A.C. Permits being renewed are subject to the same requirements that apply to permit issuance at the time of application for renewal. Permit renewal applications shall contain that information

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identified in Rules 62-210.900(1) [Application for Air Permit - Long Form], 62-213.420(3) [Required Information], 62-213.420(6) [CAIR Part Form], F.A.C. Unless a Title V source submits a timely and complete application for permit renewal in accordance with the requirements this rule, the existing permit shall expire and the source's right to operate shall terminate. For purposes of a permit renewal, a timely application is one that is submitted 225 days before the expiration of a permit that expires on or after June 1, 2009. No Title V permit will be issued for a new term except through the renewal process. [Rules 62-213.420 & 62-213.430, F.A.C.]

**TV19. Insignificant Emissions Units or Pollutant-Emitting Activities.** The permittee shall identify and evaluate insignificant emissions units and activities as set forth in Rule 62-213.430(6), F.A.C.

**TV20. Savings Clause.** If any portion of the final permit is invalidated, the remainder of the permit shall remain in effect. [Rule 62-213.440(1)(d)1., F.A.C.]

**TV21. Suspension and Revocation.**

- a. Permits shall be effective until suspended, revoked, surrendered, or expired and shall be subject to the provisions of Chapter 403, F.S., and rules of the Department.
- b. Failure to comply with pollution control laws and rules shall be grounds for suspension or revocation.
- c. A permit issued pursuant to Chapter 62-4, F.A.C., shall not become a vested property right in the permittee. The Department may revoke any permit issued by it if it finds that the permit holder or his agent:
  - (1) Submitted false or inaccurate information in his application or operational reports.
  - (2) Has violated law, Department orders, rules or permit conditions.
  - (3) Has failed to submit operational reports or other information required by Department rules.
  - (4) Has refused lawful inspection under Section 403.091, F.S.
- d. No revocation shall become effective except after notice is served by personal services, certified mail, or newspaper notice pursuant to Section 120.60(5), F.S., upon the person or persons named therein and a hearing held if requested within the time specified in the notice. The notice shall specify the provision of the law, or rule alleged to be violated, or the permit condition or Department order alleged to be violated, and the facts alleged to constitute a violation thereof.

[Rule 62-4.100, F.A.C.]

**TV22. Not federally enforceable. Financial Responsibility.** The Department may require an applicant to submit proof of financial responsibility and may require the applicant to post an appropriate bond to guarantee compliance with the law and Department rules. [Rule 62-4.110, F.A.C.]

**TV23. Emissions Unit Reclassification.**

- a. Any emissions unit whose operation permit has been revoked as provided for in Chapter 62-4, F.A.C., shall be deemed permanently shut down for purposes of Rule 62-212.500, F.A.C. Any emissions unit whose permit to operate has expired without timely renewal or transfer may be deemed permanently shut down, provided, however, that no such emissions unit shall be deemed permanently shut down if, within 20 days after receipt of written notice from the Department, the emissions unit owner or operator demonstrates that the permit expiration resulted from inadvertent failure to comply with the requirements of Rule 62-4.090, F.A.C., and that the owner or operator intends to continue the emissions unit in operation, and either submits an application for an air operation permit or complies with permit transfer requirements, if applicable.
- b. If the owner or operator of an emissions unit which is so permanently shut down, applies to the Department for a permit to reactivate or operate such emissions unit, the emissions unit will be reviewed and permitted as a new emissions unit.

[Rule 62-210.300(6), F.A.C.]

**TV24. Transfer of Permits.** Per Rule 62-4.160(11), F.A.C., this permit is transferable only upon Department approval in accordance with Rule 62-4.120, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations occurring prior to the sale or legal transfer of the facility. The permittee shall also comply with the

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requirements of Rule 62-210.300(7), F.A.C., and use DEP Form No. 62-210.900(7). [Rules 62-4.160(11), 62-4.120, and 62-210.300(7), F.A.C.]

**Rights, Title, Liability, and Agreements**

**TV25. Rights.** As provided in Subsections 403.987(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit. [Rule 62-4.160(3), F.A.C.]

**TV26. Title.** This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title. [Rule 62-4.160(4), (F.A.C.)]

**TV27. Liability.** This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of F.S. and Department rules, unless specifically authorized by an order from the Department. [Rule 62-4.160(5), F.A.C.]

**TV28. Agreements.**

- a. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
  - (1) Have access to and copy any records that must be kept under conditions of the permit;
  - (2) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and,
  - (3) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules. Reasonable time may depend on the nature of the concern being investigated.
- b. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- c. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

[Rules 62-4.160(7), (9), and (10), F.A.C.]

**Recordkeeping and Emissions Computation**

**TV29. Permit.** The permittee shall keep this permit or a copy thereof at the work site of the permitted activity. [Rule 62-4.160(12), F.A.C.]

**TV30. Recordkeeping.**

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five (5) years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:

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- (1) The date, exact place, and time of sampling or measurements, and the operating conditions at the time of sampling or measurement;
- (2) The person responsible for performing the sampling or measurements;
- (3) The dates analyses were performed;
- (4) The person and company that performed the analyses;
- (5) The analytical techniques or methods used;
- (6) The results of such analyses.

[Rules 62-4.160(14) and 62-213.440(1)(b)2., F.A.C.]

**TV31. Emissions Computation.** Pursuant to Rule 62-210.370, F.A.C., the following required methodologies are to be used by the owner or operator of a facility for computing actual emissions, baseline actual emissions, and net emissions increase, as defined at Rule 62-210.200, F.A.C., and for computing emissions for purposes of the reporting requirements of subsection 62-210.370(3) and paragraph 62-212.300(1)(e), F.A.C., or of any permit condition that requires emissions be computed in accordance with Rule 62-210.370, F.A.C. Rule 62-210.370, F.A.C., is not intended to establish methodologies for determining compliance with the emission limitations of any air permit.

For any of the purposes specified above, the owner or operator of a facility shall compute emissions in accordance with the requirements set forth in this subsection.

a. *Basic Approach.* The owner or operator shall employ, on a pollutant-specific basis, the most accurate of the approaches set forth below to compute the emissions of a pollutant from an emissions unit; provided, however, that nothing in this rule shall be construed to require installation and operation of any continuous emissions monitoring system (CEMS), continuous parameter monitoring system (CPMS), or predictive emissions monitoring system (PEMS) not otherwise required by rule or permit, nor shall anything in this rule be construed to require performance of any stack testing not otherwise required by rule or permit.

- (1) If the emissions unit is equipped with a CEMS meeting the requirements of paragraph 62-210.370(2)(b), F.A.C., the owner or operator shall use such CEMS to compute the emissions of the pollutant, unless the owner or operator demonstrates to the department that an alternative approach is more accurate because the CEMS represents still-emerging technology.
- (2) If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., but emissions of the pollutant can be computed pursuant to the mass balance methodology of paragraph 62-210.370(2)(c), F.A.C., the owner or operator shall use such methodology, unless the owner or operator demonstrates to the department that an alternative approach is more accurate.
- (3) If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., and emissions cannot be computed pursuant to the mass balance methodology, the owner or operator shall use an emission factor meeting the requirements of paragraph 62-210.370(2)(d), F.A.C., unless the owner or operator demonstrates to the department that an alternative approach is more accurate.

b. *Continuous Emissions Monitoring System (CEMS).*

- (1) An owner or operator may use a CEMS to compute emissions of a pollutant for purposes of this rule provided:
  - (a) The CEMS complies with the applicable certification and quality assurance requirements of 40 CFR Part 60, Appendices B and F, or, for an acid rain unit, the certification and quality assurance requirements of 40 CFR Part 75, all adopted by reference at Rule 62-204.800, F.A.C.; or,
  - (b) The owner or operator demonstrates that the CEMS otherwise represents the most accurate means of computing emissions for purposes of this rule.
- (2) Stack gas volumetric flow rates used with the CEMS to compute emissions shall be obtained by the most accurate of the following methods as demonstrated by the owner or operator:
  - (a) A calibrated flowmeter that records data on a continuous basis, if available; or

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- (b) The average flow rate of all valid stack tests conducted during a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.
- (3) The owner or operator may use CEMS data in combination with an appropriate f-factor, heat input data, and any other necessary parameters to compute emissions if such method is demonstrated by the owner or operator to be more accurate than using a stack gas volumetric flow rate as set forth at subparagraph 62-210.370(2)(b)2., F.A.C., above.
- c. *Mass Balance Calculations.*
  - (1) An owner or operator may use mass balance calculations to compute emissions of a pollutant for purposes of this rule provided the owner or operator:
    - (a) Demonstrates a means of validating the content of the pollutant that is contained in or created by all materials or fuels used in or at the emissions unit; and,
    - (b) Assumes that the emissions unit emits all of the pollutant that is contained in or created by any material or fuel used in or at the emissions unit if it cannot otherwise be accounted for in the process or in the capture and destruction of the pollutant by the unit's air pollution control equipment.
  - (2) Where the vendor of a raw material or fuel which is used in or at the emissions unit publishes a range of pollutant content from such material or fuel, the owner or operator shall use the highest value of the range to compute the emissions, unless the owner or operator demonstrates using site-specific data that another content within the range is more accurate.
  - (3) In the case of an emissions unit using coatings or solvents, the owner or operator shall document, through purchase receipts, records and sales receipts, the beginning and ending VOC inventories, the amount of VOC purchased during the computational period, and the amount of VOC disposed of in the liquid phase during such period.
- d. *Emission Factors.*
  - (1) An owner or operator may use an emission factor to compute emissions of a pollutant for purposes of this rule provided the emission factor is based on site-specific data such as stack test data, where available, unless the owner or operator demonstrates to the department that an alternative emission factor is more accurate. An owner or operator using site-specific data to derive an emission factor, or set of factors, shall meet the following requirements.
    - (a) If stack test data are used, the emission factor shall be based on the average emissions per unit of input, output, or gas volume, whichever is appropriate, of all valid stack tests conducted during at least a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.
    - (b) Multiple emission factors shall be used as necessary to account for variations in emission rate associated with variations in the emissions unit's operating rate or operating conditions during the period over which emissions are computed.
    - (c) The owner or operator shall compute emissions by multiplying the appropriate emission factor by the appropriate input, output or gas volume value for the period over which the emissions are computed. The owner or operator shall not compute emissions by converting an emission factor to pounds per hour and then multiplying by hours of operation, unless the owner or operator demonstrates that such computation is the most accurate method available.
  - (2) If site-specific data are not available to derive an emission factor, the owner or operator may use a published emission factor directly applicable to the process for which emissions are computed. If no directly-applicable emission factor is available, the owner or operator may use a factor based on a similar, but different, process.
- e. *Accounting for Emissions During Periods of Missing Data from CEMS, PEMS, or CPMS.* In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of

APPENDIX TV

TITLE V GENERAL CONDITIONS

(Version Dated 02/16/2012)

missing data from CEMS, PEMS, or CPMS using other site-specific data to generate a reasonable estimate of such emissions.

- f. *Accounting for Emissions During Periods of Startup and Shutdown.* In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of startup and shutdown of the emissions unit.
- g. *Fugitive Emissions.* In computing the emissions of a pollutant from a facility or emissions unit, the owner or operator shall account for the fugitive emissions of the pollutant, to the extent quantifiable, associated with such facility or emissions unit.
- h. *Recordkeeping.* The owner or operator shall retain a copy of all records used to compute emissions pursuant to this rule for a period of five years from the date on which such emissions information is submitted to the department for any regulatory purpose.

[Rule 62-210.370(1) & (2), F.A.C.]

**Responsible Official**

**TV32. Designation and Update.** The permittee shall designate and update a responsible official as required by Rule 62-213.202, F.A.C.

**Prohibitions and Restrictions**

**TV33. Asbestos.** This permit does not authorize any demolition or renovation of the facility or its parts or components which involves asbestos removal. This permit does not constitute a waiver of any of the requirements of Chapter 62-257, F.A.C., and 40 CFR 61, Subpart M, National Emission Standard for Asbestos, adopted and incorporated by reference in Rule 62-204.800, F.A.C. Compliance with Chapter 62-257, F.A.C., and 40 CFR 61, Subpart M, Section 61.145, is required for any asbestos demolition or renovation at the source. [40 CFR 61; Rule 62-204.800, F.A.C.; and, Chapter 62-257, F.A.C.]

**TV34. Refrigerant Requirements.** Any facility having refrigeration equipment, including air conditioning equipment, which uses a Class I or II substance (listed at 40 CFR 82, Subpart A, Appendices A and B), and any facility which maintains, services, or repairs motor vehicles using a Class I or Class II substance as refrigerant must comply with all requirements of 40 CFR 82, Subparts B and F, and with Chapter 62-281, F.A.C.

**TV35. Open Burning Prohibited.** Open burning is prohibited unless performed in accordance with the provisions of Rule 62-296.320(3) or Chapter 62-256, F.A.C.

ATTACHMENT A

Applicability Table

40 CFR 63, Subpart JJJ  
National Emission Standards for Hazardous Air Pollutants  
Paper and Other Web Coating

## SUBPART JJJJ, APPLICABILITY TABLE

Subpart JJJJ—National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating Rule Applicability Table	Applies Yes/No
<b>What This Subpart Covers</b>	
<p><b>§ 63.3280 What is in this subpart?</b> This subpart describes the actions you must take to reduce emissions of organic hazardous air pollutants (HAP) from paper and other web coating operations. This subpart establishes emission standards for web coating lines and specifies what you must do to comply if you own or operate a facility with web coating lines that is a major source of HAP. Certain requirements apply to all who are subject to this subpart; others depend on the means you use to comply with an emission standard.</p>	Yes
<p><b>§ 63.3290 Does this subpart apply to me?</b> The provisions of this subpart apply to each new and existing facility that is a major source of HAP, as defined in §63.2, at which web coating lines are operated.</p>	Yes
<p><b>§ 63.3300 Which of my emission sources are affected by this subpart?</b> The affected source subject to this subpart is the collection of all web coating lines at your facility. This includes web coating lines engaged in the coating of metal webs that are used in flexible packaging, and web coating lines engaged in the coating of fabric substrates for use in pressure sensitive tape and abrasive materials. Web coating lines specified in paragraphs (a) through (g) of this section are not part of the affected source of this subpart.</p>	Yes
<p>(a) Any web coating line that is stand-alone equipment under subpart KK of this part (National Emission Standards for the Printing and Publishing Industry) which the owner or operator includes in the affected source under subpart KK.</p>	
<p>(b) Any web coating line that is a product and packaging rotogravure or wide-web flexographic press under subpart KK of this part (national emission standards for the printing and publishing industry) which is included in the affected source under subpart KK.</p>	
<p>(c) Web coating in lithography, screenprinting, letterpress, and narrow-web flexographic printing processes.</p>	
<p>(d) Any web coating line subject to subpart EE of this part (national emission standards for magnetic tape manufacturing operations).</p>	
<p>(e) Any web coating line that will be subject to the national emission standards for hazardous air pollutants (NESHAP) for surface coating of metal coil currently under development.</p>	
<p>(f) Any web coating line that will be subject to the NESHAP for the printing, coating, and dyeing of fabric and other textiles currently under development. This would include any web coating line that coats both a paper or other web substrate and a fabric or other textile substrate, except for a fabric substrate used for pressure sensitive tape and abrasive materials.</p>	
<p>(g) Any web coating line that is defined as research or laboratory equipment in §63.3310.</p>	
<p><b>§ 63.3310 What definitions are used in this subpart?</b> All terms used in this subpart that are not defined in this section have the meaning given to them in the Clean Air Act (CAA) and in subpart A of this part.</p>	Yes
<p><b>Emission Standards and Compliance Dates</b></p>	
<p><b>§ 63.3320 What emission standards must I meet?</b></p>	Yes
<p>(a) If you own or operate any affected source that is subject to the requirements of this subpart, you must comply with these requirements on and after the compliance dates as specified in §63.3330.</p>	Yes
<p>(b) You must limit organic HAP emissions to the level specified in paragraph (b)(1), (2), (3), or (4) of this section.</p>	Yes
<p>(1) No more than 5 percent of the organic HAP applied for each month (95 percent reduction) at existing affected sources, and no more than 2 percent of the organic HAP applied for each month (98 percent reduction) at new affected sources; or</p>	Yes
<p>(2) No more than 4 percent of the mass of coating materials applied for each month at existing affected sources, and no more than 1.6 percent of the mass of coating materials applied for each month at new affected sources; or</p>	No
<p>(3) No more than 20 percent of the mass of coating solids applied for each month at existing affected sources, and no more than 8 percent of the coating solids applied for each month at new affected sources.</p>	No
<p>(4) If you use an oxidizer to control organic HAP emissions, operate the oxidizer such that an outlet organic HAP concentration of no greater than 20 parts per million by volume (ppmv) by compound on a dry basis is achieved and the efficiency of the capture system is 100 percent.</p>	No
<p>(c) You must demonstrate compliance with this subpart by following the procedures in §63.3370.</p>	Yes

**ATTACHMENT A**

**SUBPART JJJJ, APPLICABILITY TABLE**

<b>§ 63.3321 What operating limits must I meet?</b>	<b>Yes</b>
(a) For any web coating line or group of web coating lines for which you use add-on control devices, unless you use a solvent recovery system and conduct a liquid-liquid material balance, you must meet the operating limits specified in Table 1 to this subpart or according to paragraph (b) of this section. These operating limits apply to emission capture systems and control devices, and you must establish the operating limits during the performance test according to the requirements in §63.3360(e)(3). You must meet the operating limits at all times after you establish them.	Yes
(b) If you use an add-on control device other than those listed in Table 1 to this subpart or wish to monitor an alternative parameter and comply with a different operating limit, you must apply to the Administrator for approval of alternative monitoring under §63.8(f).	No
<b>§ 63.3330 When must I comply?</b>	<b>Yes</b>
(a) If you own or operate an existing affected source subject to the provisions of this subpart, you must comply by the compliance date. The compliance date for existing affected sources in this subpart is December 5, 2005. You must complete any performance test required in §63.3360 within the time limits specified in §63.7(a)(2).	No
(b) If you own or operate a new affected source subject to the provisions of this subpart, your compliance date is immediately upon start-up of the new affected source or by December 4, 2002, whichever is later. You must complete any performance test required in §63.3360 within the time limits specified in §63.7(a)(2).	No
(c) If you own or operate a reconstructed affected source subject to the provisions of this subpart, your compliance date is immediately upon startup of the affected source or by December 4, 2002, whichever is later. Existing affected sources which have undergone reconstruction as defined in §63.2 are subject to the requirements for new affected sources. The costs associated with the purchase and installation of air pollution control equipment are not considered in determining whether the existing affected source has been reconstructed. Additionally, the costs of retrofitting and replacing of equipment that is installed specifically to comply with this subpart are not considered reconstruction costs. You must complete any performance test required in §63.3360 within the time limits specified in §63.7(a)(2).	Yes
<b>General Requirements for Compliance With the Emission Standards and for Monitoring and Performance Tests</b>	
<b>§ 63.3340 What general requirements must I meet to comply with the standards?</b>	<b>Yes</b>
Table 2 to this subpart specifies the provisions of subpart A of this part that apply if you are subject to this subpart, such as startup, shutdown, and malfunction plans (SSMP) in §63.6(e)(3) for affected sources using a control device to comply with the emission standards.	

**ATTACHMENT A**

**SUBPART JJJJ, APPLICABILITY TABLE**

<b>§ 63.3350 If I use a control device to comply with the emission standards, what monitoring must I do?</b>		<b>Yes</b>
(a) A summary of monitoring you must do follows:		
<b>If you operate a web coating line, and have the following:</b>	<b>Then you must:</b>	
(1) Intermittently-controlled work stations	Record parameters related to possible exhaust flow bypass of control device and to coating use (§63.3350(c)).	No
(2) Solvent recovery unit	Operate continuous emission monitoring system and perform quarterly audits or determine volatile matter recovered and conduct a liquid-liquid material balance (§63.3350(d)).	No
(3) Control Device	Operate continuous parameter monitoring system (§63.3350(e)).	Yes
(4) Capture system	Monitor capture system operating parameter (§63.3350(f)).	Yes
(b) Following the date on which the initial performance test of a control device is completed to demonstrate continuing compliance with the standards, you must monitor and inspect each capture system and each control device used to comply with §63.3320. You must install and operate the monitoring equipment as specified in paragraphs (c) and (f) of this section.		Yes
(c) Bypass and coating use monitoring. If you own or operate web coating lines with intermittently-controlled work stations, you must monitor bypasses of the control device and the mass of each coating material applied at the work station during any such bypass. If using a control device for complying with the requirements of this subpart, you must demonstrate that any coating material applied on a never-controlled work station or an intermittently-controlled work station operated in bypass mode is allowed in your compliance demonstration according to §63.3370(n) and (o). The bypass monitoring must be conducted using at least one of the procedures in paragraphs (c)(1) through (4) of this section for each work station and associated dryer.		No
(1) Flow control position indicator. Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that provides a record indicating whether the exhaust stream from the dryer was directed to the control device or was diverted from the control device. The time and flow control position must be recorded at least once per hour as well as every time the flow direction is changed. A flow control position indicator must be installed at the entrance to any bypass line that could divert the exhaust stream away from the control device to the atmosphere.		No
(2) Car-seal or lock-and-key valve closures. Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must be performed at least once every month to ensure that the valve or damper is maintained in the closed position, and the exhaust stream is not diverted through the bypass line.		No
(3) Valve closure continuous monitoring. Ensure that any bypass line valve or damper is in the closed position through continuous monitoring of valve position when the emission source is in operation and is using a control device for compliance with the requirements of this subpart. The monitoring system must be inspected at least once every month to verify that the monitor will indicate valve position.		No
(4) Automatic shutdown system. Use an automatic shutdown system in which the web coating line is stopped when flow is diverted away from the control device to any bypass line when the control device is in operation. The automatic system must be inspected at least once every month to verify that it will detect diversions of flow and would shut down operations in the event of such a diversion.		No
(d) Solvent recovery unit. If you own or operate a solvent recovery unit to comply with §63.3320, you must meet the requirements in either paragraph (d)(1) or (2) of this section depending on how control efficiency is determined.		
(1) Continuous emission monitoring system (CEMS). If you are demonstrating compliance with the emission standards in §63.3320 through continuous emission monitoring of a control device, you must install, calibrate, operate, and maintain the CEMS according to paragraphs (d)(1)(i) through (iii) of this section.		
(i) Measure the total organic volatile matter mass flow rate at both the control device inlet and the outlet such that the reduction efficiency can be determined. Each continuous emission monitor must comply with performance specification 6, 8, or 9 of 40 CFR part 60, appendix B, as appropriate.		No
(ii) You must follow the quality assurance procedures in procedure 1, appendix F of 40 CFR part 60. In conducting the quarterly audits of the monitors as required by procedure 1, appendix F, you must use compounds representative of the gaseous emission stream being controlled.		
(iii) You must have valid data from at least 90 percent of the hours during which the process is operated.		

**ATTACHMENT A**

**SUBPART JJJJ, APPLICABILITY TABLE**

<p>(2) Liquid-liquid material balance. If you are demonstrating compliance with the emission standards in §63.3320 through liquid-liquid material balance, you must install, calibrate, maintain, and operate according to the manufacturer's specifications a device that indicates the cumulative amount of volatile matter recovered by the solvent recovery device on a monthly basis. The device must be certified by the manufacturer to be accurate to within <math>\pm 2.0</math> percent by mass.</p>	<p align="center">No</p>
<p>(e) Continuous parameter monitoring system (CPMS). If you are using a control device to comply with the emission standards in §63.3320, you must install, operate, and maintain each CPMS specified in paragraphs (e)(9) and (10) and (f) of this section according to the requirements in paragraphs (e)(1) through (8) of this section. You must install, operate, and maintain each CPMS specified in paragraph (c) of this section according to paragraphs (e)(5) through (7) of this section.</p>	<p align="center">Yes</p>
<p>(1) Each CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four equally spaced successive cycles of CPMS operation to have a valid hour of data.</p>	<p align="center">Yes</p>
<p>(2) You must have valid data from at least 90 percent of the hours during which the process operated.</p>	<p align="center">Yes</p>
<p>(3) You must determine the hourly average of all recorded readings according to paragraphs (e)(3)(i) and (ii) of this section.</p> <p>(i) To calculate a valid hourly value, you must have at least three of four equally spaced data values from that hour from a continuous monitoring system (CMS) that is not out-of-control.</p> <p>(ii) Provided all of the readings recorded in accordance with paragraph (e)(3) of this section clearly demonstrate continuous compliance with the standard that applies to you, then you are not required to determine the hourly average of all recorded readings.</p>	<p align="center">Yes</p>
<p>(4) You must determine the rolling 3-hour average of all recorded readings for each operating period. To calculate the average for each 3-hour averaging period, you must have at least two of three of the hourly averages for that period using only average values that are based on valid data ( i.e., not from out-of-control periods).</p>	<p align="center">Yes</p>
<p>(5) You must record the results of each inspection, calibration, and validation check of the CPMS.</p>	<p align="center">Yes</p>
<p>(6) At all times, you must maintain the monitoring system in proper working order including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.</p>	<p align="center">Yes</p>
<p>(7) Except for monitoring malfunctions, associated repairs, or required quality assurance or control activities (including calibration checks or required zero and span adjustments), you must conduct all monitoring at all times that the unit is operating. Data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities shall not be used for purposes of calculating the emissions concentrations and percent reductions specified in §63.3370. You must use all the valid data collected during all other periods in assessing compliance of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.</p>	<p align="center">Yes</p>
<p>(8) Any averaging period for which you do not have valid monitoring data and such data are required constitutes a deviation, and you must notify the Administrator in accordance with §63.3400(c).</p>	<p align="center">Yes</p>
<p>(9) Oxidizer. If you are using an oxidizer to comply with the emission standards, you must comply with paragraphs (e)(9)(i) through (iii) of this section.</p> <p>(i) Install, calibrate, maintain, and operate temperature monitoring equipment according to the manufacturer's specifications. The calibration of the chart recorder, data logger, or temperature indicator must be verified every 3 months or the chart recorder, data logger, or temperature indicator must be replaced. You must replace the equipment whether you choose not to perform the calibration or the equipment cannot be calibrated properly.</p> <p>(ii) For an oxidizer other than a catalytic oxidizer, install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device must have an accuracy of <math>\pm 1</math> percent of the temperature being monitored in degrees Celsius, or <math>\pm 1</math> °Celsius, whichever is greater. The thermocouple or temperature sensor must be installed in the combustion chamber at a location in the combustion zone.</p> <p>(iii) For a catalytic oxidizer, install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature with an accuracy of <math>\pm 1</math> percent of the temperature being monitored in degrees Celsius or <math>\pm 1</math> degree Celsius, whichever is greater. The thermocouple or temperature sensor must be installed in the vent stream at the nearest feasible point to the inlet and outlet of the catalyst bed. Calculate the temperature rise across the catalyst.</p>	<p align="center">Yes</p>
<p>(10) Other types of control devices. If you use a control device other than an oxidizer or wish to monitor an alternative parameter and comply with a different operating limit, you must apply to the Administrator for approval of an alternative monitoring method under §63.8(f).</p>	<p align="center">No</p>

**SUBPART JJJJ, APPLICABILITY TABLE**

<p>(f) Capture system monitoring. If you are complying with the emission standards in §63.3320 through the use of a capture system and control device for one or more web coating lines, you must develop a site-specific monitoring plan containing the information specified in paragraphs (f)(1) and (2) of this section for these capture systems. You must monitor the capture system in accordance with paragraph (f)(3) of this section. You must make the monitoring plan available for inspection by the permitting authority upon request.</p> <p>(1) The monitoring plan must:</p> <p>(i) Identify the operating parameter to be monitored to ensure that the capture efficiency determined during the initial compliance test is maintained; and</p> <p>(ii) Explain why this parameter is appropriate for demonstrating ongoing compliance; and</p> <p>(iii) Identify the specific monitoring procedures.</p> <p>(2) The monitoring plan must specify the operating parameter value or range of values that demonstrate compliance with the emission standards in §63.3320. The specified operating parameter value or range of values must represent the conditions present when the capture system is being properly operated and maintained.</p> <p>(3) You must conduct all capture system monitoring in accordance with the plan.</p> <p>(4) Any deviation from the operating parameter value or range of values which are monitored according to the plan will be considered a deviation from the operating limit.</p> <p>(5) You must review and update the capture system monitoring plan at least annually.</p>		Yes
<b>§ 63.3360 What performance tests must I conduct?</b>		
(a) The performance test methods you must conduct are as follows:		
<b>If you control organic HAP on any individual web coating line or any group of web coating lines by:</b>	<b>You must:</b>	<b>Yes/No</b>
(1) Limiting organic HAP or volatile matter content of coatings	Determine the organic HAP or volatile matter and coating solids content of coating materials according to procedures in §63.3360(c) and (d). If applicable, determine the mass of volatile matter retained in the coated web or otherwise not emitted to the atmosphere according to §63.3360(g).	No
(2) Using a capture and control system	Conduct a performance test for each capture and control system to determine: the destruction or removal efficiency of each control device other than solvent recovery according to §63.3360(e), and the capture efficiency of each capture system according to §63.3360(f). If applicable, determine the mass of volatile matter retained in the coated web or otherwise not emitted to the atmosphere according to §63.3360(g).	Yes
(b) If you are using a control device to comply with the emission standards in §63.3320, you are not required to conduct a performance test to demonstrate compliance if one or more of the criteria in paragraphs (b)(1) through (3) of this section are met.		No
(1) The control device is equipped with continuous emission monitors for determining inlet and outlet total organic volatile matter concentration and capture efficiency has been determined in accordance with the requirements of this subpart such that an overall organic HAP control efficiency can be calculated, and the continuous emission monitors are used to demonstrate continuous compliance in accordance with §63.3350; or		No
(2) You have met the requirements of §63.7(h) (for waiver of performance testing); or		No
(3) The control device is a solvent recovery system and you comply by means of a monthly liquid-liquid material balance.		No
(c) Organic HAP content. If you determine compliance with the emission standards in §63.3320 by means other than determining the overall organic HAP control efficiency of a control device, you must determine the organic HAP mass fraction of each coating material “as-purchased” by following one of the procedures in paragraphs (c)(1) through (3) of this section, and determine the organic HAP mass fraction of each coating material “as-applied” by following the procedures in paragraph (c)(4) of this section. If the organic HAP content values are not determined using the procedures in paragraphs (c)(1) through (3) of this section, the owner or operator must submit an alternative test method for determining their values for approval by the Administrator in accordance with §63.7(f). The recovery efficiency of the test method must be determined for all of the target organic HAP and a correction factor, if necessary, must be determined and applied.		No

**ATTACHMENT A**

**SUBPART JJJJ, APPLICABILITY TABLE**

(1) Method 311. You may test the coating material in accordance with Method 311 of appendix A of this part. The Method 311 determination may be performed by the manufacturer of the coating material and the results provided to the owner or operator. The organic HAP content must be calculated according to the criteria and procedures in paragraphs (c)(1)(i) through (iii) of this section.	No
(i) Include each organic HAP determined to be present at greater than or equal to 0.1 mass percent for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and greater than or equal to 1.0 mass percent for other organic HAP compounds.	No
(ii) Express the mass fraction of each organic HAP you include according to paragraph (c)(1)(i) of this section as a value truncated to four places after the decimal point (for example, 0.3791).	No
(iii) Calculate the total mass fraction of organic HAP in the tested material by summing the counted individual organic HAP mass fractions and truncating the result to three places after the decimal point (for example, 0.763).	No
(2) Method 24. For coatings, determine the volatile organic content as mass fraction of nonaqueous volatile matter and use it as a substitute for organic HAP using Method 24 of 40 CFR part 60, appendix A. The Method 24 determination may be performed by the manufacturer of the coating and the results provided to you.	No
(3) Formulation data. You may use formulation data to determine the organic HAP mass fraction of a coating material. Formulation data may be provided to the owner or operator by the manufacturer of the material. In the event of an inconsistency between Method 311 (appendix A of 40 CFR part 63) test data and a facility's formulation data, and the Method 311 test value is higher, the Method 311 data will govern. Formulation data may be used provided that the information represents all organic HAP present at a level equal to or greater than 0.1 percent for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and equal to or greater than 1.0 percent for other organic HAP compounds in any raw material used.	No
(4) As-applied organic HAP mass fraction. If the as-purchased coating material is applied to the web without any solvent or other material added, then the as-applied organic HAP mass fraction is equal to the as-purchased organic HAP mass fraction. Otherwise, the as-applied organic HAP mass fraction must be calculated using Equation 1a of §63.3370.	No
(d) Volatile organic and coating solids content. If you determine compliance with the emission standards in §63.3320 by means other than determining the overall organic HAP control efficiency of a control device and you choose to use the volatile organic content as a surrogate for the organic HAP content of coatings, you must determine the as-purchased volatile organic content and coating solids content of each coating material applied by following the procedures in paragraph (d)(1) or (2) of this section, and the as-applied volatile organic content and coating solids content of each coating material by following the procedures in paragraph (d)(3) of this section.	Yes
(1) Method 24. You may determine the volatile organic and coating solids mass fraction of each coating applied using Method 24 (40 CFR part 60, appendix A.) The Method 24 determination may be performed by the manufacturer of the material and the results provided to you. If these values cannot be determined using Method 24, you must submit an alternative technique for determining their values for approval by the Administrator.	Yes
(2) Formulation data. You may determine the volatile organic content and coating solids content of a coating material based on formulation data and may rely on volatile organic content data provided by the manufacturer of the material. In the event of any inconsistency between the formulation data and the results of Method 24 of 40 CFR part 60, appendix A, and the Method 24 results are higher, the results of Method 24 will govern.	Yes
(3) As-applied volatile organic content and coating solids content. If the as-purchased coating material is applied to the web without any solvent or other material added, then the as-applied volatile organic content is equal to the as-purchased volatile content and the as-applied coating solids content is equal to the as-purchased coating solids content. Otherwise, the as-applied volatile organic content must be calculated using Equation 1b of §63.3370 and the as-applied coating solids content must be calculated using Equation 2 of §63.3370.	No

**SUBPART JJJJ, APPLICABILITY TABLE**

<p>(e) Control device efficiency. If you are using an add-on control device other than solvent recovery, such as an oxidizer, to comply with the emission standards in §63.3320, you must conduct a performance test to establish the destruction or removal efficiency of the control device according to the methods and procedures in paragraphs (e)(1) and (2) of this section. During the performance test, you must establish the operating limits required by §63.3321 according to paragraph (e)(3) of this section.</p> <p>(1) An initial performance test to establish the destruction or removal efficiency of the control device must be conducted such that control device inlet and outlet testing is conducted simultaneously, and the data are reduced in accordance with the test methods and procedures in paragraphs (e)(1)(i) through (ix) of this section. You must conduct three test runs as specified in §63.7(e)(3), and each test run must last at least 1 hour.</p> <p>(i) Method 1 or 1A of 40 CFR part 60, appendix A, must be used for sample and velocity traverses to determine sampling locations.</p> <p>(ii) Method 2, 2A, 2C, 2D, 2F, or 2G of 40 CFR part 60, appendix A, must be used to determine gas volumetric flow rate.</p> <p>(iii) Method 3, 3A, or 3B of 40 CFR part 60, appendix A, must be used for gas analysis to determine dry molecular weight. You may also use as an alternative to Method 3B the manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas in ANSI/ASME PTC 19.10–1981, “Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus],” (incorporated by reference, see §63.14).</p> <p>(iv) Method 4 of 40 CFR part 60, appendix A, must be used to determine stack gas moisture.</p> <p>(v) The gas volumetric flow rate, dry molecular weight, and stack gas moisture must be determined during each test run specified in paragraph (f)(1)(vii) of this section. (vi) Method 25 or 25A of 40 CFR part 60, appendix A, must be used to determine total gaseous non-methane organic matter concentration. Use the same test method for both the inlet and outlet measurements which must be conducted simultaneously. You must submit notice of the intended test method to the Administrator for approval along with notification of the performance test required under §63.7(b). You must use Method 25A if any of the conditions described in paragraphs (e)(1)(vi)(A) through (D) of this section apply to the control device.</p> <p>(A) The control device is not an oxidizer.</p> <p>(B) The control device is an oxidizer but an exhaust gas volatile organic matter concentration of 50 ppmv or less is required to comply with the emission standards in §63.3320; or</p> <p>(C) The control device is an oxidizer but the volatile organic matter concentration at the inlet to the control system and the required level of control are such that they result in exhaust gas volatile organic matter concentrations of 50 ppmv or less; or</p> <p>(D) The control device is an oxidizer but because of the high efficiency of the control device the anticipated volatile organic matter concentration at the control device exhaust is 50 ppmv or less, regardless of inlet concentration.</p>	<p align="center">Yes</p>
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**SUBPART JJJJ, APPLICABILITY TABLE**

<p>(vii) Except as provided in §63.7(e)(3), each performance test must consist of three separate runs with each run conducted for at least 1 hour under the conditions that exist when the affected source is operating under normal operating conditions. For the purpose of determining volatile organic compound concentrations and mass flow rates, the average of the results of all the runs will apply.</p> <p>(viii) Volatile organic matter mass flow rates must be determined for each run specified in paragraph (e)(1)(vii) of this section using Equation 1 of this section:</p> $M_f = Q_{sd} C_c [12][0.0416][10^{-6}] \quad \text{Eq. 1}$ <p>Where:  Mf= Total organic volatile matter mass flow rate, kilograms (kg)/hour (h).  Qsd= Volumetric flow rate of gases entering or exiting the control device, as determined according to §63.3360(e)(1)(ii), dry standard cubic meters (dscm)/h.  Cc= Concentration of organic compounds as carbon, ppmv.  12.0 = Molecular weight of carbon.  0.0416 = Conversion factor for molar volume, kg-moles per cubic meter (mol/m<sup>3</sup>) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg))</p> <p>(ix) For each run, emission control device destruction or removal efficiency must be determined using Equation 2 of this section:</p> $E = \frac{M_{fi} - M_{fo}}{M_{fi}} \times 100 \quad \text{Eq. 2}$ <p>Where:  E = Organic volatile matter control efficiency of the control device, percent.  Mfi= Organic volatile matter mass flow rate at the inlet to the control device, kg/h.  Mfo= Organic volatile matter mass flow rate at the outlet of the control device, kg/h.</p> <p>(x) The control device destruction or removal efficiency is determined as the average of the efficiencies determined in the test runs and calculated in Equation 2 of this section.</p>	
<p>(2) You must record such process information as may be necessary to determine the conditions in existence at the time of the performance test. Operations during periods of startup, shutdown, and malfunction will not constitute representative conditions for the purpose of a performance test.</p>	<p align="center">Yes</p>
<p>(3) Operating limits. If you are using one or more add-on control device other than a solvent recovery system for which you conduct a liquid-liquid material balance to comply with the emission standards in §63.3320, you must establish the applicable operating limits required by §63.3321. These operating limits apply to each add-on emission control device, and you must establish the operating limits during the performance test required by paragraph (e) of this section according to the requirements in paragraphs (e)(3)(i) and (ii) of this section.</p>	<p align="center">Yes</p>
<p>(i) Thermal oxidizer. If your add-on control device is a thermal oxidizer, establish the operating limits according to paragraphs (e)(3)(i)(A) and (B) of this section.</p> <p>(A) During the performance test, you must monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. You must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.</p> <p>(B) Use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. This average combustion temperature is the minimum operating limit for your thermal oxidizer.</p>	<p align="center">Yes</p>

**SUBPART JJJJ, APPLICABILITY TABLE**

<p>(ii) Catalytic oxidizer. If your add-on control device is a catalytic oxidizer, establish the operating limits according to paragraphs (e)(3)(ii)(A) and (B) or paragraphs (e)(3)(ii)(C) and (D) of this section.</p> <p>(A) During the performance test, you must monitor and record the temperature just before the catalyst bed and the temperature difference across the catalyst bed at least once every 15 minutes during each of the three test runs.</p> <p>(B) Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed and the average temperature difference across the catalyst bed maintained during the performance test. These are the minimum operating limits for your catalytic oxidizer.</p> <p>(C) As an alternative to monitoring the temperature difference across the catalyst bed, you may monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for your catalytic oxidizer as specified in paragraph (e)(3)(ii)(D) of this section. During the performance test, you must monitor and record the temperature just before the catalyst bed at least once every 15 minutes during each of the three test runs. Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed during the performance test. This is the minimum operating limit for your catalytic oxidizer.</p> <p>(D) You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s) for which you elect to monitor according to paragraph (e)(3)(ii)(C) of this section. The plan must address, at a minimum, the elements specified in paragraphs (e)(3)(ii)(D)( 1 ) through ( 3 ) of this section.</p> <p>( 1 ) Annual sampling and analysis of the catalyst activity ( i.e., conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures,</p> <p>( 2 ) Monthly inspection of the oxidizer system including the burner assembly and fuel supply lines for problems, and</p> <p>( 3 ) Annual internal and monthly external visual inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found, you must take corrective action consistent with the manufacturer's recommendations and conduct a new performance test to determine destruction efficiency in accordance with this section.</p>	<p align="center">No</p>
<p>(f) Capture efficiency. If you demonstrate compliance by meeting the requirements of §63.3370(e), (f), (g), (h), (i)(2), (k), (n)(2) or (3), or (p), you must determine capture efficiency using the procedures in paragraph (f)(1), (2), or (3) of this section, as applicable.</p> <p>(1) You may assume your capture efficiency equals 100 percent if your capture system is a permanent total enclosure (PTE). You must confirm that your capture system is a PTE by demonstrating that it meets the requirements of section 6 of EPA Method 204 of 40 CFR part 51, appendix M, and that all exhaust gases from the enclosure are delivered to a control device.</p> <p>(2) You may determine capture efficiency according to the protocols for testing with temporary total enclosures that are specified in Methods 204 and 204A through F of 40 CFR part 51, appendix M. You may exclude never-controlled work stations from such capture efficiency determinations.</p> <p>(3) You may use any capture efficiency protocol and test methods that satisfy the criteria of either the Data Quality Objective or the Lower Confidence Limit approach as described in appendix A of subpart KK of this part. You may exclude never-controlled work stations from such capture efficiency determinations.</p>	<p align="center">Yes</p>
<p>(g) Volatile matter retained in the coated web or otherwise not emitted to the atmosphere. You may choose to take into account the mass of volatile matter retained in the coated web after curing or drying or otherwise not emitted to the atmosphere when determining compliance with the emission standards in §63.3320. If you choose this option, you must develop a testing protocol to determine the mass of volatile matter retained in the coated web or otherwise not emitted to the atmosphere and submit this protocol to the Administrator for approval. You must submit this protocol with your site-specific test plan under §63.7(f). If you intend to take into account the mass of volatile matter retained in the coated web after curing or drying or otherwise not emitted to the atmosphere and demonstrate compliance according to §63.3370(c)(3), (c)(4), (c)(5), or (d), then the test protocol you submit must determine the mass of organic HAP retained in the coated web or otherwise not emitted to the atmosphere. Otherwise, compliance must be shown using the volatile organic matter content as a surrogate for the HAP content of the coatings.</p>	<p align="center">No</p>
<p>(h) Control devices in series. If you use multiple control devices in series to comply with the emission standards in §63.3320, the performance test must include, at a minimum, the inlet to the first control device in the series, the outlet of the last control device in the series, and all intermediate streams ( e.g., gaseous exhaust to the atmosphere or a liquid stream from a recovery device) that are not subsequently treated by any of the control devices in the series.</p>	<p align="center">No</p>

**SUBPART JJJJ, APPLICABILITY TABLE**

<b>Requirements for Showing Compliance</b>			
<b>.3370 How do I demonstrate compliance with the emission standards?</b>			
(a) A summary of how you must demonstrate compliance follows:			
<b>If you choose to demonstrate compliance by:</b>	<b>Then you must demonstrate that:</b>	<b>To accomplish this:</b>	<b>Yes/No</b>
(1) Use of “as-purchased” compliant coating materials	(i) Each coating material used at an existing affected source does not exceed 0.04 kg organic HAP per kg coating material, and each coating material used at a new affected source does not exceed 0.016 kg organic HAP per kg coating material as-purchased; or	Follow the procedures set out in §63.3370(b).	No
	(ii) Each coating material used at an existing affected source does not exceed 0.2 kg organic HAP per kg coating solids, and each coating material used at a new affected source does not exceed 0.08 kg organic HAP per kg coating solids as-purchased	Follow the procedures set out in §63.3370(b).	No
(2) Use of “as-applied” compliant coating materials	(i) Each coating material used at an existing affected source does not exceed 0.04 kg organic HAP per kg coating material, and each coating material used at a new affected source does not exceed 0.016 kg organic HAP per kg coating material as-applied; or	Follow the procedures set out in §63.3370(c)(1). Use either Equation 1a or b of §63.3370 to determine compliance with §63.3320(b)(2) in accordance with §63.3370(c)(5)(i).	No
	(ii) Each coating material used at an existing affected source does not exceed 0.2 kg organic HAP per kg coating solids, and each coating material used at a new affected source does not exceed 0.08 kg organic HAP per kg coating solids as-applied; or	Follow the procedures set out in §63.3370(c)(2). Use Equations 2 and 3 of §63.3370 to determine compliance with §63.3320(b)(3) in accordance with §63.3370(c)(5)(i).	No
	(iii) Monthly average of all coating materials used at an existing affected source does not exceed 0.04 kg organic HAP per kg coating material, and monthly average of all coating materials used at a new affected source does not exceed 0.016 kg organic HAP per kg coating material as-applied on a monthly average basis; or	Follow the procedures set out in §63.3370(c)(3). Use Equation 4 of §63.3370 to determine compliance with §63.3320(b)(2) in accordance with §63.3370(c)(5)(ii).	No
	(iv) Monthly average of all coating materials used at an existing affected source does not exceed 0.2 kg organic HAP per kg coating solids, and monthly average of all coating materials used at a new affected source does not exceed 0.08 kg organic HAP per kg coating solids as-applied on a monthly average basis	Follow the procedures set out in §63.3370(c)(4). Use Equation 5 of §63.3370 to determine compliance with §63.3320(b)(3) in accordance with §63.3370(c)(5)(ii).	No

**ATTACHMENT A**

**SUBPART JJJJ, APPLICABILITY TABLE**

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

**ATTACHMENT A**

**SUBPART JJJJ, APPLICABILITY TABLE**

	(iii) Average equivalent organic HAP emission rate does not exceed 0.04 kg organic HAP per kg coating material for an existing affected source or 0.016 kg organic HAP per kg coating material for a new affected source on a monthly average as-applied basis; or	Follow the procedures set out in §63.3370(g) to determine compliance with §63.3320(b)(2) according to §63.3370(n).	No
	(iv) Average equivalent organic HAP emission rate does not exceed the calculated limit based on emission limitations	Follow the procedures set out in §63.3370(h). Show that the monthly organic HAP emission rate is less than the calculated equivalent allowable organic HAP emission rate (Equation 13a or b of §63.3370) according to §63.3370(n).	No
(6) Use of a combination of compliant coatings and control devices	(i) Average equivalent organic HAP emission rate does not exceed 0.2 kg organic HAP per kg coating solids for an existing affected source or 0.08 kg organic HAP per kg coating solids for a new affected source on a monthly average as-applied basis; or	Follow the procedures set out in §63.3370(f) to determine compliance with §63.3320(b)(3) according to §63.3370(n).	No
	(ii) Average equivalent organic HAP emission rate does not exceed 0.04 kg organic HAP per kg coating material for an existing affected source or 0.016 kg organic HAP per kg coating material for a new affected source on a monthly average as-applied basis; or	Follow the procedures set out in §63.3370(g) to determine compliance with §63.3320(b)(2) according to §63.3370(n).	No
	(iii) Average equivalent organic HAP emission rate does not exceed the calculated limit based on emission limitations	Follow the procedures set out in §63.3370(h). Show that the monthly organic HAP emission rate is less than the calculated equivalent allowable organic HAP emission rate (Equation 13a or b of §63.3370) according to §63.3370(n).	No
(b) As-purchased “compliant” coating materials. (1) If you comply by using coating materials that individually meet the emission standards in §63.3320(b)(2) or (3), you must demonstrate that each coating material applied during the month at an existing affected source contains no more than 0.04 mass fraction organic HAP or 0.2 kg organic HAP per kg coating solids, and that each coating material applied during the month at a new affected source contains no more than 0.016 mass fraction organic HAP or 0.08 kg organic HAP per kg coating solids on an as-purchased basis as determined in accordance with §63.3360(c).			No
(2) You are in compliance with emission standards in §63.3320(b)(2) and (3) if each coating material applied at an existing affected source is applied as-purchased and contains no more than 0.04 kg organic HAP per kg coating material or 0.2 kg organic HAP per kg coating solids, and each coating material applied at a new affected source is applied as-purchased and contains no more than 0.016 kg organic HAP per kg coating material or 0.08 kg organic HAP per kg coating solids.			No
(c) As-applied “compliant” coating materials. If you comply by using coating materials that meet the emission standards in §63.3320(b)(2) or (3) as-applied, you must demonstrate compliance by following one of the procedures in paragraphs (c)(1) through (4) of this section. Compliance is determined in accordance with paragraph (c)(5) of this section.			No

**SUBPART JJJJ, APPLICABILITY TABLE**

<p>(1) Each coating material as-applied meets the mass fraction of coating material standard (§63.3320(b)(2)). You must demonstrate that each coating material applied at an existing affected source during the month contains no more than 0.04 kg organic HAP per kg coating material applied, and each coating material applied at a new affected source contains no more than 0.016 kg organic HAP per kg coating material applied as determined in accordance with paragraphs (c)(1)(i) and (ii) of this section. You must calculate the as-applied organic HAP content of as-purchased coating materials which are reduced, thinned, or diluted prior to application.</p> <p>(i) Determine the organic HAP content or volatile organic content of each coating material applied on an as-purchased basis in accordance with §63.3360(c).</p> <p>(ii) Calculate the as-applied organic HAP content of each coating material using Equation 1a of this section:</p> $C_{ahi} = \frac{\left( C_{hi}M_i + \sum_{j=1}^q C_{hij}M_{ij} \right)}{M_i + \sum_{j=1}^q M_{ij}} \quad \text{Eq. 1a}$ <p>Where:</p> <p>C<sub>ahi</sub>= Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.</p> <p>C<sub>hi</sub>= Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, kg/kg.</p> <p>M<sub>i</sub>= Mass of as-purchased coating material, i, applied in a month, kg.</p> <p>q = number of different materials added to the coating material.</p> <p>C<sub>hij</sub>= Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.</p> <p>M<sub>ij</sub>= Mass of material, j, added to as-purchased coating material, i, in a month, kg.</p> <p>M<sub>i</sub>= Mass of as-purchased coating material, i, applied in a month, kg, or calculate the as-applied volatile organic content of each coating material using Equation 1b of this section:</p> $C_{awi} = \frac{\left( C_{wi}M_i + \sum_{j=1}^q C_{wij}M_{ij} \right)}{M_i + \sum_{j=1}^q M_{ij}} \quad \text{Eq. 1b}$ <p>Where:</p> <p>C<sub>awi</sub>= Monthly average, as-applied, volatile organic content of coating material, i, expressed as a mass fraction, kg/kg.</p> <p>C<sub>wi</sub>= Volatile organic content of coating material, i, expressed as a mass fraction, kg/kg.</p> <p>M<sub>i</sub>= Mass of as-purchased coating material, i, applied in a month, kg.</p> <p>q = Number of different materials added to the coating material.</p> <p>C<sub>wij</sub>= Volatile organic content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.</p> <p>M<sub>ij</sub>= Mass of material, j, added to as-purchased coating material, i, in a month, kg.</p>	<p>No</p>
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**SUBPART JJJJ, APPLICABILITY TABLE**

<p>(2) Each coating material as-applied meets the mass fraction of coating solids standard (§63.3320(b)(3)). You must demonstrate that each coating material applied at an existing affected source contains no more than 0.20 kg of organic HAP per kg of coating solids applied and each coating material applied at a new affected source contains no more than 0.08 kg of organic HAP per kg of coating solids applied. You must demonstrate compliance in accordance with paragraphs (c)(2)(i) and (ii) of this section.</p> <p>(i) Determine the as-applied coating solids content of each coating material following the procedure in §63.3360(d). You must calculate the as-applied coating solids content of coating materials which are reduced, thinned, or diluted prior to application, using Equation 2 of this section:</p> $C_{asi} = \frac{\left( C_{si}M_i + \sum_{j=1}^q C_{sij}M_{ij} \right)}{M_i + \sum_{j=1}^q M_{ij}} \quad \text{Eq. 2}$ <p align="center">Where:</p> <p>Csi= Coating solids content of coating material, i, expressed as a mass fraction, kg/kg.          Mi= Mass of as-purchased coating material, i, applied in a month, kg.          q = Number of different materials added to the coating material.          Csi= Coating solids content of material, j, added to as-purchased coating material, i, expressed as a mass-fraction, kg/kg.          Mij= Mass of material, j, added to as-purchased coating material, i, in a month, kg.</p> <p>(ii) Calculate the as-applied organic HAP to coating solids ratio using Equation 3 of this section:          Where:          Hsi= As-applied, organic HAP to coating solids ratio of coating material, i.          Cah= Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.          Casi= Monthly average, as-applied, coating solids content of coating material, i, expressed as a mass fraction, kg/kg.</p>	No
<p>(3) Monthly average organic HAP content of all coating materials as-applied is less than the mass percent limit (§63.3320(b)(2)). Demonstrate that the monthly average as-applied organic HAP content of all coating materials applied at an existing affected source is less than 0.04 kg organic HAP per kg of coating material applied, and all coating materials applied at a new affected source are less than 0.016 kg organic HAP per kg of coating material applied, as determined by Equation 4 of this section:</p> $H_L = \frac{\sum_{i=1}^p C_{hi}M_i + \sum_{j=1}^q C_{hij}M_{ij} - M_{vret}}{\sum_{i=1}^p M_i + \sum_{j=1}^q M_{ij}} \quad \text{Eq. 4}$ <p>Where:</p> <p>HL= Monthly average, as-applied, organic HAP content of all coating materials applied, expressed as kg organic HAP per kg of coating material applied, kg/kg.          p = Number of different coating materials applied in a month.          Chi= Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, kg/kg.          Mi= Mass of as-purchased coating material, i, applied in a month, kg.          q = Number of different materials added to the coating material.          Chij= Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.          Mij= Mass of material, j, added to as-purchased coating material, i, in a month, kg.          Mvret= Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.</p>	No

**SUBPART JJJJ, APPLICABILITY TABLE**

<p>(4) Monthly average organic HAP content of all coating materials as-applied is less than the mass fraction of coating solids limit (§63.3320(b)(3)). Demonstrate that the monthly average as-applied organic HAP content on the basis of coating solids applied of all coating materials applied at an existing affected source is less than 0.20 kg organic HAP per kg coating solids applied, and all coating materials applied at a new affected source are less than 0.08 kg organic HAP per kg coating solids applied, as determined by Equation 5 of this section:</p> $H_s = \frac{\sum_{i=1}^p C_{hi}M_i + \sum_{j=1}^q C_{hij}M_{ij} - M_{vret}}{\sum_{i=1}^p C_{si}M_i + \sum_{j=1}^q C_{sij}M_{ij}} \quad \text{Eq. 5}$ <p>Where:</p> <p>Hs= Monthly average, as-applied, organic HAP to coating solids ratio, kg organic HAP/kg coating solids applied.</p> <p>p = Number of different coating materials applied in a month.</p> <p>Chi= Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, kg/kg.</p> <p>Mi= Mass of as-purchased coating material, i, applied in a month, kg.</p> <p>q = Number of different materials added to the coating material.</p> <p>Chij= Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.</p> <p>Mij= Mass of material, j, added to as-purchased coating material, i, in a month, kg.</p> <p>Mvret= Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.</p> <p>Csi= Coating solids content of coating material, i, expressed as a mass fraction, kg/kg.</p> <p>Csij= Coating solids content of material, j, added to as-purchased coating material, i, expressed as a mass-fraction, kg/kg.</p>	No
<p>(5) The affected source is in compliance with emission standards in §63.3320(b)(2) or (3) if:</p> <p>(i) The organic HAP content of each coating material as-applied at an existing affected source is no more than 0.04 kg organic HAP per kg coating material or 0.2 kg organic HAP per kg coating solids, and the organic HAP content of each coating material as-applied at a new affected source contains no more than 0.016 kg organic HAP per kg coating material or 0.08 kg organic HAP per kg coating solids; or</p> <p>(ii) The monthly average organic HAP content of all as-applied coating materials at an existing affected source are no more than 0.04 kg organic HAP per kg coating material or 0.2 kg organic HAP per kg coating solids, and the monthly average organic HAP content of all as-applied coating materials at a new affected source is no more than 0.016 kg organic HAP per kg coating material or 0.08 kg organic HAP per kg coating solids.</p>	No
<p>(d) Monthly allowable organic HAP applied. Demonstrate that the total monthly organic HAP applied as determined by Equation 6 of this section is less than the calculated equivalent allowable organic HAP as determined by Equation 13a or b in paragraph (l) of this section:</p> $H_m = \sum_{i=1}^p C_{hi}M_i + \sum_{j=1}^q C_{hij}M_{ij} - M_{vret} \quad \text{Eq. 6}$ <p>Where:</p> <p>Hm= Total monthly organic HAP applied, kg.</p> <p>p = Number of different coating materials applied in a month.</p> <p>Chi= Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, kg/kg.</p> <p>Mi= Mass of as-purchased coating material, i, applied in a month, kg.</p> <p>q = Number of different materials added to the coating material.</p> <p>Chij= Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.</p> <p>Mij= Mass of material, j, added to as-purchased coating material, i, in a month, kg.</p> <p>Mvret= Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.</p>	No

**SUBPART JJJJ, APPLICABILITY TABLE**

<p>(e) Capture and control to reduce emissions to no more than allowable limit (§63.3320(b)(1)). Operate a capture system and control device and demonstrate an overall organic HAP control efficiency of at least 95 percent at an existing affected source and at least 98 percent at a new affected source for each month, or operate a capture system and oxidizer so that an outlet organic HAP concentration of no greater than 20 ppmv by compound on a dry basis is achieved as long as the capture efficiency is 100 percent as detailed in §63.3320(b)(4). Unless one of the cases described in paragraph (e)(1), (2), or (3) of this section applies to the affected source, you must either demonstrate compliance in accordance with the procedure in paragraph (i) of this section when emissions from the affected source are controlled by a solvent recovery device, or the procedure in paragraph (k) of this section when emissions are controlled by an oxidizer or demonstrate compliance for a web coating line by operating each capture system and each control device and continuous parameter monitoring according to the procedures in paragraph (j) of this section.</p>	<p align="center">Yes</p>
<p>(1) If the affected source has only always-controlled work stations and operates more than one capture system or more than one control device, you must demonstrate compliance in accordance with the provisions of either paragraph (n) or (p) of this section.</p>	<p align="center">No</p>
<p>(2) If the affected source operates one or more never-controlled work stations or one or more intermittently-controlled work stations, you must demonstrate compliance in accordance with the provisions of paragraph (n) of this section.</p>	<p align="center">No</p>
<p>(3) An alternative method of demonstrating compliance with §63.3320(b)(1) is the installation of a PTE around the web coating line that achieves 100 percent capture efficiency and ventilation of all organic HAP emissions from the total enclosure to an oxidizer with an outlet organic HAP concentration of no greater than 20 ppmv by compound on a dry basis. If this method is selected, you must demonstrate compliance by following the procedures in paragraphs (e)(3)(i) and (ii) of this section. Compliance is determined according to paragraph (e)(3)(iii) of this section.</p> <p>(i) Demonstrate that a total enclosure is installed. An enclosure that meets the requirements in §63.3360(f)(1) will be considered a total enclosure.</p> <p>(ii) Determine the organic HAP concentration at the outlet of your total enclosure using the procedures in paragraph (e)(3)(ii)(A) or (B) of this section.</p> <p>(A) Determine the control device efficiency using Equation 2 of §63.3360 and the applicable test methods and procedures specified in §63.3360(e).</p> <p>(B) Use a CEMS to determine the organic HAP emission rate according to paragraphs (i)(2)(i) through (x) of this section.</p> <p>(iii) You are in compliance if the installation of a total enclosure is demonstrated and the organic HAP concentration at the outlet of the incinerator is demonstrated to be no greater than 20 ppmv by compound on a dry basis.</p>	<p align="center">Yes</p>
<p>(f) Capture and control to achieve mass fraction of coating solids applied limit (§63.3320(b)(3)). Operate a capture system and control device and limit the organic HAP emission rate from an existing affected source to no more than 0.20 kg organic HAP emitted per kg coating solids applied, and from a new affected source to no more than 0.08 kg organic HAP emitted per kg coating solids applied as determined on a monthly average as-applied basis. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controlled work stations, then you must demonstrate compliance in accordance with the provisions of paragraph (n) of this section. Otherwise, you must demonstrate compliance following the procedure in paragraph (i) of this section when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (k) of this section when emissions are controlled by an oxidizer.</p>	<p align="center">No</p>
<p>(g) Capture and control to achieve mass fraction limit (§63.3320(b)(2)). Operate a capture system and control device and limit the organic HAP emission rate to no more than 0.04 kg organic HAP emitted per kg coating material applied at an existing affected source, and no more than 0.016 kg organic HAP emitted per kg coating material applied at a new affected source as determined on a monthly average as-applied basis. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controlled work stations, then you must demonstrate compliance in accordance with the provisions of paragraph (n) of this section. Otherwise, you must demonstrate compliance following the procedure in paragraph (i) of this section when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (k) of this section when emissions are controlled by an oxidizer.</p>	<p align="center">No</p>

**ATTACHMENT A**

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**SUBPART JJJJ, APPLICABILITY TABLE**

<p>(h) Capture and control to achieve allowable emission rate. Operate a capture system and control device and limit the monthly organic HAP emissions to less than the allowable emissions as calculated in accordance with paragraph (l) of this section. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controlled work stations, then you must demonstrate compliance in accordance with the provisions of paragraph (n) of this section. Otherwise, the owner or operator must demonstrate compliance following the procedure in paragraph (i) of this section when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (k) of this section when emissions are controlled by an oxidizer.</p>	No
<p>(i) Solvent recovery device compliance demonstration. If you use a solvent recovery device to control emissions, you must show compliance by following the procedures in either paragraph (i)(1) or (2) of this section:</p>	No

**SUBPART JJJJ, APPLICABILITY TABLE**

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

- (i) Determine the mass of each coating material applied on the web coating line or group of web coating lines controlled by a common solvent recovery device during the month.
- (ii) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating material applied, or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each coating material as-applied during the month following the procedure in §63.3360(c).
- (iii) Determine the volatile organic content of each coating material as-applied during the month following the procedure in §63.3360(d).
- (v) Determine and monitor the amount of volatile organic matter recovered for the month according to the procedures in §63.3350(d).
- (vi) Recovery efficiency. Calculate the volatile organic matter collection and recovery efficiency using Equation 7 of this section:

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

Where:

- Rv= Organic volatile matter collection and recovery efficiency, percent.
- Mvr= Mass of volatile matter recovered in a month, kg.
- Mvret= Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.
- p = Number of different coating materials applied in a month.
- Cvi= Volatile organic content of coating material, i, expressed as a mass fraction, kg/kg.
- Mi= Mass of as-purchased coating material, i, applied in a month, kg.
- q = Number of different materials added to the coating material.
- Cvij= Volatile organic content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.
- Mij= Mass of material, j, added to as-purchased coating material, i, in a month, kg.

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

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

Where:

- He= Total monthly organic HAP emitted, kg.
- Rv= Organic volatile matter collection and recovery efficiency, percent.
- p = Number of different coating materials applied in a month.
- Chi= Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, kg/kg.
- Mi= Mass of as-purchased coating material, i, applied in a month, kg.
- q = Number of different materials added to the coating material.
- Chij= Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.
- Mij= Mass of material, j, added to as-purchased coating material, i, in a month, kg.
- Mvret= Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.

No

**SUBPART JJJJ, APPLICABILITY TABLE**

<p>(viii) Organic HAP emission rate based on coating solids applied. Calculate the organic HAP emission rate based on coating solids applied using Equation 9 of this section:</p> $L = \frac{H_e}{\sum_{i=1}^p C_{si}M_i + \sum_{j=1}^q C_{sij}M_{ij}} \quad \text{Eq. 9}$ <p>Where:</p> <p>L = Mass organic HAP emitted per mass of coating solids applied, kg/kg.          He= Total monthly organic HAP emitted, kg.          p = Number of different coating materials applied in a month.          Csi= Coating solids content of coating material, i, expressed as a mass fraction, kg/kg.          Mi= Mass of as-purchased coating material, i, applied in a month, kg.          q = Number of different materials added to the coating material.          Csj= Coating solids content of material, j, added to as-purchased coating material, i, expressed as a mass-fraction, kg/kg.          Mij= Mass of material, j, added to as-purchased coating material, i, in a month, kg.</p>	No
<p>(ix) Organic HAP emission rate based on coating materials applied. Calculate the organic HAP emission rate based on coating material applied using Equation 10 of this section:</p> $S = \frac{H_e}{\sum_{i=1}^p M_i + \sum_{j=1}^q M_{ij}} \quad \text{Eq. 10}$ <p>Where:</p> <p>S = Mass organic HAP emitted per mass of material applied, kg/kg.          He= Total monthly organic HAP emitted, kg.          p = Number of different coating materials applied in a month.          Mi= Mass of as-purchased coating material, i, applied in a month, kg.          q = Number of different materials added to the coating material.          Mij= Mass of material, j, added to as-purchased coating material, i, in a month, kg.</p> <p>(x) You are in compliance with the emission standards in §63.3320(b) if:</p> <ul style="list-style-type: none"> <li>(A) The volatile organic matter collection and recovery efficiency is 95 percent or greater at an existing affected source and 98 percent or greater at a new affected source; or</li> <li>(B) The organic HAP emission rate based on coating solids applied is no more than 0.20 kg organic HAP per kg coating solids applied at an existing affected source and no more than 0.08 kg organic HAP per kg coating solids applied at a new affected source; or</li> <li>(C) The organic HAP emission rate based on coating material applied is no more than 0.04 kg organic HAP per kg coating material applied at an existing affected source and no more than 0.016 kg organic HAP per kg coating material applied at a new affected source; or</li> <li>(D) The organic HAP emitted during the month is less than the calculated allowable organic HAP as determined using paragraph (l) of this section.</li> </ul>	No

**SUBPART JJJJ, APPLICABILITY TABLE**

<p>(2) Continuous emission monitoring of capture system and control device performance. Demonstrate initial compliance through a performance test on capture efficiency and continuing compliance through continuous emission monitors and continuous monitoring of capture system operating parameters following the procedures in paragraphs (i)(2)(i) through (vii) of this section. Use the applicable equations specified in paragraphs (i)(2)(viii) through (x) of this section to convert the monitoring and other data into units of the selected compliance option in paragraphs (e) through (h) of this section. Compliance is determined in accordance with paragraph (i)(2)(xi) of this section.</p> <p>(i) Control device efficiency. Continuously monitor the gas stream entering and exiting the control device to determine the total organic volatile matter mass flow rate ( e.g., by determining the concentration of the vent gas in grams per cubic meter and the volumetric flow rate in cubic meters per second such that the total organic volatile matter mass flow rate in grams per second can be calculated) such that the control device efficiency of the control device can be calculated for each month using Equation 2 of §63.3360.</p> <p>(ii) Capture efficiency monitoring. Whenever a web coating line is operated, continuously monitor the operating parameters established in accordance with §63.3350(f) to ensure capture efficiency.</p> <p>(iii) Determine the percent capture efficiency in accordance with §63.3360(f).</p> <p>(iv) Control efficiency. Calculate the overall organic HAP control efficiency achieved for each month using Equation 11 of this section:</p> $R = \frac{(E)(CE)}{100} \quad \text{Eq. 11}$ <p>Where:  R = Overall organic HAP control efficiency, percent.  E = Organic volatile matter control efficiency of the control device, percent.  CE = Organic volatile matter capture efficiency of the capture system, percent.</p> <p>(v) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating materials applied, or emission of less than the calculated allowable organic HAP, determine the mass of each coating material applied on the web coating line or group of web coating lines controlled by a common control device during the month.</p> <p>(vi) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating material applied, or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each coating material as-applied during the month following the procedure in §63.3360(c).</p> <p>(vii) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied or emission of less than the calculated allowable organic HAP, determine the coating solids content of each coating material as-applied during the month following the procedure in §63.3360(d).</p>	<p align="center">No</p>
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**SUBPART JJJJ, APPLICABILITY TABLE**

<p>(viii) Organic HAP emitted. Calculate the organic HAP emitted during the month for each month using Equation 12 of this section:</p> $H_e = (1 - R) \left( \sum_{i=1}^p C_{ahi} M_i \right) - M_{vret} \quad \text{Eq. 12}$ <p>Where:          He= Total monthly organic HAP emitted, kg.          R = Overall organic HAP control efficiency, percent.          p = Number of different coating materials applied in a month.          Cah<sub>i</sub>= Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.          Mi= Mass of as-purchased coating material, i, applied in a month, kg.          Mvret= Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in this section.</p> <p>(ix) Organic HAP emission rate based on coating solids applied. Calculate the organic HAP emission rate based on coating solids applied using Equation 9 of this section.</p> <p>(x) Organic HAP emission rate based on coating materials applied. Calculate the organic HAP emission rate based on coating material applied using Equation 10 of this section.</p> <p>(xi) Compare actual performance to the performance required by compliance option. The affected source is in compliance with the emission standards in §63.3320(b) for each month if the capture system is operated such that the average capture system operating parameter is greater than or less than (as appropriate) the operating parameter value established in accordance with §63.3350(f); and</p> <p>(A) The organic volatile matter collection and recovery efficiency is 95 percent or greater at an existing affected source and 98 percent or greater at a new affected source; or</p> <p>(B) The organic HAP emission rate based on coating solids applied is no more than 0.20 kg organic HAP per kg coating solids applied at an existing affected source and no more than 0.08 kg organic HAP per kg coating solids applied at a new affected source; or</p> <p>(C) The organic HAP emission rate based on coating material applied is no more than 0.04 kg organic HAP per kg coating material applied at an existing affected source and no more than 0.016 kg organic HAP per kg coating material applied at a new affected source; or</p> <p>(D) The organic HAP emitted during the month is less than the calculated allowable organic HAP as determined using paragraph (l) of this section.</p>	<p align="center">No</p>
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**SUBPART JJJJ, APPLICABILITY TABLE**

<p>(j) Capture and control system compliance demonstration procedures using a CPMS. If you use an add-on control device, you must demonstrate initial compliance for each capture system and each control device through performance tests and demonstrate continuing compliance through continuous monitoring of capture system and control device operating parameters as specified in paragraphs (j)(1) through (3) of this section. Compliance is determined in accordance with paragraph (j)(4) of this section.</p> <ul style="list-style-type: none"> <li>(1) Determine the control device destruction or removal efficiency using the applicable test methods and procedures in §63.3360(e).</li> <li>(2) Determine the emission capture efficiency in accordance with §63.3360(f).</li> <li>(3) Whenever a web coating line is operated, continuously monitor the operating parameters established according to §63.3350(e) and (f).</li> <li>(4) You are in compliance with the emission standards in §63.3320(b) if the control device is operated such that the average operating parameter value is greater than or less than (as appropriate) the operating parameter value established in accordance with §63.3360(e) for each 3-hour period, and the capture system operating parameter is operated at an average value greater than or less than (as appropriate) the operating parameter value established in accordance with §63.3350(f); and             <ul style="list-style-type: none"> <li>(i) The overall organic HAP control efficiency is 95 percent or greater at an existing affected source and 98 percent or greater at a new affected source; or</li> <li>(ii) The organic HAP emission rate based on coating solids applied is no more than 0.20 kg organic HAP per kg coating solids applied at an existing affected source and no more than 0.08 kg organic HAP per kg coating solids applied at a new affected source; or</li> <li>(iii) The organic HAP emission rate based on coating material applied is no more than 0.04 kg organic HAP per kg coating material applied at an existing affected source and no more than 0.016 kg organic HAP per kg coating material applied at a new affected source; or</li> <li>(iv) The organic HAP emitted during the month is less than the calculated allowable organic HAP as determined using paragraph (l) of this section.</li> </ul> </li> </ul>	<p>Yes</p>
<p>(k) Oxidizer compliance demonstration procedures. If you use an oxidizer to control emissions, you must show compliance by following the procedures in paragraph (k)(1) of this section. Use the applicable equations specified in paragraph (k)(2) of this section to convert the monitoring and other data into units of the selected compliance option in paragraph (e) through (h) of this section. Compliance is determined in accordance with paragraph (k)(3) of this section.</p> <ul style="list-style-type: none"> <li>(1) Demonstrate initial compliance through performance tests of capture efficiency and control device efficiency and continuing compliance through continuous monitoring of capture system and control device operating parameters as specified in paragraphs (k)(1)(i) through (vi) of this section:             <ul style="list-style-type: none"> <li>(i) Determine the oxidizer destruction efficiency using the procedure in §63.3360(e).</li> <li>(ii) Determine the capture system capture efficiency in accordance with §63.3360(f).</li> <li>(iii) Capture and control efficiency monitoring. Whenever a web coating line is operated, continuously monitor the operating parameters established in accordance with §63.3350(e) and (f) to ensure capture and control efficiency.</li> <li>(iv) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating materials applied, or emission of less than the calculated allowable organic HAP, determine the mass of each coating material applied on the web coating line or group of web coating lines controlled by a common oxidizer during the month.</li> <li>(v) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating material applied, or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each coating material as-applied during the month following the procedure in §63.3360(c).</li> <li>(vi) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied or emission of less than the calculated allowable organic HAP, determine the coating solids content of each coating material applied during the month following the procedure in §63.3360(d).</li> </ul> </li> </ul>	<p>Yes</p>

**ATTACHMENT A**

**SUBPART JJJJ, APPLICABILITY TABLE**

<p>(2) Convert the information obtained under paragraph (p)(1) of this section into the units of the selected compliance option using the calculation procedures specified in paragraphs (k)(2)(i) through (iv) of this section.</p> <p>(i) Control efficiency. Calculate the overall organic HAP control efficiency achieved using Equation 11 of this section.</p> <p>(ii) Organic HAP emitted. Calculate the organic HAP emitted during the month using Equation 12 of this section.</p> <p>(iii) Organic HAP emission rate based on coating solids applied. Calculate the organic HAP emission rate based on coating solids applied for each month using Equation 9 of this section.</p> <p>(iv) Organic HAP based on coating materials applied. Calculate the organic HAP emission rate based on coating material applied using Equation 10 of this section.</p>	<p align="center">Yes</p>
<p>(3) You are in compliance with the emission standards in §63.3320(b) if the oxidizer is operated such that the average operating parameter value is greater than the operating parameter value established in accordance with §63.3360(e) for each 3-hour period, and the capture system operating parameter is operated at an average value greater than or less than (as appropriate) the operating parameter value established in accordance with §63.3350(f); and</p> <p>(i) The overall organic HAP control efficiency is 95 percent or greater at an existing affected source and 98 percent or greater at a new affected source; or</p> <p>(ii) The organic HAP emission rate based on coating solids applied is no more than 0.20 kg organic HAP per kg coating solids applied at an existing affected source and no more than 0.08 kg organic HAP per kg coating solids applied at a new affected source; or</p> <p>(iii) The organic HAP emission rate based on coating material applied is no more than 0.04 kg organic HAP per kg coating material applied at an existing affected source and no more than 0.016 kg organic HAP per kg coating material applied at a new affected source; or</p> <p>(iv) The organic HAP emitted during the month is less than the calculated allowable organic HAP as determined using paragraph (l) of this section.</p>	<p align="center">Yes</p>
<p>(l) Monthly allowable organic HAP emissions. This paragraph provides the procedures and calculations for determining monthly allowable organic HAP emissions for use in demonstrating compliance in accordance with paragraph (d), (h), (i)(1)(x)(D), (i)(2)(xi)(D), or (k)(3)(iv) of this section. You will need to determine the amount of coating material applied at greater than or equal to 20 mass percent coating solids and the amount of coating material applied at less than 20 mass percent coating solids. The allowable organic HAP limit is then calculated based on coating material applied at greater than or equal to 20 mass percent coating solids complying with 0.2 kg organic HAP per kg coating solids at an existing affected source or 0.08 kg organic HAP per kg coating solids at a new affected source, and coating material applied at less than 20 mass percent coating solids complying with 4 mass percent organic HAP at an existing affected source and 1.6 mass-percent organic HAP at a new affected source as follows:</p> <p>(1) Determine the as-purchased mass of each coating material applied each month.</p>	<p align="center">No</p>

SUBPART JJJJ, APPLICABILITY TABLE

<p>(2) Determine the as-purchased coating solids content of each coating material applied each month in accordance with §63.3360(d)(1).</p> <p>(3) Determine the as-purchased mass fraction of each coating material which was applied at 20 mass percent or greater coating solids content on an as-applied basis.</p> <p>(4) Determine the total mass of each solvent, diluent, thinner, or reducer added to coating materials which were applied at less than 20 mass percent coating solids content on an as-applied basis each month.</p> <p>(5) Calculate the monthly allowable organic HAP emissions using Equation 13a of this section for an existing affected source:</p> $H_a = 0.20 \left[ \sum_{i=1}^p M_i G_i C_{si} \right] + 0.04 \left[ \sum_{i=1}^p M_i (1 - G_i) + \sum_{j=1}^q M_{Lj} \right] \quad \text{Eq. 13a}$ <p style="text-align: right;">Where:</p> <p>Ha= Monthly allowable organic HAP emissions, kg.  p = Number of different coating materials applied in a month.  Mi= mass of as-purchased coating material, i, applied in a month, kg.  Gi= Mass fraction of each coating material, i, which was applied at 20 mass percent or greater coating solids content, on an as-applied basis, kg/kg.  Csi= Coating solids content of coating material, i, expressed as a mass fraction, kg/kg.  q = Number of different materials added to the coating material.  MLj= Mass of non-coating-solids-containing coating material, j, added to coating-solids-containing coating materials which were applied at less than 20 mass percent coating solids content, on an as-applied basis, in a month, kg.</p> <p>or Equation 13b of this section for a new affected source:</p> $H_a = 0.08 \left[ \sum_{i=1}^p M_i G_i C_{si} \right] + 0.016 \left[ \sum_{i=1}^p M_i (1 - G_i) + \sum_{j=1}^q M_{Lj} \right] \quad \text{Eq. 13b}$ <p style="text-align: right;">Where:</p> <p>Ha= Monthly allowable organic HAP emissions, kg.  p = Number of different coating materials applied in a month.  Mi= Mass of as-purchased coating material, i, applied in a month, kg.  Gi= Mass fraction of each coating material, i, which was applied at 20 mass percent or greater coating solids content, on an as-applied basis, kg/kg.  Csi= Coating solids content of coating material, i, expressed as a mass fraction, kg/kg.  q = Number of different materials added to the coating material.  MLj= Mass of non-coating-solids-containing coating material, j, added to coating-solids-containing coating materials which were applied at less than 20 mass percent coating solids content, on an as-applied basis, in a month, kg.</p>	
<p>(m) [Reserved]</p>	
<p>(n) Combinations of capture and control. If you operate more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controlled work stations, you must calculate organic HAP emissions according to the procedures in paragraphs (n)(1) through (4) of this section, and use the calculation procedures specified in paragraph (n)(5) of this section to convert the monitoring and other data into units of the selected control option in paragraphs (e) through (h) of this section. Use the procedures specified in paragraph (n)(6) of this section to demonstrate compliance.</p> <p>(1) Solvent recovery system using liquid-liquid material balance compliance demonstration. If you choose to comply by means of a liquid-liquid material balance for each solvent recovery system used to control one or more web coating lines, you must determine the organic HAP emissions for those web coating lines controlled by that solvent recovery system either:</p> <p>(i) In accordance with paragraphs (i)(1)(i) through (iii) and (v) through (vii) of this section, if the web coating lines controlled by that solvent recovery system have only always-controlled work stations; or</p> <p>(ii) In accordance with paragraphs (i)(1)(ii), (iii), (v), and (vi) and (o) of this section, if the web coating lines controlled by that solvent recovery system have one or more never-controlled or intermittently-controlled work stations.</p> <p>(2) Solvent recovery system using performance test compliance demonstration and CEMS. To demonstrate compliance through an initial test of capture efficiency, continuous monitoring of a capture system operating parameter, and a CEMS on each solvent recovery system used to control one or more web coating lines, you must:</p>	<p>Yes</p>

## SUBPART JJJJ, APPLICABILITY TABLE

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| <p>(i) For each capture system delivering emissions to that solvent recovery system, monitor the operating parameter established in accordance with §63.3350(f) to ensure capture system efficiency; and</p> <p>(ii) Determine the organic HAP emissions for those web coating lines served by each capture system delivering emissions to that solvent recovery system either:</p> <p>(A) In accordance with paragraphs (i)(2)(i) through (iii), (v), (vi), and (viii) of this section, if the web coating lines served by that capture and control system have only always-controlled work stations; or</p> <p>(B) In accordance with paragraphs (i)(2)(i) through (iii), (vi), and (o) of this section, if the web coating lines served by that capture and control system have one or more never-controlled or intermittently-controlled work stations.</p> <p>(3) Oxidizer. To demonstrate compliance through performance tests of capture efficiency and control device efficiency, continuous monitoring of capture system, and CPMS for control device operating parameters for each oxidizer used to control emissions from one or more web coating lines, you must:</p> <p>(i) Monitor the operating parameter in accordance with §63.3350(e) to ensure control device efficiency; and</p> <p>(ii) For each capture system delivering emissions to that oxidizer, monitor the operating parameter established in accordance with §63.3350(f) to ensure capture efficiency; and</p> <p>(iii) Determine the organic HAP emissions for those web coating lines served by each capture system delivering emissions to that oxidizer either:</p> <p>(A) In accordance with paragraphs (k)(1)(i) through (vi) of this section, if the web coating lines served by that capture and control system have only always-controlled work stations; or</p> <p>(B) In accordance with paragraphs (k)(1)(i) through (iii), (v), and (o) of this section, if the web coating lines served by that capture and control system have one or more never-controlled or intermittently-controlled work stations.</p> <p>(4) Uncontrolled coating lines. If you own or operate one or more uncontrolled web coating lines, you must determine the organic HAP applied on those web coating lines using Equation 6 of this section. The organic HAP emitted from an uncontrolled web coating line is equal to the organic HAP applied on that web coating line.</p> <p>(5) Convert the information obtained under paragraphs (n)(1) through (4) of this section into the units of the selected compliance option using the calculation procedures specified in paragraphs (n)(5)(i) through (iv) of this section.</p> <p>(i) Organic HAP emitted. Calculate the organic HAP emissions for the affected source for the month by summing all organic HAP emissions calculated according to paragraphs (n)(1), (2)(ii), (3)(iii), and (4) of this section.</p> <p>(ii) Coating solids applied. If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied or emission of less than the calculated allowable organic HAP, the owner or operator must determine the coating solids content of each coating material applied during the month following the procedure in §63.3360(d).</p> <p>(iii) Organic HAP emission rate based on coating solids applied. Calculate the organic HAP emission rate based on coating solids applied for each month using Equation 9 of this section.</p> <p>(iv) Organic HAP based on materials applied. Calculate the organic HAP emission rate based on material applied using Equation 10 of this section.</p> <p>(6) Compliance. The affected source is in compliance with the emission standards in §63.3320(b) for the month if all operating parameters required to be monitored under paragraphs (n)(1) through (3) of this section were maintained at the values established under §§63.3350 and 63.3360; and</p> <p>(i) The total mass of organic HAP emitted by the affected source based on coating solids applied is no more than 0.20 kg organic HAP per kg coating solids applied at an existing affected source and no more than 0.08 kg organic HAP per kg coating solids applied at a new affected source; or</p> <p>(ii) The total mass of organic HAP emitted by the affected source based on material applied is no more than 0.04 kg organic HAP per kg material applied at an existing affected source and no more than 0.016 kg organic HAP per kg material applied at a new affected source; or</p> <p>(iii) The total mass of organic HAP emitted by the affected source during the month is less than the calculated allowable organic HAP as determined using paragraph (l) of this section; or</p> <p>(iv) The total mass of organic HAP emitted by the affected source was not more than 5 percent of the total mass of organic HAP applied for the month at an existing affected source and no more than 2 percent of the total mass of organic HAP applied for the month at a new affected source. The total mass of organic HAP applied by the affected source in the month must be determined using Equation 6 of this section</p> |  |
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**SUBPART JJJJ, APPLICABILITY TABLE**

(o) Intermittently-controlled and never-controlled work stations. If you have been expressly referenced to this paragraph by paragraphs (n)(1)(ii), (n)(2)(ii)(B), or (n)(3)(iii)(B) of this section for calculation procedures to determine organic HAP emissions for your intermittently-controlled and never-controlled work stations, you must:

- (1) Determine the sum of the mass of all coating materials as-applied on intermittently-controlled work stations operating in bypass mode and the mass of all coating materials as-applied on never-controlled work stations during the month.
- (2) Determine the sum of the mass of all coating materials as-applied on intermittently-controlled work stations operating in a controlled mode and the mass of all coating materials applied on always-controlled work stations during the month.
- (3) Liquid-liquid material balance compliance demonstration. For each web coating line or group of web coating lines for which you use the provisions of paragraph (n)(1)(ii) of this section, you must calculate the organic HAP emitted during the month using Equation 14 of this section:

$$H_e = \left[ \sum_{i=1}^p M_{Ci} C_{ahi} \right] \left[ 1 - \frac{R_v}{100} \right] + \left[ \sum_{i=1}^p M_{Bi} C_{ahi} \right] - M_{vret} \quad \text{Eq. 14}$$

Where:

He= Total monthly organic HAP emitted, kg.

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

Mci= Sum of the mass of coating material, i, as-applied on intermittently-controlled work stations operating in controlled mode and the mass of coating material, i, as-applied on always-controlled work stations, in a month, kg.

Cahi= Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.

Rv= Organic volatile matter collection and recovery efficiency, percent.

MBi= Sum of the mass of coating material, i, as-applied on intermittently-controlled work stations operating in bypass mode and the mass of coating material, i, as-applied on never-controlled work stations, in a month, kg.

Cahi= Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.

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

- (4) Performance test to determine capture efficiency and control device efficiency. For each web coating line or group of web coating lines for which you use the provisions of paragraph (n)(2)(ii)(B) or (n)(3)(iii)(B) of this section, you must calculate the organic HAP emitted during the month using Equation 15 of this section:

$$H_e = \left[ \sum_{i=1}^p M_{Ci} C_{ahi} \right] \left[ 1 - \frac{R}{100} \right] + \left[ \sum_{i=1}^p M_{Bi} C_{ahi} \right] - M_{vret} \quad \text{Eq. 15}$$

Where:

He= Total monthly organic HAP emitted, kg.

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

Mci= Sum of the mass of coating material, i, as-applied on intermittently-controlled work stations operating in controlled mode and the mass of coating material, i, as-applied on always-controlled work stations, in a month, kg.

Cahi= Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.

R = Overall organic HAP control efficiency, percent.

MBi= Sum of the mass of coating material, i, as-applied on intermittently-controlled work stations operating in bypass mode and the mass of coating material, i, as-applied on never-controlled work stations, in a month, kg.

Cahi= Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.

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

No

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(p) Always-controlled work stations with more than one capture and control system. If you operate more than one capture system or more than one control device and only have always-controlled work stations, then you are in compliance with the emission standards in §63.3320(b)(1) for the month if for each web coating line or group of web coating lines controlled by a common control device:	No
(1) The volatile matter collection and recovery efficiency as determined by paragraphs (i)(1)(i), (iii), (v), and (vi) of this section is at least 95 percent at an existing affected source and at least 98 percent at a new affected source; or	No
(2) The overall organic HAP control efficiency as determined by paragraphs (i)(2)(i) through (iv) of this section for each web coating line or group of web coating lines served by that control device and a common capture system is at least 95 percent at an existing affected source and at least 98 percent at a new affected source; or	No
(3) The overall organic HAP control efficiency as determined by paragraphs (k)(1)(i) through (iii) and (k)(2)(i) of this section for each web coating line or group of web coating lines served by that control device and a common capture system is at least 95 percent at an existing affected source and at least 98 percent at a new affected source.	No
<b>Notifications, Reports, and Records</b>	
<b>§ 63.3400 What notifications and reports must I submit?</b>	
(a) Each owner or operator of an affected source subject to this subpart must submit the reports specified in paragraphs (b) through (g) of this section to the Administrator:	Yes
(b) You must submit an initial notification as required by §63.9(b). (1) Initial notification for existing affected sources must be submitted no later than 1 year before the compliance date specified in §63.3330(a). (2) Initial notification for new and reconstructed affected sources must be submitted as required by §63.9(b). (3) For the purpose of this subpart, a title V or part 70 permit application may be used in lieu of the initial notification required under §63.9(b), provided the same information is contained in the permit application as required by §63.9(b) and the State to which the permit application has been submitted has an approved operating permit program under part 70 of this chapter and has received delegation of authority from the EPA to implement and enforce this subpart. (4) If you are using a permit application in lieu of an initial notification in accordance with paragraph (b)(3) of this section, the permit application must be submitted by the same due date specified for the initial notification.	Yes
(c) You must submit a semiannual compliance report according to paragraphs (c)(1) and (2) of this section. (1) Compliance report dates. (i) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.3330 and ending on June 30 or December 31, whichever date is the first date following the end of the calendar half immediately following the compliance date that is specified for your affected source in §63.3330. (ii) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the calendar half immediately following the compliance date that is specified for your affected source in §63.3330. (iii) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. (iv) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. (v) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and the permitting authority has established dates for submitting semiannual reports pursuant to §70.6(a)(3)(iii)(A) or §71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (c)(1)(i) through (iv) of this section. (2) The compliance report must contain the information in paragraphs (c)(2)(i) through (vi) of this section: (i) Company name and address. (ii) Statement by a responsible official with that official's name, title, and signature certifying the accuracy of the content of the report. (iii) Date of report and beginning and ending dates of the reporting period. (iv) If there are no deviations from any emission limitations (emission limit or operating limit) that apply to you, a statement that there were no deviations from the emission limitations during the reporting period, and that no CMS was inoperative, inactive, malfunctioning, out-of-control, repaired, or adjusted.	Yes

**SUBPART JJJJ, APPLICABILITY TABLE**

<p>(v) For each deviation from an emission limitation (emission limit or operating limit) that applies to you and that occurs at an affected source where you are not using a CEMS to comply with the emission limitations in this subpart, the compliance report must contain the information in paragraphs (c)(2)(i) through (iii) of this section, and:</p> <ul style="list-style-type: none"> <li>(A) The total operating time of each affected source during the reporting period.</li> <li>(B) Information on the number, duration, and cause of deviations (including unknown cause), if applicable, and the corrective action taken.</li> <li>(C) Information on the number, duration, and cause for CPMS downtime incidents, if applicable, other than downtime associated with zero and span and other calibration checks.</li> </ul> <p>(vi) For each deviation from an emission limit occurring at an affected source where you are using a CEMS to comply with the emission limit in this subpart, you must include the information in paragraphs (c)(2)(i) through (iii) and (vi)(A) through (J) of this section.</p> <ul style="list-style-type: none"> <li>(A) The date and time that each malfunction started and stopped.</li> <li>(B) The date and time that each CEMS and CPMS, if applicable, was inoperative except for zero (low-level) and high-level checks.</li> <li>(C) The date and time that each CEMS and CPMS, if applicable, was out-of-control, including the information in §63.8(c)(8).</li> <li>(D) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.</li> <li>(E) A summary of the total duration (in hours) of each deviation during the reporting period and the total duration of each deviation as a percent of the total source operating time during that reporting period.</li> <li>(F) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.</li> <li>(G) A summary of the total duration (in hours) of CEMS and CPMS downtime during the reporting period and the total duration of CEMS and CPMS downtime as a percent of the total source operating time during that reporting period.</li> <li>(H) A breakdown of the total duration of CEMS and CPMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes.</li> <li>(I) The date of the latest CEMS and CPMS certification or audit.</li> <li>(J) A description of any changes in CEMS, CPMS, or controls since the last reporting period.</li> </ul> <p>(d) You must submit a Notification of Performance Tests as specified in §§63.7 and 63.9(e) if you are complying with the emission standard using a control device and you are required to conduct a performance test of the control device. This notification and the site-specific test plan required under §63.7(c)(2) must identify the operating parameters to be monitored to ensure that the capture efficiency of the capture system and the control efficiency of the control device determined during the performance test are maintained. Unless EPA objects to the parameter or requests changes, you may consider the parameter approved.</p> <p>(e) You must submit a Notification of Compliance Status as specified in §63.9(h).</p> <p>(f) You must submit performance test reports as specified in §63.10(d)(2) if you are using a control device to comply with the emission standard and you have not obtained a waiver from the performance test requirement or you are not exempted from this requirement by §63.3360(b). The performance test reports must be submitted as part of the notification of compliance status required in §63.3400(e).</p> <p>(g) You must submit startup, shutdown, and malfunction reports as specified in §63.10(d)(5), except that the provisions in subpart A of this part pertaining to startups, shutdowns, and malfunctions do not apply unless a control device is used to comply with this subpart.</p> <ul style="list-style-type: none"> <li>(1) If actions taken by an owner or operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are not consistent with the procedures specified in the affected source's SSMP required by §63.6(e)(3), the owner or operator must state such information in the report. The startup, shutdown, or malfunction report must consist of a letter containing the name, title, and signature of the responsible official who is certifying its accuracy and must be submitted to the Administrator.</li> <li>(2) Separate startup, shutdown, and malfunction reports are not required if the information is included in the report specified in paragraph (c)(2)(vi) of this section.</li> </ul>	<p>Yes</p>
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**SUBPART JJJJ, APPLICABILITY TABLE**

<b>§ 63.3410 What records must I keep?</b>			
<p>(a) Each owner or operator of an affected source subject to this subpart must maintain the records specified in paragraphs (a)(1) and (2) of this section on a monthly basis in accordance with the requirements of §63.10(b)(1):</p> <p>(1) Records specified in §63.10(b)(2) of all measurements needed to demonstrate compliance with this standard, including:</p> <ul style="list-style-type: none"> <li>(i) Continuous emission monitor data in accordance with the requirements of §63.3350(d);</li> <li>(ii) Control device and capture system operating parameter data in accordance with the requirements of §63.3350(c), (e), and (f);</li> <li>(iii) Organic HAP content data for the purpose of demonstrating compliance in accordance with the requirements of §63.3360(c);</li> <li>(iv) Volatile matter and coating solids content data for the purpose of demonstrating compliance in accordance with the requirements of §63.3360(d);</li> <li>(v) Overall control efficiency determination using capture efficiency and control device destruction or removal efficiency test results in accordance with the requirements of §63.3360(e) and (f); and</li> <li>(vi) Material usage, organic HAP usage, volatile matter usage, and coating solids usage and compliance demonstrations using these data in accordance with the requirements of §63.3370(b), (c), and (d).</li> </ul> <p>(2) Records specified in §63.10(c) for each CMS operated by the owner or operator in accordance with the requirements of §63.3350(b).</p> <p>(b) Each owner or operator of an affected source subject to this subpart must maintain records of all liquid-liquid material balances performed in accordance with the requirements of §63.3370. The records must be maintained in accordance with the requirements of §63.10(b).</p>			
<b>Delegation of Authority</b>			
<b>§ 63.3420 What authorities may be delegated to the States?</b>			
(a) In delegating implementation and enforcement authority to a State under 40 CFR part 63, subpart E, the authorities contained in paragraph (b) of this section must be retained by the Administrator and not transferred to a State.			
(b) Authority which will not be delegated to States: §63.3360(c), approval of alternate test method for organic HAP content determination; §63.3360(d), approval of alternate test method for volatile matter determination.			
<b>Table 1 to Subpart JJJJ of Part 63—Operating Limits if Using Add-On Control Devices and Capture System</b>			
If you are required to comply with operating limits by §63.3321, you must comply with the applicable operating limits in the following table:			
<b>For the following device:</b>	<b>You must meet the following operating limit:</b>	<b>And you must demonstrate continuous compliance with operating limits by:</b>	<b>Applies Yes/No</b>
1. Thermal oxidizer	a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to §63.3360(e)(3)(i)	i. Collecting the combustion temperature data according to §63.3350(e)(9); ii. Reducing the data to 3-hour block averages; and iii. Maintain the 3-hour average combustion temperature at or above the temperature limit.	Yes
2. Catalytic oxidizer	a. The average temperature at the inlet to the catalyst bed in any 3-hour period must not fall below the combustion temperature limit established according to §63.3360(e)(3)(ii)	i. Collecting the catalyst bed inlet temperature data according to §63.3350(e)(9); ii. Reducing the data to 3-hour block averages; and iii. Maintain the 3-hour average catalyst bed inlet temperature at or above the temperature limit.	No
	b. The temperature rise across the catalyst bed must not fall below the limit established according to §63.3360(e)(3)(ii)	i. Collecting the catalyst bed inlet and outlet temperature data according to §63.3350(e)(9); ii. Reducing the data to 3-hour block averages; and iii. Maintain the 3-hour average temperature rise across the catalyst bed at or above the limit.	No
3. Emission capture system	Submit monitoring plan to the Administrator that identifies operating parameters to be monitored according to §63.3350(f)	Conduct monitoring according to the plan (§63.3350(f)(3)).	No

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**SUBPART JJJJ, APPLICABILITY TABLE**

<b>Table 2 to Subpart JJJJ of Part 63—Applicability of 40 CFR Part 63 General Provisions to Subpart JJJJ</b>			
You must comply with the applicable General Provisions requirements according to the following table:			
<b>General provisions reference</b>	<b>Applicable to subpart JJJJ</b>	<b>Explanation</b>	<b>Applies Yes/No</b>
§63.1(a)(1)–(4)	Yes.		Yes.
§63.1(a)(5)	No	Reserved.	No
§63.1(a)(6)–(8)	Yes.		Yes.
§63.1(a)(9)	No	Reserved.	No
§63.1(a)(10)–(14)	Yes.		Yes.
§63.1(b)(1)	No	Subpart JJJJ specifies applicability.	No
§63.1(b)(2)–(3)	Yes.		Yes.
§63.1(c)(1)	Yes.		Yes.
§63.1(c)(2)	No	Area sources are not subject to emission standards of subpart JJJJ.	No
§63.1(c)(3)	No	Reserved.	No
§63.1(c)(4)	Yes.		Yes.
§63.1(c)(5)	Yes.		Yes.
§63.1(d)	No	Reserved.	No
§63.1(e)	Yes.		Yes.
§63.1(e)(4)	No.		No.
§63.2	Yes	Additional definitions in subpart JJJJ.	Yes
§63.3(a)–(c)	Yes.		Yes.
§63.4(a)(1)–(3)	Yes.		Yes.
§63.4(a)(4)	No	Reserved.	No
§63.4(a)(5)	Yes.		Yes.
§63.4(b)–(c)	Yes.		Yes.
§63.5(a)(1)–(2)	Yes.		Yes.
§63.5(b)(1)	Yes.		Yes.
§63.5(b)(2)	No	Reserved.	No
§63.5(b)(3)–(6)	Yes.		Yes.
§63.5(c)	No	Reserved.	No
§63.5(d)	Yes.		Yes.
§63.5(e)	Yes.		Yes.
§63.5(f)	Yes.		Yes.
§63.6(a)	Yes	Applies only when capture and control system is used to comply with the standard.	Yes
§63.6(b)(1)–(5)	No		No
§63.6(b)(6)	No	Reserved.	No
§63.6(b)(7)	Yes.		Yes.
§63.6(c)(1)–(2)	Yes.		Yes.
§63.6(c)(3)–(4)	No	Reserved.	No
§63.6(c)(5)	Yes.		Yes.
§63.6(d)	No	Reserved.	No
§63.6(e)	Yes	Provisions pertaining to SSMP, and CMS do not apply unless an add-on control system is used to comply with the emission limitations.	Yes
§63.6(f)	Yes.		Yes.

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**SUBPART JJJJ, APPLICABILITY TABLE**

§63.6(g)	Yes.		Yes.
§63.6(h)	No	Subpart JJJJ does not require continuous opacity monitoring systems (COMS).	No
§63.6(i)(1)–(14)	Yes.		Yes.
<b>General provisions reference</b>	<b>Applicable to subpart JJJJ</b>	<b>Explanation</b>	<b>Applies Yes/No</b>
§63.6(i)(15)	No	Reserved.	No
§63.6(i)(16)	Yes.		Yes.
§63.6(j)	Yes.		Yes.
§63.7	Yes.		Yes.
§63.8(a)(1)–(2)	Yes.		Yes.
§63.8(a)(3)	No	Reserved.	No
§63.8(a)(4)	No.		No.
§63.8(b)	Yes.		Yes.
§63.8(c)(1)–(3)	Yes	§63.8(c)(1)(i) & (ii) only apply if you use capture and control systems and are required to have a start-up, shutdown, and malfunction plan.	Yes
§63.8(c)(4)	Yes.		Yes.
§63.8(c)(5)	No	Subpart JJJJ does not require COMS.	No
§63.8(c)(6)–(c)(8)	Yes	Provisions for COMS are not applicable.	Yes
§63.8(d)–(f)	Yes	§63.8(f)(6) only applies if you use CEMS.	Yes
§63.8(g)	Yes	Only applies if you use CEMS.	Yes
§63.9(a)	Yes.		Yes.
§63.9(b)(1)	Yes.		Yes.
§63.9(b)(2)	Yes	Except §63.3400(b)(1) requires submittal of initial notification for existing affected sources no later than 1 year before compliance date.	Yes
§63.9(b)(3)–(5)	Yes.		Yes.
§63.9(c)–(e)	Yes.		Yes.
§63.9(f)	No	Subpart JJJJ does not require opacity and visible emissions observations.	No
§63.9(g)	Yes	Provisions for COMS are not applicable.	Yes
§63.9(h)(1)–(3)	Yes.		Yes.
§63.9(h)(4)	No	Reserved.	No
§63.9(h)(5)–(6)	Yes.		Yes.
§63.9(i)	Yes.		Yes.
§63.9(j)	Yes.		Yes.
§63.10(a)	Yes.		Yes.
§63.10(b)(1)–(3)	Yes	§63.10(b)(2)(i) through (v) only apply if you use a capture and control system.	Yes
§63.10(c)(1)	Yes.		Yes.
§63.10(c)(2)–(4)	No	Reserved.	No

**ATTACHMENT A**

**SUBPART JJJJ, APPLICABILITY TABLE**

§63.10(c)(5)–(8)	Yes.		Yes.
§63.10(c)(9)	No	Reserved.	No
§63.10(c)(10)–(15)	Yes.		Yes.
§63.10(d)(1)–(2)	Yes.		Yes.
§63.10(d)(3)	No	Subpart JJJJ does not require opacity and visible emissions observations.	No
§63.10(d)(4)–(5)	Yes.		Yes.
§63.10(e)(1)–(2)	Yes	Provisions for COMS are not applicable.	Yes
<b>General provisions reference</b>	<b>Applicable to subpart JJJJ</b>	<b>Explanation</b>	<b>Applies Yes/No</b>
§63.10(e)(3)–(4)	No.		No.
§63.10(f)	Yes.		Yes.
§63.11	No.		No.
§63.12	Yes.		Yes.
§63.13	Yes.		Yes.
§63.14	Yes	Subpart JJJJ includes provisions for alternative ASME test methods that are incorporated by reference.	Yes
§63.15	Yes.		Yes.

ATTACHMENT B

DESCRIPTION OF PRODUCT SIMULATION DURING VOC COMPLIANCE TESTING

ATTACHMENT B

Attachment B

Description of Production Simulation  
During VOC Compliance Testing

The purpose of this attachment is to describe how ITD will generate VOC emissions using a simulated production for VOC compliance testing purposes. Simulating production is necessary to minimize the production expenses incurred by ITD during compliance testing. ITD has had to manufacture products it does not need in the past to meet permit requirements during compliance testing because the permit necessitates using a worst case VOC-containing coating. Furthermore, due to the wording of the required testing conditions in the current air permits, ITD continues to lower its permitted VOC loading rates into the incinerator from year to year because it cannot achieve or even approach 90% of the maximum VOC loading rates when under actual production.

The maximum design VOC loading rates are 475 lbs/hr for Line No. 1 and 446 lbs/hr for Line No. 2. Based on the most recent compliance tests conducted, the permitted VOC loading rates are only 275 and 353.5 lbs/hr respectively and ITD has had to prove on a daily basis that these reduced VOC loading rates are not being exceeded. ITD would like to stack test at or near the maximum design VOC loading rates so it can be permitted to operate at these rates so that the facility does not have to worry about exceeding much lower permitted VOC loading rates. (See not below)

ITD will utilize a 100% fresh or recycled solvent mixture containing the same VOC's utilized in the worst case coating BD 074 LA which contains 39.23 lbs VOC/gal of solids. As shown in the permit application, the composition in the coating is 42.5% MEK, 14.3% Toluene, 3.2% Ethyl Acetate, and 40% solids. A similar composition in a 100% solvent mixture is 71% MEK, 24% Toluene, and 5% Ethyl Acetate. A batch containing this solvent mixture will be prepared prior to stack testing Line Nos. 1 and 2. The solvent feed rate for Line No. 1 will be approximately 8 lbs/min ( $475 \text{ lbs/hr} \div 60 \text{ min/hr}$ ) or 90% thereof during testing. Line No. 2 will be approximately 7.4 lbs/min ( $446 \text{ lbs/hr} \div 60 \text{ min/hr}$ ) or 90% thereof. The facility has a K-flow pump whose flow rate can be adjusted and set during the compliance test. The K-Flow pump will be calibrated prior to the test and results of calibration will be submitted with the compliance test report.

Approximately 10% of the solvent mixture being pumped will be diverted to and evaporated into an air suction duct at the coating head area of each line and the remaining 90% or balance thereof will be evaporated within drying oven area of each line. We believe this type of solvent distribution is conservative for the purpose of demonstrating 100% capture efficiency since most of the air emissions, when under actual production are generated within the drying oven which is fully enclosed. For the purpose of demonstrating 90% destruction efficiency, emissions from the coating head area and the drying oven are both ducted to the affected incinerator for each line so we believe the emissions distribution between the coating applicator and the drying oven does not matter for this purpose. We plan to use atomizing

Permitting Note (6/24/02):

Replacement of the Incinerator (Administrative Permit Correction, No. 1030119-005-AV) amended the load rates for Line No. 2. See permit.

**ATTACHMENT B**

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**DESCRIPTION OF PRODUCT SIMULATION DURING VOC COMPLIANCE TESTING**

ATTACHMENT B

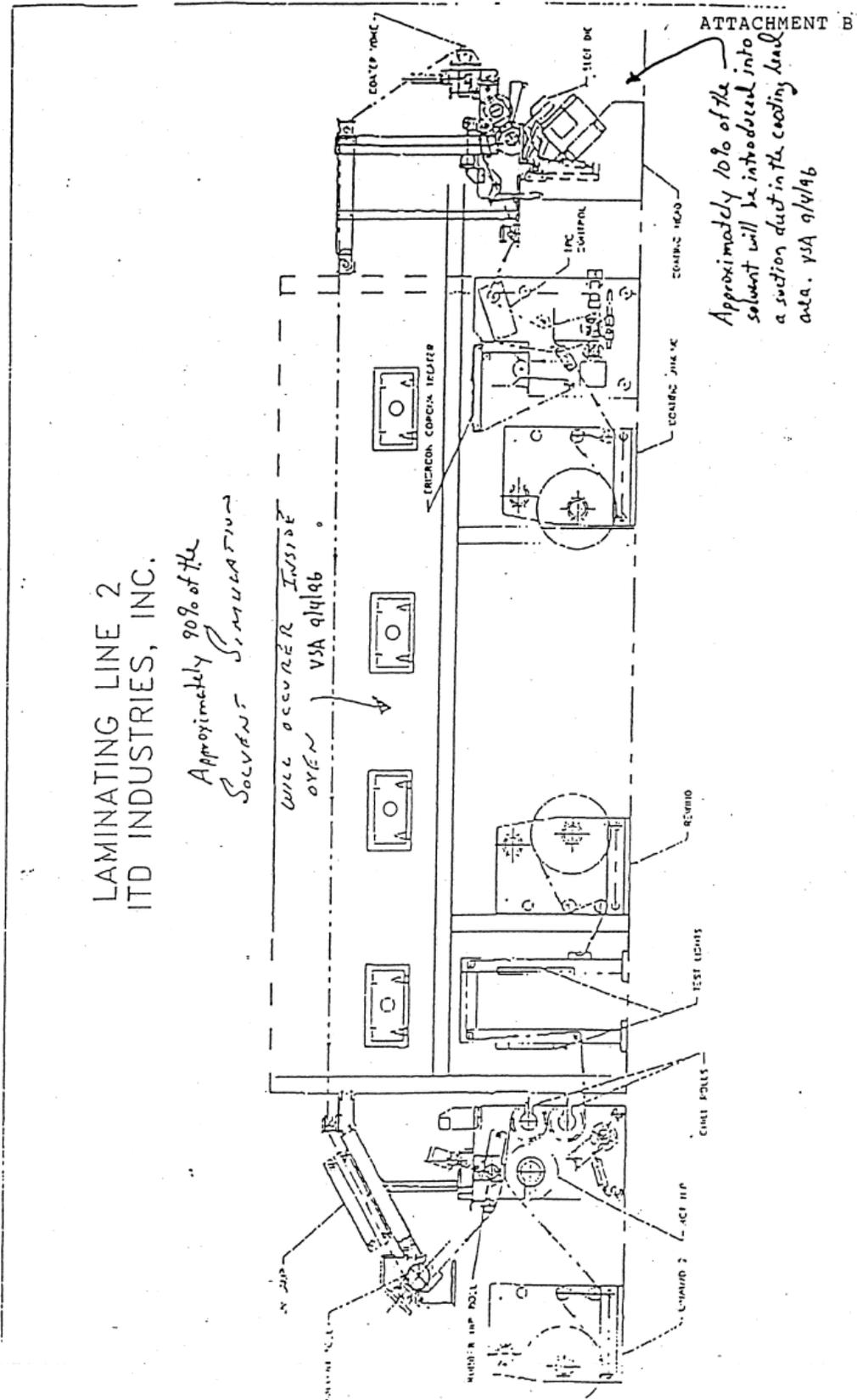
nozzles to help evaporate the liquid solvent so that the emissions can be captured in the emissions ducts going to the affected incinerator.

A diagram showing the approximate locations of where the emissions will be introduced for each coating line is enclosed. A process rate statement specifying the actual solvent usage rates used and certifying that these procedures have been followed will be included in the compliance test report.



ATTACHMENT B

DESCRIPTION OF PRODUCT SIMULATION DURING VOC COMPLIANCE TESTING



ATTACHMENT C  
OPERATION AND MAINTENANCE PLAN

**OPERATION & MAINTENANCE PLAN**  
**VOC Control System – Regenerative Thermal Oxidizer (RTO)**

**A. Process Parameters:**

1. Source NEDS Number	1030119, Regenerative Thermal Oxidizer
2. Incinerator Manufacturer	TANN Corporation, L&E America
3. Model Name and Number	Regenerative Thermal Oxidizer, Model TR3295
4. Design Flow Rate	32,000 SCFM
5. Efficiency Rating	98% VOC Destruction
6. Typical Operating Temperature	
a. Inlet	150 – 250°F
b. Outlet	250 – 500°F
7. Stack Height	40 feet
9. Controlled Process	Coating Line 1, Coating Line2, Mixing Room and QC Laboratory

**B. Time Table for Routine Maintenance:**

- Monthly – Lubricate bearings, flame rod, inter locks, flame guard, ductwork, damper controls, burner controls, Fan and Motor, Exhaust ductwork actuators, and operational sequencing.
- 6-Month – Manufacturer recommendation: Poppet valve blades, poppet valve seats, blade-to-seat connection, manual gas valve, and air-gas ratio.
- Annual – Ignition cable and connector, thermocouple, gas piping, orifice plate and RTO motors.

**C. The following observations, checks and operations apply to this source and shall be conducted on the schedule specified:**

Continuously record and monitor RTO combustion chamber temperature

Monthly:

- Ductwork and dampers
- RTO
- Burner Controls
- Computer Data
- Fans and Motors

ATTACHMENT C  
OPERATION AND MAINTENANCE PLAN

**D. Spare Parts List:**

Item	Part Number	Description	Required	On Hand
1	974500	Timer,ATC, FM approved. ATC# 328D-200F-10XX	1	1
2	916078	Controller, high limit, FM approved, no alarm contact. Yokogawa#UT1506RN	1	1
3	991306	Duct, Flexible Silicone, CW-GS, 7.00 Diameter	1	1
4	983000	Transmitter, pressure, Dwyer, 0-10"wc, 4-20mA. 607.8	1	1
5	979230-1	Switch, pressure, AIF-0-SS-1-3	1	1
6	979230-2	A-447 Enclosure, Weatherproof	1	1
7	994350	Valve, solenoid, AAA SO8, 1" for 10" Bore Parker cylinder	1	1
8	906009	Rod Gland Kit for 10" bore (capture), 2A	1	1
9	906010	Piston Seal Kit, for 10" bore (capture), 2A	1	1
10	979323	Pressure switch (TANN "combustion blower" and "high negative"), 2-20"wc, N4, SPDT, ¼" NPT.KDI #46020-5.	2	2
11	979322	Pressure switch (TANN "Fan differential"), 0.4-4"wc, N4, SPDT, ¼" NPT.KDI #46020-3.	1	1
12	965022	Actuator, Motor, Honeywell, M7294Q1007, 300 in lbs, 4-20 mA, 60 sec, 90 deg.	1	1
13	912453	Scanner, UV, self-checking, Fireye	1	1
14	912458	Flame safeguard amplifier, Fireye	1	1
15	912459	Flame safeguard programmer, Fireye	1	1
16	966009	Valve Main Gas, w/overtravel, 2" NPT, Honeywell #V5055C-1000	1	1
17	994200	Valve, Solenoid, 2-wa, Normally closed (NC), ½" NPT, Asco #8214G20 (pilot gas), MN #A2-8214G20	1	1
18	965910	Actuator, Gas Valve, On-Off, Honeywell # V4055D-1035	1	1
19	979305	Switch, Pressure, High Gas, 40"-200"wc, Manual Reset, KDI# GMH-A2-4-8	1	1
20	979306	Switch, Pressure, Low Gas, 1"-20"wc, Manual Reset, KDI# GMH-A2-4-4	1	1
21	984224-P	Pyromation Duplex K type Thermocouple, SB 24" long ¼" diameter Inconel sheath, Part #KK43U-024-00-8HN49	2	2

**E. Records:**

Records of inspections, maintenance, and performance parameters shall be retained for a minimum of five years and shall be made available to the Department or the Pinellas County Department of Environmental Management upon request. The attached form is used to document and record inspection and maintenance activities.

ATTACHMENT C  
OPERATION AND MAINTENANCE PLAN

**RTO Maintenance Log  
Monthly Inspection**

G = GOOD, F = FAIR, NR = NEEDS REPAIR, SD = SHUT DOWN AND REPAIR,  
CORR = FOUND TO BE IN NEED OF ATTENTION AND CORRECTED

Note: Tasks are to be performed according to established techniques, procedures, references, materials and equipment.

DUCTWORK and DAMPERS	
Description	Condition
Metal condition, i.e. rust free	
Condition of Stands and Mountings	
Mounting integrity of actuators	
Manual damper balance lockdown condition	
Automatic Linkage condition	

BURNER CONTROLS	
Description	Condition
Integrity of Gas Train, check for leaks	
Gas Valve safeties	
Pilot Gas setting and pressure	
Flame out control shutdown	

RTO	
Description	Condition
Lubricate Bearings	
Inspect Flame rod	
Test interlocks	
Check Ignition spark plug	
Check valve motors	
Test flame safeguard	
Clean or replace combustion air filter	
Poppet valve blade (every 6 months)	
Poppet valve seat (every 6 months)	
Blade to seat connection (every 6 months)	
Manual gas valve (every 6 months)	
Air-gas ratio (every 6 months)	
Pressure Switches (every 6 months)	
Ignition cable and connector (annually)	
Gas Piping (annually)	
Orifice plate (annually)	
Motors (annually)	
Thermocouple (annually)	

COMPUTER DATA	
Description	Condition
RTO Burner Set point (1655°F)	
RTO Burner present value	
Main Blower Pressure set point (3.5" wc)	
System free from Alarms and warnings	

FANS and MOTORS	
Description	Condition
Condition of V-belts and Pulleys	
Motor and Fan mountings	
Pressure switches and sensors	
Bearing and shaft condition	
Lubrication	

NOTES	

INSPECTOR/REPAIRMAN	START DATE	END DATE	COMMENTS

# ATTACHMENT D

40 CFR 63, Subpart JJJ  
National Emission Standards for Hazardous Air Pollutants  
Paper and Other Web Coating

40 CFR 63, SUBPART JJJJ

Source: [Federal Register dated 12/4/02 and as amended 5/24/06]

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

**What This Subpart Covers**

**63.3280** What is in this subpart?

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

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

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

**Emission Standards and Compliance Dates**

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

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

**63.3330** When must I comply?

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

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

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

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

**Requirements for Showing Compliance**

**63.3370** How do I demonstrate compliance with the emission standards?

**Notifications, Reports, and Records**

**63.3400** What notifications and reports must I submit?

**63.3410** What records must I keep?

**Delegation of Authority**

**63.3420** What authorities may be delegated to the States?

**Table and Appendix to Subpart JJJJ of Part 63**

**Table 1 to Subpart JJJJ of Part 63.** Operating Limits if Using Add-On Control Devices and Capture System

**Appendix A to JJJJ of Part 63.** Applicability of 40 CFR Part 63 General Provisions to Subpart JJJJ

**63.3280 What is in this subpart?**

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

**Sec. 63.3290 Does this subpart apply to me?**

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

**Sec. 63.3300 Which of my emission sources are affected by this subpart?**

40 CFR 63, SUBPART JJJJ

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

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

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

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

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

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

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

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

**Sec. 63.3310 What definitions are used in this subpart?**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

*HAP* means hazardous air pollutants.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**Emission Standards and Compliance Dates**

**Sec. 63.3320 What emission standards must I meet?**

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

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

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

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

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

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

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

**Sec. 63.3321 What operating limits must I meet?**

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

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

**Sec. 63.3330 When must I comply?**

**40 CFR 63, SUBPART JJJJ**

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

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

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

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

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

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

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

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

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

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

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

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

(2) Car-seal or lock-and-key valve closures. Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must be performed at least once every month to ensure that the valve or damper is maintained in the closed position, and the exhaust stream is not diverted through the bypass line.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(f) Capture system monitoring. If you are complying with the emission standards in Sec. 63.3320 through the use of a capture system and control device for one or more web coating lines, you must develop a site-specific

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monitoring plan containing the information specified in paragraphs (f)(1) and (2) of this section for these capture systems. You must monitor the capture system in accordance with paragraph (f)(3) of this section. You must make the monitoring plan available for inspection by the permitting authority upon request.

(1) The monitoring plan must:

- (i) Identify the operating parameter to be monitored to ensure that the capture efficiency determined during the initial compliance test is maintained; and
- (ii) Explain why this parameter is appropriate for demonstrating ongoing compliance; and
- (iii) Identify the specific monitoring procedures.

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

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

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

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

**Sec. 63.3360 What performance tests must I conduct?**

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

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

(b) If you are using a control device to comply with the emission standards in Sec. 63.3320, you are not required to conduct a performance test to demonstrate compliance if one or more of the criteria in paragraphs (b)(1) through (3) of this section are met.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(e) Control device efficiency. If you are using an add-on control device other than solvent recovery, such as an oxidizer, to comply with the emission standards in Sec. 63.3320, you must conduct a performance test to establish the destruction or removal efficiency of the control device according to the methods and procedures in

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paragraphs (e)(1) and (2) of this section. During the performance test, you must establish the operating limits required by Sec. 63.3321 according to paragraph (e)(3) of this section.

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

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

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

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

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

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

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

(A) The control device is not an oxidizer.

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

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

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

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

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

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

Where:

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

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

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

12.0 = Molecular weight of carbon.

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

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

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

Where:

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

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

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

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

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

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

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

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

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

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

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

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

(C) As an alternative to monitoring the temperature difference across the catalyst bed, you may monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for your catalytic oxidizer as specified in paragraph (e)(3)(ii)(D) of this section. During the performance test, you must monitor and record the temperature just before the catalyst bed at least once every 15 minutes during each of the three test runs. Use the data collected during the performance test to calculate and

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record the average temperature just before the catalyst bed during the performance test. This is the minimum operating limit for your catalytic oxidizer.

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

(1) Annual sampling and analysis of the catalyst activity (i.e., conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures,

(2) Monthly inspection of the oxidizer system including the burner assembly and fuel supply lines for problems, and

(3) Annual internal and monthly external visual inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found, you must take corrective action consistent with the manufacturer's recommendations and conduct a new performance test to determine destruction efficiency in accordance with this section.

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

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

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

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

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

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

### Requirements for Showing Compliance

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

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

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

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capture and/or control devices.	at an existing affected source and 98 percent at a new affected source on a monthly basis; or.	63.3370(e) to determine compliance with § 63.3320(b)(1) according to § 63.3370(e)(1) or (2).
	(ii) Average equivalent organic HAP emission rate does not exceed 0.2 kg organic HAP per kg coating solids for an existing affected source or 0.08 kg organic HAP per kg coating solids for a new affected source on a monthly average as-applied basis; or.	Follow the procedures set out in § 63.3370(f) to determine compliance with § 63.3320(b)(3) according to § 63.3370(n).
	(iii) Average equivalent organic HAP emission rate does not exceed 0.04 kg organic HAP per kg coating material for an existing affected source or 0.016 kg organic HAP per kg coating material for a new affected source on a monthly average as-applied basis; or.	Follow the procedures set out in § 63.3370(g) to determine compliance with § 63.3320(b)(2) according to § 63.3370(n).
	(iv) Average equivalent organic HAP emission rate does not exceed the calculated limit based on emission limitations.	Follow the procedures set out in § 63.3370(h). Show that the monthly organic HAP emission rate is less than the calculated equivalent allowable organic HAP emission rate (Equation 13a or b of § 63.3370) according to § 63.3370(n).
(6) Use of a combination of compliant coatings and control devices.	(i) Average equivalent organic HAP emission rate does not exceed 0.2 kg organic HAP per kg coating solids for an existing affected source or 0.08 kg organic HAP per kg coating solids for a new affected source on a monthly average as-applied basis; or.	Follow the procedures set out in § 63.3370(f) to determine compliance with § 63.3320(b)(3) according to § 63.3370(n).
	(ii) Average equivalent organic HAP emission rate does not exceed 0.04 kg organic HAP per kg coating material for an existing affected source or 0.016 kg organic HAP per kg coating material for a new affected source on a monthly average as-applied basis; or.	Follow the procedures set out in § 63.3370(g) to determine compliance with § 63.3320(b)(2) according to § 63.3370(n).
	(iii) Average equivalent organic HAP emission rate does not exceed the calculated limit based on emission limitations.	Follow the procedures set out in § 63.3370(h). Show that the monthly organic HAP emission rate is less than the calculated equivalent allowable organic HAP emission rate (Equation 13a or b of § 63.3370) according to § 63.3370(n).

**(b) As-purchased "compliant" coating materials.**

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

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

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

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

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

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

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

Where:

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

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

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

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

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

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

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

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

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

Where:

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

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

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

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

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

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

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

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

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

Where:

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

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

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

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

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

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

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

Where:

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

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

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

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

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

Where:

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

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

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

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

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

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

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

$M_{vret}$  = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg.

The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in Sec. 63.3370.

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

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

Where:

$H_s$  = Monthly average, as-applied, organic HAP to coating solids ratio, kg organic HAP/kg coating solids applied.  
 p = Number of different coating materials applied in a month.

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

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

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

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

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

$M_{vret}$  = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg.

The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in Sec. 63.3370.

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

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

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

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

(ii) The monthly average organic HAP content of all as-applied coating materials at an existing affected source are no more than 0.04 kg organic HAP per kg coating material or 0.2 kg organic HAP per

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kg coating solids, and the monthly average organic HAP content of all as-applied coating materials at a new affected source is no more than 0.016 kg organic HAP per kg coating material or 0.08 kg organic HAP per kg coating solids.

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

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

Where:

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

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

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

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

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

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

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

$M_{vret}$  = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg.

The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in Sec. 63.3370.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Where:

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

$M_{vr}$  = Mass of volatile matter recovered in a month, kg.

$M_{vret}$  = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg.

The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in Sec. 63.3370.

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

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

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

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

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

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

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

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

Where:

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

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

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

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

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

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

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

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

$M_{\text{ret}}$  = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg.

The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in Sec. 63.3370.

(viii) Organic HAP emission rate based on coating solids applied.

Calculate the organic HAP emission rate based on coating solids applied using Equation 9 of this section:

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

Where:

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

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

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

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

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

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

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

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

(ix) Organic HAP emission rate based on coating materials applied.

Calculate the organic HAP emission rate based on coating material applied using Equation 10 of this section:

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

Where:

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

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

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

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

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

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

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

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

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

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

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

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

(i) Control device efficiency. Continuously monitor the gas stream entering and exiting the control device to determine the total organic volatile matter mass flow rate (e.g., by determining the concentration of the vent gas in grams per cubic meter and the volumetric flow rate in cubic meters per second such that the total organic volatile matter mass flow rate in grams per second can be calculated) such that the control device efficiency of the control device can be calculated for each month using Equation 2 of Sec. 63.3360.

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

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

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

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

Where:

R = Overall organic HAP control efficiency, percent.

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

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

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

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

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

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

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

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Where:

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

$R$  = Overall organic HAP control efficiency, percent.

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

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

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

$M_{ret}$  = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg.

The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in this section.

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

(x) Organic HAP emission rate based on coating materials applied.

Calculate the organic HAP emission rate based on coating material applied using Equation 10 of this section.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

or

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

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

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

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

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

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

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

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

Where:

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

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

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

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

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

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

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

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

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

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Where:

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

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

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

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

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

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

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

(m) [Reserved]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(5) Convert the information obtained under paragraphs (n)(1) through (4) of this section into the units of the selected compliance option using the calculation procedures specified in paragraphs (n)(5)(i) through (iv) of this section.

(i) Organic HAP emitted. Calculate the organic HAP emissions for the affected source for the month by summing all organic HAP emissions calculated according to paragraphs (n)(1), (2)(ii), (3)(iii), and (4) of this section.

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

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

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

(6) Compliance. The affected source is in compliance with the emission standards in Sec. 63.3320(b) for the month if all operating parameters required to be monitored under paragraphs (n)(1) through (3) of this section were maintained at the values established under Sec. 63.3350 and 63.3360; and

(i) The total mass of organic HAP emitted by the affected source based on coating solids applied is no more than 0.20 kg organic HAP per kg coating solids applied at an existing affected source and no more than 0.08 kg organic HAP per kg coating solids applied at a new affected source; or

(ii) The total mass of organic HAP emitted by the affected source based on material applied is no more than 0.04 kg organic HAP per kg material applied at an existing affected source and no more than 0.016 kg organic HAP per kg material applied at a new affected source; or

(iii) The total mass of organic HAP emitted by the affected source during the month is less than the calculated allowable organic HAP as determined using paragraph (1) of this section; or

(iv) The total mass of organic HAP emitted by the affected source was not more than 5 percent of the total mass of organic HAP applied for the month at an existing affected source and no more than 2 percent of the total mass of organic HAP applied for the month at a new affected source. The total mass of organic HAP applied by the affected source in the month must be determined using Equation 6 of this section.

(o) Intermittently-controlled and never-controlled work stations. If you have been expressly referenced to this paragraph by paragraphs (n)(1)(ii), (n)(2)(ii)(B), or (n)(3)(iii)(B) of this section for calculation procedures to determine organic HAP emissions for your intermittently-controlled and never-controlled work stations, you must:

(1) Determine the sum of the mass of all coating materials as-applied on intermittently-controlled work stations operating in bypass mode and the mass of all coating materials as-applied on never-controlled work stations during the month.

(2) Determine the sum of the mass of all coating materials as-applied on intermittently-controlled work stations operating in a controlled mode and the mass of all coating materials applied on always-controlled work stations during the month.

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(3) Liquid-liquid material balance compliance demonstration. For each web coating line or group of web coating lines for which you use the provisions of paragraph (n)(1)(ii) of this section, you must calculate the organic HAP emitted during the month using Equation 14 of this section:

$$H_e = \left[ \sum_{i=1}^p M_{Ci} C_{ahi} \right] \left[ 1 - \frac{R_v}{100} \right] + \left[ \sum_{i=1}^p M_{Bi} C_{ahi} \right] - M_{vret} \quad \text{Eq. 14}$$

Where:

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

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

$M_{Ci}$  = Sum of the mass of coating material,  $i$ , as-applied on intermittently-controlled work stations operating in controlled mode and the mass of coating material,  $i$ , as-applied on always-controlled work stations, in a month, kg.

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

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

$M_{Bi}$  = Sum of the mass of coating material,  $i$ , as-applied on intermittently-controlled work stations operating in bypass mode and the mass of coating material,  $i$ , as-applied on never-controlled work stations, in a month, kg.

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

$M_{vret}$  = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg.

The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in this section.

(4) Performance test to determine capture efficiency and control device efficiency. For each web coating line or group of web coating lines for which you use the provisions of paragraph (n)(2)(ii)(B) or (n)(3)(iii)(B) of this section, you must calculate the organic HAP emitted during the month using Equation 15 of this section:

$$H_e = \left[ \sum_{i=1}^p M_{Ci} C_{ahi} \right] \left[ 1 - \frac{R}{100} \right] + \left[ \sum_{i=1}^p M_{Bi} C_{ahi} \right] - M_{vret} \quad \text{Eq. 15}$$

Where:

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

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

$M_{Ci}$  = Sum of the mass of coating material,  $i$ , as-applied on intermittently-controlled work stations operating in controlled mode and the mass of coating material,  $i$ , as-applied on always-controlled work stations, in a month, kg.

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

$R$  = Overall organic HAP control efficiency, percent.

$M_{Bi}$  = Sum of the mass of coating material,  $i$ , as-applied on intermittently-controlled work stations operating in bypass mode and the mass of coating material,  $i$ , as-applied on never-controlled work stations, in a month, kg.

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

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$M_{\text{ret}}$  = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg.

The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in this section.

(p) Always-controlled work stations with more than one capture and control system. If you operate more than one capture system or more than one control device and only have always-controlled work stations, then you are in compliance with the emission standards in Sec. 63.3320(b)(1) for the month if for each web coating line or group of web coating lines controlled by a common control device:

(1) The volatile matter collection and recovery efficiency as determined by paragraphs (i)(1)(i), (iii), (v), and (vi) of this section is at least 95 percent at an existing affected source and at least 98 percent at a new affected source; or

(2) The overall organic HAP control efficiency as determined by paragraphs (i)(2)(i) through (iv) of this section for each web coating line or group of web coating lines served by that control device and a common capture system is at least 95 percent at an existing affected source and at least 98 percent at a new affected source; or

(3) The overall organic HAP control efficiency as determined by paragraphs (k)(1)(i) through (iii) and (k)(2)(i) of this section for each web coating line or group of web coating lines served by that control device and a common capture system is at least 95 percent at an existing affected source and at least 98 percent at a new affected source.

### Notifications, Reports, and Records

#### Sec. 63.3400 What notifications and reports must I submit?

(a) Each owner or operator of an affected source subject to this subpart must submit the reports specified in paragraphs (b) through (g) of this section to the Administrator:

(b) You must submit an initial notification as required by Sec. 63.9(b).

(1) Initial notification for existing affected sources must be submitted no later than 1 year before the compliance date specified in Sec. 63.3330(a).

(2) Initial notification for new and reconstructed affected sources must be submitted as required by Sec. 63.9(b).

(3) For the purpose of this subpart, a title V or part 70 permit application may be used in lieu of the initial notification required under Sec. 63.9(b), provided the same information is contained in the permit application as required by Sec. 63.9(b) and the State to which the permit application has been submitted has an approved operating permit program under part 70 of this chapter and has received delegation of authority from the EPA to implement and enforce this subpart.

(4) If you are using a permit application in lieu of an initial notification in accordance with paragraph (b)(3) of this section, the permit application must be submitted by the same due date specified for the initial notification.

(c) You must submit a semiannual compliance report according to paragraphs (c)(1) and (2) of this section.

(1) Compliance report dates.

(i) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in Sec.

63.3330 and ending on June 30 or December 31, whichever date is the first date following the end of the calendar half immediately following the compliance date that is specified for your affected source in Sec. 63.3330.

(ii) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the calendar half immediately following the compliance date that is specified for your affected source in Sec. 63.3330.

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

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

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

(2) The compliance report must contain the information in paragraphs (c)(2)(i) through (vi) of this section:

(i) Company name and address.

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

(iii) Date of report and beginning and ending dates of the reporting period.

(iv) If there are no deviations from any emission limitations (emission limit or operating limit) that apply to you, a statement that there were no deviations from the emission limitations during the reporting period, and that no CEMS was inoperative, inactive, malfunctioning, out-of-control, repaired, or adjusted.

(v) For each deviation from an emission limitation (emission limit or operating limit) that applies to you and that occurs at an affected source where you are not using a CEMS to comply with the emission limitations in this subpart, the compliance report must contain the information in paragraphs (c)(2)(i) through (iii) of this section, and:

(A) The total operating time of each affected source during the reporting period.

(B) Information on the number, duration, and cause of deviations (including unknown cause), if applicable, and the corrective action taken.

(C) Information on the number, duration, and cause for CPMS downtime incidents, if applicable, other than downtime associated with zero and span and other calibration checks.

(vi) For each deviation from an emission limit occurring at an affected source where you are using a CEMS to comply with the emission limit in this subpart, you must include the information in paragraphs (c)(2)(i) through (iii) and (vi)(A) through (J) of this section.

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

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

(C) The date and time that each CEMS and CPMS, if applicable, was out-of-control, including the information in Sec. 63.8(c)(8).

(D) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(E) A summary of the total duration (in hours) of each deviation during the reporting period and the total duration of each deviation as a percent of the total source operating time during that reporting period.

(F) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(G) A summary of the total duration (in hours) of CEMS and CPMS downtime during the reporting period and the total duration of CEMS and CPMS downtime as a percent of the total source operating time during that reporting period.

(H) A breakdown of the total duration of CEMS and CPMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes.

(I) The date of the latest CEMS and CPMS certification or audit.

(J) A description of any changes in CEMS, CPMS, or controls since the last reporting period.

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(d) You must submit a Notification of Performance Tests as specified in Sec. Sec. 63.7 and 63.9(e) if you are complying with the emission standard using a control device and you are required to conduct a performance test of the control device. This notification and the site-specific test plan required under Sec. 63.7(c)(2) must identify the operating parameters to be monitored to ensure that the capture efficiency of the capture system and the control efficiency of the control device determined during the performance test are maintained. Unless EPA objects to the parameter or requests changes, you may consider the parameter approved.

(e) You must submit a Notification of Compliance Status as specified in Sec. 63.9(h).

(f) You must submit performance test reports as specified in Sec. 63.10(d)(2) if you are using a control device to comply with the emission standard and you have not obtained a waiver from the performance test requirement or you are not exempted from this requirement by Sec. 63.3360(b). The performance test reports must be submitted as part of the notification of compliance status required in Sec. 63.3400(e).

(g) You must submit startup, shutdown, and malfunction reports as specified in Sec. 63.10(d)(5), except that the provisions in subpart A of this part pertaining to startups, shutdowns, and malfunctions do not apply unless a control device is used to comply with this subpart.

(1) If actions taken by an owner or operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are not consistent with the procedures specified in the affected source's SSMP required by Sec. 63.6(e)(3), the owner or operator must state such information in the report. The startup, shutdown, or malfunction report must consist of a letter containing the name, title, and signature of the responsible official who is certifying its accuracy and must be submitted to the Administrator.

(2) Separate startup, shutdown, and malfunction reports are not required if the information is included in the report specified in paragraph (c)(2)(vi) of this section.

**Sec. 63.3410 What records must I keep?**

(a) Each owner or operator of an affected source subject to this subpart must maintain the records specified in paragraphs (a)(1) and (2) of this section on a monthly basis in accordance with the requirements of Sec. 63.10(b)(1):

(1) Records specified in Sec. 63.10(b)(2) of all measurements needed to demonstrate compliance with this standard, including:

(i) Continuous emission monitor data in accordance with the requirements of Sec. 63.3350(d);

(ii) Control device and capture system operating parameter data in accordance with the requirements of Sec. 63.3350(c), (e), and (f);

(iii) Organic HAP content data for the purpose of demonstrating compliance in accordance with the requirements of Sec. 63.3360(c);

(iv) Volatile matter and coating solids content data for the purpose of demonstrating compliance in accordance with the requirements of Sec. 63.3360(d);

(v) Overall control efficiency determination using capture efficiency and control device destruction or removal efficiency test results in accordance with the requirements of Sec. 63.3360(e) and (f); and

(vi) Material usage, organic HAP usage, volatile matter usage, and coating solids usage and compliance demonstrations using these data in accordance with the requirements of Sec. 63.3370(b), (c), and (d).

(2) Records specified in Sec. 63.10(c) for each CMS operated by the owner or operator in accordance with the requirements of Sec. 63.3350(b).

(b) Each owner or operator of an affected source subject to this subpart must maintain records of all liquid-liquid material balances performed in accordance with the requirements of Sec. 63.3370. The records must be maintained in accordance with the requirements of Sec. 63.10(b).

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**Delegation of Authority**

**Sec. 63.3420 What authorities may be delegated to the States?**

(a) In delegating implementation and enforcement authority to a State under 40 CFR part 63, subpart E, the authorities contained in paragraph (b) of this section must be retained by the Administrator and not transferred to a State.

(b) Authority which will not be delegated to States: Sec. 63.3360(c), approval of alternate test method for organic HAP content determination; Sec. 63.3360(d), approval of alternate test method for volatile matter determination. If you are required to comply with operating limits by Sec. 63.3321, you must comply with the applicable operating limits in the following table:

**Tables to Subpart JJJJ of Part 63**

**Table 1 to Subpart JJJJ of Part 63. Operating Limits if Using Add-On Control Devices and Capture System**

For the following Device:	You must meet the following operating limit	And you must demonstrate continuous compliance with operating limits by:
1. Thermal Oxidizer	a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to § 63.3360(e)(3)(i).	i. Collecting the combustion temperature data according to § 63.3350(e)(9); ii. Reducing the data to 3-hour block averages; and iii. Maintain the 3-hour average combustion temperature at or above the temperature limit.
2. Catalytic Oxidizer	a. The average temperature at the inlet to the catalyst bed in any 3-hour period must not fall below the combustion temperature limit established according to § 63.3360(e)(3)(ii).	i. Collecting the catalyst bed inlet temperature data according to § 63.3350(e)(9); ii. Reducing the data to 3-hour block averages; and iii. Maintain the 3-hour average catalyst bed inlet temperature at or above the temperature limit.
	b. The temperature rise across the catalyst bed must not fall below the limit established according to § 63.3360(e)(3)(ii).	i. Collecting the catalyst bed inlet and outlet temperature data according to § 63.3350(e)(9); ii. Reducing the data to 3-hour block averages; and iii. Maintain the 3-hour average temperature rise across the catalyst bed at or above the limit.
3. Emission Capture System	Submit monitoring plan to the Administrator that identifies operating parameters to be monitored according to § 63.3350(f).	Conduct monitoring according to the plan (§ 63.3350(f)(3)).

**Appendix A to Subpart JJJJ of Part 63. Applicability of 40 CFR Part 63 General Provisions to Subpart JJJJ**

**§ 63.1 Applicability.**

(a) *General.*

(1) Terms used throughout this part are defined in § 63.2 or in the Clean Air Act (Act) as amended in 1990, except that individual subparts of this part may include specific definitions

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in addition to or that supersede definitions in § 63.2.

(2) This part contains national emission standards for hazardous air pollutants (NESHAP) established pursuant to section 112 of the Act as amended November 15, 1990. These standards regulate specific categories of stationary sources that emit (or have the potential to emit) one or more hazardous air pollutants listed in this part pursuant to section 112(b) of the Act. This section explains the applicability of such standards to sources affected by them. The standards in this part are independent of NESHAP contained in 40 CFR part 61. The NESHAP in part 61 promulgated by signature of the Administrator before November 15, 1990 (i.e., the date of enactment of the Clean Air Act Amendments of 1990) remain in effect until they are amended, if appropriate, and added to this part.

(3) No emission standard or other requirement established under this part shall be interpreted, construed, or applied to diminish or replace the requirements of a more stringent emission limitation or other applicable requirement established by the Administrator pursuant to other authority of the Act (section 111, part C or D or any other authority of this Act), or a standard issued under State authority. The Administrator may specify in a specific standard under this part that facilities subject to other provisions under the Act need only comply with the provisions of that standard.

(4) (i) Each relevant standard in this part 63 must identify explicitly whether each provision in this subpart A is or is not included in such relevant standard.

(ii) If a relevant part 63 standard incorporates the requirements of 40 CFR part 60, part 61, or other part 63 standards, the relevant part 63 standard must identify explicitly the applicability of each corresponding part 60, part 61, or other part 63 subpart A (General) Provision.

(iii) The General Provisions in this Subpart A do not apply to regulations developed pursuant to section 112(r) of the amended Act., unless otherwise specified in those regulations.

(5) [Reserved]

(6) To obtain the most current list of categories of sources to be regulated under section 112 of the Act, or to obtain the most recent regulation promulgation schedule established pursuant to section 112(e) of the Act, contact the Office of the Director, Emission Standards Division, Office of Air Quality Planning and Standards, U.S. EPA (MD-13), Research Triangle Park, North Carolina 27711.

(7) [Reserved]

(8) [Reserved]

(9) [Reserved]

(10) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word “calendar” is absent, unless otherwise specified in an applicable requirement.

(11) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, test plan, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery agreed to by the permitting authority, is acceptable.

(12) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in § 63.9(i).

(13) [Reserved]

(14) [Reserved]

(b) *Initial applicability determination for this part.*

(1) **Subpart JJJJ specifies applicability**

(2) [Reserved]

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(3) An owner or operator of a stationary source who is in the relevant source category and who determines that the source is not subject to a relevant standard or other requirement established under this part, must keep a record as specified in § 63.10(b)(3).

(c) *Applicability of this part after a relevant standard has been set under this part.*

(1) If a relevant standard has been established under this part, the owner or operator of an affected source must comply with the provisions of that standard and of this subpart as provided in paragraph (a)(4) of this section.

(2) **Area Sources are not subject to emission standards of subpart JJJJ.**

(3) [Reserved]

(4) [Reserved]

(5) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source that is subject to the emission standard or other requirement, such source also shall be subject to the notification requirements of this subpart.

(d) [Reserved]

(e) If the Administrator promulgates an emission standard under section 112(d) or (h) of the Act that is applicable to a source subject to an emission limitation by permit established under section 112(j) of the Act, and the requirements under the section 112(j) emission limitation are substantially as effective as the promulgated emission standard, the owner or operator may request the permitting authority to revise the source's title V permit to reflect that the emission limitation in the permit satisfies the requirements of the promulgated emission standard. The process by which the permitting authority determines whether the section 112(j) emission limitation is substantially as effective as the promulgated emission standard must include, consistent with part 70 or 71 of this chapter, the opportunity for full public, EPA, and affected State review (including the opportunity for EPA's objection) prior to the permit revision being finalized. A negative determination by the permitting authority constitutes final action for purposes of review and appeal under the applicable title V operating permit program.

### § 63.2 Definitions.

#### Additional definitions in Subpart JJJJ

The terms used in this part are defined in the Act or in this section as follows:

*Act* means the Clean Air Act (42 U.S.C. 7401 et seq., as amended by Pub. L. 101-549, 104 Stat. 2399).

*Actual emissions* is defined in subpart D of this part for the purpose of granting a compliance extension for an early reduction of hazardous air pollutants.

*Administrator* means the Administrator of the United States Environmental Protection Agency or his or her authorized representative (e.g., a State that has been delegated the authority to implement the provisions of this part).

*Affected source*, for the purposes of this part, means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory for which a section 112(d) standard or other relevant standard is established pursuant to section 112 of the Act. Each relevant standard will define the "affected source," as defined in this paragraph unless a different definition is warranted based on a published justification as to why this definition would result in significant administrative, practical, or implementation problems and why the different definition would resolve those problems. The term "affected source," as used in this part, is separate and distinct from any other use of that term in EPA regulations such as those implementing title IV of the Act. Affected source may be defined differently for

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part 63 than affected facility and stationary source in parts 60 and 61, respectively. This definition of "affected source," and the procedures for adopting an alternative definition of "affected source," shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002.

*Alternative emission limitation* means conditions established pursuant to sections 112(i)(5) or 112(i)(6) of the Act by the Administrator or by a State with an approved permit program.

*Alternative emission standard* means an alternative means of emission limitation that, after notice and opportunity for public comment, has been demonstrated by an owner or operator to the Administrator's satisfaction to achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such pollutant achieved under a relevant design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act.

*Alternative test method* means any method of sampling and analyzing for an air pollutant that is not a test method in this chapter and that has been demonstrated to the Administrator's satisfaction, using Method 301 in Appendix A of this part, to produce results adequate for the Administrator's determination that it may be used in place of a test method specified in this part.

*Approved permit program* means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to title V of the Act (42 U.S.C. 7661).

*Area source* means any stationary source of hazardous air pollutants that is not a major source as defined in this part.

*Commenced* means, with respect to construction or reconstruction of an affected source, that an owner or operator has undertaken a continuous program of construction or reconstruction or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or reconstruction.

*Compliance date* means the date by which an affected source is required to be in compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established by the Administrator (or a State with an approved permit program) pursuant to section 112 of the Act.

*Compliance schedule* means:

(1) In the case of an affected source that is in compliance with all applicable requirements established under this part, a statement that the source will continue to comply with such requirements; or

(2) In the case of an affected source that is required to comply with applicable requirements by a future date, a statement that the source will meet such requirements on a timely basis and, if required by an applicable requirement, a detailed schedule of the dates by which each step toward compliance will be reached; or

(3) In the case of an affected source not in compliance with all applicable requirements established under this part, a schedule of remedial measures, including an enforceable sequence of actions or operations with milestones and a schedule for the submission of certified progress reports, where applicable, leading to compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established pursuant to section 112 of the Act for which the affected source is not in compliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction non-compliance with, the applicable requirements on which it is based.

*Construction* means the on-site fabrication, erection, or installation of an affected source. Construction does not include the removal of all equipment comprising an affected source from an existing location and reinstallation of such equipment at a new location. The owner or operator of an existing affected source that is relocated may elect not to reinstall minor ancillary equipment including, but not limited to, piping, ductwork, and valves. However, removal and reinstallation of an affected source will be construed as reconstruction if it satisfies the criteria for reconstruction as defined in this section. The costs of replacing minor ancillary equipment must be considered in determining whether the existing affected source is reconstructed.

*Continuous emission monitoring system (CEMS)* means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of emissions.

*Continuous monitoring system (CMS)* is a comprehensive term that may include, but is not limited to, continuous emission monitoring systems, continuous opacity monitoring systems, continuous parameter

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monitoring systems, or other manual or automatic monitoring that is used for demonstrating compliance with an applicable regulation on a continuous basis as defined by the regulation.

*Continuous opacity monitoring system (COMS)* means a continuous monitoring system that measures the opacity of emissions.

*Continuous parameter monitoring system* means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

*Effective date* means:

(1) With regard to an emission standard established under this part, the date of promulgation in the FEDERAL REGISTER of such standard; or

(2) With regard to an alternative emission limitation or equivalent emission limitation determined by the Administrator (or a State with an approved permit program), the date that the alternative emission limitation or equivalent emission limitation becomes effective according to the provisions of this part.

*Emission standard* means a national standard, limitation, prohibition, or other regulation promulgated in a subpart of this part pursuant to sections 112(d), 112(h), or 112(f) of the Act.

*Emissions averaging* is a way to comply with the emission limitations specified in a relevant standard, whereby an affected source, if allowed under a subpart of this part, may create emission credits by reducing emissions from specific points to a level below that required by the relevant standard, and those credits are used to offset emissions from points that are not controlled to the level required by the relevant standard.

*EPA* means the United States Environmental Protection Agency.

*Equivalent emission limitation* means any maximum achievable control technology emission limitation or requirements which are applicable to a major source of hazardous air pollutants and are adopted by the Administrator (or a State with an approved permit program) on a case-by-case basis, pursuant to section 112(g) or (j) of the Act.

*Excess emissions and continuous monitoring system performance report* is a report that must be submitted periodically by an affected source in order to provide data on its compliance with relevant emission limits, operating parameters, and the performance of its continuous parameter monitoring systems.

*Existing source* means any affected source that is not a new source.

*Federally enforceable* means all limitations and conditions that are enforceable by the Administrator and citizens under the Act or that are enforceable under other statutes administered by the Administrator. Examples of federally enforceable limitations and conditions include, but are not limited to:

(1) Emission standards, alternative emission standards, alternative emission limitations, and equivalent emission limitations established pursuant to section 112 of the Act as amended in 1990;

(2) New source performance standards established pursuant to section 111 of the Act, and emission standards established pursuant to section 112 of the Act before it was amended in 1990;

(3) All terms and conditions in a title V permit, including any provisions that limit a source's potential to emit, unless expressly designated as not federally enforceable;

(4) Limitations and conditions that are part of an approved State Implementation Plan (SIP) or a Federal Implementation Plan (FIP);

(5) Limitations and conditions that are part of a Federal construction permit issued under 40 CFR 52.21 or any construction permit issued under regulations approved by the EPA in accordance with 40 CFR part 51;

(6) Limitations and conditions that are part of an operating permit where the permit and the permitting program pursuant to which it was issued meet all of the following criteria:

(i) The operating permit program has been submitted to and approved by EPA into a State implementation plan (SIP) under section 110 of the CAA;

(ii) The SIP imposes a legal obligation that operating permit holders adhere to the terms and limitations of such permits and provides that permits which do not conform to the operating permit program requirements and the requirements of EPA's underlying regulations may be deemed not "federally enforceable" by EPA;

(iii) The operating permit program requires that all emission limitations, controls, and other requirements imposed by such permits will be at least as stringent as any other applicable limitations and requirements contained in the SIP or enforceable under the SIP, and that the program may not issue

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permits that waive, or make less stringent, any limitations or requirements contained in or issued pursuant to the SIP, or that are otherwise "federally enforceable";

(iv) The limitations, controls, and requirements in the permit in question are permanent, quantifiable, and otherwise enforceable as a practical matter; and

(v) The permit in question was issued only after adequate and timely notice and opportunity for comment for EPA and the public.

(7) Limitations and conditions in a State rule or program that has been approved by the EPA under subpart E of this part for the purposes of implementing and enforcing section 112; and

(8) Individual consent agreements that the EPA has legal authority to create.

*Fixed capital cost* means the capital needed to provide all the depreciable components of an existing source.

*Fugitive emissions* means those emissions from a stationary source that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Under section 112 of the Act, all fugitive emissions are to be considered in determining whether a stationary source is a major source.

*Hazardous air pollutant* means any air pollutant listed in or pursuant to section 112(b) of the Act.

*Issuance* of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a title V permit occurs immediately after the EPA takes final action on the final permit.

*Major source* means 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 considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence.

*Malfunction* means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

*Monitoring* means the collection and use of measurement data or other information to control the operation of a process or pollution control device or to verify a work practice standard relative to assuring compliance with applicable requirements. Monitoring is composed of four elements:

(1) Indicator(s) of performance -- the parameter or parameters you measure or observe for demonstrating proper operation of the pollution control measures or compliance with the applicable emissions limitation or standard. Indicators of performance may include direct or predicted emissions measurements (including opacity), operational parametric values that correspond to process or control device (and capture system) efficiencies or emissions rates, and recorded findings of inspection of work practice activities, materials tracking, or design characteristics. Indicators may be expressed as a single maximum or minimum value, a function of process variables (for example, within a range of pressure drops), a particular operational or work practice status (for example, a damper position, completion of a waste recovery task, materials tracking), or an interdependency between two or among more than two variables.

(2) Measurement techniques -- the means by which you gather and record information of or about the indicators of performance. The components of the measurement technique include the detector type, location and installation specifications, inspection procedures, and quality assurance and quality control measures. Examples of measurement techniques include continuous emission monitoring systems, continuous opacity monitoring systems, continuous parametric monitoring systems, and manual inspections that include making records of process conditions or work practices.

(3) Monitoring frequency -- the number of times you obtain and record monitoring data over a specified time interval. Examples of monitoring frequencies include at least four points equally spaced for each hour for continuous emissions or parametric monitoring systems, at least every 10 seconds for continuous opacity monitoring systems, and at least once per operating day (or week, month, etc.) for work practice or design inspections.

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(4) Averaging time -- the period over which you average and use data to verify proper operation of the pollution control approach or compliance with the emissions limitation or standard. Examples of averaging time include a 3-hour average in units of the emissions limitation, a 30-day rolling average emissions value, a daily average of a control device operational parametric range, and an instantaneous alarm.

*New affected source* means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory that is subject to a section 112(d) or other relevant standard for new sources. This definition of "new affected source," and the criteria to be utilized in implementing it, shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002. Each relevant standard will define the term "new affected source," which will be the same as the "affected source" unless a different collection is warranted based on consideration of factors including:

- (1) Emission reduction impacts of controlling individual sources versus groups of sources;
- (2) Cost effectiveness of controlling individual equipment;
- (3) Flexibility to accommodate common control strategies;
- (4) Cost/benefits of emissions averaging;
- (5) Incentives for pollution prevention;
- (6) Feasibility and cost of controlling processes that share common equipment (e.g., product recovery devices);
- (7) Feasibility and cost of monitoring; and
- (8) Other relevant factors.

*New source* means any affected source the construction or reconstruction of which is commenced after the Administrator first proposes a relevant emission standard under this part establishing an emission standard applicable to such source.

*Opacity* means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background. For continuous opacity monitoring systems, opacity means the fraction of incident light that is attenuated by an optical medium.

*Owner or operator* means any person who owns, leases, operates, controls, or supervises a stationary source..

*Performance audit* means a procedure to analyze blind samples, the content of which is known by the Administrator, simultaneously with the analysis of performance test samples in order to provide a measure of test data quality.

*Performance evaluation* means the conduct of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data.

*Performance test* means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard.

*Permit modification* means a change to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

*Permit program* means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

*Permit revision* means any permit modification or administrative permit amendment to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

*Permitting authority* means:

- (1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or
- (2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

*Potential to emit* means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a

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pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.

*Reconstruction* means the replacement of components of an affected or a previously unaffected stationary source to such an extent that:

(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and

(2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

*Regulation promulgation schedule* means the schedule for the promulgation of emission standards under this part, established by the Administrator pursuant to section 112(e) of the Act and published in the FEDERAL REGISTER.

*Relevant standard* means:

(1) An emission standard;

(2) An alternative emission standard;

(3) An alternative emission limitation; or

(4) An equivalent emission limitation established pursuant to section 112 of the Act that applies to the collection of equipment, activities, or both regulated by such standard or limitation. A relevant standard may include or consist of a design, equipment, work practice, or operational requirement, or other measure, process, method, system, or technique (including prohibition of emissions) that the Administrator (or a State) establishes for new or existing sources to which such standard or limitation applies. Every relevant standard established pursuant to section 112 of the Act includes subpart A of this part, as provided by § 63.1(a)(4), and all applicable appendices of this part or of other parts of this chapter that are referenced in that standard.

*Responsible official* means one of the following:

(1) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities and either:

(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or

(ii) The delegation of authority to such representative is approved in advance by the Administrator.

(2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.

(3) For a municipality, State, Federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of the EPA).

(4) For affected sources (as defined in this part) applying for or subject to a title V permit: “responsible official” shall have the same meaning as defined in part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever is applicable.

*Run* means one of a series of emission or other measurements needed to determine emissions for a representative operating period or cycle as specified in this part.

*Shutdown* means the cessation of operation of an affected source or portion of an affected source for any purpose.

*Six-minute period* means, with respect to opacity determinations, any one of the 10 equal parts of a 1-hour period.

*Standard conditions* means a temperature of 293 °K (68° F) and a pressure of 101.3 kilopascals (29.92 in. Hg).

*Startup* means the setting in operation of an affected source for any purpose.

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*State* means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement:

(1) The provisions of this part and/or

(2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

*Stationary source* means any building, structure, facility, or installation which emits or may emit any air pollutant.

*Test method* means the validated procedure for sampling, preparing, and analyzing for an air pollutant specified in a relevant standard as the performance test procedure. The test method may include methods described in an appendix of this chapter, test methods incorporated by reference in this part, or methods validated for an application through procedures in Method 301 of appendix A of this part.

*Title V permit* means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

*Visible emission* means the observation of an emission of opacity or optical density above the threshold of vision.

*Working day* means any day on which Federal Government offices (or State government offices for a State that has obtained delegation under section 112(l)) are open for normal business. Saturdays, Sundays, and official Federal (or where delegated, State) holidays are not working days.

**§ 63.3 Units and abbreviations.**

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) System International (SI) units of measure:

A = ampere

g = gram

Hz = hertz

J = joule

°K = degree Kelvin

kg = kilogram

l = liter

m = meter

m<sup>3</sup> = cubic meter

mg = milligram = 10<sup>-3</sup> gram

ml = milliliter = 10<sup>-3</sup> liter

mm = millimeter = 10<sup>-3</sup> meter

Mg = megagram = 10<sup>6</sup> gram = metric ton

MJ = megajoule

mol = mole

N = newton

ng = nanogram = 10<sup>-9</sup> gram

nm = nanometer = 10<sup>-9</sup> meter

Pa = pascal

s = second

V = volt

W = watt

Ω = ohm

μg = microgram = 10<sup>-6</sup> gram

μl = microliter = 10<sup>-6</sup> liter

(b) Other units of measure:

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Btu = British thermal unit  
°C = degree Celsius (centigrade)  
cal = calorie  
cfm = cubic feet per minute  
cc = cubic centimeter  
cu ft = cubic feet  
d = day  
dcf = dry cubic feet  
dcm = dry cubic meter  
dscf = dry cubic feet at standard conditions  
dscm = dry cubic meter at standard conditions  
eq = equivalent  
°F = degree Fahrenheit  
ft = feet  
ft<sup>2</sup> = square feet  
ft<sup>3</sup> = cubic feet  
gal = gallon  
gr = grain  
g-eq = gram equivalent  
g-mole = gram mole  
hr = hour  
in. = inch  
in. H<sub>2</sub>O = inches of water  
K = 1,000  
kcal = kilocalorie  
lb = pound  
lpm = liter per minute  
meq = milliequivalent  
min = minute  
MW = molecular weight  
oz = ounces  
ppb = parts per billion  
ppbw = parts per billion by weight  
ppbv = parts per billion by volume  
ppm = parts per million  
ppmw = parts per million by weight  
ppmv = parts per million by volume  
psia = pounds per square inch absolute  
psig = pounds per square inch gage  
°R = degree Rankine  
scf = cubic feet at standard conditions  
scfh = cubic feet at standard conditions per hour  
scm = cubic meter at standard conditions  
scmm = cubic meter at standard conditions per minute  
sec = second  
sq ft = square feet  
std = at standard conditions  
v/v = volume per volume  
yd<sup>2</sup> = square yards  
yr = year

(c) Miscellaneous:

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act = actual  
avg = average  
I.D. = inside diameter  
M = molar  
N = normal  
O.D. = outside diameter  
% = percent

**§ 63.4 Prohibited activities and circumvention.**

(a) *Prohibited activities.*

(1) No owner or operator subject to the provisions of this part must operate any affected source in violation of the requirements of this part. Affected sources subject to and in compliance with either an extension of compliance or an exemption from compliance are not in violation of the requirements of this part. An extension of compliance can be granted by the Administrator under this part; by a State with an approved permit program; or by the President under section 112(i)(4) of the Act.

(2) No owner or operator subject to the provisions of this part shall fail to keep records, notify, report, or revise reports as required under this part.

- (3) [Reserved]
- (4) [Reserved]
- (5) [Reserved]

(b) *Circumvention.* No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to

- (1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere;
- (2) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions; and
- (3) [Reserved]

(c) *Severability.* Notwithstanding any requirement incorporated into a title V permit obtained by an owner or operator subject to the provisions of this part, the provisions of this part are federally enforceable.

**§ 63.5 Preconstruction review and notification requirements.**

(a) *Applicability.*

(1) This section implements the preconstruction review requirements of section 112(i)(1) for sources subject to a relevant emission standard that has been promulgated in this part. In addition, this section includes other requirements for constructed and reconstructed stationary sources that are or become subject to a relevant promulgated emission standard.

(2) After the effective date of a relevant standard promulgated under this part, the requirements in this section apply to owners or operators who construct a new source or reconstruct a source after the proposal date of that standard. New or reconstructed sources that start up before the standard's effective date are not subject to the preconstruction review requirements specified in paragraphs (b)(3), (d), and (e) of this section.

(b) *Requirements for existing, newly constructed, and reconstructed sources.*

- (1) A new affected source for which construction commences after proposal of a relevant standard is subject to relevant standards for new affected sources, including compliance dates. An affected source for which reconstruction commences after proposal of a relevant standard is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

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(2) [Reserved]

(3) After the effective date of any relevant standard promulgated by the Administrator under this part, no person may, without obtaining written approval in advance from the Administrator in accordance with the procedures specified in paragraphs (d) and (e) of this section, do any of the following:

- (i) Construct a new affected source that is major-emitting and subject to such standard;
- (ii) Reconstruct an affected source that is major-emitting and subject to such standard; or
- (iii) Reconstruct a major source such that the source becomes an affected source that is major-emitting and subject to the standard.

(4) After the effective date of any relevant standard promulgated by the Administrator under this part, an owner or operator who constructs a new affected source that is not major-emitting or reconstructs an affected source that is not major-emitting that is subject to such standard, or reconstructs a source such that the source becomes an affected source subject to the standard, must notify the Administrator of the intended construction or reconstruction. The notification must be submitted in accordance with the procedures in § 63.9(b).

(5) [Reserved]

(6) After the effective date of any relevant standard promulgated by the Administrator under this part, equipment added (or a process change) to an affected source that is within the scope of the definition of affected source under the relevant standard must be considered part of the affected source and subject to all provisions of the relevant standard established for that affected source.

(c) [Reserved]

(d) *Application for approval of construction or reconstruction.* The provisions of this paragraph implement section 112(i)(1) of the Act.

(1) *General application requirements.*

- (i) An owner or operator who is subject to the requirements of paragraph (b)(3) of this section must submit to the Administrator an application for approval of the construction or reconstruction. The application must be submitted as soon as practicable before actual construction or reconstruction begins. The application for approval of construction or reconstruction may be used to fulfill the initial notification requirements of § 63.9(b)(5). The owner or operator may submit the application for approval well in advance of the date actual construction or reconstruction begins in order to ensure a timely review by the Administrator and that the planned date to begin will not be delayed.

(ii) A separate application shall be submitted for each construction or reconstruction. Each application for approval of construction or reconstruction shall include at a minimum:

- (A) The applicant's name and address;
- (B) A notification of intention to construct a new major affected source or make any physical or operational change to a major affected source that may meet or has been determined to meet the criteria for a reconstruction, as defined in § 63.2 or in the relevant standard;
- (C) The address (i.e., physical location) or proposed address of the source;
- (D) An identification of the relevant standard that is the basis of the application;
- (E) The expected date of the beginning of actual construction or reconstruction;
- (F) The expected completion date of the construction or reconstruction;
- (G) [Reserved]

(H) The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times and in accordance with the test methods specified in the relevant standard, or if actual emissions data are not yet available, an estimate of the type and quantity of hazardous air pollutants expected to be emitted by the source reported in units and averaging times specified in the relevant standard. The owner or operator may submit percent reduction information if a relevant standard is established in terms of percent reduction.

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However, operating parameters, such as flow rate, shall be included in the submission to the extent that they demonstrate performance and compliance; and

(I) [Reserved]

(J) Other information as specified in paragraphs (d)(2) and (d)(3) of this section.

(iii) An owner or operator who submits estimates or preliminary information in place of the actual emissions data and analysis required in paragraphs (d)(1)(ii)(H) and (d)(2) of this section shall submit the actual, measured emissions data and other correct information as soon as available but no later than with the notification of compliance status required in § 63.9(h) (see § 63.9(h)(5)).

(2) *Application for approval of construction.* Each application for approval of construction must include, in addition to the information required in paragraph (d)(1)(ii) of this section, technical information describing the proposed nature, size, design, operating design capacity, and method of operation of the source, including an identification of each type of emission point for each type of hazardous air pollutant that is emitted (or could reasonably be anticipated to be emitted) and a description of the planned air pollution control system (equipment or method) for each emission point. The description of the equipment to be used for the control of emissions must include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions must include an estimated control efficiency (percent) for that method. Such technical information must include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations.

(3) *Application for approval of reconstruction.* Each application for approval of reconstruction shall include, in addition to the information required in paragraph (d)(1)(ii) of this section - (i) A brief description of the affected source and the components that are to be replaced;

(ii) A description of present and proposed emission control systems (i.e., equipment or methods). The description of the equipment to be used for the control of emissions shall include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions shall include an estimated control efficiency (percent) for that method. Such technical information shall include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations;

(iii) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new source;

(iv) The estimated life of the affected source after the replacements; and

(v) A discussion of any economic or technical limitations the source may have in complying with relevant standards or other requirements after the proposed replacements. The discussion shall be sufficiently detailed to demonstrate to the Administrator's satisfaction that the technical or economic limitations affect the source's ability to comply with the relevant standard and how they do so.

(vi) If in the application for approval of reconstruction the owner or operator designates the affected source as a reconstructed source and declares that there are no economic or technical limitations to prevent the source from complying with all relevant standards or other requirements, the owner or operator need not submit the information required in paragraphs (d)(3)(iii) through (d)(3)(v) of this section.

(4) *Additional information.* The Administrator may request additional relevant information after the submittal of an application for approval of construction or reconstruction.

(e) *Approval of construction or reconstruction.*

(1) (i) If the Administrator determines that, if properly constructed, or reconstructed, and operated, a new or existing source for which an application under paragraph (d) of this section was submitted will not cause emissions in violation of the relevant standard(s) and any other federally enforceable requirements, the Administrator will approve the construction or reconstruction.

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(ii) In addition, in the case of reconstruction, the Administrator's determination under this paragraph will be based on:

(A) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new source;

(B) The estimated life of the source after the re-placements compared to the life of a comparable entirely new source;

(C) The extent to which the components being replaced cause or contribute to the emissions from the source; and

(D) Any economic or technical limitations on compliance with relevant standards that are inherent in the proposed replacements.

(2) (i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of construction or reconstruction within 60 calendar days after receipt of sufficient information to evaluate an application submitted under paragraph (d) of this section. The 60-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(3) Before denying any application for approval of construction or reconstruction, the Administrator will notify the applicant of the Administrator's intention to issue the denial together with - (i) Notice of the information and findings on which the intended denial is based; and

(ii) Notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator to enable further action on the application.

(4) A final determination to deny any application for approval will be in writing and will specify the grounds on which the denial is based. The final determination will be made within 60 calendar days of presentation of additional information or arguments (if the application is complete), or within 60 calendar days after the final date specified for presentation if no presentation is made.

(5) Neither the submission of an application for approval nor the Administrator's approval of construction or reconstruction shall -

(i) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or (ii) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(f) *Approval of construction or reconstruction based on prior State preconstruction review.*

(1) Preconstruction review procedures that a State utilizes for other purposes may also be utilized for purposes of this section if the procedures are substantially equivalent to those specified in this section. The Administrator will approve an application for construction or reconstruction specified in paragraphs (b)(3) and (d) of this section if the owner or operator of a new affected source or reconstructed affected source, who is subject to such requirement meets the following conditions:

(i) The owner or operator of the new affected source or reconstructed affected source has undergone a preconstruction review and approval process in the State in which the source is (or would be) located and has received a federally enforceable construction permit that contains a finding that the source will meet the relevant promulgated emission standard, if the source is properly built and operated.

(ii) Provide a statement from the State or other evidence (such as State regulations) that it considered the factors specified in paragraph (e)(1) of this section.

(2) The owner or operator must submit to the Administrator the request for approval of construction or reconstruction under this paragraph (f)(2) no later than the application deadline specified in paragraph (d)(1) of this section (see also § 63.9(b)(2)). The owner or operator must include in the request information sufficient for

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the Administrator's determination. The Administrator will evaluate the owner or operator's request in accordance with the procedures specified in paragraph (e) of this section. The Administrator may request additional relevant information after the submittal of a request for approval of construction or reconstruction under this paragraph (f)(2).

**§ 63.6 Compliance with standards and maintenance requirements.****(a) Applicability. Applies only when capture and control system is used to comply with the standard.**

(1) The requirements in this section apply to the owner or operator of affected sources for which any relevant standard has been established pursuant to section 112 of the Act and the applicability of such requirements is set out in accordance with § 63.1(a)(4) unless --

(i) The Administrator (or a State with an approved permit program) has granted an extension of compliance consistent with paragraph (i) of this section; or

(ii) The President has granted an exemption from compliance with any relevant standard in accordance with section 112(i)(4) of the Act.

(2) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source, such source shall be subject to the relevant emission standard or other requirement.

**(b) Compliance dates for new and reconstructed sources.**

(1)-(6) [Reserved]

(7) When an area source becomes a major source by the addition of equipment or operations that meet the definition of new affected source in the relevant standard, the portion of the existing facility that is a new affected source must comply with all requirements of that standard applicable to new sources. The source owner or operator must comply with the relevant standard upon startup.

**(c) Compliance dates for existing sources.**

(1) After the effective date of a relevant standard established under this part pursuant to section 112(d) or 112(h) of the Act, the owner or operator of an existing source shall comply with such standard by the compliance date established by the Administrator in the applicable subpart(s) of this part. Except as otherwise provided for in section 112 of the Act, in no case will the compliance date established for an existing source in an applicable subpart of this part exceed 3 years after the effective date of such standard.

(2) If an existing source is subject to a standard established under this part pursuant to section 112(f) of the Act, the owner or operator must comply with the standard by the date 90 days after the standard's effective date, or by the date specified in an extension granted to the source by the Administrator under paragraph (i)(4)(ii) of this section, whichever is later.

(3)-(4) [Reserved]

(5) Except as provided in paragraph (b)(7) of this section, the owner or operator of an area source that increases its emissions of (or its potential to emit) hazardous air pollutants such that the source becomes a major source shall be subject to relevant standards for existing sources. Such sources must comply by the date specified in the standards for existing area sources that become major sources. If no such compliance date is specified in the standards, the source shall have a period of time to comply with the relevant emission standard that is equivalent to the compliance period specified in the relevant standard for existing sources in existence at the time the standard becomes effective.

**(d) [Reserved]****(e) Operation and maintenance requirements. Provisions pertaining to SSMP, and CMS do not apply unless an add-on control system is used to comply with the emission limitations.**

(e) *Operation and maintenance requirements.*

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(1) (i) At all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the owner or operator reduce emissions from the affected source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section), review of operation and maintenance records, and inspection of the source.

(ii) Malfunctions must be corrected as soon as practicable after their occurrence. To the extent that an unexpected event arises during a startup, shutdown, or malfunction, an owner or operator must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices.

(iii) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.

(2) [Reserved]

(3) Startup, shutdown, and malfunction plan.

(i) The owner or operator of an affected source must develop a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction; and a program of corrective action for malfunctioning process, air pollution control, and monitoring equipment used to comply with the relevant standard. The startup, shutdown, and malfunction plan does not need to address any scenario that would not cause the source to exceed an applicable emission limitation in the relevant standard.

(A) Ensure that, at all times, the owner or operator operates and maintains each affected source, including associated air pollution control and monitoring equipment, in a manner which satisfies the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;

(B) Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and

(C) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

(ii) [Reserved]

(iii) When actions taken by the owner or operator during a startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of recordkeeping that confirms conformance with the startup, shutdown, and malfunction plan and describes the actions taken for that event. In addition, the owner or operator must keep records of these events as specified in paragraph 63.10(b), including records of the occurrence and duration of each startup or shutdown (if the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, the owner or operator shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in § 63.10(d)(5).

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(iv) If an action taken by the owner or operator during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard, then the owner or operator must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with Sec. 63.10(d)(5) (unless the owner or operator makes alternative reporting arrangements, in advance, with the Administrator).

(v) The owner or operator must maintain at the affected source a current startup, shutdown, and malfunction plan and must make the plan available upon request for inspection and copying by the Administrator. In addition, if the startup, shutdown, and malfunction plan is subsequently revised as provided in paragraph (e)(3)(viii) of this section, the owner or operator must maintain at the affected source each previous (i.e., superseded) version of the startup, shutdown, and malfunction plan, and must make each such previous version available for inspection and copying by the Administrator for a period of 5 years after revision of the plan. If at any time after adoption of a startup, shutdown, and malfunction plan the affected source ceases operation or is otherwise no longer subject to the provisions of this part, the owner or operator must retain a copy of the most recent plan for 5 years from the date the source ceases operation or is no longer subject to this part and must make the plan available upon request for inspection and copying by the Administrator. The Administrator may at any time request in writing that the owner or operator submit a copy of any startup, shutdown, and malfunction plan (or a portion thereof) which is maintained at the affected source or in the possession of the owner or operator. Upon receipt of such a request, the owner or operator must promptly submit a copy of the requested plan (or a portion thereof) to the Administrator. The owner or operator may elect to submit the required copy of any startup, shutdown, and malfunction plan to the Administrator in an electronic format. If the owner or operator claims that any portion of such a startup, shutdown, and malfunction plan is confidential business information entitled to protection from disclosure under section 114(c) of the Act or 40 CFR 2.301, the material which is claimed as confidential must be clearly designated in the submission.

(vi) To satisfy the requirements of this section to develop a startup, shutdown, and malfunction plan, the owner or operator may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection or submitted when requested by the Administrator.

(vii) Based on the results of a determination made under paragraph (e)(1)(i) of this section, the Administrator may require that an owner or operator of an affected source make changes to the startup, shutdown, and malfunction plan for that source. The Administrator must require appropriate revisions to a startup, shutdown, and malfunction plan, if the Administrator finds that the plan:

- (A) Does not address a startup, shutdown, or malfunction event that has occurred;
- (B) Fails to provide for the operation of the source (including associated air pollution control and monitoring equipment) during a startup, shutdown, or malfunction event in a manner consistent with the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;
- (C) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable; or
- (D) Includes an event that does not meet the definition of startup, shutdown, or malfunction listed in § 63.2.

(viii) The owner or operator may periodically revise the startup, shutdown, and malfunction plan for the affected source as necessary to satisfy the requirements of this part or to reflect changes in equipment or procedures at the affected source. Unless the permitting authority provides otherwise, the owner or operator may make such revisions to the startup, shutdown, and malfunction plan without prior approval by the Administrator or the permitting authority. However, each such revision to a startup, shutdown, and malfunction plan must be reported in the semiannual report required by § 63.10(d)(5). If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the owner or operator must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events

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and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that the owner or operator makes any revision to the startup, shutdown, and malfunction plan which alters the scope of the activities at the source which are deemed to be a startup, shutdown, or malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in a standard established under this part, the revised plan shall not take effect until after the owner or operator has provided a written notice describing the revision to the permitting authority.

(ix) The title V permit for an affected source must require that the owner or operator develop a startup, shutdown, and malfunction plan which conforms to the provisions of this part, but may do so by citing to the relevant subpart or subparagraphs of paragraph (e) of this section. However, any revisions made to the startup, shutdown, and malfunction plan in accordance with the procedures established by this part shall not be deemed to constitute permit revisions under part 70 or part 71 of this chapter and the elements of the startup, shutdown, and malfunction plan shall not be considered an applicable requirement as defined in Sec. 70.2 and Sec. 71.2 of this chapter. Moreover, none of the procedures specified by the startup, shutdown, and malfunction plan for an affected source shall be deemed to fall within the permit shield provision in section 504(f) of the Act.

(f) *Compliance with nonopacity emission standards -*

(1) *Applicability.* The non-opacity emission standards set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the non-opacity emission standards set forth in this part, then that emission point must still be required to comply with the non-opacity emission standards and other applicable requirements.

(2) *Methods for determining compliance.*

(i) The Administrator will determine compliance with nonopacity emission standards in this part based on the results of performance tests conducted according to the procedures in § 63.7, unless otherwise specified in an applicable subpart of this part.

(ii) The Administrator will determine compliance with nonopacity emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, including the evaluation of monitoring data, as specified in § 63.6(e) and applicable subparts of this part.

(iii) If an affected source conducts performance testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if -

- (A) The performance test was conducted within a reasonable amount of time before an initial performance test is required to be conducted under the relevant standard;
- (B) The performance test was conducted under representative operating conditions for the source;
- (C) The performance test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in § 63.7(e) of this subpart; and
- (D) The performance test was appropriately quality-assured, as specified in § 63.7(c).

(iv) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by review of records, inspection of the source, and other procedures specified in applicable subparts of this part.

(v) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, as specified in paragraph (e) of this section and applicable subparts of this part.

(3) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with a non-opacity emission standard, as specified in paragraphs (f)(1) and (2) of this section, upon obtaining all the compliance information required by the relevant standard (including the written reports of

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performance test results, monitoring results, and other information, if applicable), and information available to the Administrator pursuant to paragraph (e)(1)(i) of this section.

(g) *Use of an alternative nonopacity emission standard.*

(1) If, in the Administrator's judgment, an owner or operator of an affected source has established that an alternative means of emission limitation will achieve a reduction in emissions of a hazardous air pollutant from an affected source at least equivalent to the reduction in emissions of that pollutant from that source achieved under any design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act, the Administrator will publish in the FEDERAL REGISTER a notice permitting the use of the alternative emission standard for purposes of compliance with the promulgated standard. Any FEDERAL REGISTER notice under this paragraph shall be published only after the public is notified and given the opportunity to comment. Such notice will restrict the permission to the stationary source(s) or category(ies) of sources from which the alternative emission standard will achieve equivalent emission reductions. The Administrator will condition permission in such notice on requirements to assure the proper operation and maintenance of equipment and practices required for compliance with the alternative emission standard and other requirements, including appropriate quality assurance and quality control requirements, that are deemed necessary.

(2) An owner or operator requesting permission under this paragraph shall, unless otherwise specified in an applicable subpart, submit a proposed test plan or the results of testing and monitoring in accordance with § 63.7 and § 63.8, a description of the procedures followed in testing or monitoring, and a description of pertinent conditions during testing or monitoring. Any testing or monitoring conducted to request permission to use an alternative nonopacity emission standard shall be appropriately quality assured and quality controlled, as specified in § 63.7 and § 63.8.

(3) The Administrator may establish general procedures in an applicable subpart that accomplish the requirements of paragraphs (g)(1) and (g)(2) of this section.

(h) *Compliance with opacity and visible emission standards -*

**Subpart JJJJ does not require continuous opacity monitoring systems (COMS)**

(i) *Extension of compliance with emission standards.*

(1) Until an extension of compliance has been granted by the Administrator (or a State with an approved permit program) under this paragraph, the owner or operator of an affected source subject to the requirements of this section shall comply with all applicable requirements of this part.

(2) *Extension of compliance for early reductions and other reductions*

(i) *Early reductions.* Pursuant to section 112(i)(5) of the Act, if the owner or operator of an existing source demonstrates that the source has achieved a reduction in emissions of hazardous air pollutants in accordance with the provisions of subpart D of this part, the Administrator (or the State with an approved permit program) will grant the owner or operator an extension of compliance with specific requirements of this part, as specified in subpart D.

(ii) *Other reductions.* Pursuant to section 112(i)(6) of the Act, if the owner or operator of an existing source has installed best available control technology (BACT) (as defined in section 169(3) of the Act) or technology required to meet a lowest achievable emission rate (LAER) (as defined in section 171 of the Act) prior to the promulgation of an emission standard in this part applicable to such source and the same pollutant (or stream of pollutants) controlled pursuant to the BACT or LAER installation, the Administrator will grant the owner or operator an extension of compliance with such emission standard that will apply until the date 5 years after the date on which such installation was achieved, as determined by the Administrator.

(3) *Request for extension of compliance.* Paragraphs (i)(4) through (i)(7) of this section concern requests for an extension of compliance with a relevant standard under this part (except requests for an extension of compliance under paragraph (i)(2)(i) of this section will be handled through procedures specified in subpart D of this part).

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(4) (i) (A) The owner or operator of an existing source who is unable to comply with a relevant standard established under this part pursuant to section 112(d) of the Act may request that the Administrator (or a State, when the State has an approved part 70 permit program and the source is required to obtain a part 70 permit under that program, or a State, when the State has been delegated the authority to implement and enforce the emission standard for that source) grant an extension allowing the source up to 1 additional year to comply with the standard, if such additional period is necessary for the installation of controls. An additional extension of up to 3 years may be added for mining waste operations, if the 1-year extension of compliance is insufficient to dry and cover mining waste in order to reduce emissions of any hazardous air pollutant. The owner or operator of an affected source who has requested an extension of compliance under this paragraph and who is otherwise required to obtain a title V permit shall apply for such permit or apply to have the source's title V permit revised to incorporate the conditions of the extension of compliance. The conditions of an extension of compliance granted under this paragraph will be incorporated into the affected source's title V permit according to the provisions of part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever are applicable.

(B) Any request under this paragraph for an extension of compliance with a relevant standard must be submitted in writing to the appropriate authority no later than 120 days prior to the affected source's compliance date (as specified in paragraphs (b) and (c) of this section), except as provided for in paragraph (i)(4)(i)(C) of this section. Nonfrivolous requests submitted under this paragraph will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the date of denial. Emission standards established under this part may specify alternative dates for the submittal of requests for an extension of compliance if alternatives are appropriate for the source categories affected by those standards.

(C) An owner or operator may submit a compliance extension request after the date specified in paragraph (i)(4)(i)(B) of this section provided the need for the compliance extension arose after that date, and before the otherwise applicable compliance date and the need arose due to circumstances beyond reasonable control of the owner or operator. This request must include, in addition to the information required in paragraph (i)(6)(i) of this section, a statement of the reasons additional time is needed and the date when the owner or operator first learned of the problems. Nonfrivolous requests submitted under this paragraph will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the original compliance date.

(ii) The owner or operator of an existing source unable to comply with a relevant standard established under this part pursuant to section 112(f) of the Act may request that the Administrator grant an extension allowing the source up to 2 years after the standard's effective date to comply with the standard. The Administrator may grant such an extension if he/she finds that such additional period is necessary for the installation of controls and that steps will be taken during the period of the extension to assure that the health of persons will be protected from imminent endangerment. Any request for an extension of compliance with a relevant standard under this paragraph must be submitted in writing to the Administrator not later than 90 calendar days after the effective date of the relevant standard.

(5) The owner or operator of an existing source that has installed BACT or technology required to meet LAER [as specified in paragraph (i)(2)(ii) of this section] prior to the promulgation of a relevant emission standard in this part may request that the Administrator grant an extension allowing the source 5 years from the date on which such installation was achieved, as determined by the Administrator, to comply with the standard. Any request for an extension of compliance with a relevant standard under this paragraph shall be submitted in writing to the Administrator not later than 120 days after the promulgation date of the standard. The Administrator may grant such an extension if he or she finds that the installation of BACT or technology to meet

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LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(6) (i) The request for a compliance extension under paragraph (i)(4) of this section shall include the following information:

(A) A description of the controls to be installed to comply with the standard;

(B) A compliance schedule, including the date by which each step toward compliance will be reached. At a minimum, the list of dates shall include:

(1) The date by which on-site construction, installation of emission control equipment, or a process change is planned to be initiated; and

(2) The date by which final compliance is to be achieved;

(C) [Reserved]

(D) [Reserved]

(ii) The request for a compliance extension under paragraph (i)(5) of this section shall include all information needed to demonstrate to the Administrator's satisfaction that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(7) Advice on requesting an extension of compliance may be obtained from the Administrator (or the State with an approved permit program).

(8) *Approval of request for extension of compliance.* Paragraphs (i)(9) through (i)(14) of this section concern approval of an extension of compliance requested under paragraphs (i)(4) through (i)(6) of this section.

(9) Based on the information provided in any request made under paragraphs (i)(4) through (i)(6) of this section, or other information, the Administrator (or the State with an approved permit program) may grant an extension of compliance with an emission standard, as specified in paragraphs (i)(4) and (i)(5) of this section.

(10) The extension will be in writing and will -

(i) Identify each affected source covered by the extension;

(ii) Specify the termination date of the extension;

(iii) Specify the dates by which steps toward compliance are to be taken, if appropriate;

(iv) Specify other applicable requirements to which the compliance extension applies (e.g., performance tests); and

(v) (A) Under paragraph (i)(4), specify any additional conditions that the Administrator (or the State) deems necessary to assure installation of the necessary controls and protection of the health of persons during the extension period; or

(B) Under paragraph (i)(5), specify any additional conditions that the Administrator deems necessary to assure the proper operation and maintenance of the installed controls during the extension period.

(11) The owner or operator of an existing source that has been granted an extension of compliance under paragraph (i)(10) of this section may be required to submit to the Administrator (or the State with an approved permit program) progress reports indicating whether the steps toward compliance outlined in the compliance schedule have been reached. The contents of the progress reports and the dates by which they shall be submitted will be specified in the written extension of compliance granted under paragraph (i)(10) of this section.

(12) (i) The Administrator (or the State with an approved permit program) will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(i) or (i)(5) of this section. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of

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opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator (or the State with an approved permit program) will notify the owner or operator in writing of the Administrator's (or the State's) intention to issue the denial, together with -

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator (or the State) before further action on the request.

(iv) The Administrator's final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(13) (i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(ii) of this section. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 15 calendar days after receipt of the original application and within 15 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 15 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator will notify the owner or operator in writing of the Administrator's intention to issue the denial, together with -

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator before further action on the request.

(iv) A final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(14) The Administrator (or the State with an approved permit program) may terminate an extension of compliance at an earlier date than specified if any specification under paragraph (i)(10)(iii) or (iv) of this section is not met. Upon a determination to terminate, the Administrator will notify, in writing, the owner or operator of the Administrator's determination to terminate, together with:

(i) Notice of the reason for termination; and

(ii) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the determination to terminate, additional information or arguments to the Administrator before further action on the termination.

(iii) A final determination to terminate an extension of compliance will be in writing and will set forth the specific grounds on which the termination is based. The final determination will be made within 30 calendar days after presentation of additional information or arguments, or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(15) [Reserved]

(16) The granting of an extension under this section shall not abrogate the Administrator's authority under section 114 of the Act.

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(j) *Exemption from compliance with emission standards.* The President may exempt any stationary source from compliance with any relevant standard established pursuant to section 112 of the Act for a period of not more than 2 years if the President determines that the technology to implement such standard is not available and that it is in the national security interests of the United States to do so. An exemption under this paragraph may be extended for 1 or more additional periods, each period not to exceed 2 years.

**§ 63.7 Performance testing requirements.***(a) Applicability and performance test dates.*

(1) The applicability of this section is set out in § 63.1(a)(4).

(2) If required to do performance testing by a relevant standard, and unless a waiver of performance testing is obtained under this section or the conditions of paragraph (c)(3)(ii)(B) of this section apply, the owner or operator of the affected source must perform such tests within 180 days of the compliance date for such source.

(i)- (viii) [Reserved]

(ix) When an emission standard promulgated under this part is more stringent than the standard proposed (see § 63.6(b)(3)), the owner or operator of a new or reconstructed source subject to that standard for which construction or reconstruction is commenced between the proposal and promulgation dates of the standard shall comply with performance testing requirements within 180 days after the standard's effective date, or within 180 days after startup of the source, whichever is later. If the promulgated standard is more stringent than the proposed standard, the owner or operator may choose to demonstrate compliance with either the proposed or the promulgated standard. If the owner or operator chooses to comply with the proposed standard initially, the owner or operator shall conduct a second performance test within 3 years and 180 days after the effective date of the standard, or after startup of the source, whichever is later, to demonstrate compliance with the promulgated standard.

(3) The Administrator may require an owner or operator to conduct performance tests at the affected source at any other time when the action is authorized by section 114 of the Act.

*(b) Notification of performance test.*

(1) The owner or operator of an affected source must notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is initially scheduled to begin to allow the Administrator, upon request, to review and approve the site-specific test plan required under paragraph (c) of this section and to have an observer present during the test.

(2) In the event the owner or operator is unable to conduct the performance test on the date specified in the notification requirement specified in paragraph (b)(1) of this section due to unforeseeable circumstances beyond his or her control, the owner or operator must notify the Administrator as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the owner or operator of legal responsibility for compliance with any other applicable provisions of this part or with any other applicable Federal, State, or local requirement, nor will it prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

*(c) Quality assurance program.*

(1) The results of the quality assurance program required in this paragraph will be considered by the Administrator when he/she determines the validity of a performance test.

(2) (i) *Submission of site-specific test plan.* Before conducting a required performance test, the owner or operator of an affected source shall develop and, if requested by the Administrator, shall submit a site-specific test plan to the Administrator for approval. The test plan shall include a test program summary, the test schedule,

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data quality objectives, and both an internal and external quality assurance (QA) program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision; an example of internal QA is the sampling and analysis of replicate samples.

(iii) The external QA program shall include, at a minimum, application of plans for a test method performance audit (PA) during the performance test. The PA's consist of blind audit samples provided by the Administrator and analyzed during the performance test in order to provide a measure of test data bias. The external QA program may also include systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(iv) The owner or operator of an affected source shall submit the site-specific test plan to the Administrator upon the Administrator's request at least 60 calendar days before the performance test is scheduled to take place, that is, simultaneously with the notification of intention to conduct a performance test required under paragraph (b) of this section, or on a mutually agreed upon date.

(v) The Administrator may request additional relevant information after the submittal of a site-specific test plan.

(3) *Approval of site-specific test plan.*

(i) The Administrator will notify the owner or operator of approval or intention to deny approval of the site-specific test plan (if review of the site-specific test plan is requested) within 30 calendar days after receipt of the original plan and within 30 calendar days after receipt of any supplementary information that is submitted under paragraph (c)(3)(i)(B) of this section. Before disapproving any site-specific test plan, the Administrator will notify the applicant of the Administrator's intention to disapprove the plan together with -

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present, within 30 calendar days after he/she is notified of the intended disapproval, additional information to the Administrator before final action on the plan.

(ii) In the event that the Administrator fails to approve or disapprove the site-specific test plan within the time period specified in paragraph (c)(3)(i) of this section, the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the test method(s) specified in the relevant standard or with only minor changes to those tests methods (see paragraph (e)(2)(i) of this section), the owner or operator must conduct the performance test within the time specified in this section using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method when the Administrator approves the site-specific test plan (if review of the site-specific test plan is requested) or after the alternative method is approved (see paragraph (f) of this section). However, the owner or operator is authorized to conduct the performance test using an alternative method in the absence of notification of approval 45 days after submission of the site-specific test plan or request to use an alternative method. The owner or operator is authorized to conduct the performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

(iii) Neither the submission of a site-specific test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator's failure to approve or disapprove a plan in a timely manner shall -

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(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(4) (i) *Performance test method audit program.* The owner or operator must analyze performance audit (PA) samples during each performance test. The owner or operator must request performance audit materials 30 days prior to the test date. Audit materials including cylinder audit gases may be obtained by contacting the appropriate EPA Regional Office or the responsible enforcement authority.

(ii) The Administrator will have sole discretion to require any subsequent remedial actions of the owner or operator based on the PA results.

(iii) If the Administrator fails to provide required PA materials to an owner or operator of an affected source in time to analyze the PA samples during a performance test, the requirement to conduct a PA under this paragraph shall be waived for such source for that performance test. Waiver under this paragraph of the requirement to conduct a PA for a particular performance test does not constitute a waiver of the requirement to conduct a PA for future required performance tests.

(d) *Performance testing facilities.* If required to do performance testing, the owner or operator of each new source and, at the request of the Administrator, the owner or operator of each existing source, shall provide performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such source. This includes:

(i) Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures; and

(ii) Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures;

(2) Safe sampling platform(s);

(3) Safe access to sampling platform(s);

(4) Utilities for sampling and testing equipment; and

(5) Any other facilities that the Administrator deems necessary for safe and adequate testing of a source.

(e) *Conduct of performance tests.*

(1) Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (i.e., performance based on normal operating conditions) of the affected source. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test, nor shall emissions in excess of the level of the relevant standard during periods of startup, shutdown, and malfunction be considered a violation of the relevant standard unless otherwise specified in the relevant standard or a determination of noncompliance is made under § 63.6(e). Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(2) Performance tests shall be conducted and data shall be reduced in accordance with the test methods and procedures set forth in this section, in each relevant standard, and, if required, in applicable appendices of parts 51, 60, 61, and 63 of this chapter unless the Administrator -

(i) Specifies or approves, in specific cases, the use of a test method with minor changes in methodology (see definition in § 63.90(a)). Such changes may be approved in conjunction with approval of the site-specific test plan (see paragraph (c) of this section); or

(ii) Approves the use of an intermediate or major change or alternative to a test method (see definitions in § 63.90(a)), the results of which the Administrator has determined to be adequate for indicating whether a specific affected source is in compliance; or

(iii) Approves shorter sampling times or smaller sample volumes when necessitated by process variables or other factors; or

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(iv) Waives the requirement for performance tests because the owner or operator of an affected source has demonstrated by other means to the Administrator's satisfaction that the affected source is in compliance with the relevant standard.

(3) Unless otherwise specified in a relevant standard or test method, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the relevant standard. For the purpose of determining compliance with a relevant standard, the arithmetic mean of the results of the three runs shall apply. Upon receiving approval from the Administrator, results of a test run may be replaced with results of an additional test run in the event that

(i) A sample is accidentally lost after the testing team leaves the site; or

(ii) Conditions occur in which one of the three runs must be discontinued because of forced shutdown; or

(iii) Extreme meteorological conditions occur; or

(iv) Other circumstances occur that are beyond the owner or operator's control.

(4) Nothing in paragraphs (e)(1) through (e)(3) of this section shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(f) *Use of an alternative test method -*

(1) *General.* Until authorized to use an intermediate or major change or alternative to a test method, the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) The owner or operator of an affected source required to do performance testing by a relevant standard may use an alternative test method from that specified in the standard provided that the owner or operator -

(i) Notifies the Administrator of his or her intention to use an alternative test method at least 60 days before the performance test is scheduled to begin;

(ii) Uses Method 301 in appendix A of this part to validate the alternative test method. This may include the use of specific procedures of Method 301 if use of such procedures are sufficient to validate the alternative test method; and

(iii) Submits the results of the Method 301 validation process along with the notification of intention and the justification for not using the specified test method. The owner or operator may submit the information required in this paragraph well in advance of the deadline specified in paragraph (f)(2)(i) of this section to ensure a timely review by the Administrator in order to meet the performance test date specified in this section or the relevant standard.

(3) The Administrator will determine whether the owner or operator's validation of the proposed alternative test method is adequate and issue an approval or disapproval of the alternative test method. If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method. However, the owner or operator is authorized to conduct the performance test using an alternative method in the absence of notification of approval/disapproval 45 days after submission of the request to use an alternative method and the request satisfies the requirements in paragraph (f)(2) of this section. The owner or operator is authorized to conduct the performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

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(4) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative test method for the purposes of demonstrating compliance with a relevant standard, the Administrator may require the use of a test method specified in a relevant standard.

(5) If the owner or operator uses an alternative test method for an affected source during a required performance test, the owner or operator of such source shall continue to use the alternative test method for subsequent performance tests at that affected source until he or she receives approval from the Administrator to use another test method as allowed under § 63.7(f).

(6) Neither the validation and approval process nor the failure to validate an alternative test method shall abrogate the owner or operator's responsibility to comply with the requirements of this part.

(g) *Data analysis, recordkeeping, and reporting.*

(1) Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, results of a performance test shall include the analysis of samples, determination of emissions, and raw data. A performance test is "completed" when field sample collection is terminated. The owner or operator of an affected source shall report the results of the performance test to the Administrator before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator (see § 63.9(i)). The results of the performance test shall be submitted as part of the notification of compliance status required under § 63.9(h). Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the appropriate permitting authority.

(2) [Reserved]

(3) For a minimum of 5 years after a performance test is conducted, the owner or operator shall retain and make available, upon request, for inspection by the Administrator the records or results of such performance test and other data needed to determine emissions from an affected source.

(h) *Waiver of performance tests.*

(1) Until a waiver of a performance testing requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) Individual performance tests may be waived upon written application to the Administrator if, in the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis, or the source is being operated under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) Request to waive a performance test.

(i) If a request is made for an extension of compliance under § 63.6(i), the application for a waiver of an initial performance test shall accompany the information required for the request for an extension of compliance. If no extension of compliance is requested or if the owner or operator has requested an extension of compliance and the Administrator is still considering that request, the application for a waiver of an initial performance test shall be submitted at least 60 days before the performance test if the site-specific test plan under paragraph (c) of this section is not submitted.

(ii) If an application for a waiver of a subsequent performance test is made, the application may accompany any required compliance progress report, compliance status report, or excess emissions and continuous monitoring system performance report [such as those required under § 63.6(I), § 63.9(h), and § 63.10(e) or specified in a relevant standard or in the source's title V permit], but it shall be submitted at least 60 days before the performance test if the site-specific test plan required under paragraph (c) of this section is not submitted.

(iii) Any application for a waiver of a performance test shall include information justifying the owner or operator's request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the affected source performing the required test.

(4) Approval of request to waive performance test. The Administrator will approve or deny a request for a waiver of a performance test made under paragraph (h)(3) of this section when he/she -

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- (i) Approves or denies an extension of compliance under § 63.6(i)(8); or
  - (ii) Approves or disapproves a site-specific test plan under § 63.7(c)(3); or
  - (iii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or
  - (iv) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.
- (5) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

**§ 63.8 Monitoring requirements.**

*(a) Applicability.*

- (1) The applicability of this section is set out in § 63.1(a)(4).
- (2) For the purposes of this part, all CMS required under relevant standards shall be subject to the provisions of this section upon promulgation of performance specifications for CMS as specified in the relevant standard or otherwise by the Administrator.
- (3) [Reserved]
- (4) **Reserved**

*(b) Conduct of monitoring.*

(1) Monitoring shall be conducted as set forth in this section and the relevant standard(s) unless the Administrator -

- (i) Specifies or approves the use of minor changes in methodology for the specified monitoring requirements and procedures (see § 63.90(a) for definition); or
- (ii) Approves the use of an intermediate or major change or alternative to any monitoring requirements or procedures (see § 63.90(a) for definition).

(iii) Owners or operators with flares subject to § 63.11(b) are not subject to the requirements of this section unless otherwise specified in the relevant standard.

(2) (i) When the emissions from two or more affected sources are combined before being released to the atmosphere, the owner or operator may install an applicable CMS for each emission stream or for the combined emissions streams, provided the monitoring is sufficient to demonstrate compliance with the relevant standard.

(ii) If the relevant standard is a mass emission standard and the emissions from one affected source are released to the atmosphere through more than one point, the owner or operator must install an applicable CMS at each emission point unless the installation of fewer systems is -

(A) Approved by the Administrator; or

(B) Provided for in a relevant standard (e.g., instead of requiring that a CMS be installed at each emission point before the effluents from those points are channeled to a common control device, the standard specifies that only one CMS is required to be installed at the vent of the control device).

(3) When more than one CMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CMS. However, when one CMS is used as a backup to another CMS, the owner or operator shall report the results from the CMS used to meet the monitoring requirements of this part. If both such CMS are used during a particular reporting period to meet the monitoring requirements of this part, then the owner or operator shall report the results from each CMS for the relevant compliance period.

*(c) Operation and maintenance of continuous monitoring systems. Sec. 63.8(c)(1)(i) & (ii) only apply if you use capture and control systems and are required to have a start-up, shutdown and malfunction plan.*

- (1) The owner or operator of an affected source shall maintain and operate each

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CMS as specified in this section, or in a relevant standard, and in a manner consistent with good air pollution control practices.

(i) The owner or operator of an affected source must maintain and operate each CMS as specified in § 63.6(e)(1).

(ii) The owner or operator must keep the necessary parts for routine repairs of the affected CMS equipment readily available.

(iii) The owner or operator of an affected source must develop a written startup, shutdown, and malfunction plan for CMS as specified in Sec. 63.6(e)(3).

(2) (i) All CMS must be installed such that representative measures of emissions or process parameters from the affected source are obtained. In addition, CEMS must be located according to procedures contained in the applicable performance specification(s).

(ii) Unless the individual subpart states otherwise, the owner or operator must ensure the read out (that portion of the CMS that provides a visual display or record), or other indication of operation, from any CMS required for compliance with the emission standard is readily accessible on site for operational control or inspection by the operator of the equipment.

(3) All CMS shall be installed, operational, and the data verified as specified in the relevant standard either prior to or in conjunction with conducting performance tests under § 63.7. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system.

(4) Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, all CMS, including COMS and CEMS, shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(i) All COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(ii) All CEMS for measuring emissions other than opacity shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(5) **Subpart JJJJ does not require COMS.**

(6) **Provisions for COMS are not applicable.** The owner or operator of a CMS that is not a CPMS, which is installed in accordance with the provisions of this part and the applicable CMS performance specification(s), must check the zero (low-level) and high-level calibration drifts at least once daily in accordance with the written procedure specified in the performance evaluation plan developed under paragraphs (e)(3)(i) and (ii) of this section. The zero (low-level) and high-level calibration drifts must be adjusted, at a minimum, whenever the 24-hour zero (low-level) drift exceeds two times the limits of the applicable performance specification(s) specified in the relevant standard. The system shall allow the amount of excess zero (low-level) and high-level drift measured at the 24-hour interval checks to be recorded and quantified whenever specified. For COMS, all optical and instrumental surfaces exposed to the effluent gases must be cleaned prior to performing the zero (low-level) and high-level drift adjustments; the optical surfaces and instrumental surfaces must be cleaned when the cumulative automatic zero compensation, if applicable, exceeds 4 percent opacity. The CPMS must be calibrated prior to use for the purposes of complying with this section. The CPMS must be checked daily for indication that the system is responding. If the CPMS system includes an internal system check, results must be recorded and checked daily for proper operation.

(7) **Provisions for COMS are not applicable.**

(i) A CMS is out of control if -

(A) The zero (low-level), mid-level (if applicable), or high-level calibration drift (CD) exceeds two times the applicable CD specification in the applicable performance specification or in the relevant standard; or

(B) The CMS fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit; or

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(C) The COMS CD exceeds two times the limit in the applicable performance specification in the relevant standard.

(ii) When the CMS is out of control, the owner or operator of the affected source shall take the necessary corrective action and shall repeat all necessary tests which indicate that the system is out of control. The owner or operator shall take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour the owner or operator conducts a performance check (e.g., calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. During the period the CMS is out of control, recorded data shall not be used in data averages and calculations, or to meet any data availability requirement established under this part.

(8) **Provisions for COMS are not applicable.** The owner or operator of a CMS that is out of control as defined in paragraph (c)(7) of this section shall submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken, in the excess emissions and continuous monitoring system performance report required in § 63.10(e)(3).

(d) *Quality control program. Sec.63.8(f)(6) only applies if you use CEMS.*

(1) The results of the quality control program required in this paragraph will be considered by the Administrator when he/she determines the validity of monitoring data.

(2) The owner or operator of an affected source that is required to use a CMS and is subject to the monitoring requirements of this section and a relevant standard shall develop and implement a CMS quality control program. As part of the quality control program, the owner or operator shall develop and submit to the Administrator for approval upon request a site-specific performance evaluation test plan for the CMS performance evaluation required in paragraph (e)(3)(i) of this section, according to the procedures specified in paragraph (e). In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the following operations:

- (i) Initial and any subsequent calibration of the CMS;
- (ii) Determination and adjustment of the calibration drift of the CMS;
- (iii) Preventive maintenance of the CMS, including spare parts inventory;
- (iv) Data recording, calculations, and reporting;
- (v) Accuracy audit procedures, including sampling and analysis methods; and
- (vi) Program of corrective action for a malfunctioning CMS.

(3) The owner or operator shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts.

(e) *Performance evaluation of continuous monitoring systems - Sec.63.8(f)(6) only applies if you use CEMS.*

(1) *General.* When required by a relevant standard, and at any other time the Administrator may require under section 114 of the Act, the owner or operator of an affected source being monitored shall conduct a performance evaluation of the CMS. Such performance evaluation shall be conducted according to the applicable specifications and procedures described in this section or in the relevant standard.

(2) *Notification of performance evaluation.* The owner or operator shall notify the Administrator in writing of the date of the performance evaluation simultaneously with the notification of the performance test date required under § 63.7(b) or at least 60 days prior to the date the performance evaluation is scheduled to begin if no performance test is required.

(3) (i) *Submission of site-specific performance evaluation test plan.* Before conducting a required CMS performance evaluation, the owner or operator of an affected source shall develop and submit a site-specific

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performance evaluation test plan to the Administrator for approval upon request. The performance evaluation test plan shall include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external QA program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of CMS performance. The external QA program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(iii) The owner or operator of an affected source shall submit the site-specific performance evaluation test plan to the Administrator (if requested) at least 60 days before the performance test or performance evaluation is scheduled to begin, or on a mutually agreed upon date, and review and approval of the performance evaluation test plan by the Administrator will occur with the review and approval of the site-specific test plan (if review of the site-specific test plan is requested).

(iv) The Administrator may request additional relevant information after the submittal of a site-specific performance evaluation test plan.

(v) In the event that the Administrator fails to approve or disapprove the site-specific performance evaluation test plan within the time period specified in § 63.7(c)(3), the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the monitoring method(s) specified in the relevant standard, the owner or operator shall conduct the performance evaluation within the time specified in this subpart using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to a monitoring method specified in the relevant standard, the owner or operator shall refrain from conducting the performance evaluation until the Administrator approves the use of the alternative method. If the Administrator does not approve the use of the alternative method within 30 days before the performance evaluation is scheduled to begin, the performance evaluation deadlines specified in paragraph (e)(4) of this section may be extended such that the owner or operator shall conduct the performance evaluation within 60 calendar days after the Administrator approves the use of the alternative method. Notwithstanding the requirements in the preceding two sentences, the owner or operator may proceed to conduct the performance evaluation as required in this section (without the Administrator's prior approval of the site-specific performance evaluation test plan) if he/she subsequently chooses to use the specified monitoring method(s) instead of an alternative.

(vi) Neither the submission of a site-specific performance evaluation test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator's failure to approve or disapprove a plan in a timely manner shall -

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(4) *Conduct of performance evaluation and performance evaluation dates.* The owner or operator of an affected source shall conduct a performance evaluation of a required CMS during any performance test required under § 63.7 in accordance with the applicable performance specification as specified in the relevant standard. Notwithstanding the requirement in the previous sentence, if the owner or operator of an affected source elects to submit COMS data for compliance with a relevant opacity emission standard as provided under § 63.6(h)(7), he/she shall conduct a performance evaluation of the COMS as specified in the relevant standard, before the performance test required under § 63.7 is conducted in time to submit the results of the performance evaluation as specified in paragraph (e)(5)(ii) of this section. If a performance test is not required, or the requirement for a performance test has been waived under § 63.7(h), the owner or operator of an affected source shall conduct the performance evaluation not later than 180 days after the appropriate compliance date for the affected source, as specified in § 63.7(a), or as otherwise specified in the relevant standard.

(5) *Reporting performance evaluation results.*

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(i) The owner or operator shall furnish the Administrator a copy of a written report of the results of the performance evaluation simultaneously with the results of the performance test required under § 63.7 or within 60 days of completion of the performance evaluation if no test is required, unless otherwise specified in a relevant standard. The Administrator may request that the owner or operator submit the raw data from a performance evaluation in the report of the performance evaluation results.

(ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under § 63.7 and described in § 63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation under this paragraph. The copies shall be provided at least 15 calendar days before the performance test required under § 63.7 is conducted.

**(f) Use of an alternative monitoring method - Sec.63.8(f)(6) only applies if you use CEMS.**

(1) *General.* Until permission to use an alternative monitoring procedure (minor, intermediate, or major changes; see definition in § 63.90(a)) has been granted by the Administrator under this paragraph (f)(1), the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring methods or procedures of this part including, but not limited to, the following:

(i) Alternative monitoring requirements when installation of a CMS specified by a relevant standard would not provide accurate measurements due to liquid water or other interferences caused by substances within the effluent gases;

(ii) Alternative monitoring requirements when the affected source is infrequently operated;

(iii) Alternative monitoring requirements to accommodate CEMS that require additional measurements to correct for stack moisture conditions;

(iv) Alternative locations for installing CMS when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements;

(v) Alternate methods for converting pollutant concentration measurements to units of the relevant standard;

(vi) Alternate procedures for performing daily checks of zero (low-level) and high-level drift that do not involve use of high-level gases or test cells;

(vii) Alternatives to the American Society for Testing and Materials (ASTM) test methods or sampling procedures specified by any relevant standard;

(viii) Alternative CMS that do not meet the design or performance requirements in this part, but adequately demonstrate a definite and consistent relationship between their measurements and the measurements of opacity by a system complying with the requirements as specified in the relevant standard. The Administrator may require that such demonstration be performed for each affected source; or

(ix) Alternative monitoring requirements when the effluent from a single affected source or the combined effluent from two or more affected sources is released to the atmosphere through more than one point.

(3) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative monitoring method, requirement, or procedure, the Administrator may require the use of a method, requirement, or procedure specified in this section or in the relevant standard. If the results of the specified and alternative method, requirement, or procedure do not agree, the results obtained by the specified method, requirement, or procedure shall prevail.

(4) (i) *Request to use alternative monitoring procedure.* An owner or operator who wishes to use an alternative monitoring procedure must submit an application to the Administrator as described in paragraph (f)(4)(ii) of this section. The application may be submitted at any time provided that the monitoring procedure is not the performance test method used to demonstrate compliance with a relevant standard or other requirement. If the alternative monitoring procedure will serve as the performance test method that is to be used to demonstrate compliance with a relevant standard, the application must be submitted at least 60 days before the performance evaluation is scheduled to begin and must meet the requirements for an alternative test method under § 63.7(f).

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(ii) The application must contain a description of the proposed alternative monitoring system which addresses the four elements contained in the definition of monitoring in § 63.2 and a performance evaluation test plan, if required, as specified in paragraph (e)(3) of this section. In addition, the application must include information justifying the owner or operator's request for an alternative monitoring method, such as the technical or economic infeasibility, or the impracticality, of the affected source using the required method.

(iii) The owner or operator may submit the information required in this paragraph well in advance of the submittal dates specified in paragraph (f)(4)(i) above to ensure a timely review by the Administrator in order to meet the compliance demonstration date specified in this section or the relevant standard.

(iv) Application for minor changes to monitoring procedures, as specified in paragraph (b)(1) of this section, may be made in the site-specific performance evaluation plan.

(5) *Approval of request to use alternative monitoring procedure.*

(i) The Administrator will notify the owner or operator of approval or intention to deny approval of the request to use an alternative monitoring method within 30 calendar days after receipt of the original request and within 30 calendar days after receipt of any supplementary information that is submitted. If a request for a minor change is made in conjunction with site-specific performance evaluation plan, then approval of the plan will constitute approval of the minor change. Before disapproving any request to use an alternative monitoring method, the Administrator will notify the applicant of the Administrator's intention to disapprove the request together with --

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present additional information to the Administrator before final action on the request. At the time the Administrator notifies the applicant of his or her intention to disapprove the request, the Administrator will specify how much time the owner or operator will have after being notified of the intended disapproval to submit the additional information.

(ii) The Administrator may establish general procedures and criteria in a relevant standard to accomplish the requirements of paragraph (f)(5)(i) of this section.

(iii) If the Administrator approves the use of an alternative monitoring method for an affected source under paragraph (f)(5)(i) of this section, the owner or operator of such source shall continue to use the alternative monitoring method until he or she receives approval from the Administrator to use another monitoring method as allowed by § 63.8(f).

(6) Alternative to the relative accuracy test. An alternative to the relative accuracy test for CEMS specified in a relevant standard may be requested as follows:

(i) *Criteria for approval of alternative procedures.* An alternative to the test method for determining relative accuracy is available for affected sources with emission rates demonstrated to be less than 50 percent of the relevant standard. The owner or operator of an affected source may petition the Administrator under paragraph (f)(6)(ii) of this section to substitute the relative accuracy test in section 7 of Performance Specification 2 with the procedures in section 10 if the results of a performance test conducted according to the requirements in § 63.7, or other tests performed following the criteria in § 63.7, demonstrate that the emission rate of the pollutant of interest in the units of the relevant standard is less than 50 percent of the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the owner or operator may petition the Administrator to substitute the relative accuracy test with the procedures in section 10 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the CEMS is used continuously to determine compliance with the relevant standard.

(ii) *Petition to use alternative to relative accuracy test.* The petition to use an alternative to the relative accuracy test shall include a detailed description of the procedures to be applied, the location and the procedure for conducting the alternative, the concentration or response levels of the alternative relative accuracy materials, and the other equipment checks included in the alternative procedure(s). The Administrator will review the petition for completeness and applicability. The Administrator's determination to approve an alternative will

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depend on the intended use of the CEMS data and may require specifications more stringent than in Performance Specification 2.

(iii) *Rescission of approval to use alternative to relative accuracy test.* The Administrator will review the permission to use an alternative to the CEMS relative accuracy test and may rescind such permission if the CEMS data from a successful completion of the alternative relative accuracy procedure indicate that the affected source's emissions are approaching the level of the relevant standard. The criterion for reviewing the permission is that the collection of CEMS data shows that emissions have exceeded 70 percent of the relevant standard for any averaging period, as specified in the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the criterion for reviewing the permission is that the collection of CEMS data shows that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for any averaging period, as specified in the relevant standard. The owner or operator of the affected source shall maintain records and determine the level of emissions relative to the criterion for permission to use an alternative for relative accuracy testing. If this criterion is exceeded, the owner or operator shall notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increased emissions. The Administrator will review the notification and may rescind permission to use an alternative and require the owner or operator to conduct a relative accuracy test of the CEMS as specified in section 7 of Performance Specification 2.

(g) *Reduction of monitoring data. Only applies if you use CEMS*

(1) The owner or operator of each CMS must reduce the monitoring data as specified in paragraphs (g)(1) through (5) of this section.

(2) The owner or operator of each COMS shall reduce all data to 6-minute averages calculated from 36 or more data points equally spaced over each 6-minute period. Data from CEMS for measurement other than opacity, unless otherwise specified in the relevant standard, shall be reduced to 1-hour averages computed from four or more data points equally spaced over each 1-hour period, except during periods when calibration, quality assurance, or maintenance activities pursuant to provisions of this part are being performed. During these periods, a valid hourly average shall consist of at least two data points with each representing a 15-minute period. Alternatively, an arithmetic or integrated 1-hour average of CEMS data may be used. Time periods for averaging are defined in § 63.2.

(3) The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O<sub>2</sub> or ng/J of pollutant).

(4) All emission data shall be converted into units of the relevant standard for reporting purposes using the conversion procedures specified in that standard. After conversion into units of the relevant standard, the data may be rounded to the same number of significant digits as used in that standard to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).

(5) Monitoring data recorded during periods of unavoidable CMS breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level adjustments must not be included in any data average computed under this part. For the owner or operator complying with the requirements of § 63.10(b)(2)(vii)(A) or (B), data averages must include any data recorded during periods of monitor breakdown or malfunction.

**§ 63.9 Notification requirements.**

(a) *Applicability and general information.*

(1) The applicability of this section is set out in § 63.1(a)(4).

(2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.

(3) If any State requires a notice that contains all the information required in a notification listed in this section, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of this section for that notification.

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(4) (i) Before a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in § 63.13).

(ii) After a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each notification submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any notifications at its discretion.

(b) *Initial notifications.*

(1) (i) The requirements of this paragraph apply to the owner or operator of an affected source when such source becomes subject to a relevant standard.

(ii) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source that is subject to the emission standard or other requirement, such source shall be subject to the notification requirements of this section.

(iii) Affected sources that are required under this paragraph to submit an initial notification may use the application for approval of construction or reconstruction under § 63.5(d) of this subpart, if relevant, to fulfill the initial notification requirements of this paragraph.

(2) **Except Sec 63.3400(b)(1) requires submittal of initial notification for existing affected sources no later than 1 year before compliance date.** The owner or operator of an affected source that has an initial startup before the effective date of a relevant standard under this part shall notify the Administrator in writing that the source is subject to the relevant standard. The notification, which shall be submitted not later than 120 calendar days after the effective date of the relevant standard (or within 120 calendar days after the source becomes subject to the relevant standard), shall provide the following information:

(i) The name and address of the owner or operator;

(ii) The address (i.e., physical location) of the affected source;

(iii) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date;

(iv) A brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted; and

(v) A statement of whether the affected source is a major source or an area source.

(3) [Reserved]

(4) The owner or operator of a new or reconstructed major affected source for which an application for approval of construction or reconstruction is required under § 63.5(d) must provide the following information in writing to the Administrator:

(i) A notification of intention to construct a new major-emitting affected source, reconstruct a major-emitting affected source, or reconstruct a major source such that the source becomes a major-emitting affected source with the application for approval of construction or reconstruction as specified in § 63.5(d)(1)(i); and

(ii) [Reserved]

(iii) [Reserved]

(iv) [Reserved]; and

(v) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

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(5) The owner or operator of a new or reconstructed affected source for which an application for approval of construction or reconstruction is not required under § 63.5(d) must provide the following information in writing to the Administrator:

(i) A notification of intention to construct a new affected source, reconstruct an affected source, or reconstruct a source such that the source becomes an affected source, and

(ii) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

(iii) Unless the owner or operator has requested and received prior permission from the Administrator to submit less than the information in § 63.5(d), the notification must include the information required on the application for approval of construction or reconstruction as specified in § 63.5(d)(1)(i).

(c) *Request for extension of compliance.* If the owner or operator of an affected source cannot comply with a relevant standard by the applicable compliance date for that source, or if the owner or operator has installed BACT or technology to meet LAER consistent with § 63.6(i)(5) of this subpart, he/she may submit to the Administrator (or the State with an approved permit program) a request for an extension of compliance as specified in § 63.6(i)(4) through § 63.6(i)(6).

(d) *Notification that source is subject to special compliance requirements.* An owner or operator of a new source that is subject to special compliance requirements as specified in § 63.6(b)(3) and § 63.6(b)(4) shall notify the Administrator of his/her compliance obligations not later than the notification dates established in paragraph (b) of this section for new sources that are not subject to the special provisions.

(e) *Notification of performance test.* The owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin to allow the Administrator to review and approve the site-specific test plan required under § 63.7(c), if requested by the Administrator, and to have an observer present during the test.

(f) *Notification of opacity and visible emission observations.* **Subpart JJJJ does not require opacity and visible emissions observations.**

(g) *Additional notification requirements for sources with continuous monitoring systems.* **Provisions for COMS are not applicable.** The owner or operator of an affected source required to use a CMS by a relevant standard shall furnish the Administrator written notification as follows:

(1) A notification of the date the CMS performance evaluation under § 63.8(e) is scheduled to begin, submitted simultaneously with the notification of the performance test date required under § 63.7(b). If no performance test is required, or if the requirement to conduct a performance test has been waived for an affected source under § 63.7(h), the owner or operator shall notify the Administrator in writing of the date of the performance evaluation at least 60 calendar days before the evaluation is scheduled to begin;

(2) A notification that COMS data results will be used to determine compliance with the applicable opacity emission standard during a performance test required by § 63.7 in lieu of Method 9 or other opacity emissions test method data, as allowed by § 63.6(h)(7)(ii), if compliance with an opacity emission standard is required for the source by a relevant standard. The notification shall be submitted at least 60 calendar days before the performance test is scheduled to begin; and

(3) A notification that the criterion necessary to continue use of an alternative to relative accuracy testing, as provided by § 63.8(f)(6), has been exceeded. The notification shall be delivered or postmarked not later than 10 days after the occurrence of such exceedance, and it shall include a description of the nature and cause of the increased emissions.

(h) *Notification of compliance status.*

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(1) The requirements of paragraphs (h)(2) through (h)(4) of this section apply when an affected source becomes subject to a relevant standard.

(2) (i) Before a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit to the Administrator a notification of compliance status, signed by the responsible official who shall certify its accuracy, attesting to whether the source has complied with the relevant standard. The notification shall list -

(A) The methods that were used to determine compliance;

(B) The results of any performance tests, opacity or visible emission observations, continuous monitoring system (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted;

(C) The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods;

(D) The type and quantity of hazardous air pollutants emitted by the source (or surrogate pollutants if specified in the relevant standard), reported in units and averaging times and in accordance with the test methods specified in the relevant standard;

(E) If the relevant standard applies to both major and area sources, an analysis demonstrating whether the affected source is a major source (using the emissions data generated for this notification);

(F) A description of the air pollution control equipment (or method) for each emission point, including each control device (or method) for each hazardous air pollutant and the control efficiency (percent) for each control device (or method); and

(G) A statement by the owner or operator of the affected existing, new, or reconstructed source as to whether the source has complied with the relevant standard or other requirements.

(ii) The notification must be sent before the close of business on the 60<sup>th</sup> day following the completion of the relevant compliance demonstration activity specified in the relevant standard (unless a different reporting period is specified in the standard, in which case the letter must be sent before the close of business on the day the report of the relevant testing or monitoring results is required to be delivered or postmarked). For example, the notification shall be sent before close of business on the 60<sup>th</sup> (or other required) day following completion of the initial performance test and again before the close of business on the 60<sup>th</sup> (or other required) day following the completion of any subsequent required performance test. If no performance test is required but opacity or visible emission observations are required to demonstrate compliance with an opacity or visible emission standard under this part, the notification of compliance status shall be sent before close of business on the 30<sup>th</sup> day following the completion of opacity or visible emission observations. Notifications may be combined as long as the due date requirement for each notification is met.

(3) After a title V permit has been issued to the owner or operator of an affected source, the owner or operator of such source shall comply with all requirements for compliance status reports contained in the source's title V permit, including reports required under this part. After a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit the notification of compliance status to the appropriate permitting authority following completion of the relevant compliance demonstration activity specified in the relevant standard.

(4) [Reserved]

(5) If an owner or operator of an affected source submits estimates or preliminary information in the application for approval of construction or reconstruction required in § 63.5(d) in place of the actual emissions data or control efficiencies required in paragraphs (d)(1)(ii)(H) and (d)(2) of § 63.5, the owner or operator shall submit the actual emissions data and other correct information as soon as available but no later than with the initial notification of compliance status required in this section.

(6) Advice on a notification of compliance status may be obtained from the Administrator.

*(i) Adjustment to time periods or postmark deadlines for submittal and review of required*

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*communications.*

(1) (i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (i)(2) and (i)(3) of this section, the owner or operator of an affected source remains strictly subject to the requirements of this part.

(ii) An owner or operator shall request the adjustment provided for in paragraphs (i)(2) and (i)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.

(2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

(3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.

(4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

(j) *Change in information already provided.* Any change in the information already provided under this section shall be provided to the Administrator in writing within 15 calendar days after the change.

**§ 63.10 Recordkeeping and reporting requirements.**

(a) *Applicability and general information.*

(1) The applicability of this section is set out in § 63.1(a)(4).

(2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.

(3) If any State requires a report that contains all the information required in a report listed in this section, an owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of this section for that report.

(4) (i) Before a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in § 63.13).

(ii) After a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each report submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any reports at its discretion.

(5) If an owner or operator of an affected source in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such source under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. For each relevant standard established pursuant to section 112 of the Act, the allowance in the previous sentence applies in each

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State beginning 1 year after the affected source's compliance date for that standard. Procedures governing the implementation of this provision are specified in § 63.9(i).

(6) If an owner or operator supervises one or more stationary sources affected by more than one standard established pursuant to section 112 of the Act, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required for each source shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the latest compliance date for any relevant standard established pursuant to section 112 of the Act for any such affected source(s). Procedures governing the implementation of this provision are specified in § 63.9(i).

(7) If an owner or operator supervises one or more stationary sources affected by standards established pursuant to section 112 of the Act (as amended November 15, 1990) and standards set under part 60, part 61, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required by each relevant (i.e., applicable) standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the relevant section 112 standard, or 1 year after the stationary source is required to be in compliance with the applicable part 60 or part 61 standard, whichever is latest. Procedures governing the implementation of this provision are specified in § 63.9(i).

**(b) General recordkeeping requirements. Sec. 63.10(b)(2)(i) through (v) only apply if you use a capture and control system.**

(1) The owner or operator of an affected source subject to the provisions of this part shall maintain files of all information (including all reports and notifications) required by this part recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

(2) The owner or operator of an affected source subject to the provisions of this part shall maintain relevant records for such source of -

(i) The occurrence and duration of each startup or shutdown when the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards;

(ii) The occurrence and duration of each malfunction of operation (i.e., process equipment) or the required air pollution control and monitoring equipment;

(iii) All required maintenance performed on the air pollution control and monitoring equipment;

(iv) (A) Actions taken during periods of startup or shutdown when the source exceeded applicable emission limitations in a relevant standard and when the actions taken are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see Sec. 63.6(e)(3)); or

(B) Actions taken during periods of malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when the actions taken are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see Sec. 63.6(e)(3));

(v) All information necessary, including actions taken, to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan (see Sec. 63.6(e)(3)) when all actions taken during periods of startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are

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consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a "checklist," or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events);

(vi) Each period during which a CMS is malfunctioning or inoperative (including out-of-control periods);

(vii) All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report);

(A) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of subhourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.

(B) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii) of this sections, the owner or operator shall retain all subhourly measurements for the most recent reporting period. The subhourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.

(C) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (b)(2)(vii), if the administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.

(viii) All results of performance tests, CMS performance evaluations, and opacity and visible emission observations;

(ix) All measurements as may be necessary to determine the conditions of performance tests and performance evaluations;

(x) All CMS calibration checks;

(xi) All adjustments and maintenance performed on CMS;

(xii) Any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements under this part, if the source has been granted a waiver under paragraph (f) of this section;

(xiii) All emission levels relative to the criterion for obtaining permission to use an alternative to the relative accuracy test, if the source has been granted such permission under § 63.8(f)(6); and

(xiv) All documentation supporting initial notifications and notifications of compliance status under § 63.9.

(3) *Recordkeeping requirement for applicability determinations.* If an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to section 112(d) or (f), and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under this part) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the Administrator to make a finding about the source's applicability status

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with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of this part for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with EPA guidance materials published to assist sources in making applicability determinations under section 112, if any. The requirements to determine applicability of a standard under § 63.1(b)(3) and to record the results of that determination under paragraph (b)(3) of this section shall not by themselves create an obligation for the owner or operator to obtain a title V permit.

(c) *Additional recordkeeping requirements for sources with continuous monitoring systems.* In addition to complying with the requirements specified in paragraphs (b)(1) and (b)(2) of this section, the owner or operator of an affected source required to install a CMS by a relevant standard shall maintain records for such source of -

(1) All required CMS measurements (including monitoring data recorded during unavoidable CMS breakdowns and out-of-control periods);

(2)–(4) [Reserved]

(5) The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks;

(6) The date and time identifying each period during which the CMS was out of control, as defined in § 63.8(c)(7);

(7) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during startups, shutdowns, and malfunctions of the affected source;

(8) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;

(9) [Reserved]

(10) The nature and cause of any malfunction (if known);

(11) The corrective action taken or preventive measures adopted;

(12) The nature of the repairs or adjustments to the CMS that was inoperative or out of control;

(13) The total process operating time during the reporting period; and

(14) All procedures that are part of a quality control program developed and implemented for CMS under § 63.8(d).

(15) In order to satisfy the requirements of paragraphs (c)(10) through (c)(12) of this section and to avoid duplicative recordkeeping efforts, the owner or operator may use the affected source's startup, shutdown, and malfunction plan or records kept to satisfy the recordkeeping requirements of the startup, shutdown, and malfunction plan specified in § 63.6(e), provided that such plan and records adequately address the requirements of paragraphs (c)(10) through (c)(12).

(d) *General reporting requirements.*

(1) Notwithstanding the requirements in this paragraph or paragraph (e) of this section, the owner or operator of an affected source subject to reporting requirements under this part shall submit reports to the Administrator in accordance with the reporting requirements in the relevant standard(s).

(2) *Reporting results of performance tests.* Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of any performance test under § 63.7 to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of a required performance test to the appropriate permitting authority. The owner or operator of an affected source shall report the results of the performance test to the Administrator (or the State with an approved permit program) before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator. The results of the performance test shall be submitted as part of the notification of compliance status required under § 63.9(h).

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(3) *Reporting results of opacity or visible emission observations.* **Subpart JJJJ does not require opacity and visible emissions observations.**

(4) *Progress reports.* The owner or operator of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under § 63.6(i) shall submit such reports to the Administrator (or the State with an approved permit program) by the dates specified in the written extension of compliance.

(5) (i) Periodic startup, shutdown, and malfunction reports. If actions taken by an owner or operator during a startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan (see Sec. 63.6(e)(3)), the owner or operator shall state such information in a startup, shutdown, and malfunction report. Actions taken to minimize emissions during such startups, shutdowns, and malfunctions shall be summarized in the report and may be done in checklist form; if actions taken are the same for each event, only one checklist is necessary. Such a report shall also include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. Reports shall only be required if a startup or shutdown caused the source to exceed any applicable emission limitation in the relevant emission standards, or if a malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, that shall be submitted to the Administrator semiannually (or on a more frequent basis if specified otherwise in a relevant standard or as established otherwise by the permitting authority in the source's title V permit). The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half (or other calendar reporting period, as appropriate). If the owner or operator is required to submit excess emissions and continuous monitoring system performance (or other periodic) reports under this part, the startup, shutdown, and malfunction reports required under this paragraph may be submitted simultaneously with the excess emissions and continuous monitoring system performance (or other) reports. If startup, shutdown, and malfunction reports are submitted with excess emissions and continuous monitoring system performance (or other periodic) reports, and the owner or operator receives approval to reduce the frequency of reporting for the latter under paragraph (e) of this section, the frequency of reporting for the startup, shutdown, and malfunction reports also may be reduced if the Administrator does not object to the intended change. The procedures to implement the allowance in the preceding sentence shall be the same as the procedures specified in paragraph (e)(3) of this section.

(ii) Immediate startup, shutdown, and malfunction reports. Notwithstanding the allowance to reduce the frequency of reporting for periodic startup, shutdown, and malfunction reports under paragraph (d)(5)(i) of this section, any time an action taken by an owner or operator during a startup or shutdown that caused the source to exceed any applicable emission limitation in the relevant emission standards, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report required under this paragraph (d)(5)(ii) shall consist of a telephone call (or facsimile (FAX) transmission) to the Administrator within 2 working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, describing all excess emissions and/or parameter monitoring exceedances which are believed to have occurred (or could have occurred in the case of malfunctions), and actions taken to minimize emissions in conformance with Sec. 63.6(e)(1)(i). Notwithstanding the requirements of the previous sentence, after the effective date of an approved permit program in the State in which an affected source is located, the owner or operator may make alternative reporting arrangements, in advance, with the permitting authority in that State. Procedures governing the arrangement of alternative reporting requirements under this paragraph (d)(5)(ii) are specified in Sec. 63.9(i).

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(e) *Additional reporting requirements for sources with continuous monitoring systems -*

(1) *General.* When more than one CEMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CEMS.

**Provisions for COMS are not applicable.**

(2) Reporting results of continuous monitoring system performance evaluations. **Provisions for COMS are not applicable**

(i) The owner or operator of an affected source required to install a CMS by a relevant standard shall furnish the Administrator a copy of a written report of the results of the CMS performance evaluation, as required under § 63.8(e), simultaneously with the results of the performance test required under § 63.7, unless otherwise specified in the relevant standard.

(ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under § 63.7 and described in § 63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation conducted under § 63.8(e). The copies shall be furnished at least 15 calendar days before the performance test required under § 63.7 is conducted.

(3) *Excess emissions and continuous monitoring system performance report and summary report.*

**[Reserved]**

(4) **[Reserved]**

(f) *Waiver of recordkeeping or reporting requirements.*

(1) Until a waiver of a recordkeeping or reporting requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) Recordkeeping or reporting requirements may be waived upon written application to the Administrator if, in the Administrator's judgment, the affected source is achieving the relevant standard(s), or the source is operating under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) If an application for a waiver of record-keeping or reporting is made, the application shall accompany the request for an extension of compliance under § 63.6(i), any required compliance progress report or compliance status report required under this part (such as under § 63.6(i) and § 63.9(h)) or in the source's title V permit, or an excess emissions and continuous monitoring system performance report required under paragraph (e) of this section, whichever is applicable. The application shall include whatever information the owner or operator considers useful to convince the Administrator that a waiver of recordkeeping or reporting is warranted.

(4) The Administrator will approve or deny a request for a waiver of recordkeeping or reporting requirements under this paragraph when he/she -

(i) Approves or denies an extension of compliance; or

(ii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or

(iii) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) A waiver of any recordkeeping or reporting requirement granted under this paragraph may be conditioned on other recordkeeping or reporting requirements deemed necessary by the Administrator.

(6) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

**§ 63.11 Control device requirements.**

**[Reserved]**

**§ 63.12 State authority and delegations.**

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(a) The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from -

(1) Adopting and enforcing any standard, limitation, prohibition, or other regulation applicable to an affected source subject to the requirements of this part, provided that such standard, limitation, prohibition, or regulation is not less stringent than any requirement applicable to such source established under this part;

(2) Requiring the owner or operator of an affected source to obtain permits, licenses, or approvals prior to initiating construction, reconstruction, modification, or operation of such source; or

(3) Requiring emission reductions in excess of those specified in subpart D of this part as a condition for granting the extension of compliance authorized by section 112(i)(5) of the Act.

(b) (1) Section 112(l) of the Act directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards and other requirements pursuant to section 112 for stationary sources located in that State. Because of the unique nature of radioactive material, delegation of authority to implement and enforce standards that control radionuclides may require separate approval.

(2) Subpart E of this part establishes procedures consistent with section 112(l) for the approval of State rules or programs to implement and enforce applicable Federal rules promulgated under the authority of section 112. Subpart E also establishes procedures for the review and withdrawal of section 112 implementation and enforcement authorities granted through a section 112(l) approval.

(c) All information required to be submitted to the EPA under this part also shall be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(l) of the Act, provided that each specific delegation may exempt sources from a certain Federal or State reporting requirement. The Administrator may permit all or some of the information to be submitted to the appropriate State agency only, instead of to the EPA and the State agency.

**§ 63.13 Addresses of State air pollution control agencies and EPA Regional Offices.**

(a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted to the appropriate Regional Office of the U.S. Environmental Protection Agency indicated as follows:

EPA Region IV; Director; Air, Pesticides and Toxics, Management Division; Atlanta Federal Center, 61 Forsyth Street; Atlanta, GA 30303.

(b) All information required to be submitted to the Administrator under this part also shall be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(l) of the Act. The owner or operator of an affected source may contact the appropriate EPA Regional Office for the mailing addresses for those States whose delegation requests have been approved.

(c) If any State requires a submittal that contains all the information required in an application, notification, request, report, statement, or other communication required in this part, an owner or operator may send the appropriate Regional Office of the EPA a copy of that submittal to satisfy the requirements of this part for that communication.

**§ 63.14 Incorporations by reference.**

**Subpart JJJJ includes provisions for alternative ASME test methods that are incorporated by reference.**

(a) The materials listed in this section are incorporated by reference in the corresponding sections noted. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and notice of any change in these materials will be published in the Federal Register. The materials are available for purchase at

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the corresponding addresses noted below, and all are available for inspection at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC, at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M St., SW., Washington, DC, and at the EPA Library (MD-35), U.S. EPA, Research Triangle Park, North Carolina.

(b) The following materials are available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428-2959; or ProQuest, 300 North Zeeb Road, Ann Arbor, MI 48106.

(1) ASTM D523-89, Standard Test Method for Specular Gloss, IBR approved for § 63.782.

(2) ASTM D1193-77, 91, Standard Specification for Reagent Water, IBR approved for Appendix A: Method 306, Sections 7.1.1 and 7.4.2.

(3) ASTM D1331-89, Standard Test Methods for Surface and Interfacial Tension of Solutions of Surface Active Agents, IBR approved for Appendix A: Method 306B, Sections 6.2, 11.1, and 12.2.2.

(4) ASTM D1475-90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for § 63.788, Appendix A.

(5) ASTM D1946-77, 90, 94, Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for § 63.11(b)(6).

(6) ASTM D2369-93, 95, Standard Test Method for Volatile Content of Coatings, IBR approved for § 63.788, Appendix A.

(7) ASTM D2382-76, 88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for § 63.11(b)(6).

(8) ASTM D2879-83, 96, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for § 63.111 of Subpart G.

(9) ASTM D3257-93, Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography, IBR approved for § 63.786(b).

(10) ASTM 3695-88, Standard Test Method for Volatile Alcohols in Water by Direct Aqueous-Injection Gas Chromatography, IBR approved for § 63.365(e)(1) of Subpart O.

(11) ASTM D3792-91, Standard Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for § 63.788, Appendix A.

(12) ASTM D3912-80, Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(13) ASTM D4017-90, 96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for § 63.788, Appendix A.

(14) ASTM D4082-89, Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(15) ASTM D4256-89, 94, Standard Test Method for Determination of the Decontaminability of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(16) ASTM D4809-95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for § 63.11(b)(6).

(17) ASTM E180-93, Standard Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial Chemicals, IBR approved for § 63.786(b).

(18) ASTM E260-91, 96, General Practice for Packed Column Gas Chromatography, IBR approved for §§ 63.750(b)(2) and 63.786(b)(5).

(19) Reserved

(20) Reserved

(21) ASTM D2099-00, Standard Test Method for Dynamic Water Resistance of Shoe Upper Leather by the Maeser Water Penetration Tester, IBR approved for § 63.5350.

(24) ASTM D2697-86(1998) (Reapproved 1998), Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings, IBR approved for §§63.4141(b)(1), 63.4741(b)(1), 63.4941(b)(1), and 63.5160(c).

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(25) ASTM D6093-97, Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer, IBR approved for §§63.4141(b)(1), 63.4741(b)(1), 63.4941(b)(1), and 63.5160(c).

(26) ASTM D1475-98, Standard Test Method for Density of Liquid Coatings, Inks, and Related Products, IBR approved for §§ 63.4141(b)(3) and 63.4141(c).

(27) ASTM D 6522-00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide and Oxygen concentrations in Emissions from Natural Gas Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process heaters Using Portable Analyzers, IBR approved for Sec. 63.9307(c)(2).

(28) [Reserved]

(29) ASTM D6420-99, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, IBR approved for §§ 63.5799 and 63.5850.

(c) The materials listed below are available for purchase from the American Petroleum Institute (API), 1220 L Street, NW., Washington, DC 20005.

(1) API Publication 2517, Evaporative Loss from External Floating-Roof Tanks, Third Edition, February 1989, IBR approved for § 63.111 of subpart G of this part.

(2) API Publication 2518, Evaporative Loss from Fixed-roof Tanks, Second Edition, October 1991, IBR approved for § 63.150(g)(3)(i)(C) of subpart G of this part.

(3) API Manual of Petroleum Measurement Specifications (MPMS) Chapter 19.2, Evaporative Loss From Floating-Roof Tanks (formerly API Publications 2517 and 2519), First Edition, April 1997, IBR approved for § 63.1251 of subpart GGG of this part.

(d) *State and Local Requirements.* The materials listed below are available at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M St., SW., Washington, DC.

(1) *California Regulatory Requirements Applicable to the Air Toxics Program*, January 5, 1999, IBR approved for § 63.99(a)(5)(ii) of subpart E of this part.

(2) *New Jersey's Toxic Catastrophe Prevention Act Program*, (July 20, 1998), Incorporation By Reference approved for § 63.99 (a)(30)(i) of subpart E of this part.

(3) (i) Letter of June 7, 1999 to the U.S. Environmental Protection Agency Region 3 from the Delaware Department of Natural Resources and Environmental Control requesting formal full delegation to take over primary responsibility for implementation and enforcement of the Chemical Accident Prevention Program under Section 112(r) of the Clean Air Act Amendments of 1990.

(ii) Delaware Department of Natural Resources and Environmental Control, Division of Air and Waste Management, Accidental Release Prevention Regulation, sections 1 through 5 and sections 7 through 14, effective January 11, 1999, IBR approved for § 63.99(a)(8)(i) of subpart E of this part.

(iii) State of Delaware Regulations Governing the Control of Air Pollution (October 2000), IBR approved for § 63.99(a)(8)(ii)-(v) of subpart E of this part.

(e) The materials listed below are available for purchase from the National Institute of Standards and Technology, Springfield, VA 22161, (800) 553-6847.

(1) Handbook 44, Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices 1998, IBR approved for § 63.1303(e)(3).

(2) [Reserved]

(f) The following material is available from the National Council of the Paper Industry for Air and Stream Improvement, Inc. (NCASI), P. O. Box 133318, Research Triangle Park, NC 27709-3318 or at <http://www.ncasi.org>: NCASI Method DI/MEOH-94.02, Methanol in Process Liquids GC/FID (Gas Chromatography/Flame Ionization Detection), August 1998, Methods Manual, NCASI, Research Triangle Park, NC, IBR approved for § 63.457(c)(3)(ii) of subpart S of this part.

(g) The materials listed below are available for purchase from AOAC International, Customer Services, Suite 400, 2200 Wilson Boulevard, Arlington, Virginia, 22201-3301, Telephone (703) 522-3032, Fax (703) 522-5468.

**ATTACHMENT D**

**40 CFR 63, SUBPART JJJJ**

(1) AOAC Official Method 978.01 Phosphorus (Total) in Fertilizers, Automated Method, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(2) AOAC Official Method 969.02 Phosphorus (Total) in Fertilizers, Alkalimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(3) AOAC Official Method 962.02 Phosphorus (Total) in Fertilizers, Gravimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(4) AOAC Official Method 957.02 Phosphorus (Total) in Fertilizers, Preparation of Sample Solution, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(5) AOAC Official Method 929.01 Sampling of Solid Fertilizers, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(6) AOAC Official Method 929.02 Preparation of Fertilizer Sample, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(7) AOAC Official Method 958.01 Phosphorus (Total) in Fertilizers, Spectrophotometric Molybdovanadophosphate Method, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(h) The materials listed below are available for purchase from The Association of Florida Phosphate Chemists, P.O. Box 1645, Bartow, Florida, 33830, Book of Methods Used and Adopted By The Association of Florida Phosphate Chemists, Seventh Edition 1991, IBR.

(1) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample, IBR approved for § 63.606(c)(3)(ii) and § 63.626(c)(3)(ii).

(2) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus -- P<sub>2</sub>O<sub>5</sub> or Ca<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub>, Method A-Volumetric Method, IBR approved for § 63.606(c)(3)(ii) and § 63.626(c)(3)(ii).

(3) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P<sub>2</sub>O<sub>5</sub> or Ca<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub>, Method B -- Gravimetric Quimociac Method, IBR approved for § 63.606(c)(3)(ii) and § 63.626(c)(3)(ii).

(4) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P<sub>2</sub>O<sub>5</sub> or Ca<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub>, Method C -- Spectrophotometric Method, IBR approved for § 63.606(c)(3)(ii) and § 63.626(c)(3)(ii).

(5) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P<sub>2</sub>O<sub>5</sub>, Method A -- Volumetric Method, IBR approved for § 63.606(c)(3)(ii), § 63.626(c)(3)(ii), and § 63.626(d)(3)(v).

(6) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P<sub>2</sub>O<sub>5</sub>, Method B -- Gravimetric Quimociac Method, IBR approved for § 63.606(c)(3)(ii), § 63.626(c)(3)(ii), and § 63.626(d)(3)(v).

(7) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P<sub>2</sub>O<sub>5</sub>, Method C -- Spectrophotometric Method, IBR approved for § 63.606(c)(3)(ii), § 63.626(c)(3)(ii), and § 63.626(d)(3)(v).

(i) The following materials are available for purchase from at least one of the following addresses: ASME International, Orders/Inquiries, P.O. Box 2900, Fairfield, NJ 07007-2900; or Global Engineering Documents, Sales Department, 15 Inverness Way East, Englewood, CO 80112.

(1) ASME standard number QHO-1-1994, "Standard for the Qualification and Certification of Hazardous Waste Incinerator Operators," IBR approved for Sec. 63.1206(c)(6)(iii).

(2) ASME standard number QHO-1a-1996 Addenda to QHO-1-1994, "Standard for the Qualification and Certification of Hazardous Waste Incinerator Operators," IBR approved for Sec. 63.1206(c)(6)(iii).

(3) ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]," IBR approved for Sec. Sec. 63.865(b), 63.3360(e)(1)(iii), 63.4166(a)(3), 63.4362(a)(3), 63.4766(a)(3), 63.4965(a)(3), 63.5160(d)(1)(iii), 63.9307(c)(2), and 63.9323(a)(3).

(j) [Reserved]

(k) The following material may be obtained from U.S. EPA, Office of Solid Waste (5305W), 1200 Pennsylvania Avenue, NW., Washington, DC 20460:

40 CFR 63, SUBPART JJJJ

(1) Method 9071B, "n-Hexane Extractable Material (HEM) for Sludge, Sediment, and Solid Samples," (Revision 2, April 1998) as published in EPA Publication SW-846: "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods." The incorporation by reference of Method 9071B is approved for Section 63.7824(e) of Subpart JJJJJ of this part.

**§ 63.15 Availability of information and confidentiality.**

*(a) Availability of information.*

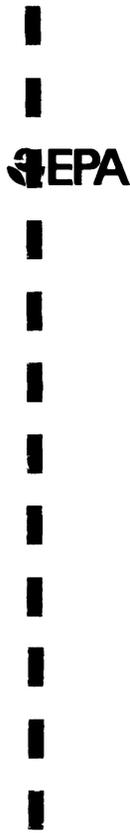
(1) With the exception of information protected through part 2 of this chapter, all reports, records, and other information collected by the Administrator under this part are available to the public. In addition, a copy of each permit application, compliance plan (including the schedule of compliance), notification of compliance status, excess emissions and continuous monitoring systems performance report, and title V permit is available to the public, consistent with protections recognized in section 503(e) of the Act.

(2) The availability to the public of information provided to or otherwise obtained by the Administrator under this part shall be governed by part 2 of this chapter.

*(b) Confidentiality.*

(1) If an owner or operator is required to submit information entitled to protection from disclosure under section 114(c) of the Act, the owner or operator may submit such information separately. The requirements of section 114(c) shall apply to such information.

(2) The contents of a title V permit shall not be entitled to protection under section 114(c) of the Act; however, information submitted as part of an application for a title V permit may be entitled to protection from disclosure.



United States  
Environmental Protection  
Agency

Office of Air Quality  
Planning and Standards  
Research Triangle Park NC 27711

EPA-450/2-78-041  
OAQPS No. 1.2-115  
October 1978

Air

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## Guideline Series

# Measurement of Volatile Organic Compounds

**EPA-450/2-78-041**  
**OAQPS No. 1.2-115**

**Measurement of Volatile  
Organic Compounds**

Emissions Measurement Branch  
Emission Standards and Engineering Division

U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Air, Noise, and Radiation  
Office of Air Quality Planning and Standards  
Research Triangle Park, North Carolina 27711

October 1978

ATTACHMENT- EPA-450/2-78-041  
MEASUREMENTS OF VOLATILE ORGANIC COMPOUNDS

OAQPS GUIDELINE SERIES

The guideline series of reports is being issued by the Office of Air Quality Planning and Standards (OAQPS) to provide information to state and local air pollution control agencies; for example, to provide guidance on the acquisition and processing of air quality data and on the planning and analysis requisite for the maintenance of air quality. Reports published in this series will be available - as supplies permit - from the Library Services Office (MD35), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; or, for a nominal fee, from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161.

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MEASUREMENTS OF VOLATILE ORGANIC COMPOUNDS

PREFACE

Emphasis on the control of volatile organic compounds through the State Implementation Plans, new source performance standards, and national emission standards for hazardous air pollutants has created a need for standardized test procedures. In setting national performance standards for new sources and national emission standards for hazardous air pollutants, the Environmental Protection Agency has followed a policy of establishing a reference method for each regulated source category and pollutant. Under the State Implementation Plan process, however, test methods and procedures are defined by the States. Thus, the case-by-case approach used by the Environmental Protection Agency for national standards could conflict with State established methods. In addition, the case-by-case approach does not provide sufficient guidance to the States in their efforts to develop regulations for a large number of sources and organic compounds.

The purpose of this document, therefore, is to provide guidance to the States on the measurement of volatile organic compounds from a diversity of sources and pollutants that is consistent with the methodology being applied by the Environmental Protection Agency as it develops regulations for specific sources and pollutants.

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METHODS FOR DETERMINING VOLATILE ORGANIC COMPOUNDS  
AS CARBON IN STATIONARY SOURCES

Introduction

Volatile organic compound (VOC) emission control regulations are being developed by EPA and by State and local agencies to meet the oxidant control needs. In some cases, the regulations are in terms of the volatile organic content of solvents. In other cases, they cover organic volume or mass concentrations, mass emission rates, and control equipment efficiencies. Regardless of the approach taken in the regulation, consideration must be given to the expression of emission limits in terms of what can be measured, and to the cost and practicality of the test methods.

One concept of volatile organic emission measurement is the determination of organic carbon mass concentration. The rationale for selecting this concept and conceptual approach for writing regulations in terms of volatile organic carbon are discussed herein, and two specific test methods are presented to implement the recommended approach.

Rationale for Selecting Organic Carbon

In considering volatile organic compound test methods one must recognize that organic emissions normally consist of a mixture of compounds and that there is presently no detection technique having an inherent, quantitative response to the total molecular structure of the mixture. Several detection techniques respond to organic compounds; however, the response can vary widely from compound to compound and may, therefore, not be proportional to the total organic mass or volume in a mixture.

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Such is the case of the flame ionization detector (FID), the most commonly used detector for organic measurements. The FID response can vary from compound to compound because it is a function of the number of carbon atoms, the type of bonds, and the elements present in the organic molecules. Thus, if the volatile organic emission limit is expressed in terms that require the measurement of the total molecular structure of the organic emissions, the variable response of the flame ionization detector must be overcome by one of the methods described below.

1. Gas Chromatograph/Flame Ionization Detector. This method involves the separation of the organic components into discrete compounds using gas chromatography (GC). The compounds are identified, and the FID is calibrated for each of the identified compounds. The compounds are then measured individually, and the total mass concentration is determined by adding the individual mass concentration values; methane can be identified and excluded from the results. This method may be practical where only two or three compounds are emitted, such as in maleic anhydride plants; but if it is applied to sources that emit numerous organics, the time and expense would be formidable. For example, over 20 peaks were noted in a preliminary study of emissions from the manufacture of nitrobenzene.
2. Direct Flame Ionization Detector with Emission Stream Characterization. This method involves direct measurement with an FID analyzer,

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with prior characterization of the gas stream and knowledge that the detector responds predictably to the organic components in the stream. If present, methane will, of course, also be measured.

In practice, this method can be applied to the determination of the mass concentration of the total molecular structure of the organic emissions under the following limited conditions: (1) where only one compound is known to exist, (2) when the organic compounds consist of only hydrogen and carbon, (3) where the relative percentage of the compounds is known or can be determined, and the FID response to the compounds is known; (4) where a consistent mixture of compounds exists before and after emission control and only the relative concentrations are to be assessed, or (5) where the FID can be calibrated against mass standards of the emissions (solvent emissions, for example).

In the case of volatile organic solvents, accurate measurements by direct FID analyzers without calibration with solvent standards are seldom possible because these solvents are often a mixture of multiple unknown compounds. Even if the emissions can be separated and identified using a GC, accurate determination of the average FID response is often impractical. In addition, the emissions may be altered as they pass through a control device: for example, they may be partially oxidized in an incinerator or selectively retained in an adsorber. In such cases the measurement is more difficult and cannot be corrected with

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solvent standards; therefore even the determination of percent control efficiency can be a difficult problem.

Another applicable measurement technique involves an oxidation-reduction analysis; however, the results of this technique are in terms of organic carbon and not a mass concentration of the total molecular structure. In this approach, the nonmethane organic compounds are separated from other carbon compounds and are then oxidized to CO<sub>2</sub>. The resultant CO<sub>2</sub> is subsequently reduced to methane, which is then measured with an FID. The CO<sub>2</sub> from the combustion step can also be measured with a nondispersive infrared (NDIR) analyzer; however, the NDIR is not as sensitive as the FID and is therefore limited to high concentration levels. One limitation to the oxidation-reduction analysis is that the equipment required is somewhat complex and is unlikely to be made available in a portable form.

Consideration of the various measurement approaches indicates that organic emission regulations expressed in terms of the measurement of organic carbon could be applied to a wide range of volatile compounds. The measurement of organic carbon can be used to assess directly the efficiency of control devices such as incinerators or adsorbers. By performing volumetric flow rate measurements, one can then determine organic carbon emission rates. Organic carbon content can also be related to volatile



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content of solvents or surface coatings.

Costs, logistics, and other practicalities of source testing may, under limited conditions, make other test methods more desirable for routine compliance determinations. Three distinct categories of test methods are therefore recommended for use with volatile organic compound regulations expressed in terms of organic carbon: a reference method, alternate methods, and screening methods.

These categories are described as follows:

1. Reference Method. This method would be applicable to all regulated sources and would be accurate in reference to the emission standard. OAQPS recommends that the reference method be based on the oxidation-reduction method of analysis to measure organic carbon.
2. Alternate Methods. These are methods not necessarily demonstrated to be equivalent to the reference method, but demonstrated to the satisfaction of the control agency to produce results adequate for determining compliance, in specific applications. Methods involving direct measurement with flame ionization detectors would be primary candidates for alternate methods.
3. Screening Methods. These alternative methods may produce biased or imprecise results, but they have been demonstrated to the satisfaction of the control agency to be adequate for determining compliance, provided that any bias or imprecision is taken into account. These

methods are normally characterized by portability of equipment, procedural simplicity, and low cost. Methods based on thermal conductivity or low-cost portable FID analyzers would be candidates for approval as screening methods.

Recommended Reference Method

A reference method that involves indirect measurement of volatile organic carbon by an oxidation-reduction is recommended. This necessitates that the emission limits be expressed in terms of organic carbon. If the emission limits and a universal reference method are both based on organic carbon, the volatile organic standard will be expressed in clear, unambiguous terms. No other known practical test method could accomplish this objective for a wide range of volatile organic compounds.

A draft "Reference Method for Determination of Total Gaseous Nonmethane Organic Emissions as Carbon" is included as Attachment 1. The method requires a system for separating total nonmethane organics from other carbon compounds, converting the total nonmethane organics to methane, and analysis of the methane by a flame ionization detector. Other than requiring this general equipment, the method provides performance specifications designed to assure correct performance of the separation-detection system. Depending on the organic carbon concentration, the method may allow the use of the NDIR to detect the CO<sub>2</sub> formed by the initial oxidation step.

The concept upon which the method is based has been utilized for many years in Los Angeles County, where it has been demonstrated to be valid and effective for compliance determinations.

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There is at least one private laboratory that is able to perform the analysis on a fee basis. The oxidation-reduction analysis concept for measurement of gaseous nonmethane organic compounds is also offered commercially by at least one instrument vendor. Although the availability of instruments is admittedly very limited, there is no serious technical impediment that would prevent additional vendors from designing and producing acceptable instruments.

Because of the somewhat limited use potential for the Los Angeles laboratory-oriented procedure and the present limited production of commercial instruments for field use, the OAQPS recommendation of the oxidation-reduction reference method for the definition of organic emissions is recognized as leading the technology. Wide acceptance of the organic carbon reference method will, however, provide the needed inducement for additional vendors to enter the market and thereby increase the supply and variety of organic carbon analysis instruments.

A draft of the Los Angeles procedure is included as Attachment 2. Although the detail is considerable, some agencies may wish to assemble the laboratory apparatus. The Emission Measurement Branch of OAQPS is working to refine the operating details of the procedure; as information becomes available, it will be incorporated into the method.

Alternate Methods

An "Alternate method" may have only limited applicability or other deficiencies that prevent its designation as a reference method. Such methods may offer practical advantages and produce results adequate for determining compliance in certain applications. Where such methods are applicable, the results may be accepted in lieu of reference method results.

As a specific example, methods based on direct measurement with flame ionization detectors are often practical for hydrocarbon compounds, and, in addition, the equipment is widely available. An FID analyzer will be less costly and may be less complicated for field application than an oxidation-reduction analyzer; therefore, for those applications where such methods can be made to produce accurate results, approval of them as alternate methods is desirable.

The Office of Air Quality Planning and Standards, EPA, has drafted an "Alternate Test Method for Direct Measurement of Total Gaseous Organic Compounds Using a Flame Ionization Detector," which is included as Attachment 3. This method outlines the known characteristics and limitations of FID techniques and provides procedures needed to assure its proper operation. The method does not and is not intended to indicate specific applications where the method can (or cannot) be used or correction factors to be applied to the results. Such determinations must be made on a case-by-case basis founded on knowledge of

the contents of the stream under test and the limitations of the detector.

Screening Methods

In addition to the limitations associated with alternate methods, screening methods may also lack precision. In spite of such shortcomings, screening methods may play an important role in any volatile organic control program. As a practical matter, the cost of applying a reference or alternate method to all or even a majority of the regulated effluent streams in a jurisdiction may be unreasonable; therefore, less expensive, simpler testing techniques will be needed.

To date, OAQPS has made effective use of an explosimeter to detect vapor leaks in gasoline marketing operations. In addition, an inexpensive hydrocarbon monitor using a solid-state ionization detector was designed by OAQPS and has been used successfully as an emissions breakthrough detector on the exit of a carbon adsorber. More recently, OAQPS has initiated a test program associated with the development of new source standards, using portable analyzers to detect leaks occurring in unit operations in the petroleum industry. Two analyzers will be employed in this program, one involving a combustion/thermal-conductivity-type detector and the other a low-cost FID.

Another example of a screening method would be the case of an FID analyzer applied to an unknown gas stream. In such case there is often enough information available to provide a rough estimate of the analyzer accuracy, but a more exact determination would be prohibitive. In such an

event the FID may be used as an alternative method for determining compliance, provided that sufficient buffer is included to account for the possible inaccuracy.

Regulatory Language

Examples of how general regulations may be expressed in terms of the reference method that measures organic carbon concentration are as follows:

1. To regulate concentration:

"Emissions of organic carbon shall not exceed \_\_\_\_\_ grams carbon per cubic meter."

2. To regulate mass rate:

"Emissions of organic carbon shall not exceed \_\_\_\_\_ grams carbon per hour" or "Emissions of organic carbon shall not exceed \_\_\_\_\_ grams carbon per kilogram of solvent used."

To protect the analytical instrument from contamination from particulates and condensation, a filter and heated sample line (temperature defined) must also be included in the emission regulations.

ATTACHMENT 1. REFERENCE METHOD FOR DETERMINATION OF TOTAL GASEOUS  
NONMETHANE ORGANIC EMISSIONS AS CARBON--AUTOMATED ANALYZER VERSION

1. Principle and Applicability

1.1 Principle. Conditioned stack gas is transported to and analyzed by a semiportable gas chromatograph (GC) equipped with a flame ionization detector (FID). The total gaseous nonmethane organic (TGNMO) fraction is separated by means of various GC columns from the other constituents, oxidized to CO<sub>2</sub> and then reduced to methane (CH<sub>4</sub>) before it is introduced to the FID. In this manner, the variable response of the FID associated with different types of organics is eliminated, and a count of TGNMO carbon atoms is obtained.

1.2 Applicability. The method is applicable to the semicontinuous measurement of total gaseous nonmethane organics in source emissions.

2. Range and Sensitivity

2.1 Range. Signal attenuators shall be available so that a minimum signal response of 10 percent of full scale can be produced when analyzing calibration gas or sample.

2.2 Sensitivity. The detector sensitivity shall be equal to or better than 2.0 percent of the full scale setting, with a minimum full scale setting of 10 ppm (methane or carbon equivalent).

3. Interferences

None.

4. Apparatus

4.1 TGNMO analyzers are available commercially or can be constructed from available components by a qualified instrument laboratory. The

primary components of the analyzer are an FID preceded by a GC column to achieve the necessary separation of TGNMO from other carbon compounds. Oxidation and reduction catalysts then convert the TGNMO to CH<sub>4</sub> prior to detection. The analyzer shall be accompanied by an instruction manual (supplied by the manufacturer if the analyzer was commercially produced) describing proper operation and maintenance procedures. In addition to the specific procedures required by this method, the analyzer shall be demonstrated prior to initial use to be capable of proper separation, oxidation, and reduction. As a minimum this demonstration shall include measurement of a known TGNMO concentration present in a mixture that also contains similar amounts of CH<sub>4</sub>, CO<sub>2</sub>, and CO. Certification of such demonstration by the manufacturer is acceptable.

4.2 Sample Conditioning or Interface System (see Figure 1). Probe with filter, 6.4 mm O.D. Teflon<sup>1</sup> sample line, Teflon-coated diaphragm pump, and Teflon flow control valves. A heating system capable of maintaining all components at 120°C or greater shall be included. The pump shall be sized so that the sample residence time from the probe to the instrument will not exceed 15 seconds.

4.3 Potentiometric Recorder (optional). Strip chart recorder with a voltage output compatible with the analyzer.

5. Reagents

5.1 Combustion Gas. Air containing less than 2 ppm organics (methane or carbon equivalent).

<sup>1</sup>Mention of trade names on specific products does not constitute endorsement by the Environmental Protection Agency.

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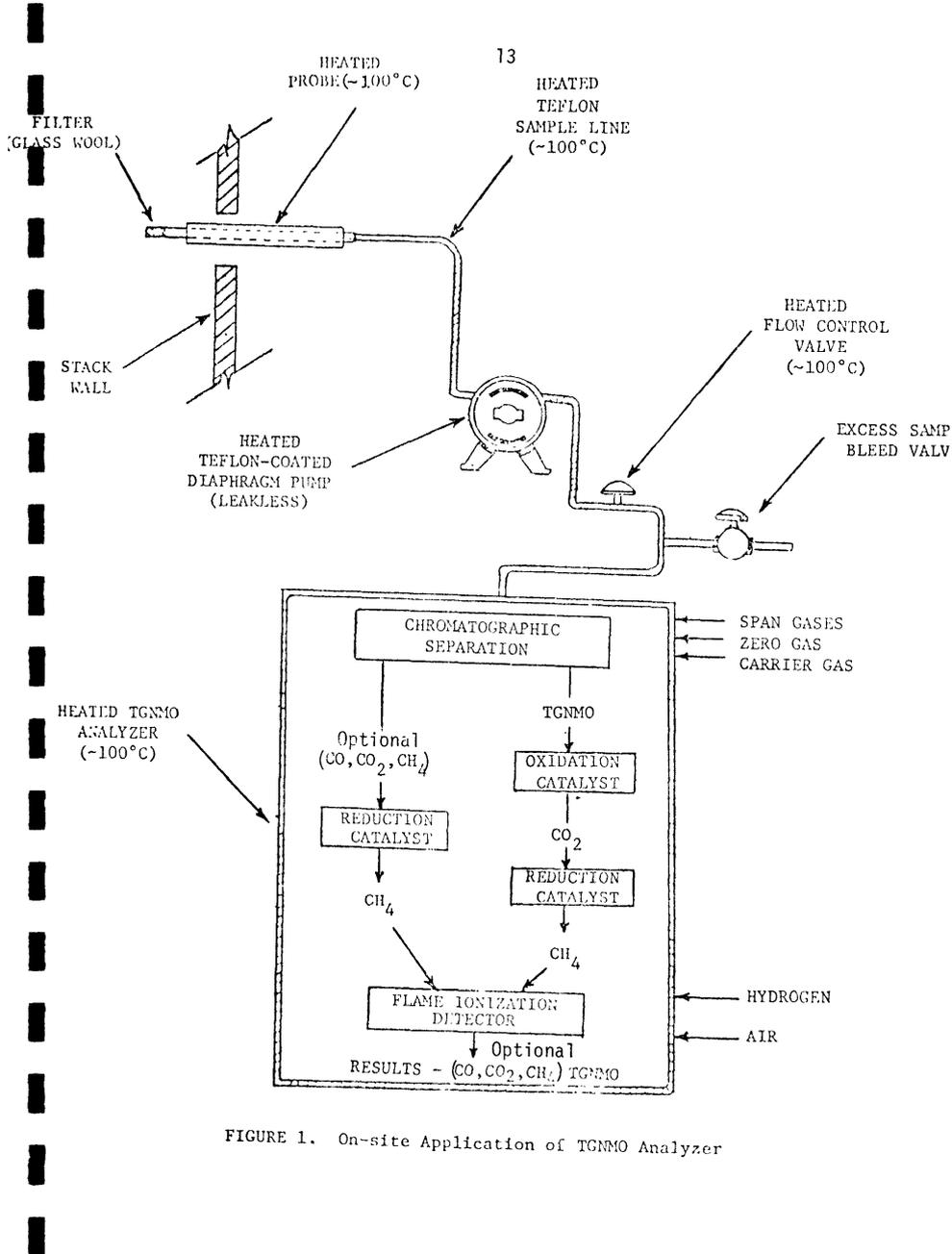


FIGURE 1. On-site Application of TGNMO Analyzer

5.2 Fuel. Hydrogen or a mixture of hydrogen and inert gas containing less than 1 ppm organics (methane or carbon equivalent).

5.3 Carrier Gas. Helium, nitrogen, air or hydrogen containing less than 1 ppm organics (methane or carbon equivalent).

5.4 Zero Gas. Air containing less than 1 ppm organics (methane or carbon equivalent).

5.5 Calibration Gases (2). Gas mixture standards with known propane ( $C_3H_8$ ) concentrations corresponding to ranges of 5-10 ppm and 5-10 percent (methane or carbon equivalent) are prepared and certified by a gas manufacturer. The mixture shall consist of  $C_3H_8$ , CO,  $CO_2$ , and  $CH_4$  in nitrogen. The gas manufacturer must recommend a maximum shelf life for each cylinder so that the  $C_3H_8$  concentration does not change more than  $\pm 5$  percent from its certified value. The date of gas cylinder preparation, certified  $C_3H_8$ , CO,  $CO_2$ , and  $CH_4$  concentrations and recommended maximum shelf life must be affixed to the cylinder before shipment from the gas manufacturer to the buyer. These gas mixture standards are to be used to prepare a chromatograph calibration curve as described in Section 7.2.

5.6 Span Gas. The calibration gas corresponding to 5 to 10 percent (methane or carbon equivalent) is used to span the analyzer.

6. Analyzer Performance Specifications

6.1 Linearity:  $\pm 5$  percent of the expected value for full scale settings up to the maximum percent absolute (methane or carbon equivalent) calibration point. The analyzer shall be demonstrated prior

to initial use to meet this specification through a 5-point (minimum) calibration. There shall be at least one calibration point in each of the following ranges: 5-10, 50-100, 500-1,000, 5,000-10,000, and 50,000-100,000 ppm (methane or carbon equivalent). Certification of such demonstration by the manufacturer is acceptable. An additional linearity performance check (see Section 7.2.1) must be made before each use.

6.2 Zero Drift. One percent full scale per test period.

6.3 Span Drift. One percent full scale per test period.

7. Procedure

7.1 Sampling

7.1.1 Assemble the system as shown in Figure 1. Locate the analyzer in a suitable environment. Take particular care that sample will be introduced to the system under the same conditions of pressure and flow rates as are used in calibration. For specific operating instructions for the TGNMO analyzer, refer to the operation manual.

7.1.2 Adjust the sampling system and analyzer heating system to provide a minimum temperature of 120°C and allow the system to warm up.

7.1.3 Perform a leak check as follows before sampling: Recheck to confirm that all fittings are tight. With the sample probe plugged, open the flow control valve and the excess sample bleed valve. Use leak detection fluid or immerse the tubing leading from the bleed valve in a jar of water to check that sample flow has ceased. At the conclusion of the sampling tests, recheck for leaks.

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7.1.4 Begin Actual Sampling. Set the signal attenuation to yield a minimum response of 10 percent of full scale, unless the stack concentration is less than 1 ppm. Adjust the flow and bleed valves to minimize sample line residence time. Perform the analysis a minimum of four times. Report the average of the final four readings. The analyzer cycle time is normally 10 to 15 minutes.

7.1.5 At the conclusion of the sampling tests, but at least once every day, introduce zero and span gas to the analyzer to determine zero and span drifts. If the analyzer has drifted beyond the allowable performance specification, the tests shall be considered invalid.

7.2 Calibration

7.2.1 Calibration Curve. Maintain a record of performance of each item. Determine the linearity of the analyzer for TGNMO as follows: With the signal attenuation at the most sensitive setting, introduce zero gas and adjust the respective zeroing controls to indicate a reading of less than 1 percent of full scale. With the signal attenuation at the least sensitive setting, introduce the span gas and adjust the span control to indicate the proper value on the analyzer readout. Repeat these two steps until adjustments are no longer necessary. Calculate a predicted response for the 5-10 ppm calibration gas. Introduce that calibration gas and note the value obtained. If this value is not within  $\pm 5$  percent of its predicted value, then the analyzer may need repairs, or one or both of the calibration gases may need replacement. In any event, this linearity performance specification shall be met before the analyzer is placed in actual use.

7.3 Catalyst Performance Check. These checks should be performed on a frequency established by the amount of use of the analyzer, and the nature of the organic emissions to which it is exposed. To confirm that the oxidation catalyst is functioning in the correct manner, the operator must turn off or bypass the reduction catalyst while operating the analyzer in an otherwise normal fashion. If oxidation is adequate, the only gas that will then reach the detector will be CO<sub>2</sub>, to which the FID has no response. If responses are noted, then the oxidation catalyst must be replaced. To confirm the operation of the reduction catalyst, reverse the above procedure. If CO<sub>2</sub> in the calibration gases is not reduced to CH<sub>4</sub> as it should be, then the reduction catalyst must be replaced.

8. Calculations

8.1 Determine concentrations of TGNMO (propane equivalent) directly from the calibration curves. Multiply this number by 3 to obtain ppm TGNMO (methane or carbon equivalent).

8.2 Conversion to mass concentration values for TGNMO as carbon is made as follows:

$$\text{mg TGNMO/m}^3 \text{ as carbon} = \text{ppm TGNMO (methane or carbon equivalent)} \\ \times 0.499$$

where:

$$1 \text{ ppm TGNMO (methane or carbon equivalent)} = \frac{1}{10^6} \times \frac{41.57 \text{ g-mole}}{\text{m}^3} \\ \times \frac{12000 \text{ mg}}{\text{g-mole}} = 0.499 \text{ mg/m}^3 \text{ as carbon.}$$

where:

Molecular weight of carbon = 12

Standard conditions: 20°C, 1 atm.

9. References

9.1 Albert E. Salo, Samuel Whitz, and Robert D. MacPhee.

"Determination of Solvent Vapor Concentrations by Total Combustion  
Analysis: A Comparison of Infrared With Flame Ionization Detectors."  
Presented at the 68th Annual Meeting of the Air Pollution Control  
Association, Boston, Ma. Paper No. 75-33.2. June 15-20, 1975.

9.2 Instruction Manual, Byron Model 401 Total Emission Analyzer,  
Byron Instruments, Inc., 520 1/2 S. Harrington Street, Raleigh, N.C. 27601.

ATTACHMENT 2. DETERMINATION OF TOTAL GASEOUS NONMETHANE  
ORGANIC EMISSIONS AS CARBON: MANUAL SAMPLING AND  
ANALYSIS PROCEDURE

1. Principle and Applicability

1.1 Principle. An emission sample is anisokinetically drawn from the stack through a heated filter and a chilled condensate trap by means of an evacuated gas collection tank. Total gaseous non-methane organics (TGNMO) are determined by combining the analytical results obtained from independent analyses of the condensate trap and evacuated tank fractions. After sampling is completed, the organic contents of the condensate trap are oxidized to carbon dioxide which is quantitatively collected in an evacuated vessel; a portion of the carbon dioxide is reduced to methane and measured by a flame ionization detector (FID). A portion of the sample collected in the gas sampling tank is injected into a gas chromatographic (GC) column to achieve separation of the nonmethane organics from carbon monoxide, carbon dioxide and methane; the nonmethane organics are oxidized to carbon dioxide, reduced to methane, and measured by a FID.

1.2 Applicability. This method is applicable to the measurement of total gaseous nonmethane organics in source emissions.

2. Apparatus

2.1 General. TGNMO sampling equipment can be constructed by a laboratory from commercially available components and

components fabricated in a machine shop. The primary components of the sampling system are a heated filter, condensate trap, flow control system, and gas sampling tank. (Figure 1). The primary components of the analytical system are an oxidation system for recovery of the sample from the condensate trap and a TGNMO analyzer. The TGNMO analyzer is a FID preceded by an oxidation catalyst, a reduction catalyst, and a GC column with backflush capability (Figure 2). The system for the removal and conditioning of the organics captured in the condensate trap consists of a heat source, oxidation catalyst, Non-Dispersive Infrared (NDIR) analyzer and an intermediate gas collection tank (Figure 3).

2.2 Sampling.

2.2.1 Probe. 1/8" stainless steel tubing heated to approximately 120°C.

2.2.2 Filter Holder. Stainless steel with a stainless steel or glass frit filter support and a Teflon gasket. The holder design shall provide a positive seal against leakage from the outside or around the filter. The holder shall be attached at the outlet of the probe.

2.2.3 Filter Heating System. Any heating system capable of maintaining a temperature around the filter holder during sampling of  $120 \pm 14^{\circ}\text{C}$  ( $248 \pm 25^{\circ}\text{F}$ ), or such other temperature as specified by an applicable subpart of the standards or approved by the Administrator for a particular application. A temperature gauge capable of measuring temperature to within

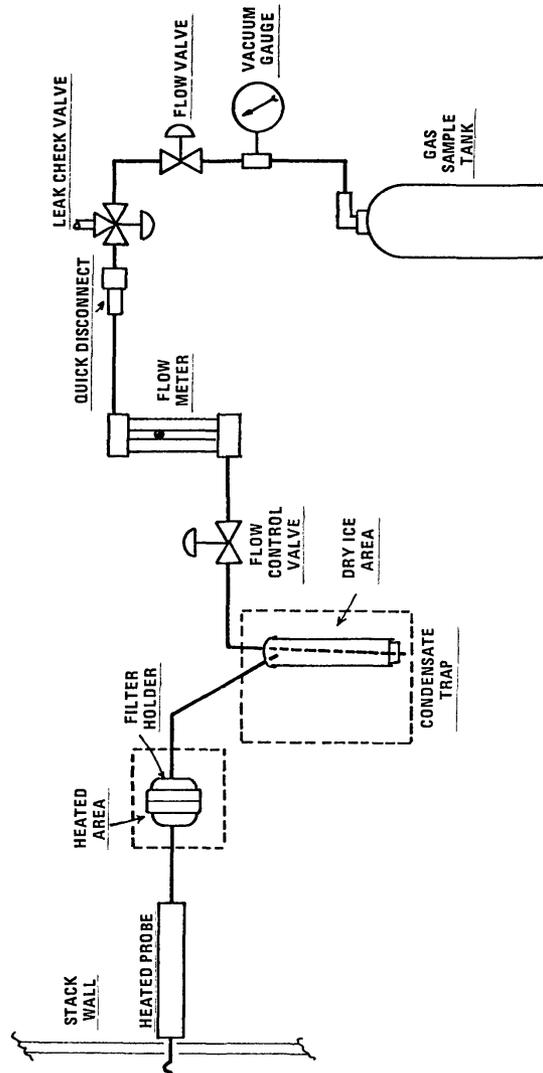


Figure 1. SAMPLING APPARATUS

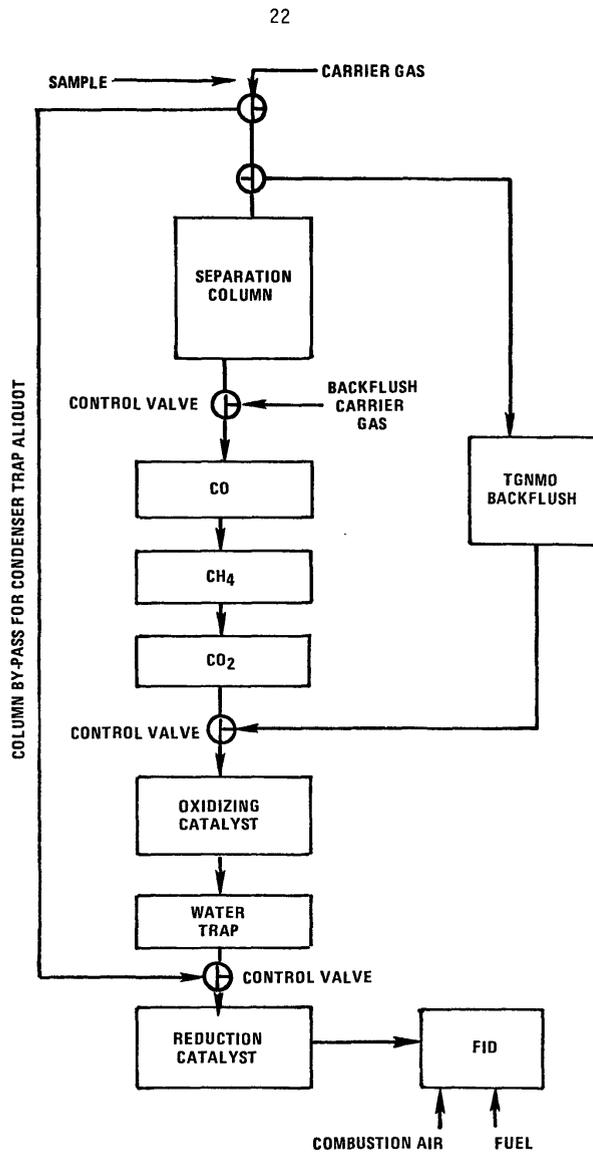
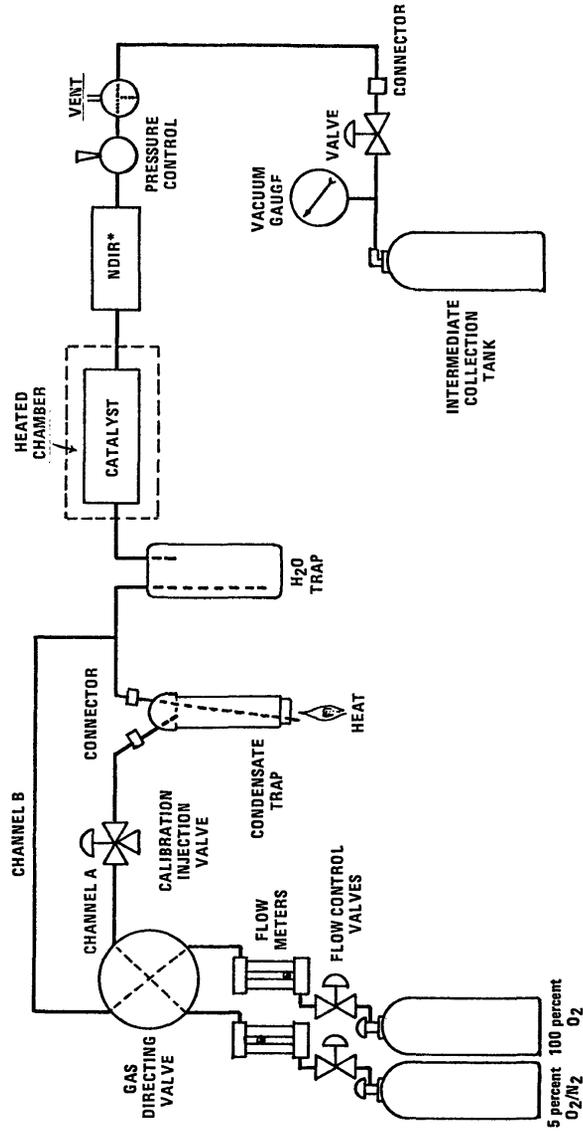


Figure 2. TOTAL GASEOUS NONMETHANE ORGANIC (TGNMO) ANALYZER SCHEMATIC



\*FOR MONITORING PROGRESS  
 OF COMBUSTION ONLY

Figure 3. CONDENSATE RECOVERY AND CONDITIONING APPARATUS

3° C (5.4° F) shall be installed so that the temperature around the filter holder can be regulated and monitored during sampling.

2.2.4 Condensate Trap. The condensate trap shall be constructed of 316 stainless steel; construction details of a suitable trap are shown in Figure 4.

2.2.5 Flow Control System.

2.2.5.1 Needle Valve. To regulate sample gas flow rate.

2.2.5.2 Rate Meter. Rotameter, or equivalent capable of measuring flow rate to within  $\pm 10$  percent of the selected flow rate of about 80 cc/min. Other flow control systems capable of maintaining a constant sample rate of 80 cc/min  $\pm 10$  percent may be used subject to the approval of the Administrator.

2.2.6 Gas Collection Tank. Stainless steel or aluminum tank with a minimum volume of 6 liters. The tank is fitted with a vacuum gauge, a leakless valve, and a t-connector for conducting leak checks.

2.3 Analysis. For analysis, the following equipment is needed.

2.3.1 Condensate Recovery and Conditioning Apparatus (Figure 3).

2.3.1.1 Heat Source. A heat source sufficient to heat the condensate trap to a "cherry red" color. An electric muffle-type furnace or bunsen burner may be used.

2.3.1.2 Oxidizing Catalyst. A platinum and quartz catalyst constructed from a 44-inch length of 1/4" tubing of

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MEASUREMENTS OF VOLATILE ORGANIC COMPOUNDS

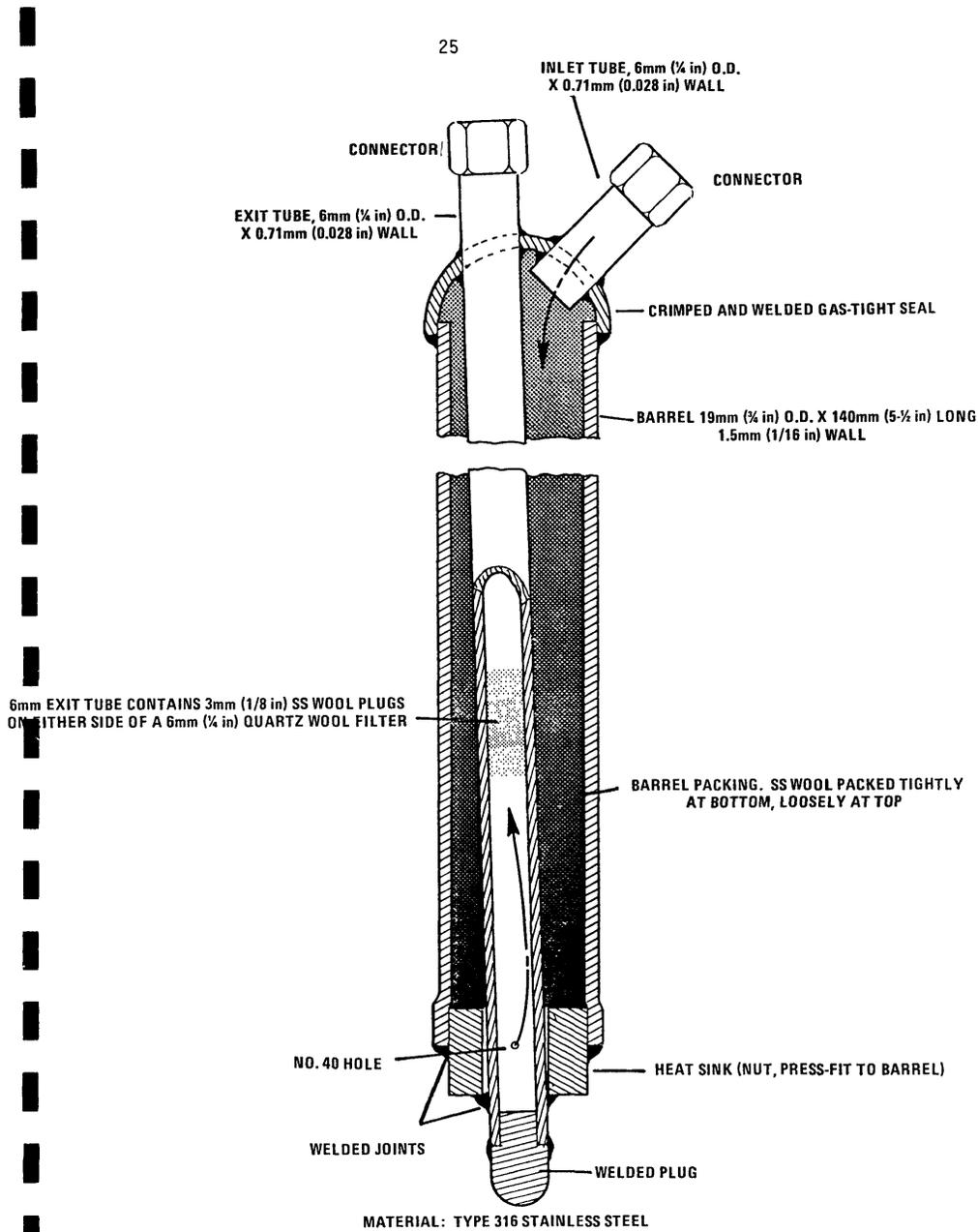


Figure 4. CONDENSATE TRAP<sup>2</sup>

70 percent Ni-30 percent Cr alloy packed as follows:

First 4 inches--empty.

Next 4 inches--8-10 mesh alumina coated with 0.5 percent finely divided platinum.

Next 28 inches--8 mesh quartz chips.

Last 8 inches--8-10 mesh alumina 0.5 percent platinum coated.

Other catalyst systems capable of meeting the catalyst efficiency criteria of this method (Section 4.4.2) may be used subject to the approval of the Administrator.

2.3.1.3 Water Trap. Any leak proof moisture trap capable of removing moisture from the gas stream may be used. A condensate trap designed according to the specifications of Figure 4 without packing in the exit tube will suffice.

2.3.1.4 NDIR Detector. Detector capable of indicating the CO<sub>2</sub> level in the zero to five percent range; required to monitor the combustion progress of the organic matter in the condensate trap.

2.3.1.5 Pressure Regulator. Stainless steel needle valve required to maintain the NDIR detector at a constant pressure.

2.3.1.6 Intermediate Collection Tank. Stainless steel or aluminum collection vessel. Tanks with nominal volumes of 2 and 6 liters are recommended. The end of the tank is fitted with a t-connector, vacuum gauge, and leakless valve.

2.3.1.7 Calibration Injection Port. Injection port valve and sample loop for injection of calibration standards required

to check the combustion efficiency of the condensate recovery system.

2.3.2 Total Gaseous Nonmethane Organic (TGNMO) Analyzer. Semicontinuous GC/FID analyzer capable of: (1) separating CO<sub>2</sub>, CH<sub>4</sub>, and gaseous nonmethane organics, (2) oxidizing the nonmethane organic fraction to CO<sub>2</sub>, reducing the CO<sub>2</sub> to methane, and quantifying the methane. The analyzer shall be demonstrated prior to initial use to be capable of proper separation, oxidation, reduction, and measurement. As a minimum, this demonstration shall include measurement of a known TGNMO concentration present in a mixture that also contains CH<sub>4</sub>, CO, and CO<sub>2</sub>. (see paragraph 4.4.1) In addition, the analyzer shall meet the following performance specifications:

2.3.2.1 Linearity.  $\pm$  5 percent of the expected value for each full scale setting up to the maximum percent absolute (methane or carbon equivalent) calibration point. The analyzer shall be demonstrated prior to initial use to meet this specification through a 5-point (minimum) calibration. There shall be at least one calibration point in each of the following ranges: 5-10, 50-100, 500-1,000, 5,000-10,000, and 40,000-100,000 ppm (methane or carbon equivalent). Certification of such demonstration by the manufacturer is acceptable. An additional linearity performance check (see Section 4.4.1.1) must be made before each use.

2.3.2.2 Zero Drift. One percent full scale per analysis of an emission test series.

2.3.2.3 Span Drift. One percent full scale per analysis of an emission test series.

2.3.2.4 The following components have been found to be acceptable for use in the TGNMO System:

2.3.2.4.1 Oxidation Catalyst. Type 316 stainless steel 0.25 inch OD tubing x 14 inches long packed with Hopcalite<sup>1</sup> 25 - 30 mesh; operated at 850° C.

2.3.2.4.2 Reduction Catalyst. Type 316 stainless steel 0.25 inch OD tubing x 7 inches long packed with 10 percent nickel on chromasorb W, 60-80 mesh; operated at 400° C. Method of preparation: 100 grams chromasorb W, 10 grams nickelous nitrate, 75 ml water, evaporated to dryness then heated in air for 4 hours to convert to nickel oxide. After packing the tubing, reduce overnight at 450° C and 30 ml/min H<sub>2</sub> to nickel metal.

2.3.2.5.3 Separation Column. Type 316 Stainless steel 0.125 inch OD tubing x 18 feet long packed with Porapak Q 60/80 mesh; operated isothermally at 80° F.

2.3.3 Mercury Manometer. U-tube mercury manometer capable of measuring pressure to within 1.0 mm Hg in the 0 - 900 mm range.

2.3.4 Barometer. Mercury, aneroid, or other barometer capable of measuring atmospheric pressure to within 2.5 mm (0.1 inch Hg).

### 3. Reagents

#### 3.1 Sampling.

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<sup>1</sup>Mention of trade names or specific products does not constitute endorsement by the EPA.

3.1.1 Filter. Glass fiber filter without organic binder, exhibiting at least 99.95 percent efficiency ( $\leq$  0.05 percent penetration) on 0.3 micron dioctyl phthalate smoke particles. The filter efficiency test shall be conducted in accordance with ASTM standard method D 2986-71. Test data from suppliers quality control program are sufficient for this purpose.

3.1.2 Crushed Dry Ice.

3.2 Analysis.

3.2.1 (TGNMO) Analyzer.

3.2.1.1 Carrier Gas. 5 percent  $O_2$  in  $N_2$  containing less than 1 ppm organics.

3.2.1.2 Fuel Gas. 40 percent hydrogen in nitrogen containing less than 1 ppm organics.

3.2.2 Condensate Recovery and Conditioning Apparatus.

3.2.2.1 Carrier Gas. 5 percent  $O_2$  in  $N_2$  containing less than 1 ppm organics.

3.2.2.2 Oxygen. Oxygen containing less than 1 ppm organics.

3.3 Calibration.

3.3.1 (TGNMO) Analyzer.

3.3.1.1 Calibration Gases (3). Gas mixture standards with known propane ( $C_3H_8$ ) concentrations corresponding to ranges of 5-10 ppm, 50-10 percent and 20-25 percent methane or carbon equivalent are prepared and certified by a gas manufacturer. The mixture shall consist of  $C_3H_8$ , CO,  $CO_2$ , and  $CH_4$  in nitrogen. The gas manufacturer must recommend a maximum shelf life for each cylinder so that the  $C_3H_8$  concentration does not change

more than  $\pm 5$  percent from its certified value. The date of gas cylinder preparation, certified  $C_3H_8$ ,  $CO$ ,  $CO_2$ , and  $CH_4$  concentrations and recommended maximum shelf life must be affixed to the cylinder before shipment from the gas manufacturer to the buyer. These gas mixture standards are to be used to prepare a chromatograph calibration curve as described in Section 4.4.1.1.

3.3.1.2 Span Gas. The calibration gas (Section 3.3.1.1) corresponding to 20 to 25 percent is used to span the analyzer.

3.3.1.3 Oxidation Catalyst Check. The calibration gas (Section 3.3.1.1) corresponding to 20 to 25 percent is used to check the oxidation catalyst.

3.3.1.4 Reduction Catalyst Check. A gas standard with a known concentration of 5 percent (nominal)  $CO_2$  in nitrogen is used to check the reduction catalyst.

3.3.2 Condensate Recovery and Conditioning Apparatus. Gas mixture standards (2) with known propane ( $C_3H_8$ ) concentrations in nitrogen corresponding to ranges of 5-10 ppm and 5-10 percent (methane or carbon equivalent) are prepared and certified by a gas manufacturer. These gas mixture standards are to be used to check the operation of the condensate trap oxidation system as described in Section 4.4.2.

#### 4. Procedure

##### 4.1 Sampling

4.1.1 Pretest Preparation. The sample tank shall be calibrated according to the procedure described in paragraph 4.4.3. Check filters visually against the light for irregularities,

flaws, or pinhole leaks. Either in the laboratory or in the field evacuate the sample tank to a vacuum of 755 mm mercury (measured by a mercury U-tube manometer). Record the temperature, barometric pressure, tank vacuum measured with the manometer, and the vacuum indicated on the tank gauge.

4.1.2 Assemble the system as shown in Figure 1. Immerse the condensate trap in dry ice and start the filter and probe heaters.

4.1.3 Leak check procedures.

4.1.3.1 Gas Sampling Tank Leak Check. Leak check the gas sampling tank immediately after the tank is evacuated. Once the tank is evacuated, allow the tank to sit for 30 minutes. The tank is acceptable if no change in tank vacuum (measured by the mercury manometer) is noted.

4.1.3.2 Pretest Leak Check. A pretest leak check is recommended, but not required. If the tester opts to conduct the pretest leak check, the following procedure is used. After the sampling train has been assembled (including cooling of condensate trap and heating of filter) plug the probe tip. Attach the vacuum line of the leak check apparatus (Figure 5) to the T-connector of the evacuated tank; open the valve on this connector (not the sample flow control valve to the evacuated tank) and evacuate the sample train to a vacuum of 625 mm Hg. Shut the valve on the pump side of the manometer and allow the sampling train to sit for 10 minutes. A leak rate in excess of 0.5 mm Hg for this 10 minute period is unacceptable. When the

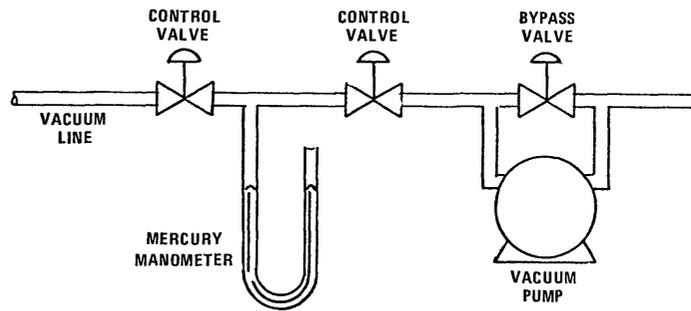


Figure 5. LEAK CHECK APPARATUS



leak check is completed, slowly release the vacuum in the train by unplugging the probe, close the T-connector valve, and plug this connector to assure a leak free system.

4.1.3.3 Post Test Leak Check. A leak check is mandatory at the conclusion of each test run. After sampling is completed, plug the end of the sampling probe and attach the vacuum line of the leak-check apparatus (Figure 5) to the evacuated tank t-connector. Assure that the flow valve to the evacuation pump (valve between manometer and pump) is closed. First open the t-connector valve to the manometer and then open the flow control valve to the evacuated tank. Record the clock time and tank vacuum. After 10 minutes note the tank vacuum. A leak rate in excess of 0.5 mm Hg for this ten minute period is unacceptable and the sampling run shall be voided. After completing the leak check, close the evacuated tank flow control valve and the t-connector flow control valve. Disconnect the leak check apparatus and plug the t-connector to assure a leakproof seal during shipping. Unplug the probe tip.

4.1.4 Sample Train Operation. Place the probe into the stack such that the probe tip is located at a pre-selected location. For stacks under negative pressure, assure that the sample port is sufficiently sealed to prevent leakage of ambient air around the probe. Record the clock time, sample tank gauge vacuum, and barometric pressure. Assure that the flow control needle valve is closed. Begin sampling by opening the evacuated tank flow valve all the way. Open the flow control needle valve until

the rotameter indicates the desired setting; maintain a constant flow rate ( $\pm 10$  percent) throughout the duration of the sampling period. Record the gauge vacuum, rotameter setting, and filter temperature at 5 minute intervals. Select a total sample time greater than or equal to the minimum sampling time specified in the applicable subpart of the standard; end the sampling when this time period is reached or when a constant flow rate can no longer be maintained. When the sampling is completed, close the evacuated tank valve and remove the probe from the stack. Record the final readings. Conduct the post test leak check according to the procedures of paragraph 4.1.3.3.

If the sampling must be stopped before obtaining the minimum sampling time specified in the applicable subpart because a constant flow rate cannot be maintained, proceed as follows: After removing the probe from the stack, conduct the post test leak check. After the leak check is completed, remove the evacuated tank from the sampling train (without disconnecting other portions of the sampling train) and connect another evacuated tank to the sampling train. Proceed with the sampling; after the minimum total sampling time is exceeded, end the test.

4.2 Sample Recovery.

Disconnect the condensate trap at the filter and at the flow metering system. Tightly seal the ends of the condensate trap; keep the trap packed in dry ice until analysis is conducted. Seal the connection at the evacuated tank to assure a leak proof seal during shipping. After the evacuated tank has cooled to ambient

conditions, attach the U-tube manometer to the t-connector, open the valve, and record the tank vacuum, ambient temperature, barometric pressure, and indicated gauge vacuum. Close the flow valve and reseal the t-connector to assure a leak proof seal during shipping. Assure that the test run number is properly identified on the condensate trap and evacuated tank(s).

#### 4.3 Analysis

4.3.1 TGNMO Analyzer. Heat the catalysts to their operating temperatures and set the carrier gas and fuel flow rates. Conduct the calibration check required in paragraph 4.4.1.1 and the catalyst performance checks required in paragraph 4.4.1.2 prior to analyzing the test samples.

4.3.2 Condensate Trap. Return the condensate trap to the laboratory and hook it into the recovery and conditioning system (Figure 3). Set the oven for the oxidizing catalyst at 850° C and the trap heating furnace at 600° C. Set the gas directing valve to permit flow of 5 percent O<sub>2</sub>/N<sub>2</sub> through channel A to the condensate trap at a rate of 80 cc/min; at the same time set the oxygen flow through channel B at 20 cc/min (1:4 ratio). After two minutes, switch the gas directing valve to permit the oxygen to flow via channel A directly through the condensate trap and the 5 percent O<sub>2</sub>/N<sub>2</sub> carrier gas to flow through channel B. When the NDIR indicates that CO<sub>2</sub> is no longer being emitted from the combustion system, shut off the collection flask from the system and cease combustion. Record the collection flask pressure after combustion is completed (P<sub>4</sub>) and then pressurize the flask to 860 mm Hg (nominal) with nitrogen and record the final pressure

( $P_f$ ). Remove a syringe sample from the flask and inject this into the TGNMO analyzer. Record the analyzer response (ppm C) for triplicate samples.

4.3.3 Gas Sampling Tank. Using a U-tube mercury manometer, record the tank vacuum ( $P_t$ ). Pressurize the tank with nitrogen and record the final tank pressure ( $P_{t_f}$ ), temperature and barometric pressure. Remove a syringe sample from the tank and inject this into the TGNMO analyzer. Record the analyzer response (ppm C) for the non-methane organic fraction for triplicate samples.

4.4 Calibration. Maintain a record of performance of each item.

4.4.1 TGNMO Analyzer.

4.4.1.1 Calibration Curve. Determine the linearity of the analyzer for TGNMO as follows: With the signal attenuation at the most sensitive setting, introduce zero gas and adjust the respective zeroing controls to indicate a reading of less than 1 percent of full scale. With the signal attenuation at the least sensitive setting, introduce the span gas and adjust the span control to indicate the proper value on the analyzer readout. Repeat these two steps until adjustments are no longer necessary. Calculate a predicted response for the 5-10 ppm calibration gas. Introduce that calibration gas and note the value obtained. If this value is not within  $\pm 5$  percent of its predicted value, then the analyzer may need repairs, or one or both of the calibration gases may need replacement. In any

event, this linearity performance specification shall be met before the analyzer is placed in actual use.

4.4.1.2 Catalyst Performance Check. These checks should be performed on a frequency established by the amount of use of the analyzer and the nature of the organic emissions to which it is exposed. To confirm that the oxidation catalyst is functioning in the correct manner, the operator must turn off or bypass the reduction catalyst while operating the analyzer in an otherwise normal fashion. Inject the calibration gas (paragraph 3.3.1.3) into the system. If oxidation is adequate, the only gas that will then reach the detector will be CO<sub>2</sub>, to which the FID has no response. If a response is noted, the oxidation catalyst must be replaced. To confirm the proper operation of the reduction catalyst, inject a sample of the CO<sub>2</sub> calibration gas (Section 3.3.1.4) into the system. If the CO<sub>2</sub> is not reduced to CH<sub>4</sub> as it should be, then the reduction catalyst must be replaced or regenerated.

4.4.2 Condensate Trap Oxidation Catalyst. Inject syringe samples of the calibration gases listed in Section 3.3.2 into the sample port of the condensate trap combustion system (Figure 3). Proceed with a normal analysis (i.e., collection of the CO<sub>2</sub> in the flask followed by analysis of triplicate aliquots using the TGNMO analyzer) and compare results to the actual concentration. Repair the system if the results (average of triplicate aliquots) deviate by greater than  $\pm 5$  percent from the calibration gas value.

4.4.3 Gas Sampling Tank. The volume of the gas sampling tanks used must be determined. Prior to putting each tank in

service, determine the tank volume by weighing the tanks empty and then filled with water; weigh to the nearest 0.5 gm and record the results.

4.4.4 Intermediate Collection Flask. The volume of the intermediate collection flasks used to collect CO<sub>2</sub> during the analysis of the condensate traps must be determined. Prior to putting each flask in service, determine the volume by weighing the flasks empty and then filled with water; weigh to the nearest 0.5 gm and record the results.

4.4.5 Condensate Trap Leak Check. Prior to each use, check each condensate trap for leaks by pressurizing with N<sub>2</sub> to approximately 50 psig and immersing in water.

4.4.6 Rotameter. The rotameter need not be calibrated but should be cleaned and maintained according to the manufacturer's instruction.

#### 5. Calculations

5.1 Sample Volume. For each test run calculate the gas volume sampled:

$$V_s = 0.36 V \left( \frac{P_t}{T_t} - \frac{P_{t_i}}{T_{t_i}} \right)$$

5.2 Noncondensable TGNMO. For each collection tank, determine the concentration of TGNMO (ppm C):

$$C = 3 \times \frac{P_{t_f}}{P_t} \times \frac{T_t}{T_{t_f}} \times \sum_{j=1}^m C_{p_j}$$

5.3 Condensible TGNMO. For each condensate trap determine the concentration of TGNMO (ppm C):

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$$C_c = \frac{3 \times V_f \times P_f}{V_s \times P_i} \times \sum_{k=1}^n C_{cpk}$$

5.4 Total Gaseous Nonmethane Organics (TGNMO). To determine the TGNMO concentration for each test run, use the following equation:

$$C_t = C + C_c$$

5.5 Control Device Efficiency. To determine the TGNMO control device efficiency for each test run, use the following equation:

$$E = \frac{C_{ti} - C_{to}}{C_{ti}} \times 100$$

where:

- C = Noncondensable TGNMO calculated concentration, ppm carbon equivalent.
- C<sub>p</sub> = TGNMO analyzer measured concentration for gas collection tank, ppm propane.
- C<sub>c</sub> = Condensable TGNMO (condensate trap) calculated concentration, ppm carbon equivalent.
- C<sub>cp</sub> = TGNMO analyzer measured concentration for intermediate collection flask, ppm propane.
- C<sub>t</sub> = Total gaseous nonmethane organic (TGNMO), ppm carbon equivalent.
- C<sub>to</sub> = TGNMO at control device outlet, ppm carbon equivalent.
- C<sub>ti</sub> = TGNMO at control device inlet, ppm carbon equivalent.
- E = Control device efficiency, percent.
- P<sub>f</sub> = Final pressure of intermediate collection flask (nominal 860 mm Hg.), mm Hg, absolute.

$P_i$  = Pressure of intermediate collection flask at completion of combustion, mm Hg, absolute.

$P_{t_i}$  = Gas sample tank pressure prior to sampling, mm Hg, absolute.

$P_t$  = Gas sample tank pressure after sampling, but prior to pressurizing, mm Hg, absolute.

$P_{t_f}$  = Final gas sample tank pressure after pressurizing, mm Hg, absolute.

$T_{t_i}$  = Gas sample tank temperature prior to sampling, °K.

$T_t$  = Gas sample tank temperature at completion of sampling, °K.

$T_{t_f}$  = Gas sample tank temperature after pressurizing, °K.

$V$  = Gas collection tank volume,  $M^3$

$V_f$  = Intermediate collection tank volume,  $M^3$

$V_s$  = Gas volume sampled, dscm

$m$  = Total number of injections of non-condensable TGNMO during analysis (where  $j$  = injection number, 1 . . .  $m$ )

$n$  = Total number of injections of condensable TGNMO during analysis (where  $k$  = injection number, 1 . . .  $n$ )

0.36 = 273°K/760 mm Hg

Standard Conditions = Dry, 760 mm Hg, 273°K.

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ATTACHMENT 3. ALTERNATE TEST METHOD FOR DIRECT MEASUREMENT OF TOTAL  
GASEOUS ORGANIC COMPOUNDS USING A FLAME IONIZATION ANALYZER

INTRODUCTION

Performance of this method should not be attempted by persons unfamiliar with the performance characteristics of the flame ionization detector, nor by those who are unfamiliar with source sampling.

1. Principle and Applicability

1.1 Principle. The sample is drawn from the source, through a heated sample line and glass fiber filter to a flame ionization analyzer (FIA). Ions formed in the combustion of a specific hydrocarbon compound in a  $H_2 - O_2$  flame establish a current that is proportional to the mass flow rate of that hydrocarbon to the flame. This current is collected at two polarized electrodes, and is read out on a potentiometric recorder and compared with a calibration curve based on propane ( $C_3H_8$ ), or an organic solvent, as appropriate. The results are reported as equivalents of methane ( $CH_4$ ) or carbon, or in terms of an organic solvent.

1.2 Applicability. This method is applicable for the determination of the true carbon mass concentration, and/or an indicated volume or mass concentration (expressed in terms of carbon or of an assumed organic compound, e.g., methane equivalent) of gaseous organic compounds present in an emission stream. It can also be used to measure the mass concentration of an organic solvent if stable mass standards of the solvent can be generated.

The measurement will not exclude methane, so a supplemental measurement of methane may be necessary.

2. Range and Sensitivity

2.1 Range. Signal attenuators shall be available so that a minimum signal response of 10 percent of full scale can be produced when analyzing calibration gas or sample.

2.2 Sensitivity. The detector sensitivity shall be equal to or better than 2.0 percent of the full scale setting, with a minimum full scale setting of 10 ppm (methane or carbon equivalent).

3. Interferences

3.1 Nonorganic Gases. There is no response to nitrogen, carbon monoxide, carbon dioxide, or water vapor. however, the analyzer response to organics will be affected by the composition of the background or carrier gas. It is, therefore, required that the calibration gases be contained in air, which is most likely to be the same carrier gas as that of the actual sample.

Investigation of a reported oxygen synergism<sup>2</sup> has shown that a 40/60 mixed fuel (40 percent H<sub>2</sub>, 60 percent He) is required if the oxygen content of the emission stream varies more than a few percent from its mean value. Mixed fuel will also be required if the oxygen content of the emission stream varies more than a few percent from the oxygen content of the calibration gases.

3.2 Organic compounds. Acetylenic compounds give a slightly higher response than aliphatic compounds. Carbon atoms bound to oxygen, nitrogen, or halogens give a reduced or zero response.

Table 1<sup>3</sup> illustrates these effects in terms of the relative response of one FIA to various hydrocarbons. The response is shown as effective carbon number (ECN), as follows:

$$ECN = \frac{\text{Instrument response caused by atom of given type}}{\text{Instrument response caused by aliphatic carbon atom}}$$

These values are true for one mode of operation of a specific detector under specific conditions (e.g., mixed N<sub>2</sub>, H<sub>2</sub> fuel). It has been reported that these numbers may vary widely for different operating conditions and for different detectors. Variations of as much as 25 percent have been observed in studies of the types of organics associated with automotive emissions. The variation was observed to decrease with decreasing sample flow rate, but with an accompanying decrease in sensitivity.<sup>7</sup>

TABLE 1. APPROXIMATE EFFECTIVE CARBON NUMBERS  
 (FROM BECKMAN INSTRUMENTS)

Type of Atom	Occurrence	Effective Carbon Number
Carbon	In Aliphatic Compound	+1.0
Carbon	In Aromatic Compound	+1.0
Carbon	In Olefinic Compound	+0.95
Carbon	In Acetylenic Compound	+1.30
Carbon	In Carbonyl Radical	0.0
Carbon	In Nitrite	+0.3
Oxygen	In Ether	-1.0

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TABLE 1. APPROXIMATE EFFECTIVE CARBON NUMBERS  
(FROM BECKMAN INSTRUMENTS)  
(Continued)

Type of Atom	Occurrence	Effective Carbon Number
Oxygen	In Primary Alcohol	-0.6
Oxygen	In Secondary Alcohol	-0.75
Oxygen	In Tertiary Alcohol, Ester	-0.25
Chlorine	As two or more chlorine atoms on single aliphatic carbon atom	-0.12 each
Chlorine	In Olefinic Carbon Atom	+0.05
Nitrogen	In Amine	Value similar to that for oxygen atom in corresponding alcohol

From this information it can be seen that the accuracy of this method for a given source will be largely dependent on the particular makeup of organic emissions from the source.

3.3 Other effects. Significant changes in viscosity of the emission gas from that of the calibration gas will affect the mass rate of organics to the detector. If this phenomena is expected to occur, a corrective technique must be devised.

If the instrument is calibrated with organic solvent standards, and then used to measure emissions of that solvent, their response variations have been calibrated out.

4. Apparatus

4.1 Commercially available heated FIA. The analyzer should

be demonstrated, preferably by the manufacturer, or his representative, to meet or exceed manufacturer's specifications and those described in this method. The entire sampling and analysis system as encountered by gaseous organics must be capable of being maintained in the temperature range of 350 to 440°F, or less, consistent with the emission regulation.

4.2 Sample conditioning or interface system. Probe with filter, Teflon\* sample line, Teflon-coated diaphragm pump or stainless steel bellows pump and Teflon flow control valves, capable of being maintained in the temperature range of 350 to 400°F, or less, consistent with the emission regulation.

4.3 Potentiometric Recorder (optional). Strip chart recorder with a voltage output compatible with the FIA.

5. Reagents

5.1 Fuel. A hydrogen and helium mixture containing less than 2 ppm organics (methane or carbon equivalent).

5.2 Combustion Air. High purity air with less than 2 ppm organics (methane or carbon equivalent). Required only if the emission stream does not contain sufficient oxygen.

5.3 Zero Gas. Less than 0.1 ppm organics (methane or carbon equivalent).

\* Mention of trade names on specific products does not constitute endorsement by the Environmental Protection Agency.

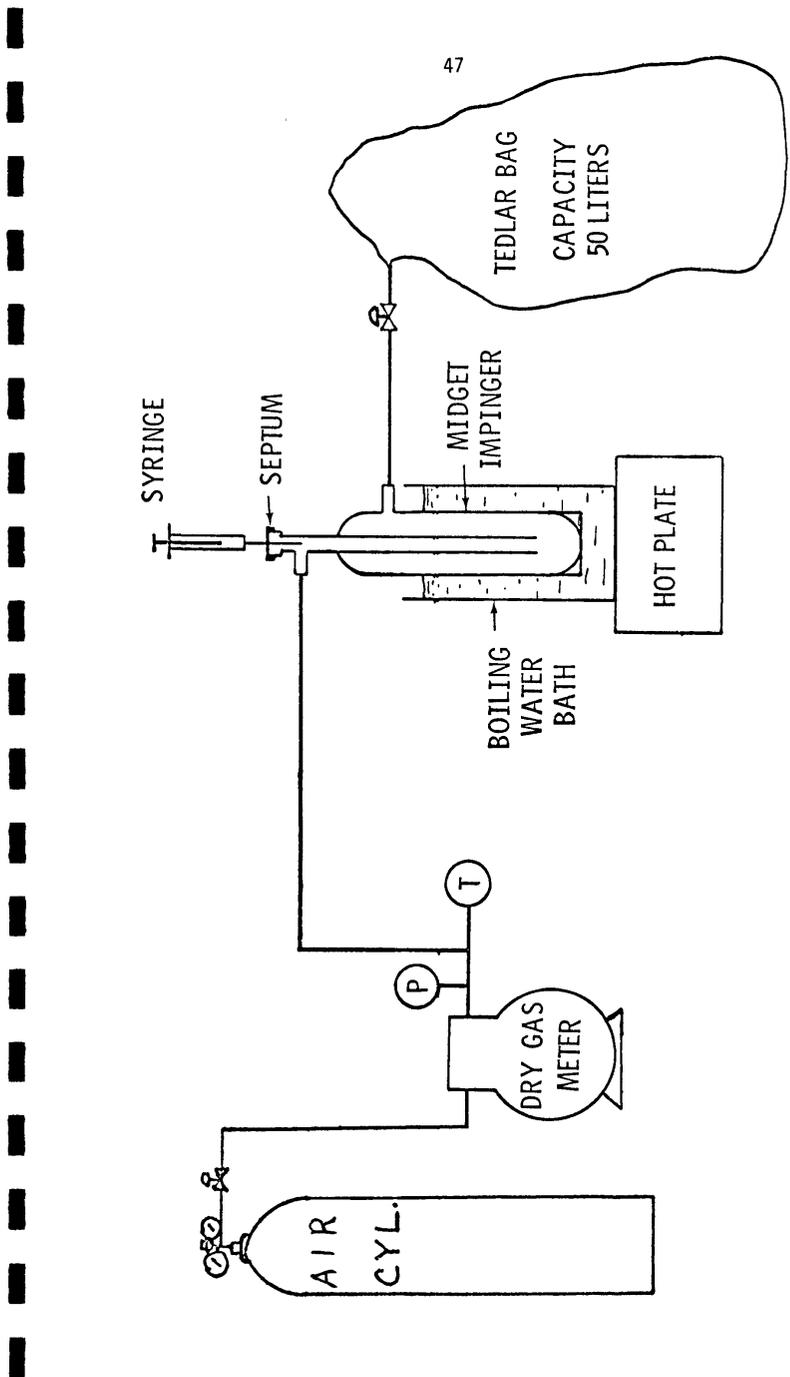


FIGURE 2. PREPARATION OF SOLVENT STANDARDS

5.4 Calibration Gases (2). Gas mixture standards with known concentrations corresponding to ranges of 5 to 10 ppm and 5 to 10 percent (methane or carbon equivalent) are prepared and certified by a gas manufacturer. The mixture will normally consist of  $C_3H_8$  in air. Other organic(s) can be used, if appropriate. The gas manufacturer must recommend a maximum shelf life for each cylinder so that the concentration does not change more than  $\pm 5$  percent from the certified value. The date of gas cylinder preparation, certified propane concentration and recommended maximum shelf life must be affixed to the cylinder before shipment from the gas manufacturer to the buyer. These gas mixture standards are to be used to prepare a calibration curve as described in Section 7.2.

5.5 Span Gas. The calibration gas corresponding to 5 to 10 percent (methane or carbon equivalent) is used to span the analyzer.

5.6 Organic Solvent. Either a sample obtained from the solvent source, or a sample distilled from paint, ink, etc. in accordance with ASTM Procedure D3272-73T. Required only if unaltered solvent emissions are being measured, mass calculations in terms of the solvent are necessary, and the relative response factor of the FIA to the solvent is unknown.

6. System Performance Specifications

6.1 Linearity.  $\pm 5$  percent of the expected value for full scale settings up to the maximum percent absolute (methane or



carbon equivalent) calibration point. The analyzer shall be demonstrated prior to initial use to meet this specification through a 5-point (minimum) calibration. There shall be at least one calibration point in each of the following ranges: 5-10, 50-100, 500-1,000, 5,000-10,000, and 50,000-100,000 ppm (methane or carbon equivalent). Certification of such demonstration by the manufacturer is acceptable. An additional linearity performance check (see Section 7.2.1) must be made before each use.

6.2 Zero Drift. One percent full scale per test period.

6.3 Span Drift. One percent full scale per test period.

7. Procedure

7.1 Sampling.

7.1.1 Assemble the systems as shown in Figure 1. Locate the FIA in a suitably protected environment. Take particular care that sample will be introduced to the FIA under the same conditions of pressure and flow rates as are used in calibration. For specific operating instructions for the FID, refer to manufacturer's manual.

7.1.2 Adjust the sample conditioning and analyzer heating systems to provide a temperature of 350 to 400°F, or less, consistent with the emission regulation, and allow the systems to warm up.

7.1.3 Perform a leak check as follows before sampling. Recheck to confirm that all fittings are tight. With the sample

probe plugged, open the flow control valve and the excess sample bleed valve. Use leak detection fluid or immerse the tubing leading from the bleed valve in a jar of water to check that sample flow has ceased. At the conclusion of the sampling tests, recheck for leaks.

7.1.4 Begin Actual Sampling. Set the signal attenuation to yield a minimum response of 10 percent of full scale unless the stack concentration is less than 1 ppm. Adjust the flow and bleed valves to minimize sample line residence time. Compare instrument readings with the calibration curve to obtain emission concentrations based on the calibration gas.

7.1.5 At the conclusion of the sampling tests, but at least once every day, introduce zero and span gases to the analyzer to determine zero and span drifts. If the analyzer has drifted beyond the allowable performance specification, the tests shall be considered invalid.

#### 7.2 Calibration and Solvent Standards.

7.2.1 Calibration Curve. Maintain a record of performance of each item. Determine the linearity of the analyzer as follows: With the signal attenuation at the most sensitive setting, introduce zero gas and adjust the respective zeroing controls to indicate a reading of less than 1 percent of full scale. With the signal attenuation at the least sensitive setting, introduce the span gas and adjust the span control to indicate the proper value on the analyzer readout. Repeat these

two steps until adjustments are no longer necessary. Calculate a predicted response for the 5 to 10 ppm calibration gas. Introduce that calibration gas and note the value obtained. If the value is not within  $\pm 5$  percent of its predicted value, then the analyzer may need repairs, or one or both of the calibration gases may need replacement. In any event, this linearity performance specification shall be met before the analyzer is placed in actual use.

7.2.2 Preparation of Solvent Standard Gas Mixtures. (Optional-- see Sections 1.2 and 5.6). Assemble the apparatus shown in Figure 2. Evacuate a 50-liter Tedlar or aluminized Mylar bag that has passed a leak check (described in Section 7.2.2.1) and meter in about 50 liters of air. Measure the barometric pressure, the relative pressure at the dry gas meter, and the temperature at the dry gas meter. While the bag is filling use the 10  $\mu$ l syringe to inject 10  $\mu$ l of the solvent through the septum on top of the impinger. This gives a concentration of approximately 200  $\mu$ g/liter. In a like manner, use the other syringe to prepare dilutions having approximately 40 and 20  $\mu$ g/liter concentrations. To calculate the specific concentrations, refer to Section 8.1. These gas mixture standards may be used for a few days from the date of preparation, as determined by repetitive analysis for concentration degradation. (Caution: Contamination may be a problem when a bag is reused if the new gas mixture standard is a lower concentration than the previous gas mixture standard.)

7.2.2.1 Solvent Standards Bag Leak Checks. While performance of this section is required subsequent to bag use, it is also advised that it be performed prior to bag use. After each use, make sure a bag did not develop leaks as follows: to leak check, connect a water manometer and pressurize the bag to 5-10 cm H<sub>2</sub>O (2-4 in. H<sub>2</sub>O). Allow to stand for 10 minutes. Any displacement in the water manometer indicates a leak. Also, check the rigid container for leaks in this manner. (Note: an alternative leak check method is to pressurize the bag to 5-10 cm H<sub>2</sub>O or 2-4 in. H<sub>2</sub>O and allow to stand overnight. A deflated bag indicates a leak.) For each sample bag in its rigid container, place a rotameter in line between the bag and the pump inlet. Evacuate the bag. Failure of the rotameter to register zero flow when the bag appears to be empty indicates a leak.

8. Calculations

All measurements or calculations must be corrected for CH<sub>4</sub>, if required by the emission regulation.

8.1 Carbon or Surrogate Organic Compound Concentration.

8.1.1 Volume concentration [ppm]. To determine emission concentrations of total gaseous organics (wet basis) on a CH<sub>4</sub> or carbon equivalent basis, multiply the recorded emission values by the number of carbon atoms in a molecule of calibration gas. In some instances it will be required to report emissions on the basis of the calibration gas, in which case no calculations are necessary.

8.1.2 Mass concentration [mg/m<sup>3</sup>]. To convert volume concentration to mass concentration, proceed as follows:

8.1.2.1 Establish Standard Conditions. Find the volume occupied by 1 mg. mole of ideal gas at these conditions. Then find the number of mg. moles in 1 m<sup>3</sup> (at saturation).

8.1.2.2 Determine the molecular weight of the assumed organic compound in which the emission is to be expressed.

8.1.2.3 Use the values obtained in 8.1.2.1 and 8.1.2.2 to determine the mass concentration (mg/m<sup>3</sup>) at saturation. Divide this number by 10<sup>6</sup> to find the mg/m<sup>3</sup> equivalent to 1 ppm.

8.1.2.4 Multiply the result obtained in 8.1.2.3 by the volume concentration obtained in 8.1.1. The result is the mass concentration expressed in terms of the compound whose molecular weight was determined in 8.1.2.2.

## 8.2 Organic Solvent Concentration

8.2.1 Solvent Standards Concentrations. Calculate each solvent standard concentration prepared in accordance with Section 7.2.1.2 as follows:

$$C_c = \frac{B(d. \frac{mg}{\mu l}) \frac{10^3 \mu g}{mg}}{V_m Y \frac{293}{T_m} \frac{P_m}{760}} \quad \text{Equation 1}$$

where:

C<sub>c</sub> = Solvent standard concentration, μg/l.

B = Number of μl of solvent injected.

V<sub>m</sub> = Gas volume measured by dry gas meter in liters.

Y = Dry gas meter, calibration factor.

P<sub>m</sub> = Absolute pressure of the dry gas meter, mm Hg.

T<sub>m</sub> = Absolute temperature of the dry gas meter, °A.

d. = Density of the solvent at 293°A.

8.2.2 Solvent Emission Concentrations The emission values in  $\mu\text{g/ml}$  are taken from the solvent standards response curve. No further calculations are required.

9. References

1. Method 108, 43101-02-71T, "Tentative Method for Continuous Analysis of Total Hydrocarbons in the Atmosphere (Flame Ionization Method)." Methods of Air Sampling and Analysis, Intersociety Committee, Amer. Pub. Health Assn., Washington, D. C., 1972.
2. M. Johnson, "Oxygen Synergism in the Model 400 FIA." Beckman Instruments, Inc., Fullerton, Ca. Oct., 1970.
3. Instruction Manual 82132-A, "Model 402 Hydrocarbon Analyzer." Beckman Instruments, Inc., Fullerton, Ca. Feb., 1971.
4. "Air-Hydrocarbon Monitoring Instrumentation," Lawrence Berkeley Laboratory, Univ. of Ca., Berkeley, Ca. Nov., 1973.
5. A. J. Andreatch and R. Feinland, "Continuous Trace Hydrocarbon Analysis by Flame Ionization." Anal. Chem. 32 (8) 1021-4. July, 1960.
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7. F. M. Black, L. E. High, and J. E. Sigsby, "The Application of Total Hydrocarbon Flame Ionization Detectors to the Analysis of Hydrocarbon Mixtures from Motor Vehicles, With and Without Catalytic Emission Control." Water, Air, Soil Pollut. 5 (1) 53-62. Oct., 1975.

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TECHNICAL REPORT DATA <i>(Please read Instructions on the reverse before completing)</i>		
1. REPORT NO. EPA-450/2-78-041	2.	3. RECIPIENT'S ACCESSION NO.
4. TITLE AND SUBTITLE Measurement of Volatile Organic Compounds	5. REPORT DATE October, 1978	6. PERFORMING ORGANIZATION CODE
	7. AUTHOR(S) Emission Measurement Branch	8. PERFORMING ORGANIZATION REPORT NO.
9. PERFORMING ORGANIZATION NAME AND ADDRESS Emission Measurement Branch (MD-13) Environmental Standards and Engineering Division U. S. Environmental Protection Agency Research Triangle Park, North Carolina 27711	10. PROGRAM ELEMENT NO.	11. CONTRACT/GRANT NO.
	12. SPONSORING AGENCY NAME AND ADDRESS Division for Air Quality Planning and Standards (MD-10) Office of Air, Noise, and Radiation U. S. Environmental Protection Agency Research Triangle Park, North Carolina 27711	13. TYPE OF REPORT AND PERIOD COVERED
15. SUPPLEMENTARY NOTES		
6. ABSTRACT <p>This document discusses the rationale of total volatile organics stationary source emission measurement through the determination of organic carbon mass concentration. A conceptual approach for writing emission regulations in terms of volatile organic carbon is recommended, and drafts of two specific test methods are presented for regulation implementation. The methods are the measurement of total gaseous nonmethane organics as carbon by the chromatographic oxidation/reduction procedure, and the relative organic measurement derived by direct application of the flame ionization analyzer.</p>		
7. KEY WORDS AND DOCUMENT ANALYSIS		
a. DESCRIPTORS Air Pollution Analyzing Sampling Organic Compounds Gas Sampling	b. IDENTIFIERS/OPEN ENDED TERMS Stationary Sources Volatile Organic Compounds Analytical Strategy Organic Vapors Environmental Assessment	c. COSATI Field/Group 13B
8. DISTRIBUTION STATEMENT Please Unlimited	19. SECURITY CLASS ( <i>This Report</i> ) Unclassified	21. NO. OF PAGES 54
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**TABLE 297.310-1 CALIBRATION SCHEDULE**

(version dated 10/07/96)

[Note: This table is referenced in Rule 62-297.310, F.A.C.]

ITEM	MINIMUM CALIBRATION FREQUENCY	REFERENCE INSTRUMENT	TOLERANCE
Liquid in glass thermometer	Annually	ASTM Hg in glass ref. thermometer or equivalent, or thermometric points	+/-2%
Bimetallic thermometer	Quarterly	Calib. liq. in glass thermometer	5 degrees F
Thermocouple	Annually	ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer	5 degrees F
Barometer	Monthly	Hg barometer or NOAA station	+/-1% scale
Pitot Tube	When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Fig. 2-2 & 2-3
Probe Nozzles	Before each test or when nicked, dented, or corroded	Micrometer	+/-0.001" mean of at least three readings Max. deviation between readings .004"
Dry Gas Meter and Orifice Meter	1. Full Scale: When received, When 5% change observed, Annually 2. One Point: Semiannually 3. Check after each test series	Spirometer or calibrated wet test or dry gas test meter	2%
		Comparison check	5%

**TABLE H****PERMIT HISTORY**

E.U. ID No.	Description	Permit No.	Effective Date	Expiration Date	Project Type
All	Modify VOC limit	1030119-001-AC	10/21/1996	06/27/1997	Construction (mod.)
All	Facility	1030119-002-AV	10/14/1998	10/14/2003	Initial
All	Transfer of Ownership	1030119-003-AC	03/20/1997	10/14/2003	Administration Correction
All	Facility	1030119-004-AC	12/30/1997	10/01/1998	Time extension for 001-AC
All	Facility	1030119-005-AV	07/01/2002	10/14/2003	Administration Correction
All	Facility	1030119-006-AV	08/14/2005	08/14/2010	Renewal
All	Modify line no. 2 & VOC limit	1030119-007-AC	12/27/2004	06/30/2008	Construction (mod.)
All	Rev to incorporate 007-AC	1030119-008-AV	12/26/2007	08/14/2010	Revision
All	Transfer of Ownership	1030119-009-AC	04/02/2008	08/14/2010	Administration Correction
All	RTO Replacement	1030119-010-AC	01/23/2009	12/31/2010	Construction (mod.)
All	Amendment to 010-AC	1030119-011-AC	03/19/2009	12/31/2010	Amendment
All	Facility	1030119-012-AV	09/14/2010	9/14/2015	Renewal
All	Facility Name Change	1030119-013-AC	11/29/2011	9/14/2015	Administration Correction
All	Facility Name Change	1030119-014-AC	02/06/2012	9/15/2015	Administration Correction
All	Modify RTO Test Frequency	1030119-015-AC	01/08/2013	5/31/2013	Construction (mod)
All	Rev to incorporate 015-AC	1030119-016-AV	03/05/2013	9/14/2015	Revision

## STATEMENT OF BASIS

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### Title V Air Operation Permit Revision Permit No. 1030119-016-AV

#### APPLICANT

The applicant for this project is Madico Window Film, Inc. The applicant's responsible official and mailing address are: Mr. Shawn Kitchell, Vice President of Operations, Madico Window Films, Inc., 2630 Fairfield Avenue South, St. Petersburg, Florida 33712.

#### FACILITY DESCRIPTION

The applicant operates the Madico Window Film, Inc. facility, which is located at 2544 Terminal Dr. South, St. Petersburg, Florida.

This facility manufactures metalized and reflective window coating films (window tinting) and is a source of volatile organic compounds (VOCs) and hazardous air pollutants (HAPs). The facility consists of one emissions unit (E.U. No. 003) that includes two coating lines, a mixing room, and a regenerative thermal oxidizer (RTO) used to control emissions from the process. Coating Line Nos. 1 and 2 are regulated by Rule 62-296.503, F.A.C., Reasonably Available Control Technology (RACT), Paper Coating.

Also included in this permit are miscellaneous insignificant emissions units and/or activities.

#### PROJECT DESCRIPTION

The purpose of this permitting project is to revise the existing Title V permit for the above referenced facility to incorporate the terms and conditions of Construction Permit No. 1030119-015-AC, issued on January 8, 2013.

#### PROCESSING SCHEDULE AND RELATED DOCUMENTS

Renewed Title V Air Operation Permit (No. 1030119-006-AV) issued August 14, 2005  
Title V Air Operation Permit Revision (No. 1030119-008-AV) issued December 26, 2007  
Title V Air Operation Permit Administrative Correction (No. 1030119-009-AV) issued April, 2, 2008  
Application for a Title V Air Operation Permit Renewal received February 8, 2010  
Additional Information Request dated March 19, 2010  
Additional Information Response received May 3, 2010  
Renewed Title V Air Operation Permit (No. 1030119-013-AV) issued September 14, 2010  
Title V Air Operation Permit Administrative Correction (No. 1030119-013-AV) issued November 29, 2011  
Title V Air Operation Permit Administrative Correction (No. 1030119-014-AV) issued February 6, 2012  
Application for a Construction Permit and Title V Air Operation Permit Revision October 25, 2012  
Construction Permit (No. 1030119-015-AC) issued on January 8, 2013

#### PRIMARY REGULATORY REQUIREMENTS

Title III: The facility is identified as a major source of hazardous air pollutants (HAP).

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

PSD: The facility is not a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility does not operate emissions units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

NESHAP: The facility does operate emissions units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63. (Emissions Unit No 003 is subject to Subpart JJJJ, National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating.)

## STATEMENT OF BASIS

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CAIR: The facility is not subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

CAM: Compliance Assurance Monitoring (CAM) applies to Emissions Unit No. 003. Emissions Unit 003 is subject to CAM for the regulated emissions of VOCs, which are controlled by a Regenerative Thermal Oxidizer.

### PROJECT REVIEW

The purpose of this project is to incorporate Construction Permit No. 1030119-015-AC, which lowers the volatile organic compounds (VOC) permitted limit for Emissions Unit No. 003 from 245 to 74 tons per year, relaxes the facility's Regenerative Thermal Oxidizer (RTO) testing requirement from once every federal fiscal year to once every five years, and revises some of the related recordkeeping requirements

The permit maintains the old Title V format, but replaces some of the old appendices with the new appendices (i.e., appendices included in the new formatted Title V permit which became the standard for Title V Renewal permits in 2011).

Changes to the Title V Permit specific conditions include the following:

- The emissions unit description for Emissions Unit No. 003 was revised to remove the laboratory equipment from the description. The laboratory equipment was added to Appendix I (List Of Insignificant Emissions Units And/Or Activities) and is considered insignificant.
- A permitting Note was added below Specific Condition No. A.1. The note explain that demonstration of compliance with the loading rate (with recordkeeping) is necessary only if the RTO is tested below 90% of the permitted capacity.
- Specific Condition No. A.4. was modified to reduce the maximum VOC emissions limit from 245 tons/year to 74 tons/year.
- Specific Condition No. A.9. was modified to relax the RTO destruction efficiency testing frequency from once every federal fiscal year to once every five years prior to renewing the Title V permit.
- Specific Condition No. A.15.d. was modified to clarify that the compliance test report's VOC loading rate to the RTO is specifically the loading rate for Coating Line Nos. 1 & 2 combined.
- Specific Condition No. A.22.a.7 was deleted and replaced with Specific Condition No. A.22.b. Specific Condition A.22.b. requires the permittee to keep records of the hourly VOC input to the RTO if the RTO is tested below 90% of the permitted capacity.

Additionally, in the CAM Plan, the QIP threshold temperature was reduced from 1,641 to 1,516 °F, and TV-6 (version dated 11/10/2008) was replaced with Appendix TV (version dated 2/16/2012)

### CONCLUSION

This project revises Title V Air Operation Permit No. 1030119-012-AV, which was issued on September 14, 2010. This revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210 and 62-213, F.A.C.