

Manufacturing General Permit - 2020

[Part 70 Manufacturing Facility General Permit]

Part 70 Manufacturing General Permit

<NO_DATA_FOUND>

Permittee: Manufacturing Facility Part 70 General Permit

Co-permittee name: <NO_DATA_FOUND>

Facility name: Manufacturing Facility Part 70 General Permit
MN

Permit issuance date: January 27, 2020

Expiration date: January 27, 2025

*All Title I Conditions do not expire

Permit characteristics: Federal; Part 70 General Permit; Limits to Avoid NSR

*The Permittee may continue to operate this facility after the expiration date of the permit, per the provision under Minn. R. 7007.0450, subp. 3.

The emission units, control equipment and emission stacks at the stationary source authorized in this permit are as described in the submittals listed in the Permit Applications Table.

This general permit supersedes Air Emission Permit No. <NO_DATA_FOUND> and authorizes the Permittee to operate, construct, and modify the stationary source at the address listed above unless otherwise noted in the permit. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Unless otherwise indicated, all the Minnesota rules cited as the origin of the permit terms are incorporated into the SIP under 40 CFR § 52.1220 and as such are enforceable by U.S. Environmental Protection Agency (EPA) Administrator or citizens under the Clean Air Act.

Signature: *[Type e-Signature]*

This document has been electronically signed.

for Carolina Espejel Schutt, P.E. Acting Manager
Air Quality Permits Section
Industrial Division

for the Minnesota Pollution Control Agency

[Use appropriate signature block in the preferred titles system]

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Permit issued: [month day, year]
Permit expires: [month day, year]

[permit number]
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1. Permit applications table

Title description	Application receipt date	Action number
[title of application]	[application receipt date]	[permit action number]

2. Where to send submittals

Send submittals that are required to be submitted to the U.S. EPA regional office to:

Chief Air Enforcement
Air and Radiation Branch
EPA Region V
77 West Jackson Boulevard
Chicago, Illinois 60604

Each submittal must be postmarked or received by the date specified in the applicable Table. Those submittals required by Minn. R. 7007.0100 to 7007.1850 must be certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. Other submittals shall be certified as appropriate if certification is required by an applicable rule or permit condition.

Send submittals that are required by the Acid Rain Program to:

U.S. Environmental Protection Agency
Clean Air Markets Division
1200 Pennsylvania Avenue NW (6204N)
Washington, D.C. 20460

Send any application for a permit or permit amendment to:

Fiscal Services – 6th Floor
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Also, where required by an applicable rule or permit condition, send to the Permit Document Coordinator notices of:

- a. Accumulated insignificant activities
- b. Installation of control equipment
- c. Replacement of an emissions unit, and
- d. Changes that contravene a permit term

Unless another person is identified in the applicable Table, send all other submittals to:

AQ Compliance Tracking Coordinator
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Or

Email a signed and scanned PDF copy to:
submitstacktest.pca@state.mn.us
(for submittals related to stack testing)
AQRoutineReport.PCA@state.mn.us
(for other compliance submittals)
(See complete email instructions in "Routine Air Report Instructions Letter" at
<http://www.pca.state.mn.us/nwqh472>.)

3. Limits and other requirements

Requirement number	Requirement and citation
TFAC 1	
5.1.1	TOTAL FACILITY REQUIREMENTS. [General Permit Header]
5.1.2	<p>Type of Emission Units Allowed: The stationary sources shall not have any emission units other than the following process operations and emissions units: Abrasive blasting, adhesive, bag houses, boilers, burn-off ovens, casting, catalytic or thermal afterburners, cleaning (including acid cleaning, degreasers, general cleanup with solvents), dip tanks, fabric filters, fuel storage, furnaces, injection molding, internal combustion engines (generators), lamination, mixing, molding, ovens, resin and gel coating, sanding, screen printing, space heaters, spraying and coating activities, stenciling, storage tanks, wall/panel filters, water wash paint booths, and/or any of the insignificant activities listed in Minn. R. 7007.1300 and/or conditionally insignificant activities listed in Minn. R. 7008. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.1100]</p>
5.1.3	<p>Equipment Labeling Requirements: The Permittee shall permanently affix a unique number to each emissions unit for tracking purposes within 60 days of permit issuance. The numbers shall correlate the unit to the appropriate Subject Item numbers used in this permit. The number can be affixed by placard, stencil, or other means. The number shall be maintained so that it is readable and visible at all times from a safe distance. If equipment is added, it shall be given a new unique number; numbers from replaced or removed equipment shall not be reused. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.1100]</p>
5.1.4	<p>Equipment Inventory: The Permittee shall maintain a written list of all emissions units (EQUI) and control equipment (TREA) on site. The Permittee shall update the list to include any replaced, modified, or new equipment prior to making the change. The date of construction shall be the date the change was made for replaced, modified, or new equipment.</p> <p>The list shall correlate the units to the Subject Item numbers used in this permit; use Form MG-EIL. The list must include the following:</p> <ol style="list-style-type: none"> 1) date of revisions; 2) the type of equipment; <ol style="list-style-type: none"> a. serial number (or assigned number as applicable) b. dates of installation, modification, or reconstruction 3) all applicable Standards of Performance for New Stationary Sources: <ol style="list-style-type: none"> a. subp. Kb for volatile organic liquid storage vessels b. subp. IIII for compression ignition internal combustion engines 4) all applicable National Emission Standards for Hazardous Air Pollutants (NESHAP): <ol style="list-style-type: none"> a. subp. T for halogenated solvent cleaning machines b. subp. MMMM for surface coating miscellaneous metal parts and products c. subp. PPPP for surface coating of plastic parts and products d. subp. WWWW for reinforced plastic composites production e. subp. ZZZZ for stationary reciprocating internal combustion engines f. subp. DDDDD for industrial/commercial/institutional boilers and process heaters <p>When the list is updated, the Permittee must maintain copies of it and all previous equipment lists on site. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.1100]</p>
5.1.5	<p>Eligibility Evaluations: The following eligibility evaluations must be completed before making any modification or change as allowed by this permit:</p> <ol style="list-style-type: none"> 1) Re-evaluate whether the emission lists in this permit can continue to be met; 2) Evaluate whether any proposed new or replacement equipment is of the type allowed by this permit; and 3) Re-evaluate whether the change or modification will result in any part of the facility being subject to

Requirement number	Requirement and citation
	<p>any NSPS or NESHAP other than those allowed by this permit.</p> <p>If the emission limits can't be met, or the proposed new equipment is not allowed by this permit, or a NSPS or NESHAP other than what is allowed by this permit will be triggered, the Permittee shall apply for and receive an individual Part 70 permit that authorizes the modification or change and operation of the total stationary source before making the modification or change. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.1100]</p>
5.1.6	<p>Lead Containing Materials Prohibited: The Permittee shall not use painting or coating materials that contain lead. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.1100]</p>
5.1.7	<p>Fuel Usage: The Permittee must use only distillate oil (diesel, fuel oil #1 or #2), natural gas, biodiesel, liquid petroleum gas, and/or gasoline fuels in stationary combustion sources. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.1100]</p>
5.1.8	<p>Fuel Usage: No. 2 fuel oil/diesel Sulfur Content of Fuel less than or equal to 15 parts per million, or No. 2 fuel oil/diesel fuel meeting the requirements of 40 CFR Section 80.510(c) only. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.1100]</p>
5.1.9	<p>Boiler Size: The Permittee shall not use or install indirect heating equipment with a maximum design heat input capacity greater than or equal to 10 million Btu per hour for any individual boiler. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.1100]</p>
5.1.10	<p>Prevention of Significant Deterioration: The stationary source shall not be one of the Prevention of Significant Deterioration (PSD) source categories listed in Minn. R. 7007.0200, subp. 2(B)(1)-(26). [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.1100]</p>
5.1.11	<p>New Source Performance Standards: The Permittee shall comply with the following standards, if applicable:</p> <ol style="list-style-type: none"> 1) 40 CFR pt. 60, subp. Kb for volatile organic liquid storage vessels; and 2) 40 CFR pt. 60, subp. IIII for compression ignition internal combustion engines <p>Sources that are subject to any other NSPS for a source category in 40 CFR pt. 60 are not eligible for this general permit. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.1100]</p>
5.1.12	<p>National Emission Standards for Hazardous Air Pollutants: The Permittee shall comply with the following standards, if applicable:</p> <ol style="list-style-type: none"> 1) 40 CFR pt. 63, subp. T for halogenated solvent cleaning machines; 2) 40 CFR pt. 63, subp. MMMM for surface coating of miscellaneous metal parts and products; 3) 40 CFR pt. 63, subp. PPPP for surface coating of plastic parts and products; 4) 40 CFR pt. 63, subp. WWWW for reinforced plastic composites production; 5) 40 CFR pt. 63, subp. ZZZZ for stationary reciprocating internal combustion engines; and 6) 40 CFR pt. 63, subp. DDDDD for industrial/commercial/institutional boilers and process heaters. <p>Sources which are subject to any other NESHAP for a source category in 40 CFR pt. 63, are subject to any NESHAP for a source category in 40 CFR pt. 61, or were subject to case-by-case MACT standards issued through an individual permit under section 112(g) of the Clean Air Act, are not eligible for this general permit. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.1100]</p>
5.1.13	<p>Permit Appendices: This permit contains appendices as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in:</p> <p>Appendix A: Emission Calculations;</p> <p>Appendix B: 40 CFR pt. 63, subp. MMMM-National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products;</p> <p>Appendix C: 40 CFR pt. 63, subp. PPPP-National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products;</p> <p>Appendix D: Table 1 to 40 CFR pt. 63, subp. WWWW-National Emission Standards for Hazardous Air Pollutants for Reinforced Plastic Composites Production, Equations to Calculate Organic HAP Emissions</p>

Requirement number	Requirement and citation
	<p>Factors for Specific Open Molding and Centrifugal Casting Process Streams; Appendix E: Table 7 to 40 CFR pt. 63, subp. WWWW-National Emission Standards for Hazardous Air Pollutants for Reinforced Plastic Composites Production, Options Allowing use of the Same Resin across different Operations that use the Same Resin Type; Appendix F: Table 8 to 40 CFR pt. 63, subp. WWWW-National Emission Standards for Hazardous Air Pollutants for Reinforced Plastic Composites Production, Initial Compliance with Organic HAP Emissions Limits; Appendix G: Table 9 to 40 CFR pt. 63, subp. WWWW-National Emission Standards for Hazardous Air Pollutants for Reinforced Plastic Composites Production, Initial Compliance with Work Practice Standards; Appendix H: Table 10 to 40 CFR pt. 63, subp. WWWW-National Emission Standards for Hazardous Air Pollutants for Reinforced Plastic Composites Production, Data Requirements for New and Existing Continuous Lamination Lines and Continuous Casting Lines Complying with a Percent Reduction Limit on a per Line Basis; Appendix I: Table 11 to 40 CFR pt. 63, subp. WWWW-National Emission Standards for Hazardous Air Pollutants for Reinforced Plastic Composites Production, Data Requirements for New and Existing Continuous Lamination Lines and Continuous Casting Lines Complying with a Percent Reduction Limit on a per Line Basis; Appendix J: Table 12 to 40 CFR pt. 63, subp. WWWW-National Emission Standards for Hazardous Air Pollutants for Reinforced Plastic Composites Production, Data Requirements for New and Existing Lamination Lines and Continuous Casting Lines Complying with a Lbs/Ton Organic HAP Emissions Limit on a per Line Basis; Appendix K: Table 13 to 40 CFR pt. 63, subp. WWWW-National Emission Standards for Hazardous Air Pollutants for Reinforced Plastic Composites Production, Applicability and Timing of Notifications; Appendix L: 40 CFR Section 63.5810 Equations to 40 CFR pt. 63, subp. WWWW-National Emission Standards for Hazardous Air Pollutants for Reinforced Plastic Composites Production; Appendix M: 40 CFR Section 63.5890 Equations to 40 CFR pt. 63, subp. WWWW-National Emission Standards for Hazardous Air Pollutants for Reinforced Plastic Composites Production; Appendix N: 40 CFR pt. 63, subp. A - General Provisions; and Appendix O: 40 CFR pt. 60, subp. A - General Provisions. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.1100]</p>
5.1.14	<p>Stratospheric Ozone Protection: Use Forms MG-09 and MG-09F to determine if the facility is subject to this requirement. If the facility currently uses ozone-depleting substances as defined in 40 CFR pt. 82, Sections 601-618 of the 1990 Clean Air Act Amendments and 40 CFR pt. 82 may apply to the facility. The Permittee shall read Sections 601-618 and 40 CFR pt. 82 to determine all the requirements that apply to the facility. [40 CFR pt. 82]</p>
5.1.15	<p>Federal Ozone Measures: Use Form MG-09 to determine if the facility is subject to this requirement. If the facility currently manufactures consumer or commercial products that emit volatile organic compounds, Section 183(e) of the 1990 Clean Air Act Amendments and 40 CFR pt. 59 may apply to the facility. The Permittee shall read Section 183(e) and 40 CFR pt. 59 to determine all the requirements that apply to the facility. [40 CFR pt. 59]</p>
5.1.16	<p>PERMIT SHIELD: Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.</p> <p>This permit shall not alter or affect the liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance. [Minn. R. 7007.1800, (A)(2)]</p>
5.1.17	<p>POLLUTANT LIMITS. [General Permit Header]</p>

Requirement number	Requirement and citation
5.1.18	<p>The Permittee must limit emissions of Particulate Matter ≤ 90.0 tons per year 12-month rolling sum, calculated monthly as described in Appendix A.</p> <p>All PM-emitting equipment at the facility is subject to this limit, except insignificant activities under Minn. R. 7007.1300 subps. 2 and 3, and Minn. R. 7008. If the Permittee replaces any existing PM-emitting equipment, adds new PM-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the applicable requirements listed in this permit. [Minn. R. 7007.1100, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.1.19	<p>The Permittee must limit emissions of PM < 10 micron ≤ 90.0 tons per year 12-month rolling sum, calculated monthly as described in Appendix A.</p> <p>All PM10-emitting equipment at the facility is subject to this limit, except insignificant activities under Minn. R. 7007.1300 subps. 2 and 3, and Minn. R. 7008. If the Permittee replaces any existing PM10-emitting equipment, adds new PM10-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the applicable requirements listed in this permit. [Minn. R. 7007.1100, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.1.20	<p>The Permittee must limit emissions of PM < 2.5 micron ≤ 90.0 tons per year 12-month rolling sum, calculated monthly as described in Appendix A.</p> <p>All PM2.5-emitting equipment at the facility is subject to this limit, except insignificant activities under Minn. R. 7007.1300 subps. 2 and 3, and Minn. R. 7008. If the Permittee replaces any existing PM2.5-emitting equipment, adds new PM2.5-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the applicable requirements listed in this permit. [Minn. R. 7007.1100, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.1.21	<p>The Permittee must limit emissions of Nitrogen Oxides ≤ 90.0 tons per year 12-month rolling sum, calculated monthly as described in Appendix A.</p> <p>All NOx-emitting equipment at the facility is subject to this limit, except insignificant activities under Minn. R. 7007.1300 subps. 2 and 3, and Minn. R. 7008. If the Permittee replaces any NOx-emitting equipment, adds new NOx-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the applicable requirements listed in this permit. [Minn. R. 7007.1100, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.1.22	<p>The Permittee must limit emissions of Carbon Monoxide ≤ 90.0 tons per year 12-month rolling sum, calculated monthly as described in Appendix A.</p> <p>All CO-emitting equipment at the facility is subject to this limit, except insignificant activities under Minn. R. 7007.1300 subps. 2 and 3, and Minn. R. 7008. If the Permittee replaces any existing CO-emitting equipment, adds new CO-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the applicable requirements listed in this permit. [Minn. R. 7007.1100, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.1.23	<p>The Permittee must limit emissions of Volatile Organic Compounds ≤ 225.0 tons per year 12-month rolling sum, calculated monthly as described in Appendix A.</p> <p>All VOC-emitting equipment at the facility is subject to this limit, except insignificant activities under Minn. R. 7007.1300 subps. 2 and 3, and Minn. R. 7008. If the Permittee replaces any existing VOC-emitting equipment, adds new VOC-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the applicable requirements listed in this</p>

Requirement number	Requirement and citation
	<p>permit. [Minn. R. 7007.1100, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.1.24	<p>The Permittee must limit emissions of HAPs - Total <= 90.0 tons per year 12-month rolling sum, calculated monthly as described in Appendix A.</p> <p>All HAP-emitting equipment at the facility is subject to this limit, except insignificant activities under Minn. R. 7007.1300 subps. 2 and 3, and Minn. R. 7008 If the Permittee replaces any existing HAP-emitting equipment, adds new HAP-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the applicable requirements listed in this permit. [40 CFR 63.5805(c), Minn. R. 7007.1100, Minn. R. 7011.7800]</p>
5.1.25	<p>The Permittee must cease to use and emit emissions of Trichloroethylene (TCE) by [DATE, 6 months after permit issuance]. The Permittee must not use or emit TCE after [DATE, 6 months after permit issuance]. If the Permittee uses or emits TCE after [DATE, 6 months after permit issuance], then the Permittee is not eligible for this permit. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7007.1100]</p>
5.1.26	<p>OPERATIONAL REQUIREMENTS. [General Permit Header]</p>
5.1.27	<p>The Permittee shall comply with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0090. Compliance shall be demonstrated upon written request by the MPCA. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]</p>
5.1.28	<p>Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted. [Minn. R. 7011.0020]</p>
5.1.29	<p>Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate. [Minn. R. 7019.1000, subp. 4]</p>
5.1.30	<p>Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150. [Minn. R. 7011.0150]</p>
5.1.31	<p>Fugitive Dust Control: The facility shall take reasonable measures to prevent particulate matter from becoming airborne.</p> <p>The Permittee shall minimize or eliminate fugitive emissions from all paved surfaces. If fugitive emissions from paved surfaces are observed, the Permittee shall record the date that fugitive dust was observed, what corrective actions were taken, when the corrective actions were taken, and whether the corrective actions eliminated the fugitive dust.</p> <p>The Permittee shall use water on exposed surfaces such as unpaved roads to control fugitive particulate emissions, except as provided below. If fugitive emissions from exposed surfaces are observed, the Permittee shall record:</p> <ol style="list-style-type: none"> 1) The date that fugitive dust was observed; 2) What corrective actions were taken, when the corrective actions were taken, and whether the corrective actions eliminated the fugitive dust; 3) If dust control measures were not taken because of a rainfall event or because an area is snow or ice-covered, documentation of the event or condition along with the source of measurement for rainfall (e.g. on-site rain gauge); 4) If dust control measures were not taken because of weather conditions, documentation of the date and the weather conditions (e.g. documentation that the temperature indicated freezing conditions).

Requirement number	Requirement and citation
	<p>The Permittee is not required to use water to control fugitive particulate emissions under any of the following circumstances:</p> <ol style="list-style-type: none"> 1) If there was a 0.10 inch rainfall during the previous 24 hours, or 2) If the areas to be controlled are covered with snow or ice, or 3) During freezing conditions. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.1100]
5.1.32	<p>Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act. [Minn. R. 7030.0010-7030.0080]</p>
5.1.33	<p>Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A). [Minn. R. 7007.0800, subp. 9(A)]</p>
5.1.34	<p>The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16. [Minn. R. 7007.0800, subp. 16]</p>
5.1.35	<p>POLLUTION CONTROL EQUIPMENT REQUIREMENTS. [General Permit Header]</p>
5.1.36	<p>Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated. [Minn. R. 7007.0800, subp. 16(J), Minn. R. 7007.0800, subp. 2(A)]</p>
5.1.37	<p>Air Pollution Control Equipment: The Permittee shall comply with the control equipment rule (Minn. R. 7011.0060-7011.0080) for all fabric filters, wall or panel filters, catalytic oxidizers, and thermal oxidizers, at the facility.</p> <p>If the Permittee replaces any existing control equipment that has requirements in this permit, adds new control equipment of a type listed in this requirement, or modifies control equipment that has requirements in this permit, such equipment is subject to all of the applicable requirements of the permit. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7011.0060-7011.0080]</p>
5.1.38	<p>The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter \geq 85 percent control efficiency for all booths that are total enclosures for abrasive blasting, sanding, and non- fiberglass spraying/coating; including existing, modified, or new booths for abrasive blasting, sanding, and non- fiberglass spraying/coating. [Minn. R. 7007.1100, Minn. R. 7011.0060-7011.0080]</p>
5.1.39	<p>The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron \geq 85 percent control efficiency for all booths that are total enclosures for abrasive blasting, sanding, and non- fiberglass spraying/coating; including existing, modified, or new booths for abrasive blasting, sanding, and non- fiberglass spraying/coating. [Minn. R. 7007.1100, Minn. R. 7011.0060-7011.0080]</p>
5.1.40	<p>The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron \geq 85 percent control efficiency for all booths that are total enclosures for abrasive blasting, sanding, and non- fiberglass spraying/coating; including existing, modified, or new booths for abrasive blasting, sanding, and non- fiberglass spraying/coating. [Minn. R. 7007.1100, Minn. R. 7011.0060-7011.0080]</p>
5.1.41	<p>The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter \geq 68 percent control efficiency for all booths that vent to certified hoods for abrasive blasting, sanding, and non- fiberglass spraying/coating; including existing, modified, or new booths for abrasive blasting, sanding, and non- fiberglass spraying/coating. [Minn. R. 7007.1100, Minn. R. 7011.0060-7011.0080]</p>
5.1.42	<p>The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron \geq 68 percent control efficiency for all booths that vent to certified hoods for abrasive blasting, sanding, and non- fiberglass spraying/coating; including existing, modified, or new</p>

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	booths for abrasive blasting, sanding, and non- fiberglass spraying/coating. [Minn. R. 7007.1100, Minn. R. 7011.0060-7011.0080]
5.1.43	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron \geq 68 percent control efficiency for all booths that vent to certified hoods for abrasive blasting, sanding, and non- fiberglass spraying/coating; including existing, modified, or new booths for abrasive blasting, sanding, and non- fiberglass spraying/coating. [Minn. R. 7007.1100, Minn. R. 7011.0060-7011.0080]
5.1.44	<p>Capture Efficiency for Control Equipment: All capture systems considered certified hoods shall be certified according to the design and operating practices recommended in the most recent edition (at the time of certification) of "Industrial Ventilation - A Manual of Recommended Practices" by American Conference of Governmental Industrial Hygienists. The Permittee shall submit evidence of certification on Form MGCR-02. In addition, the Permittee shall provide a description of the hood on Form MGHE-01.</p> <p>For all capture systems that are: (1) not total enclosures, and (2) not certified hoods, emissions are considered uncaptured and the Permittee shall not use a capture or control efficiency to calculate emissions. [Minn. R. 7007.1100, Minn. R. 7011.0060-7011.0080]</p>
5.1.45	Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment and practices, and the records kept to demonstrate plan implementation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 16(J)]
5.1.46	PERFORMANCE TESTING REQUIREMENTS. [General Permit Header]
5.1.47	Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in this permit. [Minn. R. ch. 7017]
5.1.48	<p>Performance Test Notifications and Submittals:</p> <p>Performance Test Notification and Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due 7 days before each Performance Test Performance Test Report: due 45 days after each Performance Test</p> <p>The Notification, Test Plan, and Test Report must be submitted in a format specified by the commissioner. [Minn. R. 7017.2017, Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p>
5.1.49	Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as stated in the MPCA's Notice of Compliance letter granting preliminary approval. Preliminary approval is based on formal review of a subsequent performance test on the same unit as specified by Minn. R. 7017.2025, subp. 3. The limit is final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025, subp. 3]
5.1.50	MONITORING REQUIREMENTS. [General Permit Header]
5.1.51	Monitoring Equipment: The Permittee shall install or make needed repairs to monitoring equipment within 60 days of issuance of the permit if monitoring equipment is not installed and operational on the date the permit issued. [Minn. R. 7007.0800, subp. 4(D), Minn. R. 7011.0075]
5.1.52	<p>Monitoring Equipment Calibration - The Permittee shall either:</p> <ol style="list-style-type: none"> 1. Calibrate or replace required monitoring equipment every 12 months; or 2. Calibrate at the frequency stated in the manufacturer's specifications. <p>For each monitor, the Permittee shall maintain a record of all calibrations, including the date conducted, and any corrective action that resulted. The Permittee shall include the calibration</p>

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	frequencies, procedures, and manufacturer's specifications (if applicable) in the Operations and Maintenance Plan. Any requirements applying to continuous emission monitors are listed separately in this permit. [Minn. R. 7007.0800, subp. 4(D)]
5.1.53	Operation of Monitoring Equipment: Unless noted elsewhere in this permit, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system. [Minn. R. 7007.0800, subp. 4(D)]
5.1.54	RECORDKEEPING REQUIREMENTS. [General Permit Header]
5.1.55	Recordkeeping: Retain all records at the stationary source, unless otherwise specified within this permit, for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A). [Minn. R. 7007.0800, subp. 5(C)]
5.1.56	Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes. [Minn. R. 7007.0800, subp. 5(B)]
5.1.57	Hood Certification and Recordkeeping: The Permittee must maintain a copy of each hood certification on site (Form MCGR-02), as well as the annual record of the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable airflow indication method, if applicable (Form MGHE-01). [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4&5, Minn. R. 7007.1100, Minn. R. 7011.0060-7011.0080]
5.1.58	Fuel Certification: The Permittee shall obtain a producer/manufacturer certification showing the sulfur content of each delivery of diesel fuel. The Permittee shall maintain these fuel certifications according to the recordkeeping requirements in this permit. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 4]
5.1.59	Fuel Usage: Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate, record, and maintain the total quantity of fuel used for the previous calendar month using records as required by this permit for each type of fuel used during the previous month. [Minn. R. 7007.0800, subps. 4&5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.60	Nitrogen Oxides: Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate, record, and maintain the following: 1) The Permittee shall use the monthly records to calculate NOx emissions using Equation A1 in Appendix A to this permit; and 2) The 12-month rolling sum of NOx emissions for the previous 12-month period by summing the monthly records for the previous 12 months. [Minn. R. 7007.0800, subps. 4&5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.61	Carbon Monoxide: Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate, record, and maintain the following: 1) The Permittee shall use the monthly fuel usage records to calculate CO emissions using Equation A2 in Appendix A to this permit; and 3) The 12-month rolling sum of CO emissions for the previous 12-month period by summing the monthly records for the previous 12 months. [Minn. R. 7007.0800, subps. 4&5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.62	Particulate Matter: Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate, record, and maintain the following: 1) The total quantity of PM, PM10, and PM2.5 emissions for the previous calendar month using Equation A3 in Appendix A in this permit; and 2) The 12-month rolling sum of PM, PM10, and PM2.5 emissions for the previous 12-month period by

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	<p>summing the monthly records for the previous 12 months. [Minn. R. 7007.0800, subps. 4&5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.1.63	<p>Volatile Organic Compounds: Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate, record and maintain the following:</p> <ol style="list-style-type: none"> 1) The total quantity of all VOC-containing materials used during the previous month. This record shall include the VOC content of each material as determined by the Material Content requirement of this permit; 2) The total VOC emissions for the previous month using the A4 equations in Appendix A of this permit; and 3) The 12-month rolling sum of VOC emissions for the previous 12-month period by summing the monthly records for the previous 12 months. [Minn. R. 7007.0800, subps. 4&5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.64	<p>HAPs: Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate, record, and maintain the following:</p> <ol style="list-style-type: none"> 1) The total quantity of all HAP-containing materials used during the previous month. This record shall include the HAP content of each material as determined by the Material Content requirement of this permit; 2) The Permittee shall use the methods specified in Appendix A to this permit to calculate HAP emissions; and 3) The 12-month rolling sum of HAP emissions for the previous 12-month period by summing the monthly records for the previous 12 months. [Minn. R. 7007.0800, subps. 4&5]
5.1.65	<p>Material Content. VOC, HAPs, and Solids (PM, PM<10 microns, and PM<2.5 microns) contents in materials shall be determined by the Safety Data Sheet (SDS) or the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the SDS or the MSDS, the highest number in the range shall be used in all compliance calculations. If information is provided in the Regulatory Section of the SDS, the highest number in the range of that section may be used. When using the MSDS as the basis of calculating particulate emissions, the conservative assumption is made that PM consists entirely of PM less than 10 microns or less than 2.5 microns. Other alternative methods approved by the MPCA may be used to determine the VOC, HAPs, and solids contents. The Commissioner reserves the right to require the Permittee to determine the VOC, HAP, and solids contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the SDS or the MSDS. [Minn. R. 7007.0800, subps. 4&5]</p>
5.1.66	<p>If the Permittee determines that no notification or permit application for a different permit is required prior to making a change, the Permittee must retain records of all calculations required under Minn. R. 7007.1200. For expiring permits, these records shall be kept for a period of five years from the date the change was made or until permit reissuance, whichever is longer. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format. [Minn. R. 7007.1200, subp. 4]</p>
5.1.67	<p>REPORTING AND SUBMITTALS REQUIREMENTS. [General Permit Header]</p>
5.1.68	<p>Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in items A, B, and C of Minn. R. 7019.1000, subp. 3.</p> <p>At the time of notification, the owner or operator shall inform the Commissioner of the cause of the</p>

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	shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over. [Minn. R. 7019.1000, subp. 3]
5.1.69	<p>Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in items A, B, and C of Minn. R. 7019.1000, subp. 2.</p> <p>At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over. [Minn. R. 7019.1000, subp. 2]</p>
5.1.70	<p>Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment. [Minn. R. 7019.1000, subp. 1]</p>
5.1.71	<p>Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description:</p> <ol style="list-style-type: none"> 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation. [Minn. R. 7019.1000, subp. 1]
5.1.72	Emission Fees: due 30 days after receipt of an MPCA bill. [Minn. R. 7002.0005-7002.0085]
5.1.73	<p>The Permittee must submit a Risk Management Plan (RMP) under 40 CFR pt. 68. Each owner or operator of a stationary source, at which a regulated substance is present above a threshold quantity in a process, shall design and implement an accidental release prevention program. An initial RMP must be submitted no later than the latest of the following dates: 1) June 21, 1999; 2) Three years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or 3) The date on which a regulated substance is first present above a threshold quantity in a process. A full update and resubmission of the RMP is required at least once every five years. The five-year anniversary date is reset whenever the Permittee fully updates and resubmits their RMP. Submit RMPs as specified by EPA as of the date of submission. [40 CFR pt. 68]</p>
5.1.74	<p>Submittals: All submittals required by this permit must be certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. [Minn. R. 7007.0800, subp. 6]</p>
5.1.75	DEGREASERS/CLEANING MACHINES - Form MG-05B9. [General Permit Header]
5.1.76	DEGREASERS/CLEANING MACHINES IN OPERATION BEFORE JULY 9, 1969. [General Permit Header]
5.1.77	<p>Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0710, subp. 1(A)]</p>
5.1.78	<p>Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0710, subp. 1(B)]</p>
5.1.79	DEGREASERS/CLEANING MACHINES IN OPERATION ON AFTER JULY 9, 1969. [General Permit Header]
5.1.80	<p>Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]</p>

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5.1.81	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.1.82	DEGREASERS/CLEANING MACHINES - Subject to NESHAP subp. T, Each Cold Batch Cleaning Machine.. [General Permit Header]
5.1.83	The provisions of 40 CFR pt. 63, subp. T apply to each individual batch vapor, in-line vapor, in-line cold, and batch cold solvent cleaning machine that uses any solvent containing methylene chloride (CAS No. 75-09-2), perchloroethylene (CAS No. 127-18-4), trichloroethylene (CAS No. 79-01-6), 1,1,1-trichloroethane (CAS No. 71-55-6), carbon tetrachloride (CAS No. 56-23-5) or chloroform (CAS No. 67-66-3), or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent. The concentration of these solvents may be determined using EPA test method 18, material safety data sheets, or engineering calculations. Wipe cleaning activities, such as using a rag containing halogenated solvent or a spray cleaner containing halogenated solvent are not covered under the provisions of 40 CFR pt. 63, subp. T. [40 CFR 63.460(a), Minn. R. 7011.7200]
5.1.84	For the purposes of 40 CFR pt. 63, subp. T, affected facility means all solvent cleaning machines, except cold batch cleaning machines, located at an area source that are subject to the facility-wide limits in 40 CFR Section 63.471(b)(2). [40 CFR 63.460(i), 40 CFR 63.471(a), Minn. R. 7011.7200]
5.1.85	For the purposes of 40 CFR pt. 63, subp. T, affected facility means all solvent cleaning machines, except solvent cleaning machines used in the manufacture and maintenance of aerospace products, solvent cleaning machines used in the manufacture of narrow tubing, and continuous web cleaning machines, located at a major source that are subject to the facility-wide limits in 40 CFR Section 63.471(b)(2). [40 CFR 63.460(i), 40 CFR 63.471(a), Minn. R. 7011.7200]
5.1.86	For each Immersion Batch Cold Solvent Cleaning Machine, the Permittee shall employ: A tightly fitting cover that shall be closed at all times except during parts entry and removal, and a water layer at a minimum thickness of 2.5 centimeters (1.0 inch) on the surface of the solvent within the cleaning machine: or, A freeboard ratio of 0.75 or greater. [40 CFR 63.432(a)(2), 40 CFR 63.462(a)(1), Minn. R. 7011.7200]
5.1.87	For each Remote-Reservoir Batch Cold Solvent Cleaning Machine, the Permittee shall employ a tightly fitting cover over the solvent sump that shall be closed at all times except during the cleaning of parts. [40 CFR 63.462(b), Minn. R. 7011.7200]
5.1.88	All waste solvent shall be collected and stored in closed containers. The closed container may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container. [40 CFR 63.462(c)(1), Minn. R. 7011.7200]
5.1.89	If a flexible hose or flushing device is used, flushing shall be performed only within the freeboard area of the solvent cleaning machine. [40 CFR 63.462(c)(2), Minn. R. 7011.7200]
5.1.90	The Permittee shall drain solvent cleaned parts for 15 seconds or until dripping has stopped, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while draining. [40 CFR 63.462(c)(3), Minn. R. 7011.7200]
5.1.91	The Permittee shall ensure that the solvent level does not exceed the fill line. [40 CFR 63.462(c)(4), Minn. R. 7011.7200]
5.1.92	Spills during solvent transfer shall be wiped up immediately. The wipe rags shall be stored in covered containers meeting the requirements of 40 CFR Section 63.462(c)(1). [40 CFR 63.462(c)(5), Minn. R. 7011.7200]
5.1.93	When an air- or pump-agitated solvent bath is used, the Permittee shall ensure that the agitator is operated to produce a rolling motion of the solvent but not observable splashing against tank walls or parts being cleaned. [40 CFR 63.462(c)(6), Minn. R. 7011.7200]
5.1.94	The Permittee shall ensure that, when the cover is open, the cold cleaning machine is not exposed to drafts greater than 40 meters per minute (132 feet per minute), as measured between 1 and 2 meters

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	(3.3 and 6.6 feet) upwind and at the same elevation as the tank lip. [40 CFR 63.462(c)(7), Minn. R. 7011.7200]
5.1.95	Except as provided in 40 CFR Section 63.462(c)(9), sponges, fabric, wood, and paper products shall not be cleaned. [40 CFR 63.462(c)(8), Minn. R. 7011.7200]
5.1.96	The prohibition in 40 CFR Section 63.462(c)(8) does not apply to the cleaning of porous materials that are part of polychlorinated biphenyl (PCB) laden transformers if those transformers are handled throughout the cleaning process and disposed of in compliance with an approved PCB disposal permit issued in accordance with the Toxic Substances Control Act. [40 CFR 63.462(c)(9), Minn. R. 7011.7200]
5.1.97	The Permittee may request to use measures other than those described in 40 CFR Section 63.462(c)(1) through 63.462(c)(8). The Permittee must demonstrate to the Administrator that the alternative measures will result in equivalent or better emissions control compared to the measures described in 40 CFR Section 63.462(c)(1) through 63.462(c)(8). For example, storing solvent and solvent-laden materials in an enclosed area that is ventilated to a solvent recovery or destruction device may be considered an acceptable alternative. [40 CFR 63.462(e), Minn. R. 7011.7200]
5.1.98	The Permittee shall ensure that each cleaning machine be designed or operated to have an idling and downtime mode cover, as described in 40 CFR Section 63.463(d)(1)(i), that may be readily opened or closed, that completely covers the cleaning machine openings when in place, and is free of cracks, holes, and other defects. [40 CFR 63.463(a)(1)(i), Minn. R. 7011.7200]
5.1.99	The Permittee shall ensure that each cleaning machine be designed or operated to have a reduced room draft as described in 40 CFR Section 63.463(e)(2)(ii). [40 CFR 63.463(a)(1)(ii), Minn. R. 7011.7200]
5.1.100	Each cleaning machine shall have a freeboard ratio of 0.75 or greater. [40 CFR 63.463(a)(2), Minn. R. 7011.7200]
5.1.101	Each cleaning machine shall have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minute (11 feet per minute) or less from the initial loading of parts through removal of cleaned parts. [40 CFR 63.463(a)(3), Minn. R. 7011.7200]
5.1.102	Each vapor cleaning machine shall be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils. [40 CFR 63.463(a)(4), Minn. R. 7011.7200]
5.1.103	Each vapor cleaning machine shall be equipped with a vapor level control device that shuts off the sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser. [40 CFR 63.463(a)(5), Minn. R. 7011.7200]
5.1.104	Each cleaning machine shall be designed and operated to route all collected solvent vapors through a properly operated and maintained carbon adsorber that meets the requirements of 40 CFR Section 63.643(e)(2)(vii). [40 CFR 63.463(a)(7), Minn. R. 7011.7200]
5.1.105	<p>For existing or new batch vapor cleaning machines with a solvent/air interface area of 1.21 square meters (13 square feet) or less, the Permittee shall comply with the requirements specified in either paragraph (b)(1)(i) or (b)(1)(ii) of 40 CFR 63.463:</p> <p>(i) Employ one of the control combinations listed below (table 1 of 40 CFR subp. T), or other equivalent methods of control as determined using the procedure in 40 CFR 63.469.:</p> <ol style="list-style-type: none"> 1 Working-mode cover, freeboard ratio f 1.0, superheated vapor 2 Freeboard refrigeration device, superheated vapor 3 Working-mode cover, freeboard refrigeration device 4 Reduced room draft, freeboard ratio of 1.0, superheated vapor 5 Freeboard refrigeration device, reduced room draft 6 Freeboard refrigeration device, freeboard ratio of 1.0 7 Freeboard refrigeration device, dwell 8 Reduced room draft, dwell, freeboard ratio of 1.0 9 Freeboard refrigeration device, carbon adsorber 10 Freeboard ratio of 1.0, superheated vapor, carbon adsorber

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	(ii) Demonstrate that the solvent cleaning machine can achieve and maintain an idling emission limit of 0.22 kilograms per hour per square meter (0.045 pounds per hour per square foot) of solvent/air interface area as determined using the procedures in 40 CFR 63.465(a) and 40 CFR pt. 63, appendix A. [40 CFR 63.463(b)(1), Minn. R. 7011.7200]
5.1.106	<p>For batch vapor cleaning machines with a solvent/air interface area greater than 1.21 square meters (13 square feet), the Permittee shall comply with the requirements specified in either paragraph (b)(2)(i) or (b)(2)(ii) of 40 CFR 63.463:</p> <p>(i) Employ one of the control combinations listed below (table 2 of 40 CFR subp. T), or other equivalent methods of control as determined using the procedure in 40 CFR 63.469:</p> <ol style="list-style-type: none"> 1 Freeboard refrigeration device, freeboard ratio of 1.0 2 Dwell, freeboard refrigeration device, reduced room draft 3 Working-mode cover, freeboard refrigeration device, superheated vapor 4 Freeboard ratio of 1.0, reduced room draft, superheated vapor 5 Freeboard refrigeration device, reduced room draft, superheated vapor 6 Freeboard refrigeration device, reduce room draft, freeboard ratio of 1.0 7 Freeboard refrigeration device, superheated vapor, carbon adsorber <p>(ii) Demonstrate that the solvent cleaning machine: can achieve and maintain an idling emission limit of 0.22 kilograms/hour/square meter (0.045 pounds per hour per square foot) of solvent/air interface area for each solvent cleaning machine as determined using the procedures in 40 CFR Section 63.465(a) and 40 CFR pt. 63, appendix A. [40 CFR 63.463(v)(2), Minn. R. 7011.7200]</p>
5.1.107	<p>For existing in-line cleaning machines, the Permittee shall comply with the requirements specified in either paragraph (c)(1)(i) or (c)(1)(ii) of 40 CFR 63.463:</p> <p>(i) Employ one of the control combinations listed below (table 3 of 40 CFR subp. T), or other equivalent methods of control as determined using the procedure in 40 CFR 63.469:</p> <ol style="list-style-type: none"> 1 Superheated vapor, freeboard ratio of 1.0 2 Freeboard refrigeration device, freeboard ratio of 1.0 3 Dwell, freeboard refrigeration device 4 Dwell, carbon adsorber <p>(ii) Demonstrate that the solvent cleaning machine can achieve and maintain an idling emission limit of 0.10 kilograms per hour per square meter (0.021 pounds per hour per square foot) of solvent/air interface area as determined using the procedures in 40 CFR 63.465(a) and 40 CFR pt. 63, appendix A. [40 CFR 63.463(c)(1), Minn. R. 7011.7200]</p>
5.1.108	<p>For new in-line cleaning machines, the Permittee shall comply with the requirements specified in either paragraph (c)(2)(i) or (c)(2)(ii) of 40 CFR 63.463:</p> <p>(i) Employ one of the control combinations listed below (table 4 of 40 CFR subp. T), or other equivalent methods of control as determined using the procedure in 40 CFR 63.469:</p> <ol style="list-style-type: none"> 1 Superheated vapor, freeboard refrigeration device 2 Freeboard refrigeration device, carbon adsorber 3 Superheated vapor, carbon adsorber <p>(ii) Demonstrate that the solvent cleaning machine can achieve and maintain an idling emission limit of 0.10 kilograms per hour per square meter (0.021 pounds per hour per square foot) of solvent/air interface area as determined using the procedures in 40 CFR 63.465(a) and 40 CFR pt. 63, appendix A. [40 CFR 63.463(c)(2), Minn. R. 7011.7200]</p>
5.1.109	<p>For existing or new batch vapor or in-line solvent cleaning machines, the Permittee shall control air disturbances across the cleaning machine opening(s) by incorporating cover(s) to each solvent cleaning machine, The cover(s) shall be in place during the idling mode, and during the downtime mode unless either the solvent has been removed from the machine or maintenance or monitoring is being performed that requires the cover(s) to not be in place. [40 CFR 63.463(d)(1)(i), Minn. R. 7011.7200]</p>

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5.1.110	For existing or new batch vapor or in-line solvent cleaning machines, the Permittee shall control air disturbances across the cleaning machine opening(s) by incorporating a reduced room draft as described in 40 CFR 63.463(e)(2)(ii). [40 CFR 63.463(d)(1)(ii), Minn. R. 7011.7200]
5.1.111	For existing or new batch vapor or in-line solvent cleaning machines, the parts baskets or the parts being cleaned in an open-top batch vapor cleaning machine shall not occupy more than 50 percent of the solvent/air interface area unless the parts baskets or parts are introduced at a speed of 0.9 meters per minute (3 feet per minute) or less. [40 CFR 63.463(d)(2), Minn. R. 7011.7200]
5.1.112	For existing or new batch vapor or in-line solvent cleaning machines, the Permittee shall complete any spraying operations within the vapor zone or within a section of the solvent cleaning machine that is not directly exposed to the ambient air (i.e., a baffled or enclosed area of the solvent cleaning machine). [40 CFR 63.463(d)(3), Minn. R. 7011.7200]
5.1.113	For existing or new batch vapor or in-line solvent cleaning machines, the Permittee shall orient parts so that the solvent drains from them freely. Parts having cavities or blind holes shall be tipped or rotated before being removed from any solvent cleaning machine unless an equally effective approach has been approved by the Administrator. [40 CFR 63.463(d)(4), Minn. R. 7011.7200]
5.1.114	For existing or new batch vapor or in-line solvent cleaning machines, the Permittee shall not remove parts baskets or parts from any solvent cleaning machine until dripping has stopped. [40 CFR 63.463(d)(5), Minn. R. 7011.7200]
5.1.115	For existing or new batch vapor or in-line solvent cleaning machines, during startup of each vapor cleaning machine, the Permittee shall turn on the primary condenser before the sump heater. [40 CFR 63.463(d)(6), Minn. R. 7011.7200]
5.1.116	For existing or new batch vapor or in-line solvent cleaning machines, during shutdown of each vapor cleaning machine, the Permittee shall turn off the sump heater and allow the solvent vapor layer to collapse before the primary condenser is turned off. [40 CFR 63.463(d)(7), Minn. R. 7011.7200]
5.1.117	For existing or new batch vapor or in-line solvent cleaning machines, when solvent is added or drained from any solvent cleaning machine, the Permittee shall transfer the solvent using threaded or other leakproof couplings and locate the end of the pipe in the solvent sump beneath the liquid solvent surface. [40 CFR 63.463(d)(8), Minn. R. 7011.7200]
5.1.118	For existing or new batch vapor or in-line solvent cleaning machines, the Permittee shall maintain each solvent cleaning machine and associated controls as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the Commissioner's satisfaction to achieve the same or better results as those recommended by the manufacturer. [40 CFR 63.463(d)(9), Minn. R. 7011.7200]
5.1.119	For existing or new batch vapor or in-line solvent cleaning machines, the Permittee shall complete and pass the applicable sections of the test of solvent cleaning procedures in appendix A to 40 CFR pt. 63, subp. T if requested during an inspection by the Administrator. [40 CFR 63.463(d)(10), Minn. R. 7011.7200]
5.1.120	For existing or new batch vapor or in-line solvent cleaning machines, the Permittee shall collect and store waste solvent, still bottoms, and sump bottoms in closed containers. The closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container. [40 CFR 63.463(d)(11), Minn. R. 7011.7200]
5.1.121	For existing or new batch vapor or in-line solvent cleaning machines, the Permittee shall not clean sponges, fabric, wood, and paper products. [40 CFR 63.463(d)(12), Minn. R. 7011.7200]
5.1.122	The Permittee shall monitor the hoist speed as described as follows: (1) The Permittee shall determine the hoist speed by measuring the time it takes for the hoist to travel a measured distance. The speed is equal to the distance in meters divided by the time in minutes (meters per minute). (2) The Permittee shall conduct the monitoring each month. If after the first year, no exceedances of

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	<p>the hoist speed are measured, the Permittee may begin monitoring the hoist speed quarterly.</p> <p>(3) If an exceedance of the hoist speed occurs during quarterly monitoring, the monitoring frequency returns to monthly until another year of compliance without an exceedance is demonstrated.</p> <p>(4) If the Permittee can demonstrate to the Administrator's satisfaction in the initial compliance report that the hoist cannot exceed a speed of 3.4 meters per minute (11 feet per minute), the required monitoring frequency is quarterly, including during the first year of compliance. [40 CFR 63.463(e)(1), 40 CFR 63.466(c), 40 CFR 63.466(f)(1), Minn. R. 7011.7200]</p>
5.1.123	<p>The Permittee shall conduct an initial monitoring test of the wind speed and of room parameters, quarterly monitoring of wind speed, and weekly monitoring of room parameters as specified below:</p> <p>(i) Measure the wind speed within six inches above the top of the freeboard area of the solvent cleaning machine using the following procedures:</p> <ul style="list-style-type: none"> - Determine the direction of the wind current by slowly rotating a velometer or similar device until the maximum speed is located. - Orient a velometer in the direction of the wind current at each of the four corners of the machine. - Record the reading for each corner. - Average the values obtained at each corner and record the average wind speed. <p>(ii) Monitor on a weekly basis the room parameters established during the initial compliance test that are used to achieve the reduced room draft. [40 CFR 63.463(e)(1), 40 CFR 63.466(d)(1), 40 CFR 63.466(f)(1), Minn. R. 7011.7200]</p>
5.1.124	<p>The Permittee shall conduct an initial monitoring test and, thereafter, monthly monitoring tests of the wind speed within the enclosure using the procedure specified below:</p> <p>(i) Determine the direction of the wind current in the enclosure by slowly rotating a velometer inside the entrance to the enclosure until the maximum speed is located.</p> <p>(ii) Record the maximum wind speed.</p> <p>The Permittee shall conduct a monthly visual inspection of the enclosure to determine if it is free of cracks, holes and other defects. [40 CFR 63.463(e)(1), 40 CFR 63.466(d)(2), 40 CFR 63.466(f)(1), Minn. R. 7011.7200]</p>
5.1.125	<p>If a freeboard refrigeration device is used to comply with 40 CFR pt. 63, subp. T, the Permittee shall ensure that the chilled air blanket temperature (in degrees F), measured at the center of the air blanket, is no greater than 30 percent of the solvent's boiling point.</p> <p>An exceedance has occurred if the above requirement has not been met and is not corrected within 15 days of detection. Adjustments or repairs shall be made to the solvent cleaning system or control device to reestablish required levels. The parameter must be re-measured immediately upon adjustment or repair and demonstrated to be within required limits. [40 CFR 63.463(e)(2)(i), 40 CFR 63.463(e)(3)(ii), Minn. R. 7011.7200]</p>
5.1.126	<p>If a reduced room draft is used to comply with 40 CFR pt. 63, subp. T, the Permittee shall ensure that the flow or movement of air across the top of the freeboard area of the solvent cleaning machine or within the solvent cleaning machine enclosure does not exceed 15.2 meters per minute (50 feet per minute) at any time as measured using the procedures in 40 CFR Section 63.466(d).</p> <p>An exceedance has occurred if the above requirement has not been met and is not corrected within 15 days of detection. The Permittee shall make adjustments or repairs to the solvent cleaning system or control device to reestablish required levels. The parameter must be remeasured immediately upon adjustment or repair and demonstrated to be within required limits. [40 CFR 63.463(e)(3)(ii), 40 CFR 63.463(e)(2)(ii)(A), Minn. R. 7011.7200]</p>
5.1.127	<p>If a reduced room draft is used to comply with 40 CFR pt. 63, subp. T, the Permittee shall establish and maintain the operating conditions under which the wind speed was demonstrated to be 15.2 meters per minute (50 feet per minute) or less as described in 40 CFR Section 63.466(d).</p>

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	An exceedance has occurred if the above requirement has not been met. [40 CFR 63.463(e)(3)(i), 40 CFR 63.463(e)(2)(ii)(B), Minn. R. 7011.7200]
5.1.128	For working-mode covers used to comply with 40 CFR pt. 63, subp. T, the Permittee shall comply with the following requirements: (A) Ensure that the cover opens only for part entrance and removal and completely covers the cleaning machine openings when closed. (B) Ensure that the working-mode cover is maintained free of cracks, holes, and other defects. [40 CFR 63.463(e)(2)(iii), Minn. R. 7011.7200]
5.1.129	The Permittee shall ensure that the idling-mode cover is in place whenever parts are not in the solvent cleaning machine and completely covers the cleaning machine openings when in place. An exceedance has occurred if the above requirement has not been met. [40 CFR 63.463(e)(3)(i), 40 CFR 63.463(e)(2)(iv)(A), Minn. R. 7011.7200]
5.1.130	The Permittee shall ensure that the idling-mode cover is maintained free of cracks, holes, and other defects. An exceedance has occurred if the above requirement has not been met and is not corrected within 15 days of detection. The Permittee shall make adjustments or repairs to the solvent cleaning system or control device to reestablish required levels. The parameter must be remeasured immediately upon adjustment or repair and demonstrated to be within required limits. [40 CFR 63.463(e)(3)(ii), 40 CFR 63.463(e)(2)(iv)(B), Minn. R. 7011.7200]
5.1.131	If a dwell is used to comply with 40 CFR pt. 63, subp. T, the Permittee shall comply with the following requirements: (A) Determine the appropriate dwell time for each type of part or parts basket, or determine the maximum dwell time using the most complex part type or parts basket, as described in 40 CFR 63.465(d). (B) Ensure that, after cleaning, each part is held in the solvent cleaning machine freeboard area above the vapor zone for the dwell time determined for that particular part or parts basket, or for the maximum dwell time determined using the most complex part type or parts basket. [40 CFR 63.463(e)(2)(v), Minn. R. 7011.7200]
5.1.132	The Permittee shall ensure that the temperature of the solvent vapor at the center of the superheated vapor zone is at least 10 degrees F above the solvent's boiling point. An exceedance has occurred if the above requirement has not been met and is not corrected within 15 days of detection. Adjustments or repairs shall be made to the solvent cleaning system or control device to reestablish required levels. The parameter must be re-measured immediately upon adjustment or repair and demonstrated to be within required limits. [40 CFR 63.463(e)(3)(ii), 40 CFR 63.463(e)(2)(vi)(A), Minn. R. 7011.7200]
5.1.133	The Permittee shall ensure that the manufacturer's specifications for determining the minimum proper dwell time within the superheated vapor system are followed. An exceedance has occurred if the above requirement has not been met. [40 CFR 63.463(e)(3)(i), 40 CFR 63.463(e)(2)(vi)(B), Minn. R. 7011.7200]
5.1.134	The Permittee shall ensure that parts remain within the superheated vapor for at least the minimum proper dwell time. An exceedance has occurred if the above requirement has not been met. [40 CFR 63.463(e)(3)(i), 40 CFR 63.463(e)(2)(vi)(C), Minn. R. 7011.7200]
5.1.135	The Permittee shall ensure that the concentration of organic solvent in the exhaust from this device does not exceed 100 parts per million (ppm) of any halogenated HAP compound as measured using

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	<p>the procedure in 40 CFR Section 63.466(e). If the halogenated HAP solvent concentration in the carbon adsorber exhaust exceeds 100 ppm, the Permittee shall adjust the desorption schedule or replace the disposable canister, if not a regenerative system, so that the exhaust concentration of halogenated HAP solvent is brought below 100 ppm.</p> <p>An exceedance has occurred if the above requirement has not been met and is not corrected within 15 days of detection. Adjustments or repairs shall be made to the solvent cleaning system or control device to reestablish required levels. The parameter must be re-measured immediately upon adjustment or repair and demonstrated to be within required limits. [40 CFR 63.463(e)(3)(ii), 40 CFR 63.463(e)(2)(vii)(A), Minn. R. 7011.7200]</p>
5.1.136	<p>The Permittee shall ensure that the carbon adsorber bed is not bypassed during desorption.</p> <p>An exceedance has occurred if the above requirement has not been met. [40 CFR 63.463(e)(3)(i), 40 CFR 63.463(e)(2)(vii)(B), Minn. R. 7011.7200]</p>
5.1.137	<p>The Permittee shall ensure that the lip exhaust is located above the solvent cleaning machine cover so that the cover closes below the lip exhaust level.</p> <p>An exceedance has occurred if the above requirement has not been met. [40 CFR 63.463(e)(3)(i), 40 CFR 63.463(e)(2)(vii)(C), Minn. R. 7011.7200]</p>
5.1.138	<p>If a superheated part system is used to comply with 40 CFR pt. 63, subp. T for continuous web cleaning machines in 40 CFR 63.463(g), the Permittee shall ensure that the temperature of the continuous web part is at least 10 degrees Fahrenheit above the solvent boiling point while the part is traveling through the cleaning machine. [40 CFR 63.463(e)(2)(viii), Minn. R. 7011.7200]</p>
5.1.139	<p>If a squeegee system is used to comply with the continuous web cleaning requirements of 40 CFR 63.463(g)(3)(iii) or (h)(2)(i), the Permittee shall comply with the following requirements.</p> <p>(A) Determine the appropriate maximum product throughput for the squeegees used in the squeegee system, as described in 40 CFR 63.465(f).</p> <p>(B) Conduct the weekly monitoring required by 40 CFR 63.466(a)(3). Record the results required by 40 CFR 63.467(a)(6).</p> <p>(C) Calculate the total amount of continuous web product processed since the squeegees were replaced and compare to the maximum product throughput for the squeegees.</p> <p>(D) Ensure squeegees are replaced at or before the maximum product throughput is attained.</p> <p>(E) Redetermine the maximum product throughput for the squeegees if any solvent film is visible on the continuous web part immediately after it exits the cleaning machine. [40 CFR 63.463(e)(2)(ix), Minn. R. 7011.7200]</p>
5.1.140	<p>If an air knife system is used to comply with the continuous web cleaning requirements of 40 CFR 63.463(g)(3)(iii) or (h)(2)(i), the Permittee shall comply with the following requirements.</p> <p>(A) Determine the air knife parameter and parameter value that demonstrate to the Administrator's satisfaction that the air knife is properly operating. An air knife is properly operating if no visible solvent film remains on the continuous web part after it exits the cleaning machine.</p> <p>(B) Maintain the selected air knife parameter value at the level determined in paragraph (a) of this section.</p> <p>(C) Conduct the weekly monitoring required by 40 CFR 63.466(a)(3).</p> <p>(D) Redetermine the proper air knife parameter value if any solvent film is visible on the continuous web part immediately after it exits the cleaning machine. [40 CFR 63.463(e)(2)(x), Minn. R. 7011.7200]</p>
5.1.141	<p>If a combination squeegee and air knife system is used to comply with the continuous web cleaning requirements of 40 CFR 63.463(g)(3)(iii) or (h)(2)(i), the Permittee shall comply with the following requirements.</p> <p>(A) Determine the system parameter and value that demonstrate to the Administrator's satisfaction that the system is properly operating.</p> <p>(B) Maintain the selected parameter value at the level determined in paragraph (a) of this section.</p>

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	(C) Conduct the weekly monitoring required by 40 CFR 63.466(a)(3). (D) Redetermine the proper parameter value if any solvent film is visible on the continuous web part immediately after it exits the cleaning machine. [40 CFR 63.463(e)(2)(xi), Minn. R. 7011.7200]
5.1.142	For batch vapor or in-line solvent cleaning machines complying with the idling emission limit standards in 40 CFR 63.463(b)(1)(ii), (b)(2)(ii), (c)(1)(ii), or (c)(2)(ii), the Permittee shall conduct an initial performance test to comply with the requirements specified below: (i) Demonstrate compliance with the applicable idling emission limit. The idling emission rate of the solvent cleaning machine shall be determined using Reference Method 307 in 40 CFR pt. 63, appendix A. (ii) Establish parameters that will be monitored to demonstrate compliance. The requirements for idling-mode covers as listed in 40 CFR Section 63.463(e)(2) shall be used unless the Permittee can demonstrate to the Administrator's satisfaction that an alternative strategy is equally effective. [40 CFR 63.463(f)(1), 40 CFR 63.465(a), Minn. R. 7011.7200]
5.1.143	For batch vapor or in-line solvent cleaning machines complying with the idling emission limit standards in 40 CFR 63.463(b)(1)(ii), (b)(2)(ii), (c)(1)(ii), or (c)(2)(ii), the Permittee shall conduct the periodic monitoring of the parameters used to demonstrate compliance as described in 40 CFR Section 63.466(f). [40 CFR 63.463(f)(2), Minn. R. 7011.7200]
5.1.144	For batch vapor or in-line solvent cleaning machines complying with the idling emission limit standards in 40 CFR 63.463(b)(1)(ii), (b)(2)(ii), (c)(1)(ii), or (c)(2)(ii), the Permittee shall operate the solvent cleaning machine within parameters identified in the initial performance test. [40 CFR 63.463(f)(3), Minn. R. 7011.7200]
5.1.145	For batch vapor or in-line solvent cleaning machines complying with the idling emission limit standards in 40 CFR 63.463(b)(1)(ii), (b)(2)(ii), (c)(1)(ii), or (c)(2)(ii); If any of the requirements in 40 CFR Section 63.463(f)(1) through (3) are not met, the Permittee shall determine whether an exceedance has occurred using the criteria below: The Permittee shall comply with the appropriate parameter values in 40 CFR Section 63.463(e)(2) and the exceedance delineations in 40 CFR Section 63.463(e)(3)(i) and 63.463 (e)(3)(ii). [40 CFR 63.463(f)(4), Minn. R. 7011.7200]
5.1.146	Except as provided in 40 CFR 63.463(g)(2), install, maintain, and operate one of the following control combinations for each existing continuous web cleaning machine: (A) Superheated vapor or superheated part technology, and a freeboard ratio of 1.0 or greater. (B) Freeboard refrigeration device and a freeboard ratio of 1.0 or greater. (C) Carbon adsorption system meeting the requirements of paragraph (e)(2)(vii) of this section. [40 CFR 63.463(g)(1)(i), Minn. R. 7011.7200]
5.1.147	Except as provided in 40 CFR 63.463(g)(2), install, maintain, and operate one of the following control combinations for each new continuous web cleaning machine: (A) Superheated vapor or superheated part technology, and a freeboard refrigeration device. (B) A freeboard refrigeration device and a carbon adsorber meeting the requirements of paragraph (e)(2)(vii) of this section. (C) Superheated vapor or superheated part technology, and a carbon adsorber meeting the requirements of paragraph (e)(2)(vii) of this section. [40 CFR 63.463(g)(1)(ii), Minn. R. 7011.7200]
5.1.148	If a carbon adsorber system can be demonstrated to the Administrator's satisfaction to have an overall solvent control efficiency (i.e., capture efficiency removal efficiency) of 70 percent or greater, this system is equivalent to the options in 40 CFR 63.463(g). [40 CFR 63.463(g)(2), Minn. R. 7011.7200]
5.1.149	In lieu of complying with the provisions 40 CFR 63.463(a), the Permittee shall comply with the following: (i) Each continuous web cleaning machine shall meet one of the following control equipment or

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	<p>technique requirements:</p> <p>(A) An idling and downtime mode cover, as described in paragraph (d)(1)(i) of this section, that may be readily opened or closed; that completely covers the cleaning machine openings when in place; and is free of cracks, holes, and other defects. A continuous web part that completely occupies an entry or exit port when the machine is idle is considered to meet this requirement.</p> <p>(B) A reduced room draft as described in paragraph (e)(2)(ii) of this section.</p> <p>(C) Gasketed or leakproof doors that separate both the continuous web part feed reel and take-up reel from the room atmosphere if the doors are checked according to the requirements of paragraph (e)(2)(iii) of this section.</p> <p>(D) A cleaning machine that is demonstrated to the Administrator's satisfaction to be under negative pressure during idling and downtime and is vented to a carbon adsorption system that meets the requirements of either paragraph (e)(2)(vii) of this section or paragraph (g)(2) of this section. [40 CFR 63.463(g)(3)(i), Minn. R. 7011.7200]</p>
5.1.150	<p>In lieu of complying with the provisions 40 CFR 63.463(a), the Permittee shall comply with the following:</p> <p>Each continuous web cleaning machine shall have a freeboard ratio of 0.75 or greater unless that cleaning machine is a remote reservoir continuous web cleaning machine. [40 CFR 63.463(g)(3)(ii), Minn. R. 7011.7200]</p>
5.1.151	<p>In lieu of complying with the provisions 40 CFR 63.463(a), the Permittee shall comply with the following:</p> <p>Each cleaning machine shall have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minute (11 feet per minute) or less from the initial loading of parts through removal of cleaned parts, unless the cleaning machine is a continuous web cleaning machine that has a squeegee system or air knife system installed, maintained, and operated on the continuous web cleaning machine meeting the requirements of 40 CFR 63.463(e). [40 CFR 63.463(g)(3)(iii), Minn. R. 7011.7200]</p>
5.1.152	<p>In lieu of complying with the provisions 40 CFR 63.463(a), the Permittee shall comply with the following:</p> <p>Each vapor cleaning machine shall be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils. This requirement does not apply to a vapor cleaning machine that uses steam to heat the solvent. [40 CFR 63.463(g)(3)(iv), Minn. R. 7011.7200]</p>
5.1.153	<p>In lieu of complying with the provisions 40 CFR 63.463(a), the Permittee shall comply with the following:</p> <p>Each vapor cleaning machine shall be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser. [40 CFR 63.463(g)(3)(v), Minn. R. 7011.7200]</p>
5.1.154	<p>In lieu of complying with the provisions 40 CFR 63.463(a), the Permittee shall comply with the following:</p> <p>Each vapor cleaning machine shall have a primary condenser. [40 CFR 63.463(g)(3)(vi), Minn. R. 7011.7200]</p>
5.1.155	<p>In lieu of complying with the provisions 40 CFR 63.463(a), the Permittee shall comply with the following:</p> <p>Each cleaning machine that uses a lip exhaust or any other exhaust within the solvent cleaning machine shall be designed and operated to route all collected solvent vapors through a properly operated and maintained carbon adsorber that meets the requirements of either 40 CFR 63.463(e)(2)(vii) or (g)(2). [40 CFR 63.463(g)(3)(vii), Minn. R. 7011.7200]</p>
5.1.156	<p>In lieu of complying with the provisions of 40 CFR 63.463(d), the Permittee of a continuous web cleaning machine shall comply with the following:</p> <p>Control air disturbances across the cleaning machine opening(s) by incorporating one of the following control equipment or techniques:</p> <p>(A) Cover(s) to each solvent cleaning machine shall be in place during the idling mode and during the</p>

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	<p>downtime mode unless either the solvent has been removed from the machine or maintenance or monitoring is being performed that requires the cover(s) in place. A continuous web part that completely occupies an entry or exit port when the machine is idle is considered to meet this requirement.</p> <p>(B) A reduced room draft as described in 40 CFR 63.463(e)(2)(ii).</p> <p>(C) Gasketed or leakproof doors or covers that separate both the continuous web part feed reel and take-up reel from the room atmosphere if the doors are checked according to the requirements of 40 CFR 63.463(e)(2)(iii).</p> <p>(D) A cleaning machine that is demonstrated to the Administrator's satisfaction to be under negative pressure during idling and downtime and is vented to a carbon adsorption system that meets either the requirements of 40 CFR 63.463(e)(2)(vii) or 40 CFR 63.463(g)(2). [40 CFR 63.463(g)(4)(i), Minn. R. 7011.7200]</p>
5.1.157	<p>In lieu of complying with the provisions of 40 CFR 63.463(d), the Permittee of a continuous web cleaning machine shall comply with the following: Any spraying operations shall be conducted in a section of the solvent cleaning machine that is not directly exposed to the ambient air (i.e., a baffled or enclosed area of the solvent cleaning machine) or within a machine having a door or cover that meets the requirements of 40 CFR 63.463(g)(4)(i)(C). [40 CFR 63.463(g)(4)(ii), Minn. R. 7011.7200]</p>
5.1.158	<p>In lieu of complying with the provisions of 40 CFR 63.463(d), the Permittee of a continuous web cleaning machine shall comply with the following: During startup of each vapor cleaning machine, the primary condenser shall be turned on before the sump heater. [40 CFR 63.463(g)(4)(iii), Minn. R. 7011.7200]</p>
5.1.159	<p>In lieu of complying with the provisions of 40 CFR 63.463(d), the Permittee of a continuous web cleaning machine shall comply with the following: During shutdown of each vapor cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off. [40 CFR 63.463(g)(4)(iv), Minn. R. 7011.7200]</p>
5.1.160	<p>In lieu of complying with the provisions of 40 CFR 63.463(d), the Permittee of a continuous web cleaning machine shall comply with the following: When solvent is added or drained from any solvent cleaning machine, the solvent shall be transferred using threaded or other leakproof couplings, and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface. [40 CFR 63.463(g)(4)(v), Minn. R. 7011.7200]</p>
5.1.161	<p>In lieu of complying with the provisions of 40 CFR 63.463(d), the Permittee of a continuous web cleaning machine shall comply with the following: Each solvent cleaning machine and associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the Administrator's satisfaction to achieve the same or better results as those recommended by the manufacturer. [40 CFR 63.463(g)(4)(vi), Minn. R. 7011.7200]</p>
5.1.162	<p>In lieu of complying with the provisions of 40 CFR 63.463(d), the Permittee of a continuous web cleaning machine shall comply with the following: Waste solvent, still bottoms, sump bottoms, and waste absorbent materials used in the cleaning process for continuous web cleaning machines shall be collected and stored in waste containers. The closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container. [40 CFR 63.463(g)(4)(vii), Minn. R. 7011.7200]</p>
5.1.163	<p>In lieu of complying with the provisions of 40 CFR 63.463(d), the Permittee of a continuous web cleaning machine shall comply with the following: Except as provided in 40 CFR 63.463(g)(4)(ix), sponges, fabric, wood, and paper products shall not be cleaned. [40 CFR 63.463(g)(4)(viii), Minn. R. 7011.7200]</p>
5.1.164	<p>In lieu of complying with the provisions of 40 CFR 63.463(d), the Permittee of a continuous web cleaning machine shall comply with the following:</p>

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	The prohibition in 40 CFR 63.463(g)(4)(viii) does not apply to absorbent materials that are used as part of the cleaning process of continuous web cleaning machines, including rollers and roller covers. [40 CFR 63.463(g)(4)(ix), Minn. R. 7011.7200]
5.1.165	For remote reservoir continuous web cleaning machines, the Permittee shall comply with the following: Except as provided in 40 CFR 63.463(h)(2), install, maintain, and operate one of the following controls on each new remote reservoir continuous web cleaning machine. (i) Superheated vapor or superheated part technology. (ii) A carbon adsorber meeting the requirements of 40 CFR 63.463(e)(2)(vii). (iii) If a carbon adsorber system can be demonstrated to the Administrator's satisfaction to have an overall solvent control efficiency (i.e., capture efficiency removal efficiency) of 70 percent or greater, this system is equivalent to the options in 40 CFR 63.463(h)(1)(i) and (h)(1)(ii). [40 CFR 63.463(h)(1), Minn. R. 7011.7200]
5.1.166	For remote reservoir continuous web cleaning machines, the Permittee shall comply with the following: In lieu of complying with the provisions of 40 CFR 63.463(a), the Permittee of a remote reservoir continuous web cleaning machine shall comply with the following: (i) Each cleaning machine shall have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minute (11 feet per minute) or less from the initial loading of parts through removal of cleaned parts, unless the cleaning machine is a continuous web cleaning machine that has a squeegee system or air knife system installed, maintained, and operated on the continuous web cleaning machine meeting the requirements of 40 CFR 63.463(e). (ii) Each vapor cleaning machine shall be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils. (iii) Each vapor cleaning machine shall be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser. (iv) Each vapor cleaning machine shall have a primary condenser. (v) Each cleaning machine that uses a lip exhaust or any other exhaust within the solvent cleaning machine shall be designed and operated to route all collected solvent vapors through a properly operated and maintained carbon adsorber that meets the requirements of either 40 CFR 63.463(e)(2)(vii) or 40 CFR 63.463(g)(2). [40 CFR 63.463(h)(2), Minn. R. 7011.7200]
5.1.167	For remote reservoir continuous web cleaning machines, the Permittee shall comply with the following: In lieu of complying with the provisions of 40 CFR 63.463(d), the Permittee of a remote reservoir continuous web cleaning machine shall comply with the following: (i) Any spraying operations shall be conducted in a section of the solvent cleaning machine that is not directly exposed to the ambient air (i.e., a baffled or enclosed area of the solvent cleaning machine) or within a machine having a door or cover that meets the requirements of 40 CFR 63.463(g)(4)(i)(C). (ii) During startup of each vapor cleaning machine, the primary condenser shall be turned on before the sump heater. (iii) During shutdown of each vapor cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off. (iv) When solvent is added or drained from any solvent cleaning machine, the solvent shall be transferred using threaded or other leakproof couplings, and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface. (v) Each solvent cleaning machine and associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the Administrator's satisfaction to achieve the same or better results as those recommended by the manufacturer. (vi) Waste solvent, still bottoms, sump bottoms, and waste absorbent materials used in the cleaning process for continuous web cleaning machines shall be collected and stored in waste containers. The

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	<p>closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container.</p> <p>(vii) Except as provided in 40 CFR 63.463(h)(3)(viii), sponges, fabric, wood, and paper products shall not be cleaned.</p> <p>(viii) The prohibition in 40 CFR 63.463(h)(3)(vii) does not apply to absorbent materials that are used as part of the cleaning process of continuous web cleaning machines, including rollers and roller covers. [40 CFR 63.463(h)(3), Minn. R. 7011.7200]</p>
5.1.168	<p>For batch vapor or in-line solvent cleaning machines using a dwell to comply with 40 CFR 63.463, the Permittee shall determine the appropriate dwell time for each part or parts basket using the following procedure:</p> <p>(1) Determine the amount of time for the part or parts basket to cease dripping once placed in the vapor zone. The part or parts basket used for this determination must be at room temperature before being placed in the vapor zone.</p> <p>(2) The proper dwell time for parts to remain in the freeboard area above the vapor zone is no less than 35 percent of the time determined in 40 CFR 63.465(d)(1). [40 CFR 63.465(d), Minn. R. 7011.7200]</p>
5.1.169	<p>The Permittee shall determine the potential to emit from all solvent cleaning operations using the procedures described in 40 CFR Section 63.465(e)(1) through (3). A facility's total potential to emit is the sum of the HAP emissions from all solvent cleaning operations, plus all HAP emissions from other sources within the facility. [40 CFR 63.465(e), Minn. R. 7011.7200]</p>
5.1.170	<p>The Permittee shall determine the potential to emit for each individual solvent cleaning using the following equation:</p> $PTE_i = H_i * W_i * SAI_i$ <p>Where:</p> <p>PTE_i = the potential to emit for solvent cleaning machine i (kilograms of solvent per year).</p> <p>H_i = hours of operation for solvent cleaning machine i (hours per year) = 8760 hours per year, unless otherwise restricted by a Federally enforceable requirement.</p> <p>W_i = the working mode uncontrolled emission rate (kilograms per square meter per hour) = 1.95 kilograms per square meter per hour</p> <p>SAI_i = solvent/air interface area of solvent cleaning machine i (square meters). [40 CFR 63.465(e)(1), Minn. R. 7011.7200]</p>
5.1.171	<p>For cleaning machines that do not have a solvent/air interface, the Permittee shall calculate a solvent/air interface area using the following equation:</p> $SAI = 2.20 * (Vol)^{0.6}$ <p>Where:</p> <p>SAI = the solvent/air interface area (square meters).</p> <p>Vol = the cleaning capacity of the solvent cleaning machine (cubic meters). [40 CFR 63.465(e)(2), Minn. R. 7011.7200]</p>
5.1.172	<p>Sum the PTE_i for all solvent cleaning operations to obtain the total potential to emit for solvent cleaning operations at the facility. [40 CFR 63.465(e)(3), Minn. R. 7011.7200]</p>
5.1.173	<p>For continuous web cleaning machines using a squeegee system to comply with 40 CFR 63.463(g)(3), the Permittee shall determine the maximum product throughput using the following method. The maximum product throughput for each squeegee type used at a facility must be determined prior to December 2, 1999, the compliance date for these units.</p> <p>(1) Conduct daily visual inspections of the continuous web part. This monitoring shall be conducted at the point where the continuous web part exits the squeegee system. It is not necessary for the squeegees to be new at the time monitoring is begun if the following two conditions are met:</p> <p>(i) The continuous web part leaving the squeegee system has no visible solvent film.</p> <p>(ii) The amount of continuous web that has been processed through the squeegees since the last</p>

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	replacement is known. (2) Continue daily monitoring until a visible solvent film is noted on the continuous web part. (3) Determine the length of continuous web product that has been cleaned using the squeegee since it was installed. (4) The maximum product throughput for the purposes of this rule is equal to the time it takes to clean 95 percent of the length of product determined in 40 CFR 63.463(f)(3). This time period, in days, may vary depending on the amount of continuous web product cleaned each day. [40 CFR 63.465(f), Minn. R. 7011.7200]
5.1.174	For batch vapor or in-line solvent cleaning machines using a freeboard refrigeration device and complying with the equipment standards in 40 CFR 63.463(b)(1)(i), (b)(2)(i), (c)(1)(i), (c)(2)(i), (g)(1), or (g)(2), the Permittee shall use a thermometer or thermocouple to measure the temperature at the center of the air blanket during the idling mode. The temperature shall be monitored and the results recorded on a weekly basis. [40 CFR 63.466(a)(1), Minn. R. 7011.7200]
5.1.175	For batch vapor or in-line solvent cleaning machines using a superheated vapor system and complying with the equipment standards in 40 CFR 63.463(b)(1)(i), (b)(2)(i), (c)(1)(i), (c)(2)(i), (g)(1), or (g)(2), the Permittee shall use a thermometer or thermocouple to measure the temperature at the center of the superheated solvent vapor zone while the solvent cleaning machine is in the idling mode. The temperature shall be monitored and the results recorded on a weekly basis. [40 CFR 63.466(a)(2), Minn. R. 7011.7200]
5.1.176	For batch vapor or in-line solvent cleaning machines using a squeegee system, air knife system, or combination squeegee and air knife system to comply with the requirements of 40 CFR 63.463(g) or (h) and complying with the equipment standards in 40 CFR 63.463(b)(1)(i), (b)(2)(i), (c)(1)(i), (c)(2)(i), (g)(1), or (g)(2), the Permittee shall visually inspect the continuous web part exiting the solvent cleaning machine to ensure that no solvent film is visible on the part The Permittee shall conduct visual inspections and record the results on a weekly basis. [40 CFR 63.466(a)(3), Minn. R. 7011.7200]
5.1.177	For batch vapor or in-line solvent cleaning machines using a superheated part system to comply with the requirements of 40 CFR 63.463(g) or (h) and complying with the equipment standards in 40 CFR 63.463(b)(1)(i), (b)(2)(i), (c)(1)(i), (c)(2)(i), (g)(1), or (g)(2), the Permittee shall use a thermometer, thermocouple, or other temperature measurement device to measure the temperature of the continuous web part while it is in the solvent cleaning machine. This measurement can also be taken at the exit of the solvent cleaning machine. The temperature shall be monitored and the results recorded on a weekly basis. [40 CFR 63.466(a)(4), Minn. R. 7011.7200]
5.1.178	As an alternative to complying with 40 CFR 63.466(a)(4): For batch vapor or in-line solvent cleaning machines using a superheated part system to comply with the requirements of 40 CFR 63.463(g) or (h) and complying with the equipment standards in 40 CFR 63.463(b)(1)(i), (b)(2)(i), (c)(1)(i), (c)(2)(i), (g)(1), or (g)(2), the Permittee shall provide data, sufficient to satisfy the Administrator, that demonstrate that the part temperature remains above the boiling point of the solvent at all times that the part is within the continuous web solvent cleaning machine. This data could include design and operating conditions such as information supporting any exothermic reaction inherent in the processing. [40 CFR 63.466(a)(5), Minn. R. 7011.7200]
5.1.179	For batch vapor or in-line solvent cleaning machines complying with the equipment standards of 40 CFR 63.463 (b)(1)(i), (b)(2)(i), (c)(1)(i), or (c)(2)(i), the Permittee shall conduct monitoring and record the results on a monthly basis for the control devices, as appropriate, specified in the following: (1) If a cover (working-mode, downtime-mode, and/or idling-mode cover) is used to comply with these

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	<p>standards, the Permittee shall conduct a visual inspection to determine if the cover is opening and closing properly, completely covers the cleaning machine openings when closed, and is free of cracks, holes, and other defects.</p> <p>(2) If a dwell is used, the Permittee shall determine the actual dwell time by measuring the period of time that parts are held within the freeboard area of the solvent cleaning machine after cleaning. [40 CFR 63.466(b), Minn. R. 7011.7200]</p>
5.1.180	<p>For batch vapor or in-line solvent cleaning machine complying with the equipment or idling standards in 40 CFR Section 63.463 shall monitor the hoist speed as described in the following:</p> <p>(1) The Permittee shall determine the hoist speed by measuring the time it takes for the hoist to travel a measured distance. The speed is equal to the distance in meters divided by the time in minutes (meters per minute).</p> <p>(2) The monitoring shall be conducted monthly. If after the first year, no exceedances of the hoist speed are measured, the Permittee may begin monitoring the hoist speed quarterly.</p> <p>(3) If an exceedance of the hoist speed occurs during quarterly monitoring, the monitoring frequency returns to monthly until another year of compliance without an exceedance is demonstrated.</p> <p>(4) If a Permittee can demonstrate to the Administrator's satisfaction in the initial compliance report that the hoist cannot exceed a speed of 3.4 meters per minute (11 feet per minute), the required monitoring frequency is quarterly, including during the first year of compliance. [40 CFR 63.466(c), Minn. R. 7011.7200]</p>
5.1.181	<p>For batch vapor or in-line solvent cleaning machine complying with the equipment standards in 40 CFR Section 63.463 (b)(1)(i), (b)(2)(i), (c)(1)(i), or (c)(2)(i) using a reduced room draft shall conduct monitoring and record the results as specified in the following:</p> <p>(1) If the reduced room draft is maintained by controlling room parameters (i.e., redirecting fans, closing doors and windows, etc.), the Permittee shall conduct an initial monitoring test of the windspeed and of room parameters, quarterly monitoring of windspeed, and weekly monitoring of room parameters as specified in 40 CFR Section 63.466(d)(1)(i) and (d)(1)(ii).</p> <p>(i) Measure the windspeed within 6 inches above the top of the freeboard area of the solvent cleaning machine using the procedure specified in 40 CFR Section 63.466(d)(1)(i)(A) through (d)(1)(i)(D).</p> <p>(A) Determine the direction of the wind current by slowly rotating a velometer or similar device until the maximum speed is located.</p> <p>(B) Orient a velometer in the direction of the wind current at each of the four corners of the machine.</p> <p>(C) Record the reading for each corner.</p> <p>(D) Average the values obtained at each corner and record the average wind speed.</p> <p>(ii) Monitor on a weekly basis the room parameters established during the initial compliance test that are used to achieve the reduced room draft.</p> <p>(2) If an enclosure (full or partial) is used to achieve a reduced room draft, the Permittee shall conduct an initial monitoring test and, thereafter, monthly monitoring tests of the windspeed within the enclosure using the procedure specified in 40 CFR Section 63.466(d)(2)(i) and (d)(2)(ii) and a monthly visual inspection of the enclosure to determine if it is free of cracks, holes and other defects.</p> <p>(i) Determine the direction of the wind current in the enclosure by slowly rotating a velometer inside the entrance to the enclosure until the maximum speed is located.</p> <p>(ii) Record the maximum wind speed. [40 CFR 63.466(d), Minn. R. 7011.7200]</p>
5.1.182	<p>If the Permittee is using a carbon adsorber to comply with 40 CFR pt. 63, subp. T, the Permittee shall measure and record the concentration of halogenated HAP solvent in the exhaust of the carbon adsorber weekly with a colorimetric detector tube. This test shall be conducted while the solvent cleaning machine is in the working mode and is venting to the carbon adsorber. The exhaust concentration shall be determined using the procedure specified in the following:</p> <p>(1) Use a colorimetric detector tube designed to measure a concentration of 100 parts per million by volume of solvent in air to an accuracy of ± 25 parts per million by volume.</p> <p>(2) Use the colorimetric detector tube according to the manufacturer's instructions.</p> <p>(3) Provide a sampling port for monitoring within the exhaust outlet of the carbon adsorber that is easily accessible and located at least 8 stack or duct diameters downstream from any flow disturbance</p>

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	such as a bend, expansion, contraction, or outlet; downstream from no other inlet; and 2 stack or duct diameters upstream from any flow disturbance such as a bend, expansion, contraction, inlet or outlet. [40 CFR 63.466(e), Minn. R. 7011.7200]
5.1.183	For a batch vapor or in-line solvent cleaning machine complying with the idling emission limit standards of 40 CFR Section 63.463 (b)(1)(ii), (b)(2)(ii), (c)(1)(ii), or (c)(2)(ii) shall comply with the requirements specified in the following: (1) If using controls listed in 40 CFR Section 63.466(a) through (e), the Permittee shall comply with the monitoring frequency requirements in 40 CFR Section 63.466(a) through (e). (2) If using controls not listed in 40 CFR Section 63.466(a) through (e), the Permittee shall establish the monitoring frequency for each control and submit it to the Administrator for approval in the initial test report. [40 CFR 63.466(f), Minn. R. 7011.7200]
5.1.184	The Permittee can use alternative monitoring procedures approved by the Administrator. [40 CFR 63.466(g), Minn. R. 7011.7200]
5.1.185	For batch vapor or in-line solvent cleaning machines complying with the provisions of 40 CFR Section 63.463, the Permittee shall maintain the following records, in written or electronic form, for the lifetime of the machine: - Owner's manuals, or if not available, written maintenance and operating procedures, for the solvent cleaning machine and control equipment. - The date of installation for the solvent cleaning machine and all of its control devices. If the exact date of installation is not known, a letter certifying that the cleaning machine and its control devices were installed prior to, or on, November 29, 1993, or after November 29, 1993, may be substituted. -If a dwell is used to comply with these standards, records of the tests required in 40 CFR Section 63.465(d) to determine an appropriate dwell time for each part or parts basket - For batch vapor or in-line solvent cleaning machines complying with the idling emission limit standards of 40 CFR Section 63.463(b)(1)(ii), (b)(2)(ii), (c)(1)(ii), or (c)(2)(ii); records of the initial performance test, including the idling emission rate and the values of monitoring parameters measured during the test. - Records of the halogenated HAP solvent content for each solvent used in the solvent cleaning machine subject to the provisions of 40 CFR pt. 63, subp. T. - If a squeegee system is used to comply with 40 CFR pt. 63, subp. T, records of the test required by 40 CFR Section 63.466(f) to determine the maximum product throughput for the squeegees and records of both the weekly monitoring required by 40 CFR Section 63.466(a)(3) for visual inspection and the length of continuous web product cleaned during the previous week. - If an air knife system or a combination squeegee and air knife system is used to comply with 40 CFR pt. 63, subp. T, records of the determination of the proper operating parameter and parameter value for the air knife system. [40 CFR 63.467(a), Minn. R. 7011.7200]
5.1.186	For batch vapor or in-line solvent cleaning machines complying with 40 CFR Section 63.463, the Permittee shall maintain the following records, in written or electronic form, for a period of 5 years: - The results of control device monitoring required under 40 CFR Section 63.466. - Information on the actions taken to comply with 40 CFR Section 63.463(e) and 63.463(f). This information shall include records of written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to accepted levels. - Estimates of annual solvent consumption for each solvent cleaning machine. -If a carbon adsorber is used to comply with 40 CFR pt. 63, subp. T, records of the date and results of the weekly measurement of the halogenated HAP solvent concentration in the carbon adsorber exhaust required in 40 CFR Section 63.466(e). [40 CFR 63.467(b), Minn. R. 7011.7200]
5.1.187	For new solvent cleaning machines subject to 40 CFR pt. 63, subp. T, the Permittee shall submit an initial notification report. New sources for which the construction or reconstruction commenced after

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	<p>December 2, 1994, shall submit this report as soon as practicable before the construction or reconstruction is planned to commence. This report shall include all of the information required in 40 CFR 63.5(d)(1) of 40 CFR pt. 63, subp. A (General Provisions), with the revisions and additions in the following:</p> <p>(1) The report shall include a brief description of each solvent cleaning machine including machine type (batch vapor, batch cold, vapor in-line, or cold-line), solvent/air interface area, and existing controls.</p> <p>(2) The report shall include the anticipated compliance approach for each solvent cleaning machine.</p> <p>(3) In lieu of 40 CFR 63.5(d)(1)(ii)(H) of 40 CFR pt. 63, subp. A, the Permittee must report an estimate of annual halogenated HAP solvent consumption for each solvent cleaning machine. [40 CFR 63.468(b), Minn. R. 7011.7200]</p>
5.1.188	<p>For batch cold solvent cleaning machines subject to 40 CFR pt. 63, subp. T shall submit a compliance report. For new sources, this report shall be submitted no later than 150 days after startup. This report shall include the requirements specified in the following:</p> <p>(1) The name and address of the Permittee.</p> <p>(2) The address (i.e., physical location) of the solvent cleaning machine(s).</p> <p>(3) A statement, signed by the Permittee of the solvent cleaning machine, stating that the solvent cleaning machine for which the report is being submitted is in compliance with the provisions of 40 CFR pt. 63, subp. T.</p> <p>(4) The compliance approach for each solvent cleaning machine. [40 CFR 63.468(c), Minn. R. 7011.7200]</p>
5.1.189	<p>For batch vapor or in-line solvent cleaning machines complying with 40 CFR Section 63.463, the Permittee shall submit an initial statement of compliance for each solvent cleaning machine. For new sources, this report shall be submitted no later than 150 days after startup. This statement shall include the requirements specified in the following:</p> <p>(1) The name and address of the Permittee.</p> <p>(2) The address (i.e., physical location) of the solvent cleaning machine(s).</p> <p>(3) A list of the control equipment used to achieve compliance for each solvent cleaning machine.</p> <p>(4) For each piece of control equipment required to be monitored, a list of the parameters that are monitored and the values of these parameters measured on or during the first month after the compliance date.</p> <p>(5) Conditions to maintain the wind speed requirements of 40 CFR 63.463(e)(2)(ii), if applicable.</p> <p>(6) Each Permittee of a solvent cleaning machine complying with the idling emission limit standards of 40 CFR 63.463(b)(1)(ii), (b)(2)(ii), (c)(1)(ii), and (c)(2)(ii) shall submit a test report for tests of idling emissions meeting the specifications in Method 307 of 40 CFR pt. 63, appendix A. This report shall comply with the requirements specified in the following:</p> <p>(i) This test must be on the same specific model cleaner used at the source. The test can be done by the Permittee of the affected machine or can be supplied by the vendor of that solvent cleaning machine or a third party.</p> <p>(ii) This report must clearly state the monitoring parameters, monitoring frequency and the delineation of exceedances for each parameter.</p> <p>(iii) If a solvent cleaning machine vendor or third party test report is used to demonstrate compliance, it shall include the following for the solvent cleaning machine tested: Name of person(s) or company that performed the test, model name, the date the solvent cleaning machine was tested, serial number, and a diagram of the solvent cleaning machine tested.</p> <p>(iv) If a solvent cleaning machine vendor or third party test report is used, the Permittee of the solvent cleaning machine shall comply with the requirements specified in either of the following:</p> <p>(A) Submit a statement by the solvent cleaning machine vendor that the unit tested is the same as the unit the report is being submitted for.</p> <p>(B) Demonstrate to the Administrator's satisfaction that the solvent emissions from the solvent cleaning machine for which the test report is being submitted are equal to or less than the solvent emissions from the solvent cleaning machine in the vendor test report.</p>

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	(7) If a carbon adsorber is used to comply with 40 CFR pt. 63, subp. T, the date and results of the weekly measurement of the halogenated HAP solvent concentration in the carbon adsorber exhaust required in 40 CFR Section 63.466(e). [40 CFR 63.468(d), Minn. R. 7011.7200]
5.1.190	<p>For batch vapor or in-line solvent cleaning machines complying with 40 CFR Section 63.463 shall submit an annual report by February 1 of the year following the one for which the reporting is being made. The annual report shall include the following:</p> <p>(1) A signed statement from the Permittee stating that, "All operators of solvent cleaning machines have received training on the proper operation of solvent cleaning machines and their control devices sufficient to pass the test in 40 CFR Section 63.463(d)(10)."</p> <p>(2) An estimate of the solvent consumption for each solvent cleaning machine during the reporting period. [40 CFR 63.468(f), Minn. R. 7011.7200]</p>
5.1.191	<p>For batch vapor or in-line solvent cleaning machines shall submit an exceedance report semiannually except when more frequent reporting is determined to be necessary to accurately assess the compliance status of the source or, an exceedance occurs. Once an exceedance has occurred the Permittee shall follow a quarterly reporting format until a request to reduce reporting frequency under 40 CFR Section 63.468(i) is approved. Exceedance reports shall be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate. The exceedance report shall include:</p> <p>(1) Information on actions taken to comply with 40 CFR Section 63.463(e) and 63.463(f), including records of written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to accepted levels.</p> <p>(2) If an exceedance has occurred, the reason for the exceedance and a description of the actions taken.</p> <p>(3) If no exceedances of a parameter have occurred, or if a piece of equipment has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report. [40 CFR 63.468(h), Minn. R. 7011.7200]</p>
5.1.192	<p>The Permittee shall limit emissions of Tetrachloroethylene (Perchloroethylene) <= 4800 kilograms per year 12-month rolling sum (10,582 pounds/yr) as determined using the procedures in 40 CFR Section 63.471(c). [40 CFR 63.471(b)(2), 40 CFR 63.471(b)(2), Table 1, Minn. R. 7011.7200]</p>
5.1.193	<p>The Permittee shall limit emissions of Trichloroethylene (TCE) <= 14100 kilograms per year 12-month rolling sum (31,085 pounds/yr) as determined using the procedures in 40 CFR Section 63.471(c). [40 CFR 63.471(b)(2), 40 CFR 63.471(b)(2), Table 1, Minn. R. 7011.7200]</p>
5.1.194	<p>The Permittee shall limit emissions of Dichloromethane (Methylene chloride) <= 60000 kilograms per year 12-month rolling sum (132,277 pounds/yr) as determined using the procedures in 40 CFR Section 63.471(c). [40 CFR 63.471(b)(2), 40 CFR 63.471(b)(2), Table 1, Minn. R. 7011.7200]</p>
5.1.195	<p>The Permittee shall limit emissions of multiple solvents: less than or equal to 60,000 kilograms/yr (132,277 pounds/yr) using a weighted 12-month rolling sum, as determined using the procedures in 40 CFR Section 63.471(c) and the following equation:</p> $WE = (PCE * 12.5) + (TCE * 4.25) + (MC)$ <p>Where:</p> <p>WE = Weighted 12-month rolling total emissions in kg (lbs).</p> <p>PCE = 12-month rolling total perchloroethylene emissions from all solvent cleaning machines at the facility in kg (lbs).</p> <p>TCE = 12-month rolling total trichloroethylene emissions from all solvent cleaning machines at the facility in kg (lbs).</p> <p>MC = 12-month rolling total methylene chloride emissions from all solvent cleaning machines at the facility in kg (lbs). [40 CFR 63.471(b)(2), 40 CFR 63.471(b)(2), Table 1, Minn. R. 7011.7200]</p>

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5.1.196	Solvent Additions/Deletions Log: The Permittee shall maintain a log of solvent additions and deletions for each solvent cleaning machine. [40 CFR 63.471(b)(1), Minn. R. 7011.7200]
5.1.197	Clean Liquid Solvent: The Permittee shall, on the first operating day of every month, ensure that each solvent cleaning machine system contains only clean liquid solvent. This includes, but is not limited to, fresh unused solvent, recycled solvent, and used solvent that has been cleaned of soiled materials. A fill line must be indicated during the first month the measurements are made. The solvent level within the machine must be returned to the same fill-line each month, immediately prior to calculating monthly emissions as specified in 40 CFR Section 63.471(c)(2) and (3). The solvent cleaning machine does not have to be emptied and filled with fresh unused solvent prior to the calculations. [40 CFR 63.471(c)(1), Minn. R. 7011.7200]
5.1.198	<p>Monthly Solvent Emissions Equation: The Permittee shall, on the first operating day of the month, using the records of all solvent additions and deletions for the previous month, determine solvent emissions (Eunit) from each solvent cleaning machine using the following equation:</p> $E_{unit} = SA_i - LS_{Ri} - SS_{Ri}$ <p>Where:</p> <p>Eunit = The total halogenated HAP solvent emissions from the solvent cleaning machine during the most recent month i, (kilograms of solvent per month)</p> <p>SA_i = The total amount of halogenated HAP liquid solvent added to the solvent cleaning machine during the most recent month i, (kilograms of solvent per month)</p> <p>LS_{Ri} = The total amount of halogenated HAP liquid solvent removed from the solvent cleaning machine during the most recent month i, (kilograms of solvent per month)</p> <p>SS_{Ri} = The total amount of halogenated HAP solvent removed from the solvent cleaning machine in solid waste, obtained as described in 40 CFR Section 63.471 (c)(3) of this section, during the most recent month i, (kilograms of solvent per month). [40 CFR 63.471(c)(2), Minn. R. 7011.7200]</p>
5.1.199	<p>Solid Solvent Removed (SSR): The Permittee shall, on the first operating day of the month, determine SS_{Ri} using the method specified in (i) or (ii) below:</p> <p>(i) From tests conducted using EPA reference method 25d; or</p> <p>(ii) By engineering calculations included in the compliance report. [40 CFR 63.471(c)(3), Minn. R. 7011.7200]</p>
5.1.200	<p>12-month rolling total (ET_{unit}): The Permittee shall on the first operating day of the month, after 12 months of emissions data are available, determine the 12-month rolling total emissions, ET_{unit}, for the 12-month period ending with the most recent month using the equation below:</p> $ET_{unit} = \text{Sum } (E_{unit}), \text{ from } j=1 \text{ to } 12$ <p>Where:</p> <p>ET_{unit} = The total halogenated HAP solvent emissions over the preceding 12 months, (kilograms of solvent emissions per 12-month period).</p> <p>E_{unit} = Halogenated HAP solvent emissions for each month (j) for the most recent 12 months, (kilograms of solvent per month). [40 CFR 63.471(c)(4), Minn. R. 7011.7200]</p>
5.1.201	<p>12-month rolling total (ET_{facility}): The Permittee shall on the first operating day of the month, after 12 months of emissions data are available, determine the 12-month rolling total emissions for the facility, ET_{facility}, for the 12-month period ending with the most recent month using the equation below:</p> $ET_{facility} = \text{Sum } (ET_{unit}), \text{ from } j=1 \text{ to } i$ <p>Where:</p> <p>ET_{facility} = The total halogenated HAP solvent emissions over the preceding 12 months for all cleaning</p>

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	<p>machines at the facility, (kilograms of solvent emissions per 12-month period). ETunit = The total halogenated HAP solvent emissions over the preceding 12 months for each unit j, where i equals the total number of units at the facility, (kilograms of solvent emissions per 12-month period). [40 CFR 63.471(c)(5), Minn. R. 7011.7200]</p>
5.1.202	<p>The Permittee shall maintain records specified below either in electronic or written form for a period of 5 years. For purposes of this paragraph, "each solvent cleaning machine" means each solvent cleaning machine that is part of a regulated affected facility:</p> <p>(1) The dates and amounts of solvent that are added to each solvent cleaning machine. (2) The solvent composition of wastes removed from each solvent cleaning machines as determined using the procedure described in 40 CFR Section 63.471(c)(3). (3) Calculation sheets showing how monthly emissions and the 12-month rolling total emissions from each solvent cleaning machine were determined, and the results of all calculations. [40 CFR 63.471(e), Minn. R. 7011.7200]</p>
5.1.203	<p>Exceedance: If the applicable facility-wide emission limit presented in Table 1 of 40 CFR Section 63.471 (b)(2) is not met, an exceedance has occurred. All exceedances shall be reported as required in 40 CFR Section 63.468(h). [40 CFR 63.471(d), Minn. R. 7011.7200]</p>
5.1.204	<p>The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows:</p> <p>40 CFR 63.1(a)(1)-(4), (6)-(8), (10), (12)-(14); 40 CFR 63.1(b)(2); 40 CFR 63.1(c)(1), (2), (4), (5); 40 CFR 63.1(e); 40 CFR 63.2; 40 CFR 63.3(a)-(c); 40 CFR 63.4(a)(1)-(3), (5); 40 CFR 63.4(b); 40 CFR 63.4(c); 40 CFR 63.5(a)(1), (2); 40 CFR 63.5(b)(1), (4)-(6); 40 CFR 63.6(a); 40 CFR 63.6(b)(1)-(5); 40 CFR 63.6(c)(1); 40 CFR 63.6(c)(2); 40 CFR 63.6(c)(5); 40 CFR 63.6(e)(1); 40 CFR 63.6(e)(2); 40 CFR 63.6(f); 40 CFR 63.6(g); 40 CFR 63.6(i)(1)-(14), (16); 40 CFR 63.6(j); 40 CFR 63.7(a); 40 CFR 63.7(b); 40 CFR 63.7(c)(1); 40 CFR 63.7(e); 40 CFR 63.7(f); 40 CFR 63.7(g); 40 CFR 63.8(a); 40 CFR 63.8(b); 40 CFR 63.8(f); 40 CFR 63.9(a)(1)-(4); 40 CFR 63.9(b)(1)-(3);</p>

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	<p>40 CFR 63.9(b)(5); 40 CFR 63.9(c); 40 CFR 63.9(d); 40 CFR 63.9(e); 40 CFR 63.9(i); 40 CFR 63.9(j); 40 CFR 63.10(a); 40 CFR 63.10(d)(1); 40 CFR 63.10(f); 40 CFR 63.11(a); 40 CFR 63.12(a)-(c); 40 CFR 63.13(a)-(c); 40 CFR 63.15(a); and 40 CFR 63.15(b)</p> <p>A copy of 40 CFR pt. 63, subp. A is included in Appendix N. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. A & T(Appendix B), Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.7000 & 7011.7200, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]</p>
5.1.205	COATING OF PARTS (NON-FIBERGLASS). [General Permit Header]
5.1.206	BOOTHS: SPRAYING/COATING (NON-FIBERGLASS) IN OPERATION BEFORE JULY 9, 1969. [General Permit Header]
5.1.207	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0710, subp. 1(A)]
5.1.208	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0710, subp. 1(B)]
5.1.209	BOOTHS: SPRAYING/COATING (NON-FIBERGLASS) IN OPERATION ON AFTER JULY 9, 1969. [General Permit Header]
5.1.210	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
5.1.211	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.1.212	NESHAP FOR COATING OPERATIONS (BOOTHS: SPRAYING/COATING AND DIP TANKS SUBJECT TO MMMM AND/OR PPPP). [General Permit Header]
5.1.213	If the Permittee owns or operates an affected source that meets the applicability criteria of either subparts MMMM or PPPP of 40 CFR pt. 63, and at the same facility also performs surface coating that meets the applicability criteria of the other subpart (PPPP or MMMM), the Permittee may elect to comply with these subparts as specified below. [40 CFR 63.3881(e), 40 CFR 63.4481(e), Minn. R. 7011.8090, Minn. R. 7011.8130]
5.1.214	1. The Permittee may have each surface coating operation that meets the applicability criteria of a separate NESHAP comply with that NESHAP separately. [40 CFR 63.3881(e), 40 CFR 63.4481(e), Minn. R. 7011.8090, Minn. R. 7011.8130]
5.1.215	OR
	2. The Permittee may comply with the emission limitation representing the predominant surface coating activity at the facility, as determined according to paragraphs (i) and (ii). However, the Permittee shall not establish high performance, rubber-to metal, extreme performance fluoropolymer,

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	<p>assembled on-road vehicle, or automotive lamp coating operations as the predominant activity.</p> <p>i) If a surface coating operation accounts for 90 percent or more of the surface coating activity at the facility (that is, the predominant activity), then compliance with the emission limits of the predominant activity for all surface coating operations constitutes compliance with both of these surface coating NESHAP (MMMM and PPPP).</p> <p>In determining predominant activity, the Permittee shall include coating activities that meet the applicability criteria of 40 CFR pt. 63, subps. MMMM or PPPP and constitute more than 1 percent of total coating activities at the facility.</p> <p>The Permittee shall include coating activities that meet the applicability criteria of either surface coating NESHAP but comprise less than 1 percent of coating activities in the compliance calculation, but is not required to include such activities in the determination of predominant activity.</p> <p>ii) The Permittee shall use gallons (gal) of solids used (for coating activities subject to MMMM) or pounds (lbs) of solids used (for activities subject to PPPP) as a measure of relative surface coating activity over a representative period of operation. The Permittee may estimate the relative volume (MMMM) or relative mass (PPPP) of coating solids used from parameters other than coating consumption and volume or mass solids content (e.g., design specification for the parts or products coated and the number of items produced).</p> <p>The determination of predominant activity shall accurately reflect current and project coating operations and shall be verifiable through appropriate documentation. The use of parameters other than coating consumption and volume or mass solids content must be approved by the Administrator. The Permittee may use data for any reasonable time period of at least 1 year in determining the relative amount of coating activity, as long as these data represent the way the source will continue to operate in the future and are approved by the Administrator.</p> <p>The Permittee shall determine the predominant activity at the facility and submit the results of that determination with the initial notification required by 40 CFR Sections 63.3910(b) and 63.4510(b). The Permittee shall also determine the predominant activity annually and include the determination in the next semi-annual compliance report required by 40 CFR Sections 63.3920(a) and 63.4520(a). [40 CFR 63.3881, 40 CFR 63.4481(e)(2), Minn. R. 7011.8090, Minn. R. 7011.8130]</p>
5.1.216	<p>OR</p> <p>3. The Permittee may comply with a facility-specific emission limit calculated from the relative amount of coating activity that is subject to each emission limit. If the Permittee elects to comply using the facility-specific emission limit alternative, then compliance with the facility-specific emission limit and the emission limitations in 40 CFR pt. 63, subps. MMMM or PPPP for all surface coating operations constitutes compliance with both of these surface coating NESHAP.</p> <p>The procedures for calculating the facility-specific emission limit are specified in 40 CFR sections 63.3890 and 63.4490. In calculating a facility-specific emission limit, the Permittee shall include coating activities that meet the applicability criteria of 40 CFR pt. 63, subps. MMMM or PPPP and constitute more than 1 percent of total coating activities at the facility.</p> <p>The Permittee shall include coating activities that meet the applicability criteria of either surface coating NESHAP but comprise less than 1 percent of coating activities in the compliance calculation, but is not required to include such activities in the determination of predominant activity. [40 CFR 63.3881, 40 CFR 63.4481(e)(3), Minn. R. 7011.8090, Minn. R. 7011.8130]</p>
5.1.217	<p>The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows:</p> <p>40 CFR 63.1(a); 40 CFR 63.1(b)(1)-(3); 40 CFR 63.1(c)(1); 40 CFR 63.1(c)(4)-(5); 40 CFR 63.1(e); 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4(a)-(c);</p>

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	<p>40 CFR 63.5(a); 40 CFR 63.5(b)(1)-(6); 40 CFR 63.5(d); 40 CFR 63.5(e); 40 CFR 63.5(f); 40 CFR 63.6(a); 40 CFR 63.6(b)(1)-(7); 40 CFR 63.6(c)(1)-(5); 40 CFR 63.6(e)(1)-(2); 40 CFR 63.6(f)(2)-(3); 40 CFR 63.6(g)(1)-(3); 40 CFR 63.6(i)(1)-(16); 40 CFR 63.6(j); 40 CFR 63.7(a)(1); 40 CFR 63.7(a)(3); 40 CFR 63.7(f); 40 CFR 63.8(b); 40 CFR 63.8(b)(2); 40 CFR 63.8(f)(1)-(5); 40 CFR 63.9(a)-(d); 40 CFR 63.9(h)-(j); 40 CFR 63.10(a); 40 CFR 63.10(b)(1); 40 CFR 63.10(b)(2)(vi)-(xii); 40 CFR 63.10(b)(2)(xiv); 40 CFR 63.10(b)(3); 40 CFR 63.10(c)(9)-(15); 40 CFR 63.10(d)(1)-(2); 40 CFR 63.10(d)(4); 40 CFR 63.10(f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; and 40 CFR 63.15.</p> <p>A copy of 40 CFR pt. 63, subp. A is included in Appendix N. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR 63.3901, 40 CFR 63.4501, 40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7017.1010 & 7017.2025]</p>
5.1.218	<p>NESHAP FOR SURFACE COATING OF MISCELLANEOUS METAL PARTS AND PRODUCTS (40 CFR PT. 63, SUBP. MMMM). [General Permit Header]</p>
5.1.219	<p>The Permittee is subject to the requirements of Subpart MMMM if the Permittee owns or operates a new, reconstructed, or existing affected source that uses 250 gallons or more per year of coatings that contain hazardous air pollutants (HAP) in the surface coating of miscellaneous metal parts and products. The Permittee is not required to include coatings that meet the definition of non-HAP coating contained in 40 CFR section 63.3981 in determining whether 250 gallons, or more, of coatings in the surface coating of miscellaneous metal parts and products is used.</p> <p>This rule does not cover the following, which are also included in this permit: Extrusion of a plastic covering onto plastic parts of products to form a coating; and in-mold coating operations or gel coating</p>

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	operations in the manufacture of reinforced plastic composite parts that meet the requirements of 40 CFR pt. 63, subp. WWW. [40 CFR 63.3881(b), Minn. R. 7007.0800, Minn. R. 7007.1100, Minn. R. 7011.8090]
5.1.220	Based on the current and expected operations of the affected source, this permit only includes the compliant material option specified in 40 CFR Section 63.3891(a) and the emission rate without add-on controls option specified in 40 CFR Section 63.3891(b). If the Permittee later chooses to switch to or add the other compliance options allowed in the standard, the Permittee shall comply with all applicable portions of 40 CFR pt. 63, subp. MMMM for those options. In addition, the Permittee shall apply for an individual Part 70 permit prior to making this switch. [40 CFR 63.3891(b), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7011.8090]
5.1.221	The Permittee shall limit HAPs - Organic \leq 1.9 pounds per gallon coating solids 12-month rolling average (pounds organic HAPs emitted/gallon of coating solids) used during each 12-month compliance period for each new general use coating affected source. [40 CFR 63.3890(a)(1), Minn. R. 7011.8090]
5.1.222	The Permittee shall limit HAPs - Organic \leq 27.5 pounds per gallon coating solids 12-month rolling average (pounds organic HAPs emitted/gallon of coating solids) used during each 12-month compliance period for each new high performance coating affected source. [40 CFR 63.3890(a)(2), Minn. R. 7011.8090]
5.1.223	The Permittee shall limit HAPs - Organic \leq 0.44 pounds per gallon coating solids 12-month rolling average (pounds organic HAPs emitted/gallon of coating solids) used during each 12-month compliance period for each new magnet wire coating affected source. [40 CFR 63.3890(a)(3), Minn. R. 7011.8090]
5.1.224	The Permittee shall limit HAPs - Organic \leq 6.8 pounds per gallon coating solids 12-month rolling average (pounds organic HAPs emitted/gallon of coating solids) used during each 12-month compliance period for each new rubber-to-metal coating affected source. [40 CFR 63.3890(a)(4), Minn. R. 7011.8090]
5.1.225	The Permittee shall limit HAPs - Organic \leq 12.4 pounds per gallon coating solids 12-month rolling average (pounds organic HAPs emitted/gallon of coating solids) used during each 12-month compliance period for each new extreme fluoropolymer coating affected source. [40 CFR 63.3890(a)(5), Minn. R. 7011.8090]
5.1.226	The Permittee shall limit HAPs - Organic \leq 2.6 pounds per gallon coating solids 12-month rolling average (pounds organic HAPs emitted/gallon of coating solids) used during each 12-month compliance period for each existing general use coating affected source. [40 CFR 63.3890(b)(1), Minn. R. 7011.8090]
5.1.227	The Permittee shall limit HAPs - Organic \leq 27.5 pounds per gallon coating solids 12-month rolling average (pounds organic HAPs emitted/gallon of coating solids) used during each 12-month compliance period for each existing high performance coating affected source. [40 CFR 63.3890(b)(2), Minn. R. 7011.8090]
5.1.228	The Permittee shall limit HAPs - Organic \leq 1.0 pounds per gallon coating solids 12-month rolling average (pounds organic HAPs emitted/gallon of coating solids) used during each 12-month compliance period for each existing magnet wire coating affected source. [40 CFR 63.3890(b)(3), Minn. R. 7011.8090]
5.1.229	The Permittee shall limit HAPs - Organic \leq 37.7 pounds per gallon coating solids 12-month rolling average (pounds organic HAPs emitted/gallon of coating solids) used during each 12-month compliance period for each existing rubber-to-metal coating affected source. [40 CFR 63.3890(b)(4), Minn. R. 7011.8090]
5.1.230	The Permittee shall limit HAPs - Organic \leq 12.4 pounds per gallon coating solids 12-month rolling average (pounds organic HAPs emitted/gallon of coating solids) used during each 12-month

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5.1.231	<p>compliance period for each existing extreme performance fluoropolymer coating affected source. [40 CFR 63.3890(b)(5), Minn. R. 7011.8090]</p> <p>Emission limit alternatives: If the surface coating operations at the facility meet the applicability criteria for more than one of the subcategory emission limits specified above, the Permittee shall comply separately with each applicable subcategory emission limit, except that the Permittee may elect to comply using one of the following alternatives.</p> <p>Alternative 1 - Facilities with surface coating operations that are predominantly either general use or magnet wire: If the general use or magnet wire surface coating operations subject to only one of the emission limits specified in 40 CFR paragraphs 63.3890(a)(1), (b)(3), (b)(1), or (b)(3) account for 90 percent or more of the surface coating activity at the facility then compliance with that one emission limitation for all surface coating operations constitutes compliance with the other applicable emission limits. Refer to Appendix B for determining eligibility to use Alternative 1 to demonstrate compliance with the applicable emission limits.</p> <p>Alternative 2 - Facility-specific emission limit: The Permittee shall calculate and comply with a facility-specific emission limit as described in Appendix B. If the Permittee elects to comply using the facility-specific emission limit, then compliance with the facility-specific emission limit and the emission limitations in 40 CFR pt. 63, subp. MMMM for all surface coating operations constitutes compliance with subpart MMMM and all other applicable surface coating NESHAP. [40 CFR 63.3890(c), Minn. R. 7011.8090]</p>
5.1.232	COMPLIANT MATERIAL OPTION REQUIREMENTS. [General Permit Header]
5.1.233	<p>The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. MMMM as follows:</p> <ul style="list-style-type: none">40 CFR 63.3881;40 CFR 63.3882;40 CFR 63.3883;40 CFR 63.3890;40 CFR 63.3891(a);40 CFR 63.3892(a);40 CFR 63.3893(a);40 CFR 63.3900(a)(1);40 CFR 63.3900(b);40 CFR 63.3901;40 CFR 63.3910(a)-(b);40 CFR 63.3910(c)(1)-(7);40 CFR 63.3910(c)(8)(i);40 CFR 63.3910(c)(10)-(11);40 CFR 63.3920(a)(1)-(2);40 CFR 63.3920(a)(3)(i)-(iv);40 CFR 63.3920(a)(3)(vi)-(vii);40 CFR 63.3920(a)(4);40 CFR 63.3920(a)(5);40 CFR 63.3930(a)-(b);40 CFR 63.3930(c)(1);40 CFR 63.3930(c)(2);40 CFR 63.3930(d)-(f);40 CFR 63.3930(h);40 CFR 63.3930(j);40 CFR 63.3931;40 CFR 63.3940;40 CFR 63.3941;

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	<p>40 CFR 63.3942; 40 CFR 63.3981; Table 2 to 40 CFR 63, subp. M MMMM; Table 3 to 40 CFR 63, subp. M MMMM; and Table 4 to 40 CFR 63, subp. M MMMM.</p> <p>A copy of 40 CFR pt. 63, subp. M MMMM is included in Appendix B. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. M MMMM, Minn. R. 7011.8090]</p>
5.1.234	EMISSION RATE WITHOUT ADD-ON CONTROLS REQUIREMENTS. [General Permit Header]
5.1.235	<p>The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. M MMMM as follows:</p> <p>40 CFR 63.3881; 40 CFR 63.3882; 40 CFR 63.3883; 40 CFR 63.3890; 40 CFR 63.3891(b); 40 CFR 63.3892(a); 40 CFR 63.3893(a); 40 CFR 63.3900(a)(1); 40 CFR 63.3900(b); 40 CFR 63.3901; 40 CFR 63.3910(a)-(b); 40 CFR 63.3910(c)(1)-(7); 40 CFR 63.3910(c)(8)(ii); 40 CFR 63.3910(c)(10)-(11); 40 CFR 63.3920(a)(1)-(4); 40 CFR 63.3920(a)(6); 40 CFR 63.3930(a)-(b); 40 CFR 63.3930(c)(1); 40 CFR 63.3930(c)(3); 40 CFR 63.3930(d)-(h); 40 CFR 63.3930(j); 40 CFR 63.3931; 40 CFR 63.3950; 40 CFR 63.3951; 40 CFR 63.3952; 40 CFR 63.3981; Table 2 to 40 CFR 63, subp. M MMMM; Table 3 to 40 CFR 63, subp. M MMMM; and Table 4 to 40 CFR 63, subp. M MMMM.</p> <p>A copy of 40 CFR pt. 63, subp. M MMMM is included in Appendix B. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. M MMMM, Minn. R. 7011.8090]</p>
5.1.236	NESHAP FOR SURFACE COATING OF PLASTIC PARTS AND PRODUCTS (40 CFR PT. 63, SUBP. P PPP). [General Permit Header]

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5.1.237	<p>The Permittee is subject to the requirements of Subpart PPPP if the Permittee owns or operates a new, reconstructed, or existing affected source that uses 100 gallons or more per year of coatings that contain hazardous air pollutants (HAP) in the surface coating of plastic parts and products. The Permittee is not required to include coatings that meet the definition of non-HAP coating contained in 40 CFR section 63.4581 in determining whether 100 gallons, or more, of coatings in the surface coating of plastic parts and products is used.</p> <p>This rule does not cover the following, which are also included in this permit: Extrusion of a plastic covering onto plastic parts of products to form a coating; and in-mold coating operations or gel coating operations in the manufacture of reinforced plastic composite parts that meet the requirements of 40 CFR pt. 63, subp. WWWW. [40 CFR 63.4481(b), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.1100, Minn. R. 7011.8130]</p>
5.1.238	<p>Based on the current and expected operations of the affected source, this permit only includes the compliant material option specified in 40 CFR Section 63.4491(a) and the emission rate without add-on controls option specified in 40 CFR Section 63.4491(b). If the Permittee later chooses to switch to or add the other compliance option allowed in the standard, the Permittee shall comply with all applicable portions of 40 CFR pt. 63, subp. PPPP for that option. In addition, the Permittee shall apply for an individual Part 70 permit prior to making this switch. [40 CFR 63.4491, Minn. R. 7011.8130]</p>
5.1.239	<p>The Permittee shall limit HAPs - Organic \leq 0.16 pounds 12-month rolling average (0.16 pounds organic HAPs emitted/pound of coating solids) used during each 12-month compliance period for each new general use coating affected source. [40 CFR 63.4490(a)(1), Minn. R. 7011.8130]</p>
5.1.240	<p>The Permittee shall limit HAPs - Organic \leq 0.26 pounds 12-month rolling average (0.26 pounds organic HAPs emitted/pound of coating solids) used during each 12-month compliance period for each new automotive lamp coating affected source. [40 CFR 63.4490(a)(2), Minn. R. 7011.8130]</p>
5.1.241	<p>The Permittee shall limit HAPs - Organic \leq 0.22 pounds 12-month rolling average (0.22 pounds organic HAPs emitted/pound of coating solids) used during each 12-month compliance period for each new thermoplastic olefin (TPO) coating affected source. [40 CFR 63.4490(a)(3), Minn. R. 7011.8130]</p>
5.1.242	<p>The Permittee shall limit HAPs - Organic \leq 1.34 pounds 12-month rolling average (1.34 pounds organic HAPs emitted/pound of coating solids) used during each 12-month compliance period for each new assembled on-road vehicle coating affected source. [40 CFR 63.4490(a)(4), Minn. R. 7011.8130]</p>
5.1.243	<p>The Permittee shall limit HAPs - Organic \leq 0.16 pounds 12-month rolling average (0.16 pounds organic HAPs emitted/pound of coating solids) used during each 12-month compliance period for each existing general use coating affected source. [40 CFR 63.4490(b)(1), Minn. R. 7011.8130]</p>
5.1.244	<p>The Permittee shall limit HAPs - Organic \leq 0.45 pounds 12-month rolling average (0.45 pounds organic HAPs emitted/pound of coating solids) used during each 12-month compliance period for each existing automotive lamp coating affected source. [40 CFR 63.4490(b)(2), Minn. R. 7011.8130]</p>
5.1.245	<p>The Permittee shall limit HAPs - Organic \leq 0.26 pounds 12-month rolling average (0.26 pounds organic HAPs emitted/pound of coating solids) used during each 12-month compliance period for each existing thermoplastic olefin (TPO) coating affected source. [40 CFR 63.4490(b)(3), Minn. R. 7011.8130]</p>
5.1.246	<p>The Permittee shall limit HAPs - Organic \leq 1.34 pounds 12-month rolling average (1.34 pounds organic HAPs emitted/pound of coating solids) used during each 12-month compliance period for each existing assembled on-road vehicle coating affected source. [40 CFR 63.4490(b)(4), Minn. R. 7011.8130]</p>
5.1.247	<p>Emission limit alternatives: If the surface coating operations at the facility meet the applicability criteria for more than one of the subcategory emission limits specified above, the Permittee shall comply separately with each applicable subcategory emission limit, except that the Permittee may elect to comply using one of the following alternatives.</p> <p>Alternative 1 - Facilities with surface coating operations that are predominantly either general use or TPO:</p>

Requirement number	Requirement and citation
	<p>If the general use or TPO surface coating operations subject to only one of the emission limits specified in 40 CFR paragraphs 63.4490(a)(1), (b)(3), (b)(1), or (b)(3) account for 90 percent or more of the surface coating activity at the facility then compliance with that emission limitation for all surface coating operations constitutes compliance with the other applicable emission limits. Refer to Appendix C for determining eligibility to use Alternative 1 to demonstrate compliance with the applicable emission limits.</p> <p>Alternative 2 - Facility-specific emission limit: The Permittee shall calculate and comply with a facility-specific emission limit as described in Appendix C. If the Permittee elects to comply using the facility-specific emission limit (Alternative 2), then compliance with the facility-specific emission limit and the emission limitations in 40 CFR pt. 63, subp. PPPP for all surface coating operations constitutes compliance with this and other applicable surface coating NESHAP. [40 CFR 63.4490(c), Minn. R. 7011.8130]</p>
5.1.248	COMPLIANT MATERIAL OPTION REQUIREMENTS. [General Permit Header]
5.1.249	<p>The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. PPPP as follows:</p> <p>40 CFR 63.4481; 40 CFR 63.4482; 40 CFR 63.4483; 40 CFR 63.4490; 40 CFR 63.4491(a); 40 CFR 63.4492(a); 40 CFR 63.4493(a); 40 CFR 63.4500(a)(1); 40 CFR 63.4500(b); 40 CFR 63.4501; 40 CFR 63.4510(a)-(b); 40 CFR 63.4510(c)(1)-(7); 40 CFR 63.4510(c)(8)(i); 40 CFR 63.4510(c)(10)-(11); 40 CFR 63.4520(a)(1)-(2); 40 CFR 63.4520(a)(3)(i)-(iv); 40 CFR 63.4520(a)(3)(vi)-(vii); 40 CFR 63.4520(a)(4); 40 CFR 63.4520(a)(5); 40 CFR 63.4530(a)-(b); 40 CFR 63.4530(c)(1); 40 CFR 63.4530(c)(2); 40 CFR 63.4530(d)-(h); 40 CFR 63.4531; 40 CFR 63.4540; 40 CFR 63.4541; 40 CFR 63.4542; 40 CFR 63.4581;</p> <p>Table 2 to 40 CFR 63, subp. PPPP; Table 3 to 40 CFR 63, subp. PPPP; and Table 4 to 40 CFR 63, subp. PPPP;</p> <p>A copy of 40 CFR pt. 63, subp. PPPP is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. PPPP, Minn. R. 7011.8130]</p>

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5.1.250	EMISSION RATE WITHOUT ADD-ON CONTROLS REQUIREMENTS. [General Permit Header]
5.1.251	<p>The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. PPPP as follows:</p> <p>40 CFR 63.4481; 40 CFR 63.4482; 40 CFR 63.4483; 40 CFR 63.4490; 40 CFR 63.4491(b); 40 CFR 63.4492(a); 40 CFR 63.4493(a); 40 CFR 63.4500(a)(1); 40 CFR 63.4500(b); 40 CFR 63.4501; 40 CFR 63.4510(a)-(b); 40 CFR 63.4510(c)(1)-(7); 40 CFR 63.4510(c)(8)(ii); 40 CFR 63.4510(c)(10)-(11); 40 CFR 63.4520(a)(1)-(4); 40 CFR 63.4520(a)(6); 40 CFR 63.4530(a)-(b); 40 CFR 63.4530(c)(1); 40 CFR 63.4530(c)(3); 40 CFR 63.4530(d)-(h); 40 CFR 63.4531; 40 CFR 63.4550; 40 CFR 63.4551; 40 CFR 63.4552; 40 CFR 63.4581; Table 2 to 40 CFR 63, subp. PPPP; Table 3 to 40 CFR 63, subp. PPPP; and Table 4 to 40 CFR 63, subp. PPPP.</p> <p>A copy of 40 CFR pt. 63, subp. PPPP is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. PPPP, Minn. R. 7011.8130]</p>
5.1.252	FIBERGLASS OPERATIONS IN OPERATION BEFORE JULY 9, 1969. [General Permit Header]
5.1.253	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0710, subp. 1(A)]
5.1.254	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0710, subp. 1(B)]
5.1.255	FIBERGLASS OPERATIONS IN OPERATION ON AFTER JULY 9, 1969. [General Permit Header]
5.1.256	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
5.1.257	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.1.258	NESHAP SUBP. WWW, REINFORCED PLASTIC COMPOSITES PRODUCTION. [General Permit Header]

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5.1.259	<p>These requirements are limited to reinforced plastic composites production in which reinforced and/or non-reinforced plastic composites or plastic molding compounds are manufactured in a closed molding using thermoset resins and/or gel coats that contain styrene to produce plastic composites. This also includes cleaning, mixing, HAP-containing materials storage, and repair operations associated with the production of plastic composites. [40 CFR 63.5790(b), Minn. R. 7011.7800]</p>
5.1.260	<p>Production resins that must meet military specifications are allowed to meet the organic HAP limit contained in that specification. In order for this exemption to be used, the Permittee must supply to the permitting authority the specifications certified as accurate by the military procurement officer, and those specifications must state a requirement for a specific resin, or a specific resin HAP content. Production resins for which this exemption is used must be applied with nonatomizing resin application equipment unless the Permittee can demonstrate this is infeasible. The Permittee must keep a record of the resins that are using this exemption. [40 CFR 63.5790(d), Minn. R. 7011.7800]</p>
5.1.261	<p>The Permittee shall use the emission factor equations in Table 1 in Appendix D of this permit to determine compliance. [40 CFR 63.5796, Minn. R. 7011.7800]</p>
5.1.262	<p>HAP Content of Resin and Gel Coat: To determine the HAP content of resins and gelcoats, the Permittee may use manufacturer formulation data such as Material Safety Data Sheets (MSDS), using the following procedures:</p> <ol style="list-style-type: none"> (1) Include each OSHA-defined carcinogen HAP that is present at 0.1% or more by weight, and all other HAPs present at 1.0% or more by weight. (2) If a range of HAP content is specified, the upper limit of the range must be used for determining compliance. (3) If a separate measurement of the HAP content using EPA Method 311 exceeds the total organic HAP content provided by the material supplier or manufacturer, then the Permittee must use the measured organic HAP content to determine compliance. (4) If the measured total organic HAP content exceeds the provided value by 2 percentage points or more, then the Permittee must use the measured organic HAP content to determine compliance. [40 CFR 63.5797, Minn. R. 7011.7800]
5.1.263	<p>For new facilities prior to startup, the Permittee shall calculate a weighted average organic HAP emissions factor for the operations specified in 40 CFR Section 63.5805(c) and (d) on a lbs/ton of resin and gel coat basis. Base the weighted average on your projected operation for the 12 months subsequent to facility startup. Multiply the weighted average organic HAP emissions factor by projected resin use over the same period. You may calculate your organic HAP emissions factor based on the factors in Table 1 to this subpart, or you may use any HAP emissions factor approved by us, such as factors from the "Compilation of Air Pollutant Emissions Factors, Volume I: Stationary Point and Area Sources (AP-42)," or organic HAP emissions test data from similar facilities. [40 CFR 63.5799(a), Minn. R. 7011.7800]</p>
5.1.264	<p>The Permittee may use one of these two options to determine HAP emissions factor:</p> <ol style="list-style-type: none"> (1) The Permittee shall calculate a weighted average organic HAP emissions factor on a lbs/ton of resin and gel coat basis. Base the weighted average on the prior 12 months of operation. Multiply the weighted average organic HAP emissions factor by resin and gel coat use over the same period. Organic HAP emissions factors may be used from Table 1 in Appendix D of this permit, or from another EPA approved organic HAP emissions factor such as AP-42. (2) Conduct performance testing using the test procedures in 40 CFR Section 63.5850 to determine site specific organic HAP emission factor in units of lbs/ton of resin and gel coat used. Conduct the test under conditions expected to result in the highest possible organic HAP emissions. Multiply this factor by the annual resin and gel coat use to determine annual organic HAP emissions. Repeat and report this calculation annually. [40 CFR 63.5799(b), Minn. R. 7011.7800]
5.1.265	<p>The Permittee shall comply with the Maximum Achievable Control Technology (MACT) Standard for Reinforced Plastic Composites Production by April 21, 2006 (the Compliance Date). If the Permittee</p>

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	uses the organic HAP emissions standard based on a 12-month rolling average, they must begin collecting data by the Compliance Date. [40 CFR 63.5800, Minn. R. 7011.7800]
5.1.266	<p>For existing facilities that have any centrifugal casting or continuous casting/lamination operations, the Permittee must meet the following requirements:</p> <p>(1) If the combination of all centrifugal casting and continuous lamination/casting operations emit 100 tpy or more of HAP, the Permittee must reduce the total organic HAP emissions from centrifugal casting and continuous lamination/casting operations by at least 95 percent by weight. As an alternative to meeting the 95 percent by weight requirement, centrifugal casting operations may meet the applicable organic HAP emissions limits in 40 CFR pt. 63, subp. WWWW, Table 5 and continuous lamination/casting operations may meet an organic HAP emissions limit of 1.47 lbs/ton of neat resin plus and neat gel coat plus applied. For centrifugal casting, the percent reduction requirement does not apply to organic HAP emissions that occur during resin application onto an open centrifugal casting mold using open molding application techniques.</p> <p>(2) If the combination of all centrifugal casting and continuous lamination/casting operations emit less than 100 tpy of HAP, then centrifugal casting and continuous lamination/casting operations must meet the appropriate requirements in 40 CFR pt. 63, subp. WWWW, Table 3. [40 CFR 63.5805(a)(Table 4), Minn. R. 7011.7800]</p>
5.1.267	<p>The Permittee shall limit HAPs - Organic \leq 25 pounds per ton for centrifugal casting - CR/HS operations that use resin application with the mold closed or open, and the mold is vented during spinning and cure, based on a 12-month rolling average.</p> <p>For compliance purposes, the Permittee shall calculate the emission factor using only the appropriate centrifugal casting equation in item 2 of 40 CFR pt. 63, subp. WWWW, Table 1. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]</p>
5.1.268	<p>HAPs - Organic: For centrifugal casting - CR/HS operations that use resin application with the mold open, and the mold is not vented during spinning and cure, the Permittee shall use the appropriate open molding emission limit.</p> <p>The Permittee shall calculate the emission factor using the appropriate open molding covered cure emission factor in item 1 of 40 CFR pt. 63, subp. WWWW, Table 1. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]</p>
5.1.269	<p>The Permittee shall limit HAPs - Organic \leq 88 pounds per ton for open molding - non corrosion-resistant and/or high strength (CR/HS) operations that use mechanical resin application, based on a 12-month rolling average. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]</p>
5.1.270	<p>The Permittee shall limit HAPs - Organic \leq 20 pounds per ton for centrifugal casting - non CR/HS operations that use resin application with the mold closed or open, and the mold is vented during spinning and cure, based on a 12-month rolling average.</p> <p>For compliance purposes, the Permittee shall calculate the emission factor using only the appropriate centrifugal casting equation in item 2 of 40 CFR pt. 63, subp. WWWW, Table 1. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]</p>
5.1.271	<p>HAPs - Organic: For centrifugal casting - non CR/HS operations that use resin application with the mold open, and the mold is not vented during spinning and cure, the Permittee shall use the appropriate open molding emission limit.</p> <p>The Permittee shall calculate the emission factor using the appropriate open molding covered cure emission factor in item 1 of 40 CFR pt. 63, subp. WWWW, Table 1. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]</p>
5.1.272	<p>The Permittee shall limit HAPs - Organic \leq 15.7 pounds per ton of neat resin plus and neat gel coat plus for continuous lamination/casting operations, based on a 12-month rolling average.</p> <p>Alternative: as an alternative to the lb/ton limit, the Permittee may reduce total organic HAP emissions</p>

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	by at least 58.5 weight percent for continuous lamination/casting operations. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]
5.1.273	The Permittee shall limit HAPs - Organic <= 113 pounds per ton for open molding - corrosion-resistant and/or high strength (CR/HS) operations that use mechanical resin application, based on a 12-month rolling average. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]
5.1.274	The Permittee shall limit HAPs - Organic <= 171 pounds per ton for open molding - corrosion-resistant and/or high strength (CR/HS) operations that use filament application, based on a 12-month rolling average. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]
5.1.275	The Permittee shall limit HAPs - Organic <= 123 pounds per ton for open molding - corrosion-resistant and/or high strength (CR/HS) operations that use manual resin application, based on a 12-month rolling average. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]
5.1.276	The Permittee shall limit HAPs - Organic <= 188 pounds per ton for open molding - non corrosion-resistant and/or high strength (CR/HS) operations that use filament application, based on a 12-month rolling average. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]
5.1.277	The Permittee shall limit HAPs - Organic <= 87 pounds per ton for open molding - non corrosion-resistant and/or high strength (CR/HS) operations that use manual resin application, based on a 12-month rolling average. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]
5.1.278	The Permittee shall limit HAPs - Organic <= 254 pounds per ton for open molding - tooling operations that use mechanical resin application, based on a 12-month rolling average. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]
5.1.279	The Permittee shall limit HAPs - Organic <= 157 pounds per ton for open molding - tooling operations that use manual resin application, based on a 12-month rolling average. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]
5.1.280	The Permittee shall limit HAPs - Organic <= 497 pounds per ton for open molding - low-flame spread/low-smoke products operations that use mechanical resin application, based on a 12-month rolling average. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]
5.1.281	The Permittee shall limit HAPs - Organic <= 270 pounds per ton for open molding - low-flame spread/low-smoke products operations that use filament application, based on a 12-month rolling average. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]
5.1.282	The Permittee shall limit HAPs - Organic <= 238 pounds per ton for open molding - low-flame spread/low-smoke products operations that use manual resin application, based on a 12-month rolling average. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]
5.1.283	The Permittee shall limit HAPs - Organic <= 354 pounds per ton for open molding - shrinkage controlled resins operations that use mechanical resin application, based on a 12-month rolling average. This emission limit applies regardless of whether the shrinkage controlled resin is used as a production resin or a tooling resin. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]
5.1.284	The Permittee shall limit HAPs - Organic <= 215 pounds per ton for open molding - shrinkage controlled resins operations that use filament application, based on a 12-month rolling average. This emission limit applies regardless of whether the shrinkage controlled resin is used as a production resin or a tooling resin. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]
5.1.285	The Permittee shall limit HAPs - Organic <= 180 pounds per ton for open molding - shrinkage controlled resins operations that use manual resin application, based on a 12-month rolling average. This emission limit applies regardless of whether the shrinkage controlled resin is used as a production resin or a tooling resin. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]
5.1.286	The Permittee shall limit HAPs - Organic <= 440 pounds per ton for open molding - gel coat operations that use tooling gel coating, based on a 12-month rolling average. If the Permittee only applies gel coat with manual application, for compliance purposes the Permittee shall treat the gel coat as if it were applied using atomized spray guns to determine both emission

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	<p>limits and emission factors.</p> <p>If the Permittee uses multiple application methods and any portion of a specific gel coat is applied using nonatomized spray, the Permittee may use the nonatomized spray gel coat equation to calculate an emission factor for the manually applied portion of that gel coat. Otherwise, the Permittee shall use the atomized spray gel coat application equation to calculate emission factors. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]</p>
5.1.287	<p>The Permittee shall limit HAPs - Organic \leq 267 pounds per ton for open molding - gel coat operations that use white/off white pigmented gel coating, based on a 12-month rolling average.</p> <p>If the Permittee only applies gel coat with manual application, for compliance purposes the Permittee shall treat the gel coat as if it were applied using atomized spray guns to determine both emission limits and emission factors.</p> <p>If the Permittee uses multiple application methods and any portion of a specific gel coat is applied using nonatomized spray, the Permittee may use the nonatomized spray gel coat equation to calculate an emission factor for the manually applied portion of that gel coat. Otherwise, the Permittee shall use the atomized spray gel coat application equation to calculate emission factors. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]</p>
5.1.288	<p>The Permittee shall limit HAPs - Organic \leq 377 pounds per ton for open molding - gel coat operations that use all other pigmented gel coating, based on a 12-month rolling average.</p> <p>If the Permittee only applies gel coat with manual application, for compliance purposes the Permittee shall treat the gel coat as if it were applied using atomized spray guns to determine both emission limits and emission factors.</p> <p>If the Permittee uses multiple application methods and any portion of a specific gel coat is applied using nonatomized spray, the Permittee may use the nonatomized spray gel coat equation to calculate an emission factor for the manually applied portion of that gel coat. Otherwise, the Permittee shall use the atomized spray gel coat application equation to calculate emission factors. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]</p>
5.1.289	<p>The Permittee shall limit HAPs - Organic \leq 605 pounds per ton for open molding - gel coat operations that use CR/HS or high performance gel coating, based on a 12-month rolling average.</p> <p>If the Permittee only applies gel coat with manual application, for compliance purposes the Permittee shall treat the gel coat as if it were applied using atomized spray guns to determine both emission limits and emission factors.</p> <p>If the Permittee uses multiple application methods and any portion of a specific gel coat is applied using nonatomized spray, the Permittee may use the nonatomized spray gel coat equation to calculate an emission factor for the manually applied portion of that gel coat. Otherwise, the Permittee shall use the atomized spray gel coat application equation to calculate emission factors. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]</p>
5.1.290	<p>The Permittee shall limit HAPs - Organic \leq 854 pounds per ton for open molding - gel coat operations that use fire retardant gel coating, based on a 12-month rolling average.</p> <p>If the Permittee only applies gel coat with manual application, for compliance purposes the Permittee shall treat the gel coat as if it were applied using atomized spray guns to determine both emission limits and emission factors.</p> <p>If the Permittee uses multiple application methods and any portion of a specific gel coat is applied using nonatomized spray, the Permittee may use the nonatomized spray gel coat equation to calculate an emission factor for the manually applied portion of that gel coat. Otherwise, the Permittee shall use the atomized spray gel coat application equation to calculate emission factors. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]</p>
5.1.291	<p>The Permittee shall limit HAPs - Organic \leq 522 pounds per ton for open molding - gel coat operations that use clear production gel coat, based on a 12-month rolling average.</p> <p>If the Permittee only applies gel coat with manual application, for compliance purposes the Permittee shall treat the gel coat as if it were applied using atomized spray guns to determine both emission limits and emission factors.</p>

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	If the Permittee uses multiple application methods and any portion of a specific gel coat is applied using nonatomized spray, the Permittee may use the nonatomized spray gel coat equation to calculate an emission factor for the manually applied portion of that gel coat. Otherwise, the Permittee shall use the atomized spray gel coat application equation to calculate emission factors. [40 CFR 63.5805(Table 3), Minn. R. 7011.7800]
5.1.292	<p>The Permittee shall reduce emissions of HAPs - Organic \geq 60 percent by weight for pultrusion machines.</p> <p>Pultrusion machines that produce parts that meet the following criteria: 1,000 or more reinforcements or the glass equivalent of 1,000 ends of 113 yield roving or more; and have a cross sectional area of 60 square inches or more are not subject to this organic HAP emission limit. [40 CFR 63.5805(b)(Table 4), Minn. R. 7011.7800]</p>
5.1.293	For a new or existing closed molding operation using compression/injection molding, the Permittee must uncover, unwrap, or expose only one charge per mold cycle per compression/injection molding machine. For machines with multiple molds, one charge means sufficient material to fill all molds for one cycle. For machines with robotic loaders, no more than one charge may be exposed prior to the loader. For machines fed by hoppers, sufficient material may be uncovered to fill the hopper. Hoppers must be closed when not adding materials. Materials may be uncovered to feed slitting machines. Materials must be recovered after slitting. [40 CFR 63.5805(b)(Table 4), Minn. R. 7011.7800]
5.1.294	For a new or existing cleaning operation, the Permittee may not use cleaning solvents that contain hazardous air pollutants (HAP), except that styrene may be used as a cleaner in closed systems, and organic HAP containing cleaners may be used to clean cured resin from application equipment. Application equipment includes any equipment that directly contacts resin. [40 CFR 63.5805(b)(Table 4), Minn. R. 7011.7800]
5.1.295	For a new or existing materials HAP-containing materials storage operation, the Permittee must keep containers that store HAP-containing materials closed or covered except during the addition or removal of materials. Bulk HAP-containing material storage tanks may be vented as necessary for safety. [40 CFR 63.5805(b)(Table 4), Minn. R. 7011.7800]
5.1.296	For an existing or new SMC manufacturing operation, the Permittee must close or cover the resin delivery system to the doctor box on each SMC manufacturing machine. The doctor box itself may be open. [40 CFR 63.5805(b)(Table 4), Minn. R. 7011.7800]
5.1.297	For an existing or new SMC manufacturing operation, the Permittee must use a nylon containing film to enclose SMC. [40 CFR 63.5805(b)(Table 4), Minn. R. 7011.7800]
5.1.298	<p>For all mixing or BMC manufacturing operations, the Permittee must use mixer covers with no visible gaps present in the mixer covers, except that gaps of up to 1 inch are permissible around mixer shafts and any required instrumentation.</p> <p>Containers of 5 gallons or less may be open when active mixing is taking place, or during periods when they are in process (i.e., they are actively being used to apply resin). For polymer casting mixing operations, containers with a surface area of 500 square inches or less may be open while active mixing is taking place. [40 CFR 63.5805(b)(Table 4), Minn. R. 7011.7800]</p>
5.1.299	<p>For all mixing or BMC manufacturing operations, the Permittee must close any mixer vents when actual mixing is occurring, except that venting is allowed during addition of materials, or as necessary prior to adding materials or opening the cover for safety. Vents routed to a 95% efficient control device are exempt from this requirement.</p> <p>Containers of 5 gallons or less may be open when active mixing is taking place, or during periods when they are in process (i.e., they are actively being used to apply resin). For polymer casting mixing operations, containers with a surface area of 500 square inches or less may be open while active mixing is taking place. [40 CFR 63.5805(b)(Table 4), Minn. R. 7011.7800]</p>

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5.1.300	<p>For all mixing or BMC manufacturing operations, the Permittee must keep the mixer covers closed while actual mixing is actually occurring except when adding materials or changing covers to the mixing vessels.</p> <p>Containers of 5 gallons or less may be open when active mixing is taking place, or during periods when they are in process (i.e., they are actively being used to apply resin). For polymer casting mixing operations, containers with a surface area of 500 square inches or less may be open while active mixing is taking place. [40 CFR 63.5805(b)(Table 4), Minn. R. 7011.7800]</p>
5.1.301	<p>For a new or existing pultrusion operation manufacturing parts that meet the following criteria: 1,000 or more reinforcements or the glass equivalent of 1,000 ends of 113 yield roving or more; and have a cross sectional area of 60 square inches or more that is not subject to the 95 percent organic HAP emission reduction requirement; the Permittee must:</p> <ul style="list-style-type: none">i. not allow vents from the building ventilation system, or local or portable fans to blow directly on or across the wet-out area(s),ii. not permit point suction of ambient air in the wet-out area(s) unless that air is directed to a control device,iii. use devices such as deflectors, baffles, and curtains when practical to reduce air flow velocity across the wet-out area(s),iv. direct any compressed air exhausts away from resin and wet-out area(s),v. convey resin collected from drip-off pans or other devices to reservoirs, tanks, or sumps via covered troughs, pipes, or other covered conveyance that shields the resin from the ambient air,vi. cover all reservoirs, tanks, sumps, or HAP-containing materials storage vessels except when they are being charged or filled, andvii. cover or shield from ambient air resin delivery systems to the wet-out area(s) from reservoirs, tanks, or sumps where practical. [40 CFR 63.5805(b)(Table 4), Minn. R. 7011.7800]
5.1.302	<p>Exceeding the 40 CFR pt. 63, subp. WWWW threshold of 100 tpy of HAP exceeds the 90 tpy permit cap on HAP emissions and is a violation of the permit.</p> <p>If the Permittee is subject to 40 CFR 5805(a)(2) or (c) at its initial compliance date that subsequently meets or exceeds the 100 tpy threshold in any calendar year, the Permittee must notify the permitting authority in the compliance report. The Permittee may at the same time request a one-time exemption from the requirements of 40 CFR Section 63.5805(a)(1) or (d) in the compliance report if they can demonstrate all of the following:</p> <ul style="list-style-type: none">(1) The exceedance of the threshold was due to circumstances that will not be repeated.(2) The average annual organic HAP emissions from the potentially affected operations for the last 3 years were below 100 tpy.(3) Projected organic HAP emissions for the next calendar year are below 100 tpy, based on projected resin and gel coat use and the HAP emission factors calculated according to the procedures in 40 CFR Section 63.5799. [40 CFR 63.5805(e), Minn. R. 7011.7800]
5.1.303	<p>If the Permittee has repair operations subject to this subpart as defined in 40 CFR 63.5785, these repair operations must meet the requirements in 40 CFR pt. 63, subp. WWWW, Tables 3 and 4 and are not required to meet the 95 percent organic HAP emissions reduction requirements in 40 CFR 63.5805(a)(1) or (d). [40 CFR 63.5805(f), Minn. R. 7011.7800]</p>
5.1.304	<p>Compliance Options: The Permittee must use one of the Options A-D to meet the standards in 40 CFR Section 63.5805. The Permittee may use any control method that reduces organic HAP emissions as specified in 40 CFR Section 63.5810. The Permittee may use different compliance options for different operations.</p>

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	The necessary calculations must be completed within 30 days after the end of each month. [40 CFR 63.5810, Minn. R. 7011.7800]
5.1.305	The Permittee may switch between the compliance options A-D. When the Permittee changes to an option based on a 12-month rolling average, the average must be based on the previous 12 months of data calculated using the compliance option you are changing to, unless you were previously using an option that did not require you to maintain records of resin and gel coat use. In this case, the Permittee must immediately begin collecting resin and gel coat use data and demonstrate compliance 12 months after changing options. [40 CFR 63.5810, Minn. R. 7011.7800]
5.1.306	<p>Option A: The Permittee shall demonstrate that an individual resin or gel coat, as applied, meets the applicable emissions limit in this permit. When this option is used, the Permittee shall comply with this option using the methods required by 40 CFR Section 63.5810(a)(1) and (2), equation 1.</p> <p>The Permittee shall calculate the actual organic HAP emissions factor for each different process stream within each operation type using the appropriate equations in Table 1 in Appendix D of this permit. A process stream is defined as each individual combination of resin or gel coat, application technique, and control technique. Process streams within operations types are considered different from each other if any of the following four characteristics vary: the neat resin plus or neat gel coat plus organic HAP content, the gel coat type, the application technique, or the control technique.</p> <p>If the Permittee uses vapor suppressants to reduce HAP emissions, the Permittee must determine the vapor suppressant effectiveness (VSE) by conducting testing according to the procedures specified in appendix A to 40 CFR pt. 63, subp. WWWW.</p> <p>If the calculated emissions factor is less than or equal to the appropriate emissions limit, then the given process stream is considered in compliance with the emission limit in this permit. [40 CFR 63.5810(a), Minn. R. 7011.7800]</p>
5.1.307	<p>Option B: The Permittee shall demonstrate that, on average, the individual organic HAP emissions limits for each combination of operation type and resin application or gel coat type are met. When this option is being used, the Permittee must demonstrate compliance with the weighted average HAP emissions limit for all open molding operations. The Permittee shall comply with this option by utilizing the calculation methods stated in 40 CFR Section 63.5810(b), equation 2.</p> <p>Each month, the Permittee shall:</p> <ol style="list-style-type: none"> 1) calculate a weighted average emissions factor based on the amounts of each individual resin or gel coat used for the last 12 months as required by 40 CFR Section 63.5810(b)(1)(i), equation 2. The Permittee may include process streams in this calculation that already demonstrated compliance using Option A, as detailed in 40 CFR Section 63.5810(b)(1)(ii). 2) compare each 12-month rolling average organic HAP emissions factor with its corresponding organic HAP emissions limit in this permit. If all emissions factors are equal to or less than their corresponding emissions limits, then compliance is achieved for this option. [40 CFR 63.5810(b), Minn. R. 7011.7800]
5.1.308	<p>Option C: The Permittee shall each month demonstrate compliance with a weighted average emission limit in this permit. The Permittee shall comply with this option by utilizing the calculation methods stated in 40 CFR Section 63.5810(c), equations 3 and 4, for open molding operations.</p> <p>Each month, the Permittee shall:</p> <ol style="list-style-type: none"> 1) calculate the weighted average organic HAP emission limit for all open molding operations and the organic HAP emission limit for all centrifugal casting operations for the facility for the last 12-month period to determine the organic HAP emission limit as required by 40 CFR Section 63.5810(c)(1),

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	<p>equation 3.</p> <p>2) calculate the weighted average organic HAP emissions factor for open molding and centrifugal casting as required by 40 CFR Section 63.5810(c)(2), equation 4.</p> <p>3) compare the values calculated by items 1 and 2. If each 12-month rolling average organic HAP emissions factor is less than or equal to the corresponding 12-month rolling average organic HAP emissions the limit, then compliance is achieved for this option. [40 CFR 63.5810(c), Minn. R. 7011.7800]</p>
5.1.309	<p>Option D: The Permittee shall meet the organic HAP emissions limit for one application method and use the same resin(s) for all application methods of that resin type. This option is limited to resins of the same type. The resin types for which this option may be used are noncorrosion-resistant, corrosion-resistant and/or high strength, and tooling.</p> <p>For any combination of manual resin application, mechanical resin application, filament application, or centrifugal casting, the Permittee may elect to meet the organic HAP emissions limit for any one of these application methods and use the same resin in all of the resin application methods listed in 40 CFR Section 63.5810(d)(1). Table 7 in Appendix E presents the possible combinations based on a facility selecting the application process that results in the highest allowable organic HAP content resin. If the resin organic HAP content is below the applicable value shown in Table 7, the resin is in compliance. [40 CFR 63.5810(d), Minn. R. 7011.7800]</p>
5.1.310	<p>Option D(2). The Permittee may also use a weighted average organic HAP content for each application method described in Option D. The Permittee shall calculate the weighted average organic HAP content monthly using Equation 2 under Option B, except substitute organic HAP content for organic HAP emissions factor. Compliance is demonstrated if the weighted average organic HAP content based on the last 12 months of resin use is less than or equal to the applicable organic HAP contents in Table 7 of Appendix E of this permit.</p> <p>The Permittee may simultaneously use the averaging provisions in Options B and C to demonstrate compliance for any operations and/or resins not included in Option D above. However, any resins for which the Permittee claims compliance under Option D above may not be included in any of the averaging calculations described in Options B and C. [40 CFR 63.5810(d)(2)&(3), Minn. R. 7011.7800]</p>
5.1.311	<p>The Permittee does not have to keep records of resin use for any of the individual resins where Option D is used to demonstrate compliance unless the Permittee elects to include that resin in the averaging calculations for Option D(2). [40 CFR 63.5810(d)(4), Minn. R. 7011.7800]</p>
5.1.312	<p>The Permittee must use one or more of the options below to meet the standards in 40 CFR Section 63.5805. Use the calculation procedures in 40 CFR Section 63.5865 through 63.5890.</p> <ul style="list-style-type: none">- Compliant line option. Demonstrate that each continuous lamination line and each continuous casting line complies with the applicable standard.- Averaging option. Demonstrate that all continuous lamination and continuous casting lines combined, comply with the applicable standard.- Combination option. Use any combination of options in paragraphs 40 CFR Section 63.5820(a) and (b), for affected sources at existing facilities, any combination of options in 40 CFR Section 63.5820(a), (b), and (c) (in which one or more lines meet the standards on their own, two or more lines averaged together meet the standards, and one or more lines have their wet-out areas controlled to a level of 95 percent). [40 CFR 63.5820, Minn. R. 7011.7800]

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5.1.313	The Permittee must use one or more of the options in 40 CFR Section 63.5830(a) through (e) to meet the 60 weight percent organic HAP emissions limit in 40 CFR pt. 63, subp. WWW, Table 3, as required in 40 CFR Section 63.5805. [40 CFR 63.5830, Minn. R. 7011.7800]
5.1.314	The Permittee shall achieve an overall reduction in organic HAP emissions of 60 weight percent by capturing the organic HAP emissions and venting them to a control device or any combination of control devices. Conduct capture and destruction efficiency testing as specified in 40 CFR Section 63.5850 to determine the percent organic HAP emissions reduction. [40 CFR 63.5830(a), Minn. R. 7011.7800]
5.1.315	<p>The Permittee shall design, install, and operate wet area enclosures and resin drip collection systems on pultrusion machines that meet the following criteria:</p> <p>(1) The enclosure must cover and enclose the open resin bath and the forming area in which reinforcements are pre-wet or wet-out and moving toward the die(s). The surfaces of the enclosure must be closed except for openings to allow material to enter and exit the enclosure.</p> <p>(2) For open bath pultrusion machines with a radio frequency pre-heat unit, the enclosure must extend from the beginning of the resin bath to within 12.5 inches or less of the entrance of the radio frequency pre-heat unit. If the stock that is within 12.5 inches or less of the entrance to the radio frequency pre-heat unit has any drip, it must be enclosed. The stock exiting the radio frequency pre-heat unit is not required to be in an enclosure if the stock has no drip between the exit of the radio frequency pre-heat unit to within 0.5 inches of the entrance of the die.</p> <p>(3) For open bath pultrusion machines without a radio frequency pre-heat unit, the enclosure must extend from the beginning of the resin bath to within 0.5 inches or less of the die entrance.</p> <p>(4) For pultrusion lines with pre-wet area(s) prior to direct die injection, no more than 12.5 inches of open wet stock is permitted between the entrance of the first pre-wet area and the entrance to the die. If the pre-wet stock has any drip, it must be enclosed.</p> <p>(5) The total open area of the enclosure must not exceed two times the cross sectional area of the puller window(s) and must comply with the requirements in paragraphs (b)(5)(i) through (iii) of this section.</p> <p>(i) All areas that are open need to be included in the total open area calculation with the exception of access panels, doors, and/or hatches that are part of the enclosure.</p> <p>(ii) The area that is displaced by entering reinforcement or exiting product is considered open.</p> <p>(iii) Areas that are covered by brush covers are considered closed.</p> <p>average must have operated the entire time period being averaged. [40 CFR 63.5830(b)(1)-(5), Minn. R. 7011.7800]</p>
5.1.316	<p>The Permittee shall design, install, and operate wet area enclosures and resin drip collection systems on pultrusion machines that meet the following criteria:</p> <p>(6) Open areas for level control devices, monitoring devices, agitation shafts, and fill hoses must have no more than 1.0 inch clearance.</p> <p>(7) The access panels, doors, and/or hatches that are part of the enclosure must close tightly. Damaged access panels, doors, and/or hatches that do not close tightly must be replaced.</p> <p>(8) The enclosure may not be removed from the pultrusion line, and access panels, doors, and/or hatches that are part of the enclosure must remain closed whenever resin is in the bath, except for the time period discussed in paragraph (b)(9) of this section.</p> <p>(9) The maximum length of time the enclosure may be removed from the pultrusion line or the access panels, doors, and/or hatches and may be open, is 30 minutes per 8 hour shift, 45 minutes per 12 hour shift, or 90 minutes per day if the machine is operated for 24 hours in a day. The time restrictions do not apply if the open doors or panels do not cause the limit of two times the puller window area to be exceeded. Facilities may average the times that access panels, doors, and/or hatches are open across all operating lines. In that case the average must not exceed the times shown in this paragraph (b)(9). All lines included in the average must have operated the entire time period being averaged.</p> <p>(10) No fans, blowers, and/or air lines may be allowed within the enclosure. The enclosure must not be ventilated. [40 CFR 63.5830(b)(6)-(10), Minn. R. 7011.7800]</p>

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5.1.317	<p>The Permittee shall;</p> <p>(c) Use direct die injection pultrusion machines with resin drip collection systems that meet all the criteria specified below;</p> <p>(1) All the resin that is applied to the reinforcement is delivered directly to the die.</p> <p>(2) No exposed resin is present, except at the face of the die.</p> <p>(3) Resin drip is captured in a closed system and recycled back to the process.</p> <p>(d) Use a preform injection system that meets the definition in 40 CFR Section 63.5935</p> <p>(e) Use any combination of options in 40 CFR Section 63.5830(a) through (d) in which different pultrusion lines comply with different options described in 40 CFR Section 63.5830(a) through (d), and</p> <p>(1) Each individual pultrusion machine meets the 60 percent reduction requirement, or</p> <p>(2) The weighted average reduction based on resin throughput of all machines combined is 60 percent.</p> <p>For purposes of the average percent reduction calculation, wet area enclosures reduce organic HAP emissions by 60 percent, and direct die injection and preform injection reduce organic HAP emissions by 90 percent. [40 CFR 63.5830(c),(d),&(e), Minn. R. 7011.7800]</p>
5.1.318	<p>The Permittee must be in compliance at all times with the work practice standards in Table 4, as well as the organic HAP emissions limits in Tables 3 or 5, or the organic HAP contents in Table 7 of 40 CFR pt. 63, subp. WWWW as applicable. These limits shall be met without the use of add-on controls. [40 CFR 63.5835(a), Minn. R. 7011.7800]</p>
5.1.319	<p>The Permittee must always operate and maintain the affected source according to the provisions in 40 CFR Section 63.6(e)(1)(i). [40 CFR 63.5835(c), Minn. R. 7011.7800]</p>
5.1.320	<p>The Permittee must conduct performance tests, performance evaluations, design evaluations, capture efficiency testing, and other initial compliance demonstrations by the compliance date specified in 40 CFR pt. 63, subp. WWWW, Table 2, with exceptions. Open molding and centrifugal casting operations that elect to meet an organic HAP emissions limit on a 12-month rolling average must initiate collection of the required data on the compliance date, and demonstrate compliance 1 year after the compliance date. [40 CFR 63.5840, Minn. R. 7011.7800]</p>
5.1.321	<p>The Permittee must demonstrate initial compliance with each organic HAP emissions standard in paragraphs (a) through (h) of 40 CFR Section 63.5805 using the procedures in Table 8 of Appendix F and Table 9 of Appendix G in this permit. [40 CFR 63.5860(a), Minn. R. 7011.7800]</p>
5.1.322	<p>(a) For continuous lamination/casting affected sources complying with a percent reduction requirement, The Permittee must generate the data identified in 40 CFR pt. 63, subp. WWWW, Tables 10 and 11 (Appendices H and I, respectively, of this permit) for each data requirement that applies.</p> <p>(b) For continuous lamination/casting affected sources complying with a lbs/ton limit, the Permittee must generate the data identified in 40 CFR pt. 63, subp. WWWW, Tables 11 and 12 (Appendices I and J, respectively, of this permit) for each data requirement that applies. [40 CFR 63.5865, Minn. R. 7011.7800]</p>
5.1.323	<p>To calculate annual uncontrolled and controlled organic HAP emissions from wet-out areas and from ovens, the Permittee must develop uncontrolled and controlled wet-out area and uncontrolled and controlled oven organic HAP emissions estimation equations or factors to apply to each formula applied on each line, determine how much of each formula for each end product is applied each year on each line, and assign uncontrolled and controlled wet-out area and uncontrolled and controlled oven organic HAP emissions estimation equations or factors to each formula. The Permittee must determine the overall capture efficiency using the procedures in 40 CFR Section 63.5850. [40 CFR 63.5870, Minn. R. 7011.7800]</p>
5.1.324	<p>To develop uncontrolled and controlled organic HAP emissions estimation equations and factors, the Permittee must, at a minimum, do the following, as specified below:</p> <p>(1) Identify each end product and the thickness of each end product produced on the line. Separate end products into the following end product groupings, as applicable: corrosion-resistant gel coated</p>

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	<p>end products, noncorrosion-resistant gel coated end products, corrosion-resistant nongel coated end products, and noncorrosion-resistant nongel coated end products. This step creates end product/thickness combinations.</p> <p>(2) Identify each formula used on the line to produce each end product/thickness combination. Identify the amount of each such formula applied per year. Rank each formula used to produce each end product/thickness combination according to usage within each end product/thickness combination.</p> <p>(3) For each end product/thickness combination being produced, select the formula with the highest usage rate for testing.</p> <p>(4) If not already selected, also select the worst-case formula (likely to be associated with the formula with the highest organic HAP content, type of HAP, application of gel coat, thin product, low line speed, higher resin table temperature) amongst all formulae. (the Permittee may use the results of the worst-case formula test for all formulae if desired to limit the amount of testing required.)</p> <p>(5) For each formula selected for testing, conduct at least one test (consisting of three runs). During the test, track information on organic HAP content and type of HAP, end product thickness, line speed, and resin temperature on the wet-out area table.</p> <p>(6) Using the test results, develop uncontrolled and controlled organic HAP emissions estimation equations (or factors) or series of equations (or factors) that best fit the results for estimating uncontrolled and controlled organic HAP emissions, taking into account the organic HAP content and type of HAP, end product thickness, line speed, and resin temperature on the wet-out area table. [40 CFR 63.5870(a), Minn. R. 7011.7800]</p>
5.1.325	<p>In lieu of using the method specified in 40 CFR 63.5870(a) for developing uncontrolled and controlled organic HAP emissions estimation equations and factors, the Permittee may use either method specified below:</p> <p>(1) For either uncontrolled or controlled organic HAP emissions estimates, you may use previously established, facility-specific organic HAP emissions equations or factors, provided they allow estimation of both wet-out area and oven organic HAP emissions, where necessary, and have been approved by your permitting authority. If a previously established equation or factor is specific to the wet-out area only, or to the oven only, then the Permittee must develop the corresponding uncontrolled or controlled equation or factor for the other organic HAP emissions source.</p> <p>(2) For uncontrolled (controlled) organic HAP emissions estimates, the Permittee may use controlled (uncontrolled) organic HAP emissions estimates and control device destruction efficiency to calculate uncontrolled (controlled) organic HAP emissions provided the control device destruction efficiency was calculated at the same time you collected the data to develop the facility's controlled (uncontrolled) organic HAP emissions estimation equations and factors. [40 CFR 63.5870(b), Minn. R. 7011.7800]</p>
5.1.326	<p>Assign to each formula an uncontrolled organic HAP emissions estimation equation or factor based on the end product/thickness combination for which that formula is used. [40 CFR 63.5870(b), Minn. R. 7011.7800]</p>
5.1.327	<p>1) To calculate the annual uncontrolled organic HAP emissions from wet-out areas that do not have any capture and control and from wet-out areas that are captured by an enclosure but are vented to the atmosphere and not to a control device, multiply each formula's annual usage by its appropriate organic HAP emissions estimation equation or factor and sum the individual results.</p> <p>(2) To calculate the annual uncontrolled organic HAP emissions that escape from the enclosure on the wet-out area, multiply each formula's annual usage by its appropriate uncontrolled organic HAP emissions estimation equation or factor, sum the individual results, and multiply the summation by 1</p>

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	<p>minus the percent capture (expressed as a fraction).</p> <p>(3) To calculate the annual uncontrolled oven organic HAP emissions, multiply each formula's annual usage by its appropriate uncontrolled organic HAP emissions estimation equation or factor and sum the individual results.</p> <p>(4) To calculate the annual controlled organic HAP emissions, multiply each formula's annual usage by its appropriate organic HAP emissions estimation equation or factor and sum the individual results to obtain total annual controlled organic HAP emissions. [40 CFR 63.5870(d), Minn. R. 7011.7800]</p>
5.1.328	<p>Where a facility is calculating both uncontrolled and controlled organic HAP emissions estimation equations and factors, the Permittee must test the same formulae. In addition, you must develop both sets of equations and factors from the same tests. [40 CFR 63.5870(e), Minn. R. 7011.7800]</p>
5.1.329	<p>a) The capture efficiency of a wet-out area enclosure is assumed to be 100 percent if it meets the design and operation requirements for a permanent total enclosure (PTE) specified in EPA Method 204 of appendix M to 40 CFR part 51. If a PTE does not exist, then a temporary total enclosure must be constructed and verified using EPA Method 204, and capture efficiency testing must be determined using EPA Methods 204B through E of appendix M to 40 CFR part 51.</p> <p>(b) The capture efficiency of an oven is to be considered 100 percent, provided the oven is operated under negative pressure. [40 CFR 63.5875, Minn. R. 7011.7800]</p>
5.1.330	<p>The Permittee shall use the following procedures to determine how much neat resin plus and neat gel coat plus is applied to the line each year.</p> <p>(a) Track formula usage by end product/thickness combinations.</p> <p>(b) Use in-house records to show usage. This may be either from automated systems or manual records.</p> <p>(c) Record daily the usage of each formula/end product combination on each line. This is to be recorded at the end of each run (i.e., when a changeover in formula or product is made) and at the end of each shift.</p> <p>(d) Sum the amounts from the daily records to calculate annual usage of each formula/end product combination by line. [40 CFR 63.5880, Minn. R. 7011.7800]</p>
5.1.331	<p>The Permittee shall calculate an organic HAP emissions factor to demonstrate compliance for continuous lamination/casting operations by:</p> <p>(a) Compliant line option. Use Equation 1 of 40 CFR Section 63.5890 to calculate an organic HAP emissions factor in lbs/ton.</p> <p>(b) Averaging option. Use Equation 2 of 40 CFR Section 63.5890 to demonstrate compliance.</p> <p>(c) Combination option. Use Equations 1 and 2 of 40 CFR Section 63.5890, as applicable, to demonstrate compliance. [40 CFR 63.5890, Minn. R. 7011.7800]</p>
5.1.332	<p>The Permittee must monitor and collect data as specified below:</p> <p>(1) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee must conduct all monitoring in continuous operation (or collect data at all required intervals) at all times that the affected source is operating.</p> <p>(2) The Permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities for purposes to 40 CFR pt. 63, subp. WWW, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The Permittee must use all the data collected during all other periods in assessing the operation of the control device and associated control system.</p>

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	<p>(3) At all times, the Permittee must maintain necessary parts for routine repairs of the monitoring equipment.</p> <p>(4) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring equipment to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. [40 CFR 63.5895(b), Minn. R. 7011.7800]</p>
5.1.333	<p>Resin/Gel Coat Usage Recordkeeping: The Permittee shall collect and keep records of resin and gel coat use, organic HAP content, and operation where resin is used. Resin use records may be based on purchase records if the Permittee can reasonably estimate how the resin is applied. The organic HAP content records may be based on MSDS or on resin specifications supplied by the resin supplier. [40 CFR 63.5895(c), Minn. R. 7011.7800]</p>
5.1.334	<p>Resin and gel coat use records are not required for the individual resins and gel coats that are demonstrated, as applied, to meet their applicable emission limit as defined in 40 CFR Section 63.5810(a). However, the Permittee must retain the records of resin and gel coat organic HAP content, and must include the list of these resins and gel coats and identify their application methods in the semiannual compliance reports. If after the initial compliance demonstration that a specific combination of an individual resin or gel coat, application method, and controls meets its applicable emission limit, the resin or gel coat changes or the organic HAP content increases, or the Permittee changes the application method or controls, then the Permittee again must demonstrate that the individual resin or gel coat meets its emission limit as specified in 40 CFR Section 63.5810(a).</p> <p>If any of the previously mentioned changes results in a situation where an individual resin or gel coat now exceeds its applicable emission limit in this permit, the Permittee must begin collecting resin and gel coat use records and calculate compliance using one of the averaging options on a 12-month rolling average. [40 CFR 63.5895(d), Minn. R. 7011.7800]</p>
5.1.335	<p>For each pultrusion machine, the Permittee must record all times that wet area enclosures doors or covers are open and there is resin present in the resin bath. [40 CFR 63.5895(e), Minn. R. 7011.7800]</p>
5.1.336	<p>HAP Compliance Demonstration: Compliance with organic HAP emissions limits is demonstrated by maintaining an organic HAP emissions factor value less than or equal to the appropriate organic HAP emissions limit listed in this permit, on a 12-month rolling average, and/or by including in each compliance report a statement that individual resins and gel coats, as applied, meet the appropriate organic HAP content limits in 40 CFR Section 63.5895(d). Compliance with organic HAP content limits in Table 7 of Appendix E in this permit is demonstrated by maintaining an average organic HAP content value less than or equal to the appropriate organic HAP contents listed in Table 7, on a 12-month rolling average, and/or by including in each compliance report a statement that resins and gel coats individually meet the appropriate organic HAP content limits in Table 7, as discussed in 40 CFR Section 63.5895(d). [40 CFR 63.5900(a)(2), Minn. R. 7011.7800]</p>
5.1.337	<p>Compliance with organic HAP content limits in Table 7 to 40 CFR pt. 63, subp. WWWW is demonstrated by maintaining an average organic HAP content value less than or equal to the appropriate organic HAP contents listed in Table 7 to 40 CFR pt. 63, subp. WWWW on a 12-month rolling average, and/or by including in each compliance report a statement that resins and gel coats individually meet the appropriate organic HAP content limits in Table 7 to 40 CFR pt.63, subp. WWWW , as discussed in 40 CFR Section 63.5895(d). [40 CFR 63.5900(a)(3), Minn. R. 7011.7800]</p>
5.1.338	<p>Compliance with work practice standards in 40 CFR pt. 63, subp. WWWW, Table 4 is demonstrated by complying with the required work practice for the Permittee's operation. [40 CFR 63.5900(a)(4), Minn. R. 7011.7800]</p>
5.1.339	<p>The Permittee must report each deviation from each standard in 40 CFR Section 63.5805 that applies. The deviations must be reported according to the requirements in 40 CFR Section 63.5910. [40 CFR 63.5900(b), Minn. R. 7011.7800]</p>

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5.1.340	During periods of startup, shutdown, and malfunction, the Permittee must meet the applicable organic HAP emissions limits and work practice standards. [40 CFR 63.5900(c), Minn. R. 7011.7800]
5.1.341	<p>Compliance Report Content: The compliance report must contain the following information:</p> <ol style="list-style-type: none"> 1) Company name and address; 2) Statement by responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report; 3) Date of the report and beginning and ending dates of the reporting period. 4) If the Permittee had a startup, shutdown, or malfunction during the reporting period and the Permittee took actions consistent with the startup, shutdown, and malfunction plan, the compliance report must include the information in 40 CFR Section 63.10(d)(5)(i). 5) If there are no deviations from any applicable organic HAP emissions limitations, and there are no deviations from work practice standards in this permit, a statement that there were no deviations from the organic HAP emission limitations or work practice standards during the reporting period; 6) If there were no periods during which the continuous monitoring system (CMS), including a continuous emissions monitoring system (CEMS) and an operating parameter monitoring system were out of control, as specified in 40 CFR Section 63.8(c)(7), a statement that there were no periods during which the CMS was out of control during the reporting period. 7) For each deviation from an organic HAP emissions limitation and for each deviation from the requirements for work practice standards, the compliance report must also contain the following information; <ul style="list-style-type: none"> - The total operating time of each affected source during the reporting period. - Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable and the corrective action taken; and 6) The Permittee must state if they have changed compliance options since the last compliance report. [40 CFR 63.5910(a), 40 CFR 63.5910(c)-(d), 40 CFR 63.5910(i), Minn. R. 7011.7800]
5.1.342	<p>Semiannual Compliance Report: Beginning with the first Semiannual Deviations Report required after the compliance date for Subpart WWWW, the Semiannual Deviations Report must also include the information required for the semiannual compliance report required under 40 CFR Section 63.5910(c). If there was a deviation from any of the work practice standards of 40 CFR Section 63.5805, the report must also include the items required by 40 CFR Section 63.5910(d)(1) and (2). [40 CFR 63.5910(b), Minn. R. 7011.7800]</p>
5.1.343	<p>For each deviation from an organic HAP emissions limitation (i.e., emissions limit and operating limit) occurring at an affected source where the Permittee is using a CMS to comply with the organic HAP emissions limitation in 40 CFR pt. 63, subp. WWWW, the Permittee must include the information in 40 CFR Section 63.5910(c)(1) through (4) and in the paragraphs below. This includes periods of startup, shutdown, and malfunction.</p> <ol style="list-style-type: none"> (1) The date and time that each malfunction started and stopped. (2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks. (3) The date, time, and duration that each CMS was out of control, including the information in 40 CFR Section 63.8(c)(8). (4) 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. (5) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period (6) 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. (7) A summary of the total duration of CMS downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.

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	(8) An identification of each organic HAP that was monitored at the affected source (9) A brief description of the process units. (10) A brief description of the CMS. (11) The date of the latest CMS certification or audit. (12) A description of any changes in CMS, processes, or controls since the last reporting period. [40 CFR 63.5910(e), Minn. R. 7011.7800]
5.1.344	The Permittee must report if they have exceeded the 100 tpy organic HAP emissions threshold if that exceedance would make the facility subject to 40 CFR Section 63.5805(a)(1) or (d). Include with this report any request for an exemption under 40 CFR Section 63.5805(e). If you receive an exemption under 40 CFR Section 63.5805(e) and subsequently exceed the 100 tpy organic HAP emissions threshold, the Permittee must report this exceedance as required in 40 CFR Section 63.5805(f). [40 CFR 63.5910(f), Minn. R. 7011.7800]
5.1.345	The Permittee must keep records of the following: (1) A copy of each notification and report submitted to comply with 40 CFR pt. 63 subp. WWWWW, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted according to the requirements in 40 CFR Section 63.10(b)(2)(xiv). (2) The records in 40 CFR Section 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction. (3) Records of performance tests, design, and performance evaluations as required in 40 CFR Section 63.10(b)(2). [40 CFR 63.5915(a)(1), Minn. R. 7011.7800]
5.1.346	The Permittee must keep all data, assumptions, and calculations used to determine organic HAP emissions factors or average organic HAP contents for operations listed in 40 CFR pt. 63, subp. WWWWW, Tables 3, 5, and 7. [40 CFR 63.5915(c), Minn. R. 7011.7800]
5.1.347	The Permittee must keep a certified statement that the facility is in compliance with the work practice requirements in 40 CFR pt. 63, subp. WWWWW, Table 4, as applicable. [40 CFR 63.5915(d), Minn. R. 7011.7800]
5.1.348	For a new or existing continuous lamination/ casting operation, the Permittee must keep the records listed below when complying with the percent reduction and/or lbs/ton requirements specified in paragraphs (a) and (c) through (d) of 40 CFR Section 63.5805. (1) The Permittee must keep all data, assumptions, and calculations used to determine percent reduction and/or lbs/ton as applicable; (2) The Permittee must keep a brief description of the rationale for the assignment of an equation or factor to each formula; (3) When using facility-specific organic HAP emissions estimation equations or factors, the Permittee must keep all data, assumptions, and calculations used to derive the organic HAP emissions estimation equations and factors and identification and rationale for the worst-case formula; and (4) For all organic HAP emissions estimation equations and organic HAP emissions factors, the Permittee must keep documentation that the appropriate permitting authority has approved them. [40 CFR 63.5915(e), Minn. R. 7011.7800]
5.1.349	The Permittee must maintain all applicable records in such a manner that they can be readily accessed and are suitable for inspection according to 40 CFR Section 63.10(b)(1). [40 CFR 63.5920(a), Minn. R. 7011.7800]
5.1.350	As specified in 40 CFR Section 63.10(b)(1), the Permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR Section

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5.1.351	63.10(b)(1). The Permittee can keep the records offsite for the remaining 3 years. [40 CFR 63.5920(b)&(c), Minn. R. 7011.7800] The Permittee may keep records in hard copy or computer readable form including, but not limited to, paper, microfilm, computer floppy disk, magnetic tape, or microfiche. [40 CFR 63.5920(d), Minn. R. 7011.7800]
5.1.352	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1(a)(1)-(4), (6), (10)-(14); 40 CFR 63.1(b)(1), (3); 40 CFR 63.1(c)(1), (2), (5); 40 CFR 63.1(e); 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4; 40 CFR 63.5(a)(1), (2); 40 CFR 63.5(b)(1), (3), (4), (6); 40 CFR 63.5(d)(1), (2), (4); 40 CFR 63.5(e)(1)-(5); 40 CFR 63.5(f)(1), (2); 40 CFR 63.6(a)(1), (2); 40 CFR 63.6(b)(1)-(5), (7); 40 CFR 63.6(c)(1), (2), (5); 40 CFR 63.6(e)(1)-(3); 40 CFR 63.6(f)(2)-(3); 40 CFR 63.6(g)(1)-(3); 40 CFR 63.6(i)(1)-(14), (16); 40 CFR 63.6(j); 40 CFR 63.7(a)(1), (3); 40 CFR 63.7(b)(1), (2); 40 CFR 63.7(c)-(h); 40 CFR 63.8(a)(1)-(2), (4); 40 CFR 63.8(b)(1)-(3); 40 CFR 63.8(c)(1)-(4), (6)-(8); 40 CFR 63.8(d); 40 CFR 63.8(e)(1)-(5)(i); 40 CFR 63.8(f)(1)-(6); 40 CFR 63.8(g)(1)-(5); 40 CFR 63.9(a)(1)-(4); 40 CFR 63.9(b)(1), (2), (4)(i), (4)(v), (5); 40 CFR 63.9(c)-(e); 40 CFR 63.9(g)(1), (3); 40 CFR 63.9(h)(1)-(3), (5), (6); 40 CFR 63.9(i), (j); 40 CFR 63.10(a); 40 CFR 63.10(b)(1); 40 CFR 63.10(b)(2)(i)-(v), (vi)-(xi), (xii), (xiii), (xiv); 40 CFR 63.10(b)(3); 40 CFR 63.10(c)(1), (5)-(8), (10)-(15); 40 CFR 63.10(d)(1), (2); 40 CFR 63.10(d)(4), (5); 40 CFR 63.10(e)(1)-(3); 40 CFR 63.10(f);

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	<p>40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; and 40 CFR 63.15.</p> <p>A copy of 40 CFR pt. 63, subp. A is included in Appendix N. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. A & WWWW, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.7000 & 7011.7800, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]</p>
5.1.353	STATIONARY INTERNAL COMBUSTION ENGINES. [General Permit Header]
5.1.354	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.1.355	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. [Minn. R. 7011.2300, subp. 2(B)]
5.1.356	Fuel type: Natural gas, Propane, and/or No. 2 fuel oil/diesel fuel meeting the requirements of 40 CFR Section 80.510(c) only. [Minn. R. 7005.0100, subp. 35a]
5.1.357	Hours of Operation: For any unit that is an emergency generator, the Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, limiting operation to 500 hours per year. [Minn. R. 7007.0800, subps. 4&5]
5.1.358	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
5.1.359	Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of biodiesel or diesel fuel oil, certifying that the sulfur content does not exceed 0.0015 percent by weight. [Minn. R. 7007.0800, subps. 4&5]
5.1.360	NESHAP SUBP. ZZZZ, STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES. [General Permit Header]
5.1.361	<p>For an affected source that meets any of the criteria in below, the Permittee must meet the requirements of 40 CFR pt. 63, subp. ZZZZ by meeting the requirements of 40 CFR pt. 60, subp. IIII. No further requirements of 40 CFR pt. 63, subp. ZZZZ apply 40 CFR pt. 63, subp. ZZZZ.</p> <ul style="list-style-type: none"> - A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions; - A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions. [40 CFR 63.6590(c), Minn. R. 7011.8150]
5.1.362	<p>For each non-Emergency, non-black start CI stationary RICE greater than 100 HP and less than 300 HP, the Permittee must limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O₂, except during periods of startup.</p> <p>During periods of startup, the Permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63.6602, 40 CFR pt. 63, subp. ZZZZ(Table 2c), Minn. R. 7011.8150]</p>
5.1.363	<p>For each emergency stationary CI RICE, the Permittee must meet the following requirements except during periods of startup:</p> <ol style="list-style-type: none"> a. Change oil and filter every 500 hours of operation or annually, whichever comes first.

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	<p>The Permittee has the option to utilize an oil analysis program as described in 40 CFR Section 63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2c of 40 CFR pt. 63, subp. ZZZZ.</p> <p>b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;</p> <p>c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.</p> <p>During periods of startup, the Permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.</p> <p>The Permittee can petition the Administrator pursuant to the requirements of 40 CFR Section 63.6(g) for alternative work practices. [40 CFR 63.6602, 40 CFR pt. 63, subp. ZZZZ(Table 2c), Minn. R. 7011.8150]</p>
5.1.364	<p>If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable. [40 CFR pt. 63, subp. ZZZZ(Table 2c), Minn. R. 7011.8150]</p>
5.1.365	<p>The Permittee must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply at all times. [40 CFR 63.6605(a), Minn. R. 7011.8150]</p>
5.1.366	<p>At all times the Permittee 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. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this 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, review of operation and maintenance records, and inspection of the source. [40 CFR 63.6605(b), Minn. R. 7011.8150]</p>
5.1.367	<p>The Permittee must conduct any initial performance test or other initial compliance demonstration according to 40 CFR pt. 63, subp. ZZZZ, Tables 4 and 5 that apply within 180 days after the compliance date that is specified for the stationary RICE in 40 CFR Section 63.6595 and according to the provisions in 40 CFR Section 63.7(a)(2). [40 CFR 63.6610(a), Minn. R. 7011.8150]</p>
5.1.368	<p>For each existing non-emergency stationary RICE greater than 100 HP and less than 500 HP located at a major source of HAP complying with the requirement to limit the concentration of CO in the stationary RICE exhaust, the Permittee has demonstrated compliance if the average CO concentration, as applicable, corrected to 15 percent O₂, dry basis, from the three test runs is less than or equal to the CO emission limitation, as applicable. [40 CFR 63.6612(a), 40 CFR 63.6630(a), 40 CFR pt. 63, subp. ZZZZ(Table 5), Minn. R. 7011.8150]</p>
5.1.369	<p>For each stationary RICE complying with the requirement to limit the concentration of CO in the stationary RICE exhaust, the Permittee must:</p> <ul style="list-style-type: none"> - Select the sampling port location and the number/location of traverse points at the exhaust of the stationary RICE. For O₂ and moisture measurement, ducts less than or equal to 6 inches in diameter may be sampled at a single point located at the duct centroid and ducts greater than 6 and less than or equal to 12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of

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	<p>the measurement line ('3-point long line'). If the duct is greater than 12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A.</p> <ul style="list-style-type: none"> - Determine the O2 concentration of the stationary RICE exhaust at the sampling port location using Method 3 or 3A or 3B of 40 CFR pt. 60, appendix A-2, or ASTM Method D6522-00. Measurements to determine O2 concentration must be made at the same time and location as the measurements for formaldehyde or CO concentration. - Measure moisture content of the stationary RICE exhaust at the sampling port location using Method 4 of 40 CFR pt. 60, appendix A-3, or Method 320 of 40 CFR pt. 63, appendix A, or ASTM D 6348-03. Measurements to determine moisture content must be made at the same time and location as the measurements for CO concentration. - Measure CO at the exhaust of the stationary RICE using Method 10 of 40 CFR pt. 60, appendix A-4, ASTM Method D6522-00, Method 320 of 40 CFR pt. 63, appendix A, or ASTM D6348-03. CO concentration must be at 15 percent O2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs. [40 CFR 63.6612(a), 40 CFR 63.6620(a), 40 CFR pt. 63, subp. ZZZZ(Table 4), Minn. R. 7011.8150]
5.1.370	<p>The Permittee is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions below:</p> <ul style="list-style-type: none"> (1) The test must have been conducted using the same methods specified in 40 CFR pt. 63, subp. ZZZZ, and these methods must have been followed correctly. (2) The test must not be older than 2 years. (3) The test must be reviewed and accepted by the Administrator. (4) Either no process or equipment changes must have been made since the test was performed, or the Permittee must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes. [40 CFR 63.6612(b), Minn. R. 7011.8150]
5.1.371	<p>Each performance test must be conducted according to the requirements specified in 40 CFR pt. 63, subp. ZZZZ, Table 4. For non-operational stationary RICE that are subject to performance testing, the Permittee does not need to start up the engine solely to conduct the performance test. The Permittee of a non-operational engine can conduct the performance test when the engine is started up again. [40 CFR 63.6620(b), Minn. R. 7011.8150]</p>
5.1.372	<p>The Permittee must conduct three separate test runs for each performance test required in 40 CFR Section 63.6620, as specified in 40 CFR Section 63.7(e)(3). Each test run must last at least 1 hour, unless otherwise specified in 40 CFR pt. 63, subp. ZZZZ. [40 CFR 63.6620(d), Minn. R. 7011.8150]</p>
5.1.373	<p>The Permittee must normalize the CO concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO2). If pollutant concentrations are to be corrected to 15 percent oxygen and CO2 concentration is measured in lieu of oxygen concentration measurement, a CO2 correction factor is needed. Calculate the CO2 correction factor as described in 40 CFR Section(e)(2)(i) through (iii). [40 CFR 63.6620(e)(2), Minn. R. 7011.8150]</p>
5.1.374	<p>The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the</p>

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	performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided. [40 CFR 63.6620(i), Minn. R. 7011.8150]
5.1.375	For existing emergency stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions, the Permittee must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e)(2), Minn. R. 7011.8150]
5.1.376	For existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, the Permittee must install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f), Minn. R. 7011.8150]
5.1.377	For new, reconstructed, or existing stationary engines, the Permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to 40 CFR pt. 63, subp. ZZZZ apply. [40 CFR 63.6625(h), Minn. R. 7011.8150]
5.1.378	For stationary CI engines that are subject to the work, operation or management practices in items 1 or 2 of Table 2c to 40 CFR pt. 63, subp. ZZZZ, the Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in 40 CFR pt. 63, subp. ZZZZ, Table 2c. The oil analysis must be performed at the same frequency specified for changing the oil in 40 CFR pt. 63, subp. ZZZZ, Table 2c. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the Permittee is not required to change the oil. If any of the limits are exceeded, the Permittee must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the Permittee must change the oil within 2 business days or before commencing operation, whichever is later. The Permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63.6625(i), Minn. R. 7011.8150]
5.1.379	For each existing emergency stationary RICE less than or equal to 500 HP located at a major source of HAP complying with work or management practices, the Permittee must demonstrate continuous compliance and keep records of the following by: i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6640(a), 40 CFR 63.6655(d), 40 CFR pt. 63, subp. ZZZZ(Table 6), Minn. R. 7011.8150]
5.1.380	The Permittee must report each instance in which they did not meet each emission limitation or operating limitation in Table 2c to 40 CFR pt. 63, subp. ZZZZ that apply. These instances are deviations from the emission and operating limitations in 40 CFR pt. 63, subp. ZZZZ. These deviations must be reported according to the requirements in 40 CFR Section 63.6650. If the Permittee changes the catalyst, the Permittee must reestablish the values of the operating parameters measured during the initial performance test. When the Permittee reestablishes the values of your operating parameters,

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	the Permittee must also conduct a performance test to demonstrate that the Permittee is meeting the required emission limitation applicable to the stationary RICE. [40 CFR 63.6640(b), Minn. R. 7011.8150]
5.1.381	The Permittee must also report each instance in which the Permittee did not meet the requirements in 40 CFR pt. 63, subp. ZZZZ, Table 8 that apply. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, the Permittee does not need to comply with the requirements in 40 CFR pt. 63, subp. ZZZZ, Table 8. [40 CFR 63.6640(e), Minn. R. 7011.8150]
5.1.382	<p>For emergency stationary RICE, the Permittee must operate the emergency stationary RICE according to 40 CFR Section 63.6640(f)(1) through (4). In order for the engine to be considered an emergency stationary RICE under 40 CFR pt. 63, subp. ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR Section 63.6640(f)(1) through (4), is prohibited. If the Permittee does not operate the engine according to the requirements in 40 CFR Section 63.6640(f)(1) through (4), the engine will not be considered an emergency engine under 40 CFR pt. 63, subp. ZZZZ and must meet all requirements for non-emergency engines.</p> <p>(1) There is no time limit on the use of emergency stationary RICE in emergency situations. (2) The Permittee may operate emergency stationary RICE for the purposes specified in 40 CFR Section 63.6640(f)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR Section 63.6640(f)(3) and (4) counts as part of the 100 hours per calendar year allowed by 40 CFR Section 63.6640(f)(2). (i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. [40 CFR 63.6640(f)(1) & (2), Minn. R. 7011.8150]</p>
5.1.383	Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in 40 CFR Section 63.6640(f)(2). The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 63.6640(f)(3), Minn. R. 7011.8150]
5.1.384	For existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, the Permittee must submit all of the notifications in 40 CFR Sections 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply by the dates specified. [40 CFR 63.6595(c), 40 CFR 63.6630(c), 40 CFR 63.6645(a)(1)]
5.1.385	<p>If the Permittee is required to conduct a performance test or other initial compliance demonstration as specified in 40 CFR pt. 63, subp. ZZZZ, Tables 4 and 5, the Permittee must submit a Notification of Compliance Status according to 40 CFR 63.9(h)(2)(ii).</p> <p>For each initial compliance demonstration required in 40 CFR pt. 63, subp. ZZZZ, Table 5 that does not include a performance test, the Permittee must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration. [40 CFR 63.6645(h), Minn. R. 7011.8150]</p>
5.1.386	The Permittee must submit each report by the date specified in Table 7 of 40 CFR pt. 63, subp. ZZZZ and according to the following requirements:

Requirement number	Requirement and citation
	<ul style="list-style-type: none">- For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for the affected source in 40 CFR Section 63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for the source in 40 CFR Section 63.6595.- For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for the affected source in 40 CFR Section 63.6595.- For semiannual Compliance reports, 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.- For semiannual Compliance reports, 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.- For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for the affected source in 40 CFR Section 63.6595 and ending on December 31.- For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for the affected source in 40 CFR Section 63.6595.- For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.- For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31. [40 CFR 63.6650(b), Minn. R. 7011.8150]
5.1.387	<p>The Compliance report must contain the following information:</p> <ul style="list-style-type: none">(1) Company name and address.(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.(3) Date of report and beginning and ending dates of the reporting period.(4) If there was a malfunction during the reporting period, the compliance report must 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. The report must also include a description of actions taken by a Permittee during a malfunction of an affected source to minimize emissions in accordance with 40 CFR Section 63.6605(b), including actions taken to correct a malfunction.(5) If there are no deviations from any emission or operating limitations that apply, a statement that there were no deviations from the emission or operating limitations during the reporting period.(6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in 40 CFR Section 63.8(c)(7), a statement that there were

Requirement number	Requirement and citation
	no periods during which the CMS was out-of-control during the reporting period. [40 CFR 63.6650(c), Minn. R. 7011.8150]
5.1.388	<p>For each deviation from an emission or operating limitation that occurs for a stationary RICE where the Permittee is not using a CMS to comply with the emission or operating limitations in 40 CFR pt. 63, subp. ZZZZ, the Compliance report must contain the information in 40 CFR Section 63.6650(c)(1) through (4) and the information in 40 CFR Section 63.6650(d)(1) and (2).</p> <p>(1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.</p> <p>(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken. [40 CFR 63.6650(d), Minn. R. 7011.8150]</p>
5.1.389	<p>For each deviation from an emission or operating limitation occurring for a stationary RICE where the Permittee is using a CMS to comply with the emission and operating limitations in 40 CFR pt. 63, subp. ZZZZ, the Permittee must include information in 40 CFR Section 63.6650(c)(1) through (4) and 40 CFR Section 63.6650(e)(1) through (12).</p> <p>(1) The date and time that each malfunction started and stopped.</p> <p>(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.</p> <p>(3) The date, time, and duration that each CMS was out-of-control, including the information in 40 CFR Section 63.8(c)(8).</p> <p>(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.</p> <p>(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.</p> <p>(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.</p> <p>(7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.</p> <p>(8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.</p> <p>(9) A brief description of the stationary RICE.</p> <p>(10) A brief description of the CMS.</p> <p>(11) The date of the latest CMS certification or audit.</p> <p>(12) A description of any changes in CMS, processes, or controls since the last reporting period. [40 CFR 63.6650(e), Minn. R. 7011.8150]</p>
5.1.390	Each affected source that has obtained a title V operating permit pursuant to 40 CFR pt. 70 or 71 must report all deviations as defined in 40 CFR pt. 63, subp. ZZZZ in the semiannual monitoring report

Requirement number	Requirement and citation
	<p>required by 40 CFR Section 70.6 (a)(3)(iii)(A) or 40 CFR Section 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to 40 CFR pt. 63, subp. ZZZZ, Table 7 along with, or as part of, the semiannual monitoring report required by 40 CFR Section 70.6(a)(3)(iii)(A) or 40 CFR Section 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority. [40 CFR 63.6650(f), Minn. R. 7011.8150]</p>
5.1.391	<p>If the Permittee must comply with the emission and operating limitations, the Permittee must keep the records described in 40 CFR 63.6655(a)(1) through (a)(5).</p> <p>(1) A copy of each notification and report that the Permittee submitted to comply with 40 CFR pt. 63, subp. ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to the requirement in 40 CFR Section 63.10(b)(2)(xiv).</p> <p>(2) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.</p> <p>(3) Records of performance tests and performance evaluations as required in 40 CFR Section 63.10(b)(2)(viii).</p> <p>(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.</p> <p>(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR Section 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6655(a), Minn. R. 7011.8150]</p>
5.1.392	<p>For each CEMS or CPMS, the Permittee must keep the records listed in the following:</p> <p>(1) Records described in 40 CFR Section 63.10(b)(2)(vi) through (xi).</p> <p>(2) Previous (i.e., superseded) versions of the performance evaluation plan as required in 40 CFR Section 63.8(d)(3).</p> <p>(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in 40 CFR Section 63.8(f)(6)(i), if applicable. [40 CFR 63.6655(b), Minn. R. 7011.8150]</p>
5.1.393	<p>For existing stationary emergency RICE, the Permittee must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the Permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to their own maintenance plan. [40 CFR 63.6655(e)(2), Minn. R. 7011.8150]</p>
5.1.394	<p>For existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines, the Permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. [40 CFR 63.6655(f)(1), Minn. R. 7011.8150]</p>
5.1.395	<p>The Permittee's records must be in a form suitable and readily available for expeditious review according to 40 CFR Section 63.10(b)(1).</p>

Requirement number	Requirement and citation
	<p>As specified in 40 CFR Section 63.10(b)(1), the Permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.</p> <p>The Permittee must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR Section 63.10(b)(1). [40 CFR 63.6660(a),(b)&(c)), Minn. R. 7011.8150]</p>
5.1.396	<p>The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows:</p> <p>40 CFR 63.1; 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4; 40 CFR 63.5; 40 CFR 63.6(a); 40 CFR 63.6(b)(1)-(5), (7); 40 CFR 63.6(c)(1), (2), (5); 40 CFR 63.6(f)(2)-(3); 40 CFR 63.6(g)(1)-(3); 40 CFR 63.6(i); 40 CFR 63.6(j); 40 CFR 63.7(a)(1)-(3); 40 CFR 63.7(b)(1), (2); 40 CFR 63.7(c); 40 CFR 63.7(d); 40 CFR 63.7(e)(2)-(4); 40 CFR 63.7(f)-(h); 40 CFR 63.8(a)(1)-(2); 40 CFR 63.8(b)(1)-(3); 40 CFR 63.8(c)(1), (1)(ii), (2)-(4), (6)-(8); 40 CFR 63.8(d); 40 CFR 63.8(e); 40 CFR 63.8(f)(1)-(6); 40 CFR 63.8(g); 40 CFR 63.9(a); 40 CFR 63.9(b)(1)-(5); 40 CFR 63.9(c)-(e); 40 CFR 63.9(g)(1), (3); 40 CFR 63.9(h)(1)-(6); 40 CFR 63.9(i), (j); 40 CFR 63.10(a); 40 CFR 63.10(b)(1); 40 CFR 63.10(b)(2)(vi)-(xi), (xii), (xiii), (xiv); 40 CFR 63.10(b)(3); 40 CFR 63.10(c); 40 CFR 63.10(d)(1), (2); 40 CFR 63.10(d)(4); 40 CFR 63.10(e)(1), (2)(i), (3); 40 CFR 63.10(f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; and 40 CFR 63.15.</p>

Requirement number	Requirement and citation
	A copy of 40 CFR pt. 63, subp. A is included in Appendix N. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. A & ZZZZ, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.7000 & 7011.8150, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.1.397	NSPS SUBPART IIII- STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES. [General Permit Header]
5.1.398	<p>The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR Sections 60.4204 and 60.4205 over the entire life of the engine.</p> <p>The Permittee must operate and maintain the engine and control device according to the manufacturer's emission-related written instructions</p> <p>The Permittee may only change those emission-related settings that are permitted by the manufacturer.</p> <p>The Permittee must meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply. [40 CFR 60.4206, 40 CFR 60.4211(a), Minn. R. 7011.2305]</p>
5.1.399	For stationary fire pump engines greater than or equal to 50 horsepower and less than 175 horsepower, The Permittee shall limit Carbon Monoxide \leq 6.0 grams per horsepower-hour. [40 CFR 60.4205(a), Minn. R. 7011.2305]
5.1.400	For model years 2011 and later stationary fire pump engines greater than or equal to 25 horsepower and less than 50 horsepower, and 2010 and later stationary fire pump engines greater than or equal to 100 horsepower and less than 175 horsepower, the Permittee shall limit Particulate Matter \leq 0.60 grams per horsepower-hour. [40 CFR 60.4205(c), 40 CFR 60.subp. ZZZZ(Table 4), Minn. R. 7011.2305]
5.1.401	and less than 175 horsepower, and 2009 and later stationary fire pump engines greater than or equal to 175 horsepower and less than 500 horsepower, the Permittee shall limit NMHC+NO _x \leq 3.0 grams per horsepower-hour. [40 CFR 60.4205(c), 40 CFR 60.subp. ZZZZ(Table 4), Minn. R. 7011.2305]
5.1.402	For model years 2011 and later stationary fire pump engines less than 25 horsepower, and 2011 and later stationary fire pump engines greater than or equal to 50 horsepower and less than 100 horsepower, the Permittee shall limit Particulate Matter \leq 0.30 grams per horsepower-hour. [40 CFR 60.4205(c), 40 CFR 60.subp. ZZZZ(Table 4), Minn. R. 7011.2305]
5.1.403	For model years 2011 and later stationary fire pump engines greater than or equal to 11 horsepower and less than 50 horsepower, the Permittee shall limit NMHC+NO _x \leq 7.1 grams per horsepower-hour. [40 CFR 60.4205(c), 40 CFR 60.subp. ZZZZ(Table 4), Minn. R. 7011.2305]
5.1.404	For model years 2011 and later stationary fire pump engines greater than or equal to 11 horsepower and less than 50 horsepower, the Permittee shall limit NMHC+NO _x \leq 5.6 grams per horsepower-hour. [40 CFR 60.4205(c), 40 CFR 60.subp. ZZZZ(Table 4), Minn. R. 7011.2305]
5.1.405	For stationary fire pump engines greater than or equal to 11 horsepower and less than 50 horsepower, the Permittee shall limit Carbon Monoxide \leq 4.9000000000000004 grams per horsepower-hour. [40 CFR 60.4205(c), 40 CFR 60.subp. ZZZZ(Table 4), Minn. R. 7011.2305]
5.1.406	For stationary fire pump engines greater than or equal to 175 horsepower and less than 500 horsepower, the Permittee shall limit Carbon Monoxide \leq 2.6 grams per horsepower-hour. [40 CFR 60.4205(c), 40 CFR 60.subp. ZZZZ(Table 4), Minn. R. 7011.2305]
5.1.407	For model years stationary fire pump engines greater than or equal to 175 horsepower and less than 500 horsepower, the Permittee shall limit Particulate Matter \leq 0.15 grams per horsepower-hour. [40 CFR 60.4205(c), 40 CFR 60.subp. ZZZZ(Table 4), Minn. R. 7011.2305]

Requirement number	Requirement and citation
5.1.408	For stationary fire pump engines greater than or equal to 50 horsepower and less than 175 horsepower, the Permittee shall limit Carbon Monoxide \leq 3.7 grams per horsepower-hour. [40 CFR 60.4205(c), 40 CFR 60.subp. ZZZZ(Table 4), Minn. R. 7011.2305]
5.1.409	For model years 2011 and later stationary fire pump engines greater than or equal to 50 horsepower and less than 100 horsepower, the Permittee shall limit NMHC+NOx \leq 3.5 grams per horsepower-hour. [40 CFR 60.4205(c), 40 CFR 60.subp. ZZZZ(Table 4), Minn. R. 7011.2305]
5.1.410	The Permittee shall limit NMHC+NOx \leq 4.8 grams per horsepower-hour. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.1.411	The Permittee shall limit Particulate Matter \leq 0.15 grams per horsepower-hour. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.1.412	The Permittee shall limit Carbon Monoxide \leq 2.6 grams per horsepower-hour. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.1.413	The Permittee shall limit Opacity \leq 20 percent opacity during the acceleration mode. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.1.414	The Permittee shall limit Opacity \leq 15 percent opacity during the lugging mode. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.1.415	The Permittee shall limit Opacity \leq 50 percent opacity during the peaks in either the acceleration or lugging modes. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.1.416	The Permittee shall limit NMHC+NOx \leq 4.8 grams per horsepower-hour. [40 CFR 60.4202(b)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.1.417	The Permittee shall limit Particulate Matter \leq 0.15 grams per horsepower-hour. [40 CFR 60.4202(b)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.1.418	The Permittee shall limit Carbon Monoxide \leq 2.6 grams per horsepower-hour. [40 CFR 60.4202(b)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.1.419	The Permittee shall limit Opacity \leq 20 percent opacity during the acceleration mode. [40 CFR 60.4202(b)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.1.420	The Permittee shall limit Opacity \leq 15 percent opacity during the lugging mode. [40 CFR 60.4202(b)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.1.421	The Permittee shall limit Opacity \leq 50 percent opacity during the peaks in either the acceleration or lugging modes. [40 CFR 60.4202(b)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.1.422	The Permittee shall limit Sulfur Content of Fuel \leq 15.0 parts per million and either a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume, as required by 40 CFR Section 80.510(b). [40 CFR 60.4207(b), Minn. R. 7011.2305]
5.1.423	The Permittee must use diesel fuel that meets the requirements of 40 CFR Section 80.510(b). All NR and LM diesel fuel is subject to the following per-gallon standards: (1) Sulfur content: (i) 15 ppm maximum for NR diesel fuel and/or (ii) 500 ppm maximum for LM diesel fuel; and (2) Cetane index or aromatic content: (i) a minimum cetane index of 40, or (ii) a maximum aromatic content of 35 volume percent. [40 CFR 60.4207(b), Minn. R. 7011.2305]
5.1.424	After December 31, 2009, the Permittee may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines. After December 31, 2014, the Permittee may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.

Requirement number	Requirement and citation
5.1.425	<p>After December 31, 2012, the Permittee may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines. [40 CFR 60.4208(b),(c),&(e), Minn. R. 7011.2305]</p>
5.1.426	<p>In addition to the requirements specified in 40 CFR Sections 60.4201, 60.4202, 60.4204, and 60.4205, the Permittee is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in 40 CFR Section 60.4208(a) through (g) after the dates specified in 40 CFR Section 60.4208(a) through (g). [40 CFR 60.4208(h), Minn. R. 7011.2305]</p>
5.1.427	<p>For emergency stationary CI internal combustion engines that do not meet the standards applicable to non-emergency engines the Permittee must install a non-resettable hour meter prior to startup. [40 CFR 60.4209(a), Minn. R. 7011.2305]</p>
5.1.428	<p>If a stationary CI internal combustion engine is equipped with a diesel particulate filter to comply with the emission standards in 40 CFR Section 60.4204, the Permittee must install the diesel particulate filter with a backpressure monitor that notifies the Permittee when the high backpressure limit of the engine is approached. [40 CFR 60.4209(b), Minn. R. 7011.2305]</p> <p>For emergency stationary ICE, the Permittee must operate the emergency stationary ICE according to the requirements in 40 CFR Section 60.4211(f)(1) through (3). In order for the engine to be considered an emergency stationary ICE under 40 CFR pt. 60, subp. IIII, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR Section 60.4211(f)(1) through (3), is prohibited. If the Permittee does not operate the engine according to the requirements in 40 CFR Section 60.4211(f)(1) through (3), the engine will not be considered an emergency engine under 40 CFR pt. 60, subp. IIII and must meet all requirements for non-emergency engines.</p> <p>(1) There is no time limit on the use of emergency stationary ICE in emergency situations.</p> <p>(2) The Permittee may operate the emergency stationary ICE for any combination of the purposes specified in 40 CFR Section 60.4211(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR Section 60.4211(f)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR Section 60.4211(f)(2).</p> <p>(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.</p> <p>(ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR Section 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.</p> <p>(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [40 CFR 60.4211(f)(1) and (2), Minn. R. 7011.2305]</p>
5.1.429	<p>Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in 40 CFR Section 60.4211(f)(2). Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response,</p>

Requirement number	Requirement and citation
	<p>or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.</p> <p>(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:</p> <p>(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;</p> <p>(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.</p> <p>(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.</p> <p>(D) The power is provided only to the facility itself or to support the local transmission and distribution system.</p> <p>(E) The Permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the Permittee. [40 CFR 60.4211(f)(3), Minn. R. 7011.2305]</p>
5.1.430	<p>For stationary CI ICE with a displacement of less than 30 liters per cylinder, the Permittee must conduct performance tests according to the in-use testing procedures in 40 CFR part 1039, subpart F, for stationary CI ICE with a displacement of less than 10 liters per cylinder, and according to 40 CFR part 1042, subpart F, for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder. [40 CFR 60.4204(d), 40 CFR 60.4212(a), Minn. R. 7011.2305]</p>
5.1.431	<p>For stationary CI ICE with a displacement of less than 30 liters per cylinder and exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR Section 1039.101(e) and 40 CFR Section 1039.102(g)(1), except as specified in 40 CFR Section 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039. [40 CFR 60.4204(d), 40 CFR 60.4212(b), Minn. R. 7011.2305]</p>
5.1.432	<p>For stationary CI ICE with a displacement of less than 30 liters per cylinder and exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR Section 89.112 or 40 CFR Section 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR Section 89.112 or 40 CFR Section 94.8, as applicable, determined from the following equation:</p> <p>NTE requirement for each pollutant = (1.25) * (STD) (Eq. 1)</p> <p>Where:</p> <p>STD = The standard specified for that pollutant in 40 CFR Section 89.112 or 40 CFR Section 94.8, as applicable.</p> <p>Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR Section 89.112 or 40 CFR Section 94.8 may follow the testing procedures specified in Section 60.4213, as appropriate. [40 CFR 60.4204(d), 40 CFR 60.4212(c), Minn. R. 7011.2305]</p>
5.1.433	<p>For stationary CI ICE with a displacement of less than 30 liters per cylinder and exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1042 must not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR Section 1042.101(c). [40 CFR 60.4204(d), 40 CFR 60.4212(e), Minn. R. 7011.2305]</p>
5.1.434	<p>If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the Permittee is not required to submit an initial notification. Starting with the model years shown in table 5 to 40 CFR part 60, subpart IIII (for engines greater than or equal to 25 hp but less than 75 hp, model year 2013; for engines greater than or equal to 75 hp but less than 175 hp, model year 2012; for</p>

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	engines greater than or equal to 175 hp, model year 2011) , if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the Permittee must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The Permittee must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(d), Minn. R. 7011.2305]
5.1.435	The Permittee must demonstrate compliance according to one of the following methods: (1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications. (2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly. (3) Keeping records of engine manufacturer data indicating compliance with the standards. (4) Keeping records of control device vendor data indicating compliance with the standards. (5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in 40 CFR Section 60.4212, as applicable. [40 CFR 60.4211(b), Minn. R. 7011.2305]
5.1.436	For emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR Section 60.4211(f)(2)(ii) and (iii) or that operates for the purposes specified in 40 CFR Section 60.4211(f)(3)(i), the Permittee must submit an annual report according to the following requirements: (1) The report must contain the following information: (i) Company name and address where the engine is located. (ii) Date of the report and beginning and ending dates of the reporting period. (iii) Engine site rating and model year. (iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place. (v) Hours operated for the purposes specified in 40 CFR Section 60.4211(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR Section 60.4211(f)(2)(ii) and (iii). (vi) Number of hours the engine is contractually obligated to be available for the purposes specified in 40 CFR Section 60.4211(f)(2)(ii) and (iii). (vii) Hours spent for operation for the purposes specified in 40 CFR 60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR Section 60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine. (2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. (3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in 40 CFR Section 60.4. [40 CFR 60.4214(d), Minn. R. 7011.2305]
5.1.437	If the Permittee owns or operates a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in 40 CFR Section 60.4204(b) or 40 CFR Section 60.4205(b), or if the Permittee is an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in 40 CFR pt. 60 subp. IIII, table 3 and must comply with the emission standards specified in 40 CFR Section 60.4205(c), the Permittee must comply by purchasing an engine certified to the emission standards in

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	40 CFR Section 60.4204(b), or 40 CFR Section 60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR Section 60.4211(g). [40 CFR 60.4211(c), Minn. R. 7011.2305]
5.1.438	<p>If the Permittee does not install, configure, operate, and maintain their engine and control device according to the manufacturer's emission-related written instructions, or the Permittee changes emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance as follows:</p> <p>(1) Stationary CI internal combustion engines with a maximum engine power less than 100 HP; the Permittee must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if the Permittee does not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or the Permittee changes the emission-related settings in a way that is not permitted by the manufacturer, the Permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.</p> <p>(2) Stationary CI internal combustion engine(s) greater than or equal to 100 HP and less than or equal to 500 HP; the Permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee changes emission-related settings in a way that is not permitted by the manufacturer. [40 CFR 60.4211(g)(1) & (2), Minn. R. 7011.2305]</p>
5.1.439	The purchased engine must be certified to the emission standards in 40 CFR Section 60.4205(c) for the same model year and NFPA nameplate engine power. The engine must be installed and configured according to the manufacturer's specifications. [40 CFR 60.4211(c), Minn. R. 7011.2305]
5.1.440	The Permittee may conduct maintenance checks and readiness testing provided that the tests are recommended by Federal, State, or local government; the manufacturer; the vendor; or the insurance company associated with the engine. Maintenance checks and readiness testing are limited to 100 hours/year. There is no time limit on the use of emergency stationary ICE in emergency situations unless otherwise prohibited by the permit. The Permittee may petition the Administrator for approval of additional hours. A petition is not required if the Permittee maintains records indicating that the Federal, State or local standards require maintenance and testing beyond 100 hours/year. [40 CFR 60.4211(f), Minn. R. 7011.2305]
5.1.441	Emergency stationary ICE may operate up to 50 hours/year in non-emergency situations, but those 50 hours are counted towards the 100 hours/year provided for maintenance and testing. The 50 hours/year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours/year, as permitted in this section, is prohibited. [40 CFR 60.4211(f), Minn. R. 7011.2305]
5.1.442	If the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the Permittee must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The Permittee

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	must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b), Minn. R. 7011.2305]
5.1.443	The Permittee must operate and maintain the engine according to the manufacturer's written instructions or procedures developed by the Permittee that are approved by the engine manufacturer, over the entire life of the engine. The Permittee may only change those settings that are permitted by the manufacturer. The Permittee must also meet the requirements of 40 CFR Parts 89, 94 and/or 1068, as applicable. [40 CFR 60.4211(a), Minn. R. 7011.2305]
5.1.444	If the stationary CI internal combustion engine is equipped with a diesel particulate filter to comply with the emission standards in 40 CFR Section 60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the Permittee when the high backpressure limit of the engine is approached. [40 CFR 60.4209(b), Minn. R. 7011.2305]
5.1.445	If the stationary CI internal combustion engine is equipped with a diesel particulate filter to comply with the emission standards in 40 CFR Section 60.4204, the Permittee must keep records of any corrective action taken after the backpressure monitor has notified the Permittee that the high backpressure limit of the engine is approached. [40 CFR 60.4214(c), Minn. R. 7011.2305]
5.1.446	The Permittee must certify 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP)) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR Section 89.112, 40 CFR Section 89.113, 40 CFR Section 1039.101, 40 CFR Section 1039.102, 40 CFR Section 1039.104, 40 CFR Section 1039.105, 40 CFR Section 1039.107, and 40 CFR Section 1039.115, as applicable, for all pollutants, for the same model year and maximum engine power. [40 CFR 60.4201(a), 40 CFR 60.4204(b), Minn. R. 7011.2305]
5.1.447	The Permittee must certify 2014 model year and later non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the certification emission standards and other requirements for new marine CI engines in 40 CFR Section 1042.101, 40 CFR Section 1042.107, 40 CFR Section 1042.110, 40 CFR Section 1042.115, 40 CFR Section 1042.120, and 40 CFR Section 1042.145, as applicable, for all pollutants, for the same displacement and maximum engine power. [40 CFR 60.4201(e)(2), 40 CFR 60.4204(b), Minn. R. 7011.2305]
5.1.448	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a); 40 CFR 60.1(b); 40 CFR 60.1(c); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5(a); 40 CFR 60.5(b); 40 CFR 60.6(a); 40 CFR 60.6(b); 40 CFR 60.7(a)(1); 40 CFR 60.7(a)(3); 40 CFR 60.7(a)(4); 40 CFR 60.7(a)(5); 40 CFR 60.7(a)(6); 40 CFR 60.7(a)(7); 40 CFR 60.7(b); 40 CFR 60.7(c); 40 CFR 60.7(d); 40 CFR 60.8(a); 40 CFR 60.8(b);

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	40 CFR 60.8(c);
	40 CFR 60.8(d);
	40 CFR 60.8(e);
	40 CFR 60.8(f);
	40 CFR 60.8(g);
	40 CFR 60.8(h);
	40 CFR 60.8(i);
	40 CFR 60.9;
	40 CFR 60.11(a);
	40 CFR 60.11(b);
	40 CFR 60.11(c);
	40 CFR 60.11(d);
	40 CFR 60.11(e)(1);
	40 CFR 60.11(e)(2);
	40 CFR 60.11(e)(3);
	40 CFR 60.11(e)(4);
	40 CFR 60.11(e)(5);
	40 CFR 60.11(e)(6);
	40 CFR 60.11(e)(7);
	40 CFR 60.11(e)(8);
	40 CFR 60.11(f);
	40 CFR 60.11(g);
	40 CFR 60.12;
	40 CFR 60.13(a);
	40 CFR 60.13(b);
	40 CFR 60.13(c);
	40 CFR 60.13(d)(1);
	40 CFR 60.13(d)(2);
	40 CFR 60.13(e)(1);
	40 CFR 60.13(e)(2);
	40 CFR 60.13(f);
	40 CFR 60.13(g);
	40 CFR 60.13(h)(1);
	40 CFR 60.13(h)(2);
	40 CFR 60.13(h)(3);
	40 CFR 60.13(i)(1);
	40 CFR 60.13(i)(2);
	40 CFR 60.13(i)(3);
	40 CFR 60.13(i)(4);
	40 CFR 60.13(i)(5);
	40 CFR 60.13(i)(6);
	40 CFR 60.13(i)(7);
	40 CFR 60.13(i)(8);
	40 CFR 60.13(i)(9);
	40 CFR 60.13(j)(1);
	40 CFR 60.13(j)(2);
	40 CFR 60.14(a);
	40 CFR 60.14(b);
	40 CFR 60.14(c);
	40 CFR 60.14(e);
	40 CFR 60.14(f);
	40 CFR 60.14(g);

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	<p>40 CFR 60.14(h); 40 CFR 60.14(i); 40 CFR 60.14(j); 40 CFR 60.14(k); 40 CFR 60.14(l); 40 CFR 60.15(a); 40 CFR 60.15(b); 40 CFR 60.15(c); 40 CFR 60.15(d); 40 CFR 60.15(e); 40 CFR 60.15(f); 40 CFR 60.15(g); 40 CFR 60.17; 40 CFR 60.18(b)-(f); 40 CFR 60.18(g)-(i); 40 CFR 60.19(a); 40 CFR 60.19(b); 40 CFR 60.19(c); 40 CFR 60.19(d); 40 CFR 60.19(e); 40 CFR 60.19(f)(1); 40 CFR 60.19(f)(2); 40 CFR 60.19(f)(3); and 40 CFR 60.19(f)(4).</p> <p>A copy of 40 CFR pt. 60, subp. A is included in Appendix O. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A & III, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050 & 7011.2305, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]</p>
5.1.449	BOILERS WITHIN AIR QUALITY CONTROL REGION 131. [General Permit Header]
5.1.450	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0515, subp. 2]
5.1.451	Sulfur Dioxide <= 1.6 pounds per million Btu heat input. The potential to emit from boilers included in this permit is 0.051 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0515, subp. 1]
5.1.452	Particulate Matter <= 0.40 pounds per million Btu heat input. The potential to emit from boilers included in this permit is 0.024 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0515, subp. 1]
5.1.453	BOILERS LOCATED WITHIN THE CITY OF DULUTH, OUTSIDE THE CITY OF DULUTH, AND OUTSIDE OF AIR QUALITY CONTROL REGION 131. [General Permit Header]
5.1.454	Particulate Matter <= 0.40 pounds per million Btu heat input. The potential to emit from the unit is 0.024 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0510, subp. 1]
5.1.455	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0510, subp. 2]
5.1.456	Sulfur Dioxide <= 2.0 pounds per million Btu heat input. The potential to emit from the unit is 0.051 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0510, subp. 1]
5.1.457	NESHAP SUBP. DDDDD, INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL BOILERS AND PROCESS HEATERS. [General Permit Header]

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5.1.458	<p>The affected source of 40 CFR pt. 63, subp. DDDDD is the collection at a major source of all existing industrial, commercial, and institutional boilers and process heaters within a subcategory as defined in 40 CFR Section 63.7575.</p> <p>A boiler or process heater is existing if it is not new or reconstructed. [40 CFR 63.7490(a)(1), 40 CFR 63.7490(d), Minn. R. 7011.7050]</p>
5.1.459	<p>The affected source of 40 CFR pt. 63, subp. DDDDD is each new or reconstructed industrial, commercial, or institutional boiler or process heater, as defined in 40 CFR Section 63.7575, located at a major source.</p> <p>A boiler or process heater is new if the Permittee commences construction of the boiler or process heater after June 4, 2010, and the Permittee meets the applicability criteria at the time construction commences. [40 CFR 63.7490(a)(2), 40 CFR 63.7490(b), Minn. R. 7011.7050]</p>
5.1.460	<p>If the Permittee has a new or reconstructed boiler or process heater, the Permittee must comply with 40 CFR pt. 63, subp. DDDDD upon startup of the boiler or process heater. [40 CFR 63.7495(a), Minn. R. 7011.7050]</p>
5.1.461	<p>If the Permittee switched fuels or made a physical change to an existing industrial, commercial, or institutional boiler or process heater that resulted in the applicability of a different subcategory after January 31, 2016, the Permittee must be in compliance with the applicable existing source provisions of 40 CFR pt. 63, subp. DDDDD on the effective date of the fuel switch or physical change. [40 CFR 63.7495(h), Minn. R. 7011.7050]</p>
5.1.462	<p>If the Permittee switched fuels or made a physical change to a new industrial, commercial, or institutional boiler or process heater that resulted in the applicability of a different subcategory, the Permittee must be in compliance with the applicable new source provisions of 40 CFR pt. 63, subp. DDDDD on the effective date of the fuel switch or physical change. [40 CFR 63.7495(i), Minn. R. 7011.7050]</p>
5.1.463	<p>The Permittee must meet each work practice standard Table 3 to 40 CFR pt. 63, subp. DDDDD that applies to the boiler or process heater at all times the affected unit is operating, for each boiler or process heater at the source. [40 CFR 63.7500, Minn. R. 7011.7050]</p>
5.1.464	<p>For new or existing boiler or process heaters with a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour in the unit designed to burn gas 1 or unit designed to burn light liquid, the Permittee must conduct a tune-up of the boiler or process heater every 5 years as specified in 40 CFR Section 63.7540. [40 CFR 63.7500(a)(1), 40 CFR pt. 63, subp. DDDDD(Table 3), Minn. R. 7011.7050]</p>
5.1.465	<p>For new or existing boiler or process heaters with heat input capacity of less than 10 million Btu per hour, but greater than 5 million Btu per hour, in the unit designed to burn gas 1 or unit designed to burn light liquid, the Permittee must Conduct a tune-up of the boiler or process heater biennially as specified in 40 CFR Section 63.7540. [40 CFR 63.7500(a)(1), 40 CFR pt. 63, subp. DDDDD(Table 3), Minn. R. 7011.7050]</p>
5.1.466	<p>An existing boiler or process heater located at a major source facility must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. A facility that operated under an energy management program developed according to the ENERGY STAR guidelines for energy management or compatible with ISO 50001 for at least one year between January 1, 2008 and the compliance date specified in 40 CFR Section 63.7495 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items a. to e. appropriate for the on-site technical hours listed in 40 CFR Section 63.7575:</p> <ul style="list-style-type: none"> a. A visual inspection of the boiler or process heater system. b. An evaluation of operating characteristics of the boiler or process heater systems, specifications of

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	<p>energy using systems, operating and maintenance procedures, and unusual operating constraints.</p> <p>c. An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator.</p> <p>d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.</p> <p>e. A review of the facility's energy management program and provide recommendations for improvements consistent with the definition of energy management program, if identified.</p> <p>f. A list of cost-effective energy conservation measures that are within the facility's control.</p> <p>g. A list of the energy savings potential of the energy conservation measures identified.</p> <p>h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments. [40 CFR 63.7500(a)(1), 40 CFR pt. 63, subp. DDDDD(Table 3), Minn. R. 7011.7050]</p>
5.1.467	<p>At all times, the Permittee must operate and maintain any affected source (as defined in 40 CFR Section 63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.7500(a)(3), Minn. R. 7011.7050]</p>
5.1.468	<p>The Permittee must be in compliance with the emission limits, work practice standards, and operating limits in 40 CFR pt. 63, subp. DDDDD. The standards of 40 CFR pt. 63, subp. DDDDD apply at all times the affected unit is operating. [40 CFR 63.7500(f), Minn. R. 7011.7050]</p>
5.1.469	<p>For new or reconstructed affected sources (as defined in 40 CFR Section 63.7490), the Permittee must demonstrate initial compliance with the applicable work practice standards in 40 CFR pt. 63, subp. DDDDD, Table 3 within the applicable biennial or 5-year schedule as specified in 40 CFR Section 63.7515(d) begins upon startup for a new or reconstructed boiler or process heater, or January 31, 2016 for an existing boiler or process heater. Thereafter, the Permittee is required to complete the applicable biennial or 5-year tune-up as specified in 40 CFR Section 63.7515(d). [40 CFR 63.7510(g), Minn. R. 7011.7050]</p>
5.1.470	<p>For existing affected sources (as defined in 40 CFR Section 63.7490) that have not operated between the effective date of the rule and the compliance date that is specified for the Permittee's source in 40 CFR Section 63.7495, The Permittee must complete an initial tune-up by following the procedures described in 40 CFR Section 63.7540(a)(10)(i) through (vi) no later than 30 days after the re-start of the affected source and, if applicable, complete the one-time energy assessment specified in 40 CFR pt. 63, subp. DDDDD, Table 3, no later than the compliance date specified in 40 CFR Section 63.7495. [40 CFR 63.7510(j), Minn. R. 7011.7050]</p>
5.1.471	<p>For affected sources, as defined in 40 CFR Section 63.7490, that switch subcategories consistent with 40 CFR Section 63.7545(h) after the initial compliance date, the Permittee must demonstrate compliance within 60 days of the effective date of the switch, unless the Permittee had previously conducted a compliance demonstration for the subcategory within the previous 12 months. [40 CFR 63.7510(k), Minn. R. 7011.7050]</p>
5.1.472	<p>If the Permittee is required to meet an applicable tune-up work practice standard, the Permittee must conduct an biennial or 5-year performance tune-up according to 40 CFR Section 63.7540(a)(11) or (12), respectively. Each biennial tune-up specified in 40 CFR Section 63.7540(a)(11) must be conducted no more than 25 months after the previous tune-up. Each 5-year tune-up specified in 40 CFR Section 63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed affected source (as defined in 40 CFR Section 63.7490), the first biennial or 5-year tune-up must be no later than 25 months or 61 months, respectively, after the initial startup of the new or reconstructed affected source. [40 CFR 63.7515(d), Minn. R. 7011.7050]</p>
5.1.473	<p>For affected sources (as defined in 40 CFR Section 63.7490) that have not operated since the previous compliance demonstration and more than one year has passed since the previous compliance</p>

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	demonstration, the Permittee must complete the subsequent compliance demonstration, the Permittee must complete a subsequent tune-up by following the procedures described in 40 CFR Section 63.7540(a)(10)(i) through (vi) and the schedule described in 40 CFR Section 63.7540(a)(13) for units that are not operating at the time of their scheduled tune-up. [40 CFR 63.7515(g), Minn. R. 7011.7050]
5.1.474	The Permittee must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in 40 CFR Section 63.7545(e). [40 CFR 63.7530(f), Minn. R. 7011.7050]
5.1.475	If your boiler or process heater has a heat input capacity of less than 10 million Btu per hour (except as specified in paragraph (a)(12) of 40 CFR Section 63.7540), the Permittee must conduct a biennial tune-up of the boiler or process heater as specified in 40 CFR Section 63.7540(a)(10)(i) through (vi) to demonstrate continuous compliance. [40 CFR 63.7500(e), 40 CFR 63.7540(a)(11), Minn. R. 7011.7050]
5.1.476	<p>(i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the Permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;</p> <p>(ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;</p> <p>(iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the Permittee can delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;</p> <p>(iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NOX requirement to which the unit is subject;</p> <p>(v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and</p> <p>(vi) Maintain on-site and submit, if requested by the Administrator, a report containing the information in 40 CFR Section 63.7540(a)(10)(vi)(A) through (C);</p> <p>(A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;</p> <p>(B) A description of any corrective actions taken as a part of the tune-up; and</p> <p>(C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. [40 CFR 63.7540(a)(10), Minn. R. 7011.7050]</p>
5.1.477	If a boiler or process heater has a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour and the unit is in the units designed to burn gas 1 or units designed to burn light liquid subcategories, the Permittee must conduct a tune-up of the boiler or process heater every 5 years as specified in 40 CFR Section 63.7540(a)(10)(i) through (vi) to demonstrate continuous compliance. The Permittee can delay the burner inspection specified in 40 CFR Section 63.7540(a)(10)(i) until the next scheduled or unscheduled unit shutdown, but the Permittee must inspect each burner at least once every 72 months. If an oxygen trim system is utilized on a unit without emission standards to reduce the tune-up frequency to once every 5 years, set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up. [40 CFR 63.7500(d), 40 CFR 63.7500(e), 40 CFR 63.7540(a)(12), Minn. R. 7011.7050]

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5.1.478	If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [40 CFR 63.7540(a)(13), Minn. R. 7011.7050]
5.1.479	The Permittee must submit to the Administrator all of the notifications in 40 CFR Section 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply by the dates specified. [40 CFR 63.7495(d), 40 CFR 63.7545(a), Minn. R. 7011.7050]
5.1.480	As specified in 40 CFR Section 63.9(b)(4) and (5), for a new or reconstructed affected source the Permittee must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source. [40 CFR 63.7545(c), Minn. R. 7011.7050]
5.1.481	The Permittee must include a description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with this subpart, description of the fuel(s) burned, including whether the fuel(s) were a secondary material determined by you or the EPA through a petition process to be a non-waste under 40 CFR Section 241.3, whether the fuel(s) were a secondary material processed from discarded non-hazardous secondary materials within the meaning of 40 CFR Section 241.3, and justification for the selection of fuel(s) burned during the compliance demonstration. [40 CFR 63.7545(a)(1), Minn. R. 7011.7050]
5.1.482	The Permittee must include a signed certification that the Permittee met all applicable work practice standards. [40 CFR 63.7545(e)(6), Minn. R. 7011.7050]
5.1.483	In addition to the information required in 40 CFR Section 63.9(h)(2), the Permittee's notification of compliance status must include the following certification(s) of compliance, as applicable, and signed by a responsible official: - "This facility completed the required initial tune-up for all of the boilers and process heaters covered by 40 CFR part 63 subpart DDDDD at this site according to the procedures in 40 CFR Section 63.7540(a)(10)(i) through (vi)." - Except for units that burn only natural gas, refinery gas, or other gas 1 fuel, or units that qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act, include the following: "No secondary materials that are solid waste were combusted in any affected unit." [40 CFR 63.7545(e)(8), Minn. R. 7011.7050]
5.1.484	The Permittee must submit a compliance report semiannually, annually, biennially, or every 5 years according to the requirements in 40 CFR Section 63.7550(b) that contains the following: a. If the facility is subject to the requirements of a tune up you must submit a compliance report with the information in 40 CFR Section 63.7550(c)(5)(i) through (iii), (xiv) and (xvii) of this section; and b. If there are no deviations from the requirements for work practice standards for periods of startup and shutdown in 40 CFR pt. 63, subp. DDDDD, Table 3 that apply, a statement that there were no deviations from the work practice standards during the reporting period; and c. If the Permittee had a deviation from a work practice standard for periods of startup and shutdown, during the reporting period, the report must contain the information in 40 CFR Section 63.7550(d). [40 CFR 63.7540(b), 40 CFR 63.7550(a), 40 CFR 63.7550(c), 40 CFR pt. 63, subp. DDDDD(Table 9), Minn. R. 7011.7050]
5.1.485	For units that are subject only to a requirement to conduct subsequent biennial or 5-year tune-up according to 40 CFR Section 63.7540(a)(11) or (12), respectively, the Permittee may submit only an biennial or 5-year compliance report, as applicable, as specified in 40 CFR Section 63.7550(b)(1) through (4), instead of a semi-annual compliance report. (1) The first semi-annual compliance report must cover the period beginning upon startup for a new or reconstructed boiler or process heater, or January 31, 2016 for an existing boiler or process heater, and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after startup for a new or reconstructed boiler or process heater, or January 31, 2016 for an existing boiler or process heater. If submitting an annual, biennial, or 5-year compliance report, the first

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	<p>compliance report must cover the period beginning upon startup for a new or reconstructed boiler or process heater, or January 31, 2016 for an existing boiler or process heater and ending on December 31 within 1, 2, or 5 years, as applicable, after startup for a new or reconstructed boiler or process heater, or January 31, 2016 for an existing boiler or process heater.</p> <p>(2) The first semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after startup for a new or reconstructed boiler or process heater, or January 31, 2016 for an existing boiler or process heater. The first annual, biennial, or 5-year compliance report must be postmarked or submitted no later than January 31.</p> <p>(3) Each subsequent semi-annual 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. Annual, biennial, and 5-year compliance reports must cover the applicable 1-, 2-, or 5-year periods from January 1 to December 31.</p> <p>(4) Each subsequent semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. Annual, biennial, and 5-year compliance reports must be postmarked or submitted no later than January 31. [40 CFR 63.7540(b), 40 CFR 63.7550(b), Minn. R. 7011.7050]</p>
5.1.486	<p>If the facility is subject to the requirements of a tune up the Permittee must submit a compliance report with the following information (40 CFR Section 63.7550(c)(5)(i) through (iii), (xiv), and (xvii)):</p> <p>(i) Company and Facility name and address.</p> <p>(ii) Process unit information, emissions limitations, and operating parameter limitations.</p> <p>(iii) Date of report and beginning and ending dates of the reporting period.</p> <p>(xiv) Include the date of the most recent tune-up for each unit subject to only the requirement to conduct a biennial or 5-year tune-up according to 40 CFR Section 63.7540(a)(11) or (12) respectively. Include the date of the most recent burner inspection if it was not done biennially or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.</p> <p>(xvii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. [40 CFR 63.7540(b), 40 CFR 63.7550(c)(5), Minn. R. 7011.7050]</p>
5.1.487	<p>The Permittee must keep records according to the following:</p> <p>(1) A copy of each notification and report that the Permittee submitted to comply with 40 CFR pt. 63, subp. DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the Permittee submitted, according to the requirements in 40 CFR Section 63.10(b)(2)(xiv).</p> <p>(2) Records of compliance demonstrations and performance evaluations as required in 40 CFR Section 63.10(b)(2)(viii). [40 CFR 63.7555(a), Minn. R. 7011.7050]</p>
5.1.488	<p>For each deviation from the work practice standards for periods of startup and shutdown, the compliance report must additionally contain the following information:</p> <p>(1) A description of the deviation and which work practice standard from which the Permittee deviated.</p> <p>(2) Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken. [40 CFR 63.7540(b), 40 CFR 63.7550(d), Minn. R. 7011.7050]</p>

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5.1.489	<p>The Permittee must submit all reports required by 40 CFR pt. 63, subp. DDDDD, Table 9 electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) The Permittee must use the appropriate electronic report in CEDRI for 40 CFR pt. 63, subp. DDDDD. Instead of using the electronic report in CEDRI for 40 CFR pt. 63, subp. DDDDD, the Permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (http://www.epa.gov/ttn/chief/cedri/index.html), once the XML schema is available. If the reporting form specific to 40 CFR pt. 63, subp. DDDDD is not available in CEDRI at the time that the report is due, the Permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR Section 63.13. The Permittee must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. [40 CFR 63.7550(h)(3), Minn. R. 7011.7050]</p>
5.1.490	<p>If the Permittee elects to average emissions consistent with 40 CFR Section 63.7522, the Permittee must additionally keep a copy of the emission averaging implementation plan required in 40 CFR Section 63.7522(g), all calculations required under 40 CFR Section 63.7522, including monthly records of heat input or steam generation, as applicable, and monitoring records consistent with 40 CFR Section 63.7541. [40 CFR 63.7555(e), Minn. R. 7011.7050]</p>
5.1.491	<p>If the Permittee elects to use efficiency credits from energy conservation measures to demonstrate compliance according to 40 CFR Section 63.7533, the Permittee must keep a copy of the Implementation Plan required in 40 CFR Section 63.7533(d) and copies of all data and calculations used to establish credits according to 40 CFR Section 63.7533(b), (c), and (f). [40 CFR 63.7555(f), Minn. R. 7011.7050]</p>
5.1.492	<p>If the Permittee elected to demonstrate that the unit meets the specification for mercury for the unit designed to burn gas 1 subcategory, the Permittee must maintain monthly records (or at the frequency required by 40 CFR Section 63.7540(c)) of the calculations and results of the fuel specification for mercury in 40 CFR pt. 63, subp. DDDDD, Table 6. [40 CFR 63.7555(g), Minn. R. 7011.7050]</p>
5.1.493	<p>If the Permittee operates a unit in the unit designed to burn gas 1 subcategory that is subject to 40 CFR pt. 63, subp. DDDDD, and the Permittee uses an alternative fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart under 40 CFR pt. 63, other gas 1 fuel, or gaseous fuel subject to another subpart of 40 CFR part 63 or part 60, 61, or 65, the Permittee must keep records of the total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies. [40 CFR 63.7555(h), Minn. R. 7011.7050]</p>
5.1.494	<p>(a) Records must be in a form suitable and readily available for expeditious review, according to 40 CFR Section 63.10(b)(1).</p> <p>(b) As specified in 40 CFR Section 63.10(b)(1), the Permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.</p> <p>(c) The Permittee must keep each record on site, or the records must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR Section 63.10(b)(1). The Permittee can keep the records off site for the remaining 3 years. [40 CFR 63.7560, Minn. R. 7011.7050]</p>
5.1.495	<p>The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows:</p> <p>40 CFR 63.1; 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4; 40 CFR 63.5;</p>

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	40 CFR 63.6(a); 40 CFR 63.6(b)(1)-(5); 40 CFR 63.6(b)(7); 40 CFR 63.6(c); 40 CFR 63.6(f)(2), (3); 40 CFR 63.6(g); 40 CFR 63.6(i); 40 CFR 63.6(j); 40 CFR 63.7(a); 40 CFR 63.7(b); 40 CFR 63.7(c); 40 CFR 63.7(d); 40 CFR 63.7(e)(2)-(9); 40 CFR 63.7(f); 40 CFR 63.7(g); 40 CFR 63.7(h); 40 CFR 63.8(a); 40 CFR 63.8(b); 40 CFR 63.8(c)(1), (1)(ii), (2)-(9); 40 CFR 63.8(d)(1)-(3); 40 CFR 63.8(e); 40 CFR 63.8(f); 40 CFR 63.8(g); 40 CFR 63.9; 40 CFR 63.10(a); 40 CFR 63.10(b)(1); 40 CFR 63.10(b)(2)(i), (iii), (vi), (vii)-(xiv); 40 CFR 63.10(c)(1)-(9), (12), (13); 40 CFR 63.10(d)(1); 40 CFR 63.10(d)(2); 40 CFR 63.10(d)(4); 40 CFR 63.10(e); 40 CFR 63.10(f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; 40 CFR 63.15; and 40 CFR 63.16. A copy of 40 CFR pt. 63, subp. A is included in Appendix N. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. A & DDDDD, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.7000 & 7011.7050, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.1.496	LIQUID PETROLEUM AND VOLATILE ORGANIC LIQUID STORAGE VESSELS. [General Permit Header]
5.1.497	The Permittee of any storage vessel with a storage capacity of greater than 2,000 gallons (7,571 liters) but less than or equal to 65,000 gallons (246,405 liters) for which construction was commenced after July 7, 1969, but prior to June 11, 1973, shall equip the storage vessel with a permanent submerged fill pipe or comply with the following: (1) If the true vapor pressure of the petroleum liquid, as stored, is equal to or greater than 78 mm Hg (1.5 psia) but not greater than 570 mm Hg (11.1 psia), the storage vessel shall be equipped with a

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	floating roof, a vapor recovery system, or their equivalents. (2) If the true vapor pressure of the petroleum liquid as stored is greater than 570 mm Hg (11.1 psia), the storage vessel shall be equipped with a vapor recovery system or its equivalent. [Minn. R. 7011.1505, subp. 2(B)]
5.1.498	The Permittee of any storage vessel with a storage capacity of greater than 65,000 gallons (246,405 liters) for which construction was commenced after July 7, 1969, but prior to June 11, 1973, shall comply with the following requirements: (1) If the true vapor pressure of the petroleum liquid, as stored, is equal to or greater than 128 mm Hg (2.5 psia) but not greater than 642 mm Hg (12.5 psia) the storage vessel shall be equipped with a floating roof, a vapor recovery system or their equivalents. (2) If the true vapor pressure of the petroleum liquid, as stored, is greater than 642 mm Hg (12.5 psia), the storage vessel shall be equipped with a vapor recovery system or its equivalent. [Minn. R. 7011.1505, subp. 2(C)]
5.1.499	The Permittee of any storage vessel with a storage capacity of greater than 2,000 gallons (7,571 liters) but less than or equal to 40,000 gallons (151,412 liters) for which construction was commenced on or after June 11, 1973, shall equip the storage vessel with a permanent submerged fill pipe or comply with the following: (1) If the true vapor pressure of the petroleum liquid, as stored, is equal to or greater than 78 mm Hg (1.5 psia) but not greater than 570 mm Hg (11.1 psia), the storage vessel shall be equipped with a floating roof, a vapor recovery system, or their equivalents. (2) If the true vapor pressure of the petroleum liquid as stored is greater than 570 mm Hg (11.1 psia), the storage vessel shall be equipped with a vapor recovery system or its equivalent. [Minn. R. 7011.1505, subp. 3(B)]
5.1.500	The Permittee of any storage vessel with a storage capacity of greater than 40,000 gallons (151,412 liters) for which construction was commenced on or after June 11, 1973, shall comply with the following requirements: (1) If the true vapor pressure of the petroleum liquid, as stored, is equal to or greater than 78 mm Hg (1.5 psia) but not greater than 570 mm Hg (11.1 psia), the storage vessel shall be equipped with a floating roof, a vapor recovery system, or their equivalents. (2) If the true vapor pressure of the petroleum liquid as stored is greater than 570 mm Hg (11.1 psia), the storage vessel shall be equipped with a vapor recovery system or its equivalent. [Minn. R. 7011.1505, subp. 3(C)]
5.1.501	The Permittee of any storage vessel, the construction or modification of which commenced on or after June 11, 1973, which has a storage capacity of greater than 40,000 gallons (151,412 liters) shall for each storage vessel: A. maintain a file of each type of petroleum liquid stored, of the typical Reid vapor pressure of each type of petroleum liquid stored, of the dates of storage and withdrawals, and of the date on which the storage vessel is empty; B. determine and record the average monthly storage temperature and true vapor pressure of the petroleum liquid stored at such temperature if: (1) the petroleum liquid has a true vapor pressure, as stored, greater than 26 mm Hg (0.5 psia) but less than 78 mm Hg (1.5 psia) and is stored in a storage vessel other than one equipped with a floating roof, a vapor recovery system or their equivalents; or (2) the petroleum liquid has a true vapor pressure, as stored, greater than 470 mm Hg (9.1 psia) and is stored in a storage vessel other than one equipped with a vapor recovery system or its equivalent. [Minn. R. 7011.1510, subp. 1]
5.1.502	NSPS SUBP. Kb, VOLATILE ORGANIC LIQUID STORAGE VESSELS (INCLUDING PETROLEUM LIQUID STORAGE VESSELS) FOR WHICH CONSTRUCTION, RECONSTRUCTION, OR MODIFICATION COMMENCED AFTER JULY 23, 1984. [General Permit Header]

Requirement number	Requirement and citation
5.1.503	<p>The affected facility to which 40 CFR pt. 60, subp. Kb applies is each storage vessel with a capacity greater than or equal to 75 cubic meters that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.</p> <p>40 CFR pt. 60, subp. Kb does not apply to storage vessels with a capacity greater than or equal to 151 cubic meters storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 cubic meters but less than 151 cubic meters storing a liquid with a maximum true vapor pressure less than 15.0 kPa. [40 CFR 60.110(b)(a)&(b), Minn. R. 7011.1520(C)]</p>
5.1.504	<p>The Permittee shall keep copies of all records, except for those required by 40 CFR 60.116b(b) for at least 2 years. [40 CFR 60.116b(a)&(b), Minn. R. 7011.1520(C)]</p>
5.1.505	<p>The Permittee shall keep readily accessible records showing the dimensions of each storage vessel and an analysis showing the capacity of each storage vessel for the life of the source. [40 CFR 60.116b(a)&(b)]</p>
5.1.506	<p>Recordkeeping: For each storage vessel either with a design capacity greater than or equal to 151 cubic meters storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 cubic meters but less than 151 cubic meters storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa, the Permittee shall maintain records showing the volatile organic liquid (VOL) stored, the period of storage, and the maximum true vapor pressure of the VOL during the respective storage period, calculated as described in 40 CFR Section 60.116b(e). [40 CFR 60.116b(c), Minn. R. 7011.1520(C)]</p>
5.1.507	<p>Notification: For each storage vessel either with a design capacity greater than or equal to 151 cubic meters storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa or with a design capacity greater than or equal to 75 cubic meters but less than 151 cubic meters storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa, within 30 days of each occurrence, the Permittee shall notify the Commissioner when the maximum true vapor pressure exceeds the respective maximum true vapor pressure values for each volume range (5.2 kPa or 27.6 kPa). [40 CFR 60.116b(d), Minn. R. 7011.1520(C)]</p>
5.1.508	<p>The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows:</p> <ul style="list-style-type: none"> 40 CFR 60.1(a); 40 CFR 60.1(b); 40 CFR 60.1(c); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5(a); 40 CFR 60.5(b); 40 CFR 60.6(a); 40 CFR 60.6(b); 40 CFR 60.7(a)(1); 40 CFR 60.7(a)(3); 40 CFR 60.7(a)(4); 40 CFR 60.7(a)(5); 40 CFR 60.7(a)(6); 40 CFR 60.7(a)(7); 40 CFR 60.7(b); 40 CFR 60.7(c); 40 CFR 60.7(d);

Requirement number	Requirement and citation
	40 CFR 60.8(a);
	40 CFR 60.8(b);
	40 CFR 60.8(c);
	40 CFR 60.8(d);
	40 CFR 60.8(e);
	40 CFR 60.8(f);
	40 CFR 60.8(g);
	40 CFR 60.8(h);
	40 CFR 60.8(i);
	40 CFR 60.9;
	40 CFR 60.11(a);
	40 CFR 60.11(b);
	40 CFR 60.11(c);
	40 CFR 60.11(d);
	40 CFR 60.11(e)(1);
	40 CFR 60.11(e)(2);
	40 CFR 60.11(e)(3);
	40 CFR 60.11(e)(4);
	40 CFR 60.11(e)(5);
	40 CFR 60.11(e)(6);
	40 CFR 60.11(e)(7);
	40 CFR 60.11(e)(8);
	40 CFR 60.11(f);
	40 CFR 60.11(g);
	40 CFR 60.12;
	40 CFR 60.13(a);
	40 CFR 60.13(b);
	40 CFR 60.13(c);
	40 CFR 60.13(d)(1);
	40 CFR 60.13(d)(2);
	40 CFR 60.13(e)(1);
	40 CFR 60.13(e)(2);
	40 CFR 60.13(f);
	40 CFR 60.13(g);
	40 CFR 60.13(h)(1);
	40 CFR 60.13(h)(2);
	40 CFR 60.13(h)(3);
	40 CFR 60.13(i)(1);
	40 CFR 60.13(i)(2);
	40 CFR 60.13(i)(3);
	40 CFR 60.13(i)(4);
	40 CFR 60.13(i)(5);
	40 CFR 60.13(i)(6);
	40 CFR 60.13(i)(7);
	40 CFR 60.13(i)(8);
	40 CFR 60.13(i)(9);
	40 CFR 60.13(j)(1);
	40 CFR 60.13(j)(2);
	40 CFR 60.14(a);
	40 CFR 60.14(b);
	40 CFR 60.14(c);
	40 CFR 60.14(e);

Requirement number	Requirement and citation
	<p>40 CFR 60.14(f); 40 CFR 60.14(g); 40 CFR 60.14(h); 40 CFR 60.14(i); 40 CFR 60.14(j); 40 CFR 60.14(k); 40 CFR 60.14(l); 40 CFR 60.15(a); 40 CFR 60.15(b); 40 CFR 60.15(c); 40 CFR 60.15(d); 40 CFR 60.15(e); 40 CFR 60.15(f); 40 CFR 60.15(g); 40 CFR 60.17; 40 CFR 60.18(b)-(f); 40 CFR 60.18(g)-(i); 40 CFR 60.19(a); 40 CFR 60.19(b); 40 CFR 60.19(c); 40 CFR 60.19(d); 40 CFR 60.19(e); 40 CFR 60.19(f)(1); 40 CFR 60.19(f)(2); 40 CFR 60.19(f)(3); and 40 CFR 60.19(f)(4).</p> <p>A copy of 40 CFR pt. 60, subp. A is included in Appendix O. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A & Kb, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, Minn. R. 7017.1010 & 7017.2015, Minn. R. 7019.0100]</p>
5.1.509	OVENS AND FURNACES LOCATED WITHIN AIR QUALITY CONTROL REGION 131. [General Permit Header]
5.1.510	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0610, subp. 1(A)(2)]
5.1.511	Sulfur Dioxide <= 1.6 pounds per million Btu heat input input when burning liquid fossil fuels, if the total rated heat input of all indirect and direct heating equipment at the facility exceeds 250 million Btu per hour. If more than one fuel is burned simultaneously, calculate the emission limit as indicated in Minn. R. 7011.0605. [Minn. R. 7011.0610, subp. 2]
5.1.512	Sulfur Dioxide <= 2.0 pounds per million Btu heat input when burning liquid fossil fuels, if the total rated heat input of all indirect and direct heating equipment at the facility is equal to or less than 250 million Btu per hour. If more than one fuel is burned simultaneously, calculate the emission limit as indicated in Minn. R. 7011.0605. [Minn. R. 7011.0610, subp. 2]
5.1.513	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0610, subp. 1(A)(1)]
5.1.514	OVENS AND FURNACES LOCATED OUTSIDE AIR QUALITY CONTROL REGION 131. [General Permit Header]

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5.1.515	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0610, subp. 1(A)(2)]
5.1.516	Sulfur Dioxide <= 2.0 pounds per million Btu heat input when burning liquid fossil fuels, if the total rated heat input of all indirect and direct heating equipment at the facility is greater than 250 million Btu per hour. If more than one fuel is burned simultaneously, calculate the emission limit as indicated in Minn. R. 7011.0605. [Minn. R. 7011.0610, subp. 2]
5.1.517	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0610, subp. 1(A)(1)]
5.1.518	ABRASIVE BLASTING AND/OR SANDING BOOTHS IN OPERATION BEFORE JULY 9, 1969. [General Permit Header]
5.1.519	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0710, subp. 1(A)]
5.1.520	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0710, subp. 1(B)]
5.1.521	ABRASIVE BLASTING AND/OR SANDING BOOTHS IN OPERATION ON AFTER JULY 9, 1969. [General Permit Header]
5.1.522	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
5.1.523	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.1.524	FABRIC FILTERS SUBJECT TO 40 CFR PT 64 COMPLIANCE ASSURANCE MONITORING (CAM) - OTHER (NOT LARGE) PSEU. [General Permit Header]
5.1.525	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter >= 99 percent control efficiency for fabric filters that are total enclosures. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.526	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter >= 79 percent control efficiency for fabric filters that vent to certified hoods. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.527	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron >= 93 percent control efficiency for fabric filters that are total enclosures. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.528	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron >= 74 percent control efficiency for fabric filters that vent to certified hoods. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.529	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron >= 93 percent control efficiency for fabric filters that are total enclosures. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.530	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron >= 74 percent control efficiency for fabric filters that vent to certified hoods. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.531	Pressure Drop >= and <= inches of water. The numerical values are as specified in the permit application. The Permittee shall record this data in the Operation and Maintenance (O & M) plan within 30 days after permit issuance or 30 days after installation of any new control equipment for which there are such operating parameter requirements. If a new range is required to be set it will be based on the values recorded during the most recent

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	MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The Permittee shall record the pressure drop at least once every 24 hours. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.532	Pressure Drop: The Permittee shall record the pressure drop range data in the Operation and Maintenance (O & M) plan within 30 days after permit issuance or 30 days after installation of any new control equipment for which there are such operating parameter requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.1.533	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.1.534	Daily Inspections: The Permittee shall do the following, once every 24 hours: 1). Inspect the fabric filter stack for any visible emissions during daylight hours, except during inclement weather. 2). During inclement weather, read and record the pressure drop across the fabric filter. [40 CFR 64.3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.535	Recordkeeping of Visible Emissions and Pressure Drop: The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.9(b), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.536	Pressure Drop: Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [40 CFR 64.7(b), Minn. R. 7017.0200]
5.1.537	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]
5.1.538	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections. [40 CFR 64.3, Minn. R. 7017.0200]
5.1.539	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: <ul style="list-style-type: none"> - visible emissions are observed; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [40 CFR 64.7(d), Minn. R. 7017.0200]
5.1.540	If the Permittee replaces the fabric filter, the replacement control must meet or exceed the control efficiency requirements of the fabric filter being replaced as well as comply with all other requirements of the fabric filter being replaced. The Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.541	Hood Certification and Evaluation: If applicable, the Permittee shall maintain the most current record of the hood evaluation and certification on site. The control device hood must be evaluated by a

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	testing company as specified in Minn. R. 7011.0072, subp. 2(A) and must conform to the design and operating requirements listed in Minn. R. 7011.0072, subps. 2(B) and 3. The hood certification must address how cross-drafts are accommodated in the design (e.g., higher face velocity, oversized hood, etc.) and the Permittee shall certify this as specified in Minn. R. 7011.0072, subps. 2 and 3. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.542	Annual Hood Evaluation: If applicable, the Permittee shall measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow parameter that was measured during the most recent hood certification to verify the hood design and operation parameters meet or exceed the parameters measured during the most recent hood evaluation conducted according to Minn. R. 7011.0072, subps. 2 & 3 as required by Minn. R. 7011.0072, subp. 4. The Permittee shall maintain a copy of the annual evaluations on site for 5 years. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.543	FABRIC FILTERS NOT SUBJECT TO 40 CFR PT. 64 CAM. [General Permit Header]
5.1.544	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99 percent control efficiency for fabric filters that are total enclosures. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.545	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 79 percent control efficiency for fabric filters that vent to certified hoods. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.546	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 93 percent control efficiency for fabric filters that are total enclosures. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.547	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 74 percent control efficiency for fabric filters that vent to certified hoods. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.548	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 93 percent control efficiency for fabric filters that are total enclosures. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.549	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 74 percent control efficiency for fabric filters that vent to certified hoods. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.550	<p>Pressure Drop \geq and \leq inches of water. The numerical values are as specified in the permit application. The Permittee shall record this data in the Operation and Maintenance (O & M) plan within 30 days after permit issuance or 30 days after installation of any new control equipment for which there are such operating parameter requirements.</p> <p>If a new range is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The Permittee shall record the pressure drop at least once every 24 hours. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.1.551	Pressure Drop: The Permittee shall record the pressure drop range data in the Operation and Maintenance (O & M) plan within 30 days after permit issuance or 30 days after installation of any new control equipment for which there are such operating parameter requirements. [Minn. R. 7007.0800, subp. 2(A)]

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5.1.552	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.1.553	Visible Emissions: The Permittee shall check the fabric filter stack for any visible emissions once each day of operation during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once each day of operation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.554	Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.555	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.1.556	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.1.557	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections. [Minn. R. 7007.0800, subp. 14]
5.1.558	If the Permittee replaces the fabric filter, the replacement control must meet or exceed the control efficiency requirements of the fabric filter being replaced as well as comply with all other requirements of the fabric filter being replaced. The Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.559	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.1.560	Hood Certification and Evaluation: If applicable, the Permittee shall maintain the most current record of the hood evaluation and certification on site. The control device hood must be evaluated by a testing company as specified in Minn. R. 7011.0072, subp. 2(A) and must conform to the design and operating requirements listed in Minn. R. 7011.0072, subps. 2(B) and 3. The hood certification must address how cross-drafts are accommodated in the design (e.g., higher face velocity, oversized hood, etc.) and the Permittee shall certify this as specified in Minn. R. 7011.0072, subps. 2 and 3. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.561	Annual Hood Evaluation: If applicable, the Permittee shall measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow parameter that was measured during the most recent hood certification to verify the hood design

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	and operation parameters meet or exceed the parameters measured during the most recent hood evaluation conducted according to Minn. R. 7011.0072, subps. 2 & 3 as required by Minn. R. 7011.0072, subp. 4. The Permittee shall maintain a copy of the annual evaluations on site for 5 years. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.562	WALL/PANEL FILTERS SUBJECT TO 40 CFR PT. 64 (CAM) OTHER PSEU. [General Permit Header]
5.1.563	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter \geq 85 percent control efficiency for wall or panel filters that are total enclosures. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.564	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter \geq 68 percent control efficiency for wall or panel filters that vent to certified hoods. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.565	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron \geq 85 percent control efficiency for wall or panel filters that are total enclosures. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.566	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron \geq 68 percent control efficiency for wall or panel filters that vent to certified hoods. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.567	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron \geq 85 percent control efficiency for wall or panel filters that are total enclosures. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.568	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron \geq 68 percent control efficiency for wall or panel filters that vent to certified hoods. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.569	The Permittee shall operate and maintain the panel filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.1.570	<p>Pressure Drop \geq and \leq inches of water. The numerical values are as specified in the permit application. The Permittee shall record this data in the Operation and Maintenance (O & M) plan within 30 days after permit issuance or 30 days after installation of any new control equipment for which there are such operating parameter requirements.</p> <p>If a new range is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The Permittee shall record the pressure drop at least once every 24 hours. [40 CFR 64.3, Minn. R. 7017.0200]</p>
5.1.571	Pressure Drop: The Permittee shall record the pressure drop range data in the Operation and Maintenance (O & M) plan within 30 days after permit issuance or 30 days after installation of any new control equipment for which there are such operating parameter requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.1.572	Pressure Drop: Monitoring: Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities, the Permittee shall continuously monitor the pressure drop across each panel filter when the booth controlled by the panel filter is in operation. Monitoring data shall be used in assessing the control device operation as required by 40 CFR Section 64.7(c). [40 CFR 64.7(c)]
5.1.573	Daily Inspections: At least once per 24-hour period, the Permittee shall visually inspect the condition of the panel filter with respect to alignment, saturation, tears, holes and any other matter that may affect the filter's performance. The Permittee shall record the time and date of each inspection and any

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	actions resulting from the inspection. [40 CFR 64.3, 40 CFR 64.9(b), Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.574	Pressure Drop: Recordkeeping. At least once per 24-hour period, the Permittee shall read and record the pressure drop across the panel filter. The Permittee shall record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered excursions as defined in 40 CFR Section 64.1. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.575	Periodic Inspections: The Permittee shall inspect the control equipment components as required by the manufacturing specifications. The Permittee shall maintain a written record of these inspections. [40 CFR 64.3, Minn. R. 7017.0200]
5.1.576	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the panel filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the panel filter. The Permittee shall keep a record of the type and date of any corrective action taken for the panel filter. [40 CFR 64.7(d), Minn. R. 7017.0200]
5.1.577	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained, including maintaining necessary parts for routine repairs of the monitoring equipment, when the monitored filter is in operation. [40 CFR 64.7(b), Minn. R. 7017.0200]
5.1.578	The Permittee shall calibrate each pressure gauge at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]
5.1.579	Hood Certification and Evaluation: If applicable, the Permittee shall maintain the most current record of the hood evaluation and certification on site. The control device hood must be evaluated by a testing company as specified in Minn. R. 7011.0072, subp. 2(A) and must conform to the design and operating requirements listed in Minn. R. 7011.0072, subps. 2(B) and 3. The hood certification must address how cross-drafts are accommodated in the design (e.g., higher face velocity, oversized hood, etc.) and the Permittee shall certify this as specified in Minn. R. 7011.0072, subps. 2 and 3. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.580	Annual Hood Evaluation: If applicable, the Permittee shall measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow parameter that was measured during the most recent hood certification to verify the hood design and operation parameters meet or exceed the parameters measured during the most recent hood evaluation conducted according to Minn. R. 7011.0072, subps. 2 & 3 as required by Minn. R. 7011.0072, subp. 4. The Permittee shall maintain a copy of the annual evaluations on site for 5 years. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.581	WALL/PANEL FILTERS NOT SUBJECT TO 40 CFR PT. 64. [General Permit Header]
5.1.582	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter \geq 85 percent control efficiency for wall or panel filters that are total enclosures. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.583	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter \geq 68 percent control efficiency for wall or panel filters that vent to certified hoods. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]

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5.1.584	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron \geq 85 percent control efficiency for wall or panel filters that are total enclosures. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.585	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron \geq 68 percent control efficiency for wall or panel filters that vent to certified hoods. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.586	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron \geq 85 percent control efficiency for wall or panel filters that are total enclosures. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.587	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron \geq 68 percent control efficiency for wall or panel filters that vent to certified hoods. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.588	The Permittee shall operate and maintain the panel filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.1.589	Daily Inspections: Once every 24 hours if in operation, the Permittee shall visually inspect the condition of each panel filter with respect to alignment, saturation, tears, holes and any other condition that may affect the filter's performance. The Permittee shall maintain a daily written record of filter inspections. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.590	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.1.591	Corrective Actions: If the filters or any of their components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.1.592	Hood Certification and Evaluation: If applicable, the Permittee shall maintain the most current record of the hood evaluation and certification on site. The control device hood must be evaluated by a testing company as specified in Minn. R. 7011.0072, subp. 2(A) and must conform to the design and operating requirements listed in Minn. R. 7011.0072, subps. 2(B) and 3. The hood certification must address how cross-drafts are accommodated in the design (e.g., higher face velocity, oversized hood, etc.) and the Permittee shall certify this as specified in Minn. R. 7011.0072, subps. 2 and 3. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.593	Annual Hood Evaluation: If applicable, the Permittee shall measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow parameter that was measured during the most recent hood certification to verify the hood design and operation parameters meet or exceed the parameters measured during the most recent hood evaluation conducted according to Minn. R. 7011.0072, subps. 2 & 3 as required by Minn. R. 7011.0072, subp. 4. The Permittee shall maintain a copy of the annual evaluations on site for 5 years. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.594	THERMAL OXIDIZERS SUBJECT TO 40 CFR PT. 64 (CAM) LARGE PSEU. [General Permit Header]
5.1.595	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Volatile Organic Compounds \geq 97 percent control efficiency for thermal oxidizers that

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	are total enclosures. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.596	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Volatile Organic Compounds \geq 78 percent control efficiency for thermal oxidizers that vent to certified hoods. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.597	<p>Temperature \geq degrees Fahrenheit 3-hour rolling average at the combustion chamber outlet. The numerical value is as specified in the permit application. The Permittee shall record this data in the Operation and Maintenance (O & M) plan within 30 days after permit issuance or 30 days after installation of any new control equipment for which there are such operating parameter requirements.</p> <p>If a new minimum is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new limit shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. If the 3-hour rolling average temperature is below the minimum temperature limit, the VOC emitted during that time shall be considered uncontrolled until the average temperature is above the minimum temperature limit. This shall be reported as a deviation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.1.598	<p>Temperature Monitoring: The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the combustion chamber temperature of the thermal oxidizer. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 4.5 degrees Fahrenheit. The recording device shall also calculate the three-hour rolling average combustion chamber temperature. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.3(b)(4)(ii) and Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.1.599	<p>Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written record of the daily verifications. [40 CFR 64.3(b), Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.1.600	<p>The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated three hour rolling average temperatures for the combustion chamber. [40 CFR 64.9(b), Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.1.601	<p>For periods when the thermal oxidizer is operated above the minimum combustion chamber temperature, the Permittee shall use either one of the following when completing calculations as required elsewhere in this permit:</p> <ol style="list-style-type: none"> The overall control efficiency limit specified in this permit for this equipment; or The overall control efficiency determined during the most recent MPCA approved performance test. If the tested efficiency is less than the efficiency limit in this permit, the Permittee must use the tested value in all calculations until the efficiency is demonstrated to be above the permit limit through a new test. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.602	<p>If the Permittee replaces a thermal oxidizer, the replacement control must meet or exceed the control efficiency requirements of the thermal oxidizer being replaced as well as comply with all other requirements of the thermal oxidizer being replaced.</p> <p>The Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>

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5.1.603	Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the 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 temperature limit, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]
5.1.604	As required by 40 CFR Section 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]
5.1.605	Quarterly Inspections: At least once per calendar quarter, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the refractory, heat exchanger, and electrical systems. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]
5.1.606	The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee 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), Minn. R. 7017.0200]
5.1.607	The Permittee shall operate and maintain the thermal oxidizer in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.1.608	Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained whenever operation of the monitored control equipment is required. [40 CFR 64.7(b), Minn. R. 7017.0200]
5.1.609	Annual Calibration: The Permittee shall calibrate the temperature monitor at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]
5.1.610	Annual Inspection: At least once per calendar year, the Permittee shall conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]
5.1.611	Corrective Actions: If the temperature is below the minimum specified by this permit or if the thermal oxidizer or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature to at least the permitted minimum and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the thermal oxidizer. The Permittee shall keep a record of the type and date of any corrective action taken. [40 CFR 64.7(d), Minn. R. 7017.0200]
5.1.612	Hood Certification and Evaluation: If applicable, the Permittee shall maintain the most current record of the hood evaluation and certification on site. The control device hood must be evaluated by a testing company as specified in Minn. R. 7011.0072, subp. 2(A) and must conform to the design and operating requirements listed in Minn. R. 7011.0072, subps. 2(B) and 3. The hood certification must address how cross-drafts are accommodated in the design (e.g., higher face velocity, oversized hood, etc.) and the Permittee shall certify this as specified in Minn. R. 7011.0072, subps. 2 and 3. [Minn. R.

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	7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.613	Annual Hood Evaluation: If applicable, the Permittee shall measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow parameter that was measured during the most recent hood certification to verify the hood design and operation parameters meet or exceed the parameters measured during the most recent hood evaluation conducted according to Minn. R. 7011.0072, subps. 2 & 3 as required by Minn. R. 7011.0072, subp. 4. The Permittee shall maintain a copy of the annual evaluations on site for 5 years. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.614	THERMAL OXIDIZERS NOT SUBJECT TO 40 CFR PT. 64. [General Permit Header]
5.1.615	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Volatile Organic Compounds \geq 97 percent control efficiency for thermal oxidizers that are total enclosures. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.616	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Volatile Organic Compounds \geq 78 percent control efficiency for thermal oxidizers that vent to certified hoods. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.617	<p>Temperature \geq degrees Fahrenheit 3-hour rolling average at the combustion chamber outlet. The numerical value is as specified in the permit application. The Permittee shall record this data in the Operation and Maintenance (O & M) plan within 30 days after permit issuance or 30 days after installation of any new control equipment for which there are such operating parameter requirements.</p> <p>If a new minimum is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new limit shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. If the 3-hour rolling average temperature is below the minimum temperature limit, the VOC emitted during that time shall be considered uncontrolled until the average temperature is above the minimum temperature limit. This shall be reported as a deviation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.1.618	Temperature Monitoring: The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the combustion chamber temperature of the thermal oxidizer. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 4.5 degrees Fahrenheit. The recording device shall also calculate the three-hour rolling average combustion chamber temperature. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.619	<p>For periods when the thermal oxidizer is operated above the minimum combustion chamber temperature, the Permittee shall use either one of the following when completing calculations as required elsewhere in this permit:</p> <ul style="list-style-type: none"> a. The overall control efficiency limit specified in this permit for this equipment; or b. The overall control efficiency determined during the most recent MPCA approved performance test. If the tested efficiency is less than the efficiency limit in this permit, the Permittee must use the tested value in all calculations until the efficiency is demonstrated to be above the permit limit through a new test. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.620	Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The

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	Permittee shall maintain a written record of the daily verifications. [Minn. R. 7007.0800, subps. 4&5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.621	<p>If the Permittee replaces a thermal oxidizer, the replacement control must meet or exceed the control efficiency requirements of the thermal oxidizer being replaced as well as comply with all other requirements of the thermal oxidizer being replaced.</p> <p>The Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.1.622	The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated three hour rolling average temperatures for the combustion chamber. [Minn. R. 7007.0800, subps. 4&5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.623	The Permittee shall operate and maintain the thermal oxidizer in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.1.624	Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained whenever operation of the monitored control equipment is required. [Minn. R. 7007.0800, subps. 4&5]
5.1.625	Annual Calibration: The Permittee shall calibrate the temperature monitor at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.1.626	Quarterly Inspections: At least once per calendar quarter, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the refractory, heat exchanger, and electrical systems. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.1.627	Annual Inspection: At least once per calendar year, the Permittee shall conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.1.628	Corrective Actions: If the temperature is below the minimum specified by this permit or if the thermal oxidizer or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature to at least the permitted minimum and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the thermal oxidizer. The Permittee shall keep a record of the type and date of any corrective action taken. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.1.629	Hood Certification and Evaluation: If applicable, the Permittee shall maintain the most current record of the hood evaluation and certification on site. The control device hood must be evaluated by a testing company as specified in Minn. R. 7011.0072, subp. 2(A) and must conform to the design and operating requirements listed in Minn. R. 7011.0072, subps. 2(B) and 3. The hood certification must address how cross-drafts are accommodated in the design (e.g., higher face velocity, oversized hood, etc.) and the Permittee shall certify this as specified in Minn. R. 7011.0072, subps. 2 and 3. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.630	Annual Hood Evaluation: If applicable, the Permittee shall measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air

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	flow parameter that was measured during the most recent hood certification to verify the hood design and operation parameters meet or exceed the parameters measured during the most recent hood evaluation conducted according to Minn. R. 7011.0072, subps. 2 & 3 as required by Minn. R. 7011.0072, subp. 4. The Permittee shall maintain a copy of the annual evaluations on site for 5 years. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.631	OXIDIZER, CATALYTIC SUBJECT TO 40 CFR PT. 64 (CAM) LARGE PSEU. [General Permit Header]
5.1.632	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Volatile Organic Compounds \geq 94 percent control efficiency for catalytic oxidizers that are total enclosures. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.633	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Volatile Organic Compounds \geq 76 percent control efficiency for catalytic oxidizers that vent to certified hoods. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.634	<p>Temperature \geq degrees Fahrenheit 3-hour rolling average at the oxidizer inlet. The numerical value is as specified in the permit application. The Permittee shall record this data in the Operation and Maintenance (O & M) plan within 30 days after permit issuance or 30 days after installation of any new control equipment for which there are such operating parameter requirements.</p> <p>If a new limit is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new limit shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. If the 3-hour rolling average temperature is below the minimum inlet temperature limit, the VOC used during that time shall be considered uncontrolled until the average inlet temperature is above the minimum temperature limit. This shall be reported as a deviation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.1.635	Temperature Monitoring: The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the combustion chamber temperature of the thermal oxidizer. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 4.5 degrees Fahrenheit. The recording device shall also calculate the three-hour rolling average combustion chamber temperature. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.3(b)(4)(ii) and Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.636	The Permittee shall operate and maintain the thermal oxidizer in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.1.637	Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written record of the daily verifications. [40 CFR 64.3(b), Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.638	Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained whenever operation of the monitored control equipment is required. [Minn. R. 7007.0800, subps. 4&5]
5.1.639	The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated three hour rolling average temperatures for the combustion chamber. [40 CFR 64.9(b), Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]

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5.1.640	Annual Calibration: The Permittee shall calibrate the temperature monitor at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]
5.1.641	Monthly Catalyst Reactivity Monitoring: At least once each month during normal operation, the Permittee shall record the temperature rise across the catalyst (outlet temp. - inlet temp.) while the process is running. If it is determined that the catalyst reactivity has been impaired, by comparison of the observed temperature rise to the past temperature rise records, the Permittee shall follow the corrective actions in the Operation and Maintenance Plan. The Permittee shall maintain written records of the monitoring and any corrective actions taken. [40 CFR 64.3, Minn. R. 7017.0200]
5.1.642	Quarterly Inspections: At least once per calendar quarter, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the refractory, heat exchanger, and electrical systems. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]
5.1.643	Annual Inspection: At least once per calendar year, the Permittee shall conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]
5.1.644	<p>For periods when the catalytic oxidizer is operated above the minimum inlet temperature, the Permittee shall use either one of the following when completing calculations as required elsewhere in this permit:</p> <ul style="list-style-type: none"> a. The overall control efficiency limit specified in this permit for this equipment; or b. The overall control efficiency determined during the most recent MPCA approved performance test. If the tested efficiency is less than the efficiency limit in this permit, the Permittee must use the tested value in all calculations until the efficiency is demonstrated to be above the permit limit through a new test. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.645	Corrective Actions: If the temperature is below the minimum specified by this permit or if the thermal oxidizer or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature to at least the permitted minimum and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the thermal oxidizer. The Permittee shall keep a record of the type and date of any corrective action taken. [40 CFR 64.7(d), Minn. R. 7017.0200]
5.1.646	Hood Certification and Evaluation: If applicable, the Permittee shall maintain the most current record of the hood evaluation and certification on site. The control device hood must be evaluated by a testing company as specified in Minn. R. 7011.0072, subp. 2(A) and must conform to the design and operating requirements listed in Minn. R. 7011.0072, subps. 2(B) and 3. The hood certification must address how cross-drafts are accommodated in the design (e.g., higher face velocity, oversized hood, etc.) and the Permittee shall certify this as specified in Minn. R. 7011.0072, subps. 2 and 3. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.647	Annual Hood Evaluation: If applicable, the Permittee shall measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow parameter that was measured during the most recent hood certification to verify the hood design and operation parameters meet or exceed the parameters measured during the most recent hood evaluation conducted according to Minn. R. 7011.0072, subps. 2 & 3 as required by Minn. R. 7011.0072, subp. 4. The Permittee shall maintain a copy of the annual evaluations on site for 5 years. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.648	OXIDIZER, CATALYTIC NOT SUBJECT TO 40 CFR PT. 64 (CAM). [General Permit Header]

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5.1.649	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Volatile Organic Compounds \geq 94 percent control efficiency for catalytic oxidizers that are total enclosures. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.650	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Volatile Organic Compounds \geq 76 percent control efficiency for catalytic oxidizers that vent to certified hoods. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.651	<p>Temperature \geq degrees Fahrenheit 3-hour rolling average at the oxidizer inlet. The numerical value is as specified in the permit application. The Permittee shall record this data in the Operation and Maintenance (O & M) plan within 30 days after permit issuance or 30 days after installation of any new control equipment for which there are such operating parameter requirements.</p> <p>If a new limit is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new limit shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. If the 3-hour rolling average temperature is below the minimum inlet temperature limit, the VOC used during that time shall be considered uncontrolled until the average inlet temperature is above the minimum temperature limit. This shall be reported as a deviation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.1.652	The Permittee shall operate and maintain the catalytic oxidizer in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.1.653	Temperature Monitoring: The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records both the inlet and outlet temperatures of the catalytic oxidizer. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 4.5 degrees Fahrenheit. The recording device shall also calculate the three-hour rolling average inlet temperature. [Minn. R. 7007.0800, subps. 4&5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.654	Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written record of the daily verifications. [Minn. R. 7007.0800, subps. 4&5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.655	Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained whenever operation of the monitored control equipment is required. [Minn. R. 7007.0800, subps. 4&5]
5.1.656	The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated three hour rolling average temperatures for the combustion chamber. [Minn. R. 7007.0800, subps. 4&5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.657	Annual Calibration: The Permittee shall calibrate the temperature monitor at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.1.658	Monthly Monitoring: At least once each month during normal operation, the Permittee shall record the temperature rise across the catalyst (outlet temp. - inlet temp.) while the process is running. If it is determined that the catalyst reactivity has been impaired, by comparison of the observed temperature rise to the past temperature rise records, the Permittee shall follow the corrective actions in the Operation and Maintenance Plan. The Permittee shall maintain written records of the

Requirement number	Requirement and citation
	monitoring and any corrective actions taken. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.1.659	Quarterly Inspections: At least once per calendar quarter, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the refractory, heat exchanger, and electrical systems. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.1.660	Annual Inspection: At least once per calendar year, the Permittee shall conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.1.661	For periods when the catalytic oxidizer is operated above the minimum inlet temperature, the Permittee shall use either one of the following when completing calculations as required elsewhere in this permit: a. The overall control efficiency limit specified in this permit for this equipment; or b. The overall control efficiency determined during the most recent MPCA approved performance test. If the tested efficiency is less than the efficiency limit in this permit, the Permittee must use the tested value in all calculations until the efficiency is demonstrated to be above the permit limit through a new test. [Minn. R. 7007.0800, subps. 4&5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.662	Corrective Actions: If the temperature is below the minimum specified by this permit or if the catalytic oxidizer or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature to at least the permitted minimum and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the catalytic oxidizer. The Permittee shall keep a record of the type and date of any corrective action taken. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.1.663	Hood Certification and Evaluation: If applicable, the Permittee shall maintain the most current record of the hood evaluation and certification on site. The control device hood must be evaluated by a testing company as specified in Minn. R. 7011.0072, subp. 2(A) and must conform to the design and operating requirements listed in Minn. R. 7011.0072, subps. 2(B) and 3. The hood certification must address how cross-drafts are accommodated in the design (e.g., higher face velocity, oversized hood, etc.) and the Permittee shall certify this as specified in Minn. R. 7011.0072, subps. 2 and 3. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.1.664	Annual Hood Evaluation: If applicable, the Permittee shall measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow parameter that was measured during the most recent hood certification to verify the hood design and operation parameters meet or exceed the parameters measured during the most recent hood evaluation conducted according to Minn. R. 7011.0072, subps. 2 & 3 as required by Minn. R. 7011.0072, subp. 4. The Permittee shall maintain a copy of the annual evaluations on site for 5 years. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]

4. Submittal/action requirements

This section lists most of the submittals required by this permit. Please note that some submittal requirements may appear in the Limits and other requirements section, or, if applicable, within a Compliance schedule section.

Requirement number	Requirement and citation
TFAC 1	
6.1.1	Change of Name, Ownership, or Control of Stationary Source: The Permittee shall submit to the MPCA Form GP-01: General Permit Administrative Changes, within 7 days of the change of name, ownership, or control of the stationary source. If the Commissioner determines that the new owner or operator meets the eligibility requirements of the general permit, then the Commissioner shall issue the general permit to the new owner or operator (the new Permittee). Issuance of a general permit to the new Permittee of an eligible stationary source voids and supersedes the general permit of the previous Permittee. If the Commissioner determines the new owner or operator does not meet the eligibility requirements, the new owner or operator shall submit a permit application for an Individual Part 70 or state permit, as applicable, within 120 days of the Commissioner's written request for the application. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.1100]
6.1.2	Compliance Management Plan: The Permittee shall submit to the MPCA the compliance management plan within 60 days of the issuance of this permit. If the Permittee adds any new, modified, or changed equipment, the Permittee will update this plan and submit it to the MPCA at least seven days before the change. Use Form MG-CMP. [Minn. R. 7007.0800, subp. 2(A)]
6.1.3	The Permittee shall submit a semiannual deviations report : Due semiannually, by the 30th of January and July. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. Submit this on form DRF-2 (Deviation Reporting Form). If no deviations have occurred, submit the signed report certifying that there were no deviations. [Minn. R. 7007.0800, subp. 6(A)(2)]
6.1.4	The Permittee shall submit a compliance certification : Due annually, by the 31st of January (for the previous calendar year). Submit this on form MGCR-04 (Annual Compliance Certification Report). This report covers all deviations experienced during the calendar year. If no deviations have occurred, submit the signed report certifying that there were no deviations. [Minn. R. 7007.0800, subp. 6(C)]
6.1.5	Equipment Inventory List: Due on or before 30 days after end of each calendar year following permit issuance. Use Form MG-EIL. [Minn. R. 7007.1100]
6.1.6	Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance. Submit in a format specified by the Commissioner. [Minn. R. 7019.3000-7019.3100]
6.1.7	The Permittee shall submit an application for permit reissuance : Due 180 calendar days before Permit Expiration Date. [Minn. R. 7007.0400, subp. 2]
6.1.8	The Permittee shall submit an exceedance report: Due semiannually, by the 30th of January and July. For each solvent cleaning machine complying with 40 CFR Section 63.463(b), (c), (g), or (h), the Permittee shall submit an exceedance report to the Commissioner semiannually except when, the Administrator determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source, or an exceedance occurs. Once an exceedance has occurred, the Permittee shall follow a quarterly reporting format until a request to reduce reporting frequency under 40 CFR Section 63.468(i) is approved. Exceedance reports shall be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate. [40 CFR 63.463(e)(4), 40 CFR 63.463(f)(5), 40 CFR 63.468(h), Minn. R. 7011.7200]
6.1.9	For each batch vapor or in-line solvent cleaning machine complying with the provisions of 40 CFR Section 63.463, the Permittee shall submit an annual report: Due annually, by the 1st of February of the year following the one for which the reporting is being made. This report shall include the requirements specified in 40 CFR Section 63.468(f)(1) through (f)(3). [40 CFR 63.468(f), Minn. R. 7011.7200]
6.1.10	For an affected facility under 40 CFR pt. 63, subp. T, the Permittee shall submit a solvent emission report: Due annually, by the 1st of February. The Permittee shall submit a solvent emission report every year. This solvent emission report shall contain the requirements specified below:

Requirement number	Requirement and citation
	<p>(1) The average monthly solvent consumption for the affected facility in kilograms per month;</p> <p>(2) The 12-month rolling total solvent emission estimates calculated each month using the method as described in 40 CFR Section 63.471(c); AND</p> <p>(3) This report shall be combined with the annual report required in 40 CFR Section 63.468(f) into a single report for each facility.</p> <p>The Permittee shall submit all annual reports for halogenated solvent cleaning machines to both the MPCA and EPA, as indicated on Form TF-07. [40 CFR 63.471(h), Minn. R. 7011.7200]</p>
6.1.11	<p>For each affected source under 40 CFR pt. 63, subp. MMMM, the Permittee shall submit a semiannual compliance report: Due semiannually, by the 31st of January and July The first semiannual compliance report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. This report may be submitted with the Semiannual Deviations Report also listed in this permit. [40 CFR 63.3920(a)(1)i, 40 CFR 63.3920(a)(1)ii, 40 CFR 63.3920(a)(1)iv, Minn. R. 7011.8090]</p>
6.1.12	<p>For each affected source under 40 CFR pt. 63, subp. PPPP, the Permittee shall submit a semiannual compliance report: Due semiannually, by the 31st of January and July. The report shall contain the information specified in this permit. Each semiannual 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. This report may be submitted with the Semiannual Deviations Report also listed in this permit. If the Permittee used the emission rate without add-on controls option, the calculation results for each rolling 12-month organic HAP emission rate during the 6-month reporting period shall be included in the report. [40 CFR 63.4520(a)(1)(i), (ii), and (iv) , Minn. R. 7011.8130]</p>
6.1.13	<p>For each affected source under 40 CFR pt. 63, subp. PPPP, the Permittee shall submit a notification of compliance status: Due annually, by the 30th of January. The report is due 30 days following the end of the initial compliance period as defined by this permit. The notification of compliance status shall contain the information specified in 40 CFR Section 63.4510(c)(1) through (11) and in 40 CFR Section 63.9(h). [40 CFR 63.4510(c), Minn. R. 7011.8130]</p>
6.1.14	<p>For each affected source under 40 CFR pt. 63, subp. WWWW, the Permittee must submit a Compliance report Semiannually according to the requirements in 40 CFR Section 63.5910(b). The report must contain:</p> <p>a. A statement that there were no deviations during that reporting period if there were no deviations from any emission limitations (emission limit, operating limit, opacity limit, and visible emission limit) that apply and there were no deviations from the requirements for work practice standards in 40 CFR pt. 63, subp. WWWW, Table 4 that apply. If there were no periods during which the CMS, including CEMS, and operating parameter monitoring systems, was out of control as specified in 40 CFR Section 63.8(c)(7), the report must also contain a statement that there were no periods during which the CMS was out of control during the reporting period.</p> <p>b. The information in 40 CFR Section 63.5910(d) if the Permittee has a deviation from any emission limitation (emission limit, operating limit, or work practice standard) during the reporting period. If there were periods during which the CMS, including CEMS, and operating parameter monitoring systems, was out of control, as specified in 40 CFR Section 63.8(c)(7), the report must contain the information in 40 CFR Section 63.5910(e).</p> <p>c. The information in 40 CFR Section 63.10(d)(5)(i) if you had a startup, shutdown or malfunction during the reporting period, and the Permittee took actions consistent with the startup, shutdown, and malfunction plan. [40 CFR 63.5910(a), 40 CFR pt. 63, subp. WWWW(Table 14), Minn. R. 7011.7800]</p>
6.1.15	<p>For each affected source under 40 CFR pt. 63, subp. WWW, the Permittee must submit an immediate startup, shutdown, and malfunction report if the Permittee had a startup, shutdown, or malfunction during the reporting period that is not consistent with the startup, shutdown, and malfunction plan.</p>

Requirement number	Requirement and citation
	<p>The Permittee must submit the report by fax or telephone within 2 working days after starting actions inconsistent with the plan and the report must contain actions taken for the event.</p> <p>The Permittee must submit the report by letter within 7 working days after the end of the event unless the Permittee has made alternative arrangements with the permitting authority and must contain the information in 40 CFR Section 63.10(d)(5)(ii). [40 CFR 63.5910(a), 40 CFR pt. 63, subp. WWWW(Table 14), Minn. R. 7011.7800]</p>
6.1.16	The Permittee must submit all of the notifications in 40 CFR pt. 63, subp. WWWW, Table 13, and listed in Appendix K of this permit, that apply by the dates specified in 40 CFR pt. 63, subp. WWWW, Table 13. The notifications are described more fully in 40 CFR pt. 63, subpart A, referenced in 40 CFR pt. 63, subp. WWWW, Table 13. [40 CFR 63.5905(a), Minn. R. 7011.7800]
6.1.17	Notifications: If the Permittee changes any information submitted in any notification under 40 CFR Section 63.5905(a), the Permittee shall submit the changes in writing to the Administrator within 15 calendar days after the change. [40 CFR 63.5905(b), Minn. R. 7011.7800]
6.1.18	<p>For each affected source under 40 CFR pt. 63, subp. WWWW, the Permittee shall submit a semiannual compliance report: Due semiannually, by the 31st of January and July. The report shall contain the information specified in the Compliance Report Content requirement in this permit. Each semiannual 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. Each compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the semiannual reporting period.</p> <p>This report may be submitted with the Semiannual Deviations Report also listed in this permit. [40 CFR 63.5910(b)(5), Minn. R. 7011.7800]</p>
6.1.19	For each affected source under 40 CFR pt. 63, subp. WWWW, the Permittee shall submit a semiannual compliance report: Due semiannually, by the 31st of January and July. Each 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. Each compliance report must be postmarked by July 31 and January 31, respectively. The compliance report may be submitted with the semiannual deviations report also listed in this permit. [40 CFR 63.5910(b)(2) and (4), Minn. R. 7011.7800]
6.1.20	<p>For each existing non-emergency, non-black start stationary RICE greater than 100 HP and less than 500 HP located at a major source of HAP, the Permittee must submit a compliance report. The report must contain;</p> <p>a. If there are no deviations from any emission limitations or operating limitations that apply, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period.; or</p> <p>b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in 40 CFR Section 63.6650(d); or</p> <p>c. If you had a malfunction during the reporting period, the information in 63.6650(c)(4).</p> <p>The Permittee must submit the report semiannually according to the requirements in 40 CFR Section 63.6650(b). [40 CFR 63.6650(a), 40 CFR pt. 63, subp. ZZZZ(Table 7), Minn. R. 7011.8150]</p>
6.1.21	<p>The Permittee shall submit a notification of date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.</p> <p>The notification shall be submitted electronically on Form CS-02. [40 CFR 60.7(a)(1), Minn. R. 7019.0100, subp. 1]</p>

Requirement number	Requirement and citation
6.1.22	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. The notification shall be submitted electronically on Form CS-02. [40 CFR 60.7(a)(3), Minn. R. 7019.0100, subp. 1]
6.1.23	The Permittee shall submit a notification of anticipated date for conducting opacity observations: Due 30 calendar days before Opacity Observation Date. [40 CFR 60.7(a)(6), Minn. R. 7019.0100, subp. 1]
6.1.24	<p>The Permittee shall submit notification of the date construction of replacement began: Due 60 calendar days before Date of Construction or Replacement (or as soon as practicable). Submit the information specified in 40 CFR Section 60.15(d)(1) through (7).</p> <p>The notification shall be submitted electronically on Form CS-02. [40 CFR 60.15(d), Minn. R. 7011.0050]</p>
6.1.25	If the Permittee is required to conduct an initial compliance demonstration as specified in 40 CFR Section 63.7530, the Permittee must submit a Notification of Compliance Status according to 40 CFR Section 63.9(h)(2)(ii). For the initial compliance demonstration for each boiler or process heater, the Permittee must submit the Notification of Compliance Status, before the close of business on the 60th day following the completion of all initial compliance demonstrations for all boiler or process heaters at the facility according to 40 CFR Section 63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in 40 CFR Section 63.7545(e)(1) through (8), as applicable and must be submitted within 60 days upon startup for a new or reconstructed boiler or process heater. [40 CFR 63.7545(e), Minn. R. 7011.7050]
6.1.26	<p>If the Permittee operates a unit designed to burn natural gas, refinery gas, or other gas 1 fuels that is subject to 40 CFR pt. 63, subp. DDDDD, and the Permittee intends to use a fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart of this part, 40 CFR part 60, 61, or 65, or other gas 1 fuel to fire the affected unit during a period of natural gas curtailment or supply interruption, as defined in 40 CFR Section 63.7575, the Permittee must submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in 40 CFR Section 63.7575. The notification must include the following information:</p> <ol style="list-style-type: none">(1) Company name and address.(2) Identification of the affected unit.(3) Reason the Permittee is unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began.(4) Type of alternative fuel that the Permittee intends to use.(5) Dates when the alternative fuel use is expected to begin and end. [40 CFR 63.7545(f), Minn. R. 7011.7050]
6.1.27	<p>If the Permittee switched fuels or made a physical change to the boiler or process heater and the fuel switch or physical change resulted in the applicability of a different subcategory, the Permittee must provide notice of the date upon which the Permittee switched fuels or made the physical change within 30 days of the switch/change. The notification must identify:</p> <ol style="list-style-type: none">(1) The name of the Permittee of the affected source, as defined in 40 CFR Section 63.7490, the location of the source, the boiler(s) and process heater(s) that have switched fuels, were physically changed, and the date of the notice.(2) The currently applicable subcategory under 40 CFR pt. 63, subp. DDDDD.(3) The date upon which the fuel switch or physical change occurred. [40 CFR 63.7545(h), Minn. R. 7011.7050]
6.1.28	The Permittee shall submit a notification of compliance status: Due 60 calendar days after Demonstration Completion Date according to 40 CFR Section 63.9(h)(2)(ii). The Permittee must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of each performance test according to 40 CFR Section 63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in 40 CFR Section 63.7545(e)(1)-(8), as applicable. The Permittee must submit a signed statement in the Notification of Compliance Status report that indicates that the Permittee conducted a tune-up of the unit. [40 CFR 63.9(h)(3), Minn. R. 7011.7050]

Requirement number	Requirement and citation
6.1.29	For each affected source under 40 CFR pt. 63, subp. DDDDD, the Permittee shall submit a compliance status report: Due by 31 days after end of each calendar half-year. The Compliance Status Reports must cover the applicable semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. The Compliance Status Report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. The Compliance Status Report must contain the information specified in 40 CFR Section 63.7550(c). [40 CFR 63.7550(b)(3)-(4), 40 CFR pt. 63, subp. DDDDD(Table 9), Minn. R. 7011.7050]
6.1.30	The Permittee shall submit sample analysis : Due every 24 months. For catalytic oxidizers, the Permittee shall send a representative sample of the catalyst to a laboratory to test the catalyst's destruction efficiency. If test results show a destruction efficiency of less than 94% for total enclosures or less than 76% for certified hoods, the Permittee shall follow the corrective actions contained in the Operation and Maintenance Plan. [Minn. R. 7007.0800, subps. 4&5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]

5. Compliance schedule

This section of the permit contains the compliance schedule required by Minn. R. 7007.0500, subp. 2(K). You must complete the actions required in this section by the dates listed. All submittals must be postmarked or received by the date specified in the table, and certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21.

Requirement number	Requirement and citation
TFAC 1	
7.1.1	Notifications for cleaning machines or degreasers subject to 40 CFR pt. 63, subp. T: The Permittee must submit an initial notification report by 30 days after permit issuance for the following: New machines. Use form TF-04. Existing machines. Use form TF-05. Batch cold cleaning machines. Use form TF-06. [Corrective Action, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.1100]
7.1.2	Notifications for cleaning machines or degreasers subject to 40 CFR pt. 63, subp. T: The Permittee must submit an Initial Statement of Compliance Report by 30 days after permit issuance. If the Permittee has less than three months of operating data at the time of permit issuance, the Permittee may submit the Initial Statement of Compliance Report by 120 days after permit issuance. Use forms TF-01, TF-02, and/or TF-03, as applicable. [Corrective Action, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.1100]
7.1.3	Notifications for dip tanks and spraying or coating booths subject to 40 CFR pt. 63, subp. MMMM or 40 CFR pt. 63, subp. PPPP: The Permittee must submit an initial notification report by 30 days after permit issuance. Use forms 4M-01 and/or 4P-01, as applicable. [Corrective Action, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.1100]
7.1.4	Notifications for fiberglass operations subject to 40 CFR pt. 63, subp. WWWW: The Permittee must submit an initial notification report by 30 days after permit issuance. Use form 4W-01. [Corrective Action, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.1100]
7.1.5	Notifications for stationary internal combustion engines subject to 40 CFR pt. 60, subp. IIII: The Permittee must submit an initial notification report by 30 days after permit issuance. [Corrective Action, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.1100]
7.1.6	Notifications for stationary internal combustion engines subject to 40 CFR pt. 63, subp. ZZZZ: The Permittee must submit an initial notification report by 30 days after permit issuance. Use form 4Z-01. [Corrective Action, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.1100]

Requirement number	Requirement and citation
7.1.7	Notifications for boilers subject to 40 CFR pt. 63, subp. DDDDD: The Permittee must submit an initial notification report by 30 days after permit issuance. The initial notification report should include the information as required under 40 CFR Section 63.9(b)(2). [Corrective Action, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.1100]
7.1.8	For tanks subject to 40 CFR pt. 60, subp. Kb, the Permittee must record and maintain the dimension of the storage tank and an analysis showing the capacity of the storage tank by 30 days after permit issuance. [Corrective Action, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.1100]
7.1.9	For spraying, coating, abrasive blasting, and/or sanding booths, the Permittee must submit a notification by 30 days after permit issuance. The notification must include the date of installation of particulate matter control equipment. [Corrective Action, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.1100]

6. Appendices

Appendix A: Emission calculations

Permittees with no operating records prior to issuance of this permit: For emission limits based on a 12-month rolling sum, the Permittee shall calculate the 12-month rolling sum on a monthly basis. For the first 12 months of operation, the Permittee shall use Table A1.

Table A1. Cumulative pollutant emission limits during the first 12 months of operation

Number of months in operation	Pollutants subject to 90 tpy limits: PM, PM10, PM2.5, NO _x , CO, and HAP (ton)	Pollutants subject to 225 tpy limits: VOC (ton)
1	20	50
2	26.4	65.9
3	32.7	81.8
4	39.1	97.7
5	45.5	114
6	51.8	130
7	58.2	145
8	64.5	161
9	70.9	177
10	77.3	193
11	83.6	209
12	90	225

Permittees with operating records prior to issuance of this permit: The Permittee shall not exceed emissions of 90 tons per year of NO_x, CO, PM, PM₁₀, and PM_{2.5}, or 225 tons per year of VOC calculated as a 12-month rolling sum.

Permittees shall calculate the 12-month rolling sum emissions for the previous 12-month period by summing the monthly emissions for the previous 12 months.

For Permittees that have not previously been issued the General Manufacturing Permit, the Permittee shall use actual operating history data prior to issuance of this permit for the first 12 months of operation.

NO_x emissions: Emissions limited to less than 90 tons per year based on a 12-month rolling sum. The emissions during a given month are calculated using Equation A1:

Equation A1:

$$\text{NO}_x \text{ tons per month} = 0.0005 * [(EF * Q_n) + (EF * Q_b) + (EF * Q_p) + (EF * Q_d) + (EF * Q_{bd})]_{\text{indirect}} + [(EF * Q_n) + (EF * Q_d) + (EF * Q_g)]_{\text{rice}}$$

where:

0.0005 = conversion factor, ton/lb

EF = emission factor (Table A2)

Qn = actual quantity of natural gas burned per month (use units appropriate for emission factor)

Qb = actual quantity of butane burned per month (use units appropriate for emission factor)

Qp = actual quantity of propane burned per month (use units appropriate for emission factor)

Qd = actual quantity of distillate oil burned per month (use units appropriate for emission factor)

Qbd = actual quantity of biodiesel burned per month (use units appropriate for emission factor)

Qg = actual quantity of gasoline burned per month (use units appropriate for emission factor)

indirect = total emissions from indirect heating source

rice = total emissions from reciprocating internal combustion engines

CO Emissions: Emissions limited to less than 90 tons per year based on a 12-month rolling sum. The emissions during a given month are calculated using Equation A2:

Equation A2:

$$\text{CO tons per month} = 0.0005 * [(EF * Qn) + (EF * Qb) + (EF * Qp) + (EF * Qd) + (EF * Qbd)]_{\text{indirect}} + [(EF * Qn) + (EF * Qd) + (EF * Qg)]_{\text{rice}}$$

where:

0.0005 = conversion factor, ton/lb

EF = emission factor (Table A2)

Qn = actual quantity of natural gas burned per month (use units appropriate for emission factor)

Qb = actual quantity of butane burned per month (use units appropriate for emission factor)

Qp = actual quantity of propane burned per month (use units appropriate for emission factor)

Qd = actual quantity of distillate oil burned per month (use units appropriate for emission factor)

Qbd = actual quantity of biodiesel burned per month (use units appropriate for emission factor)

Qg = actual quantity of gasoline burned per month (use units appropriate for emission factor)

indirect = total emissions from indirect heating source

rice = total emissions from reciprocating internal combustion engines

PM, PM₁₀, and PM_{2.5} emissions: Emissions limited to less than 90 tons per year based on a 12-month rolling sum. The emissions during a given month are calculated using Equation A3:

Equation A3:

$$\text{PM, PM}_{10}, \text{ or PM}_{2.5} \text{ tons per month} = 0.0005 * [Q_1 * (1-TE) * SC * OH_1 * ((100 - CE)/100)] + [EF_2 * Q_2 * OH_2 * ((100 - CE)/100)] + [(EF_1 * Qn) + (EF_1 * Qb) + (EF_1 * Qp) + (EF_1 * Qd) + (EF_1 * Qbd)]_{\text{indirect}} + [(EF_1 * Qn) + (EF_1 * Qd) + (EF_1 * Qg)]_{\text{rice}}$$

where:

0.0005 = conversion factor, ton/lb

Q₁ = actual quantity of material used (gal/hr) from painting, coating, gelcoats, resins, etc.

TE = transfer efficiency (%), if applicable (Table A4)

SC = solids content of material (lb/gal)

OH₁ = operating hours from painting, coating, gelcoats, resins, etc. (hr/month)

CE = control efficiency (%)

EF₂ = emission factor for abrasive blasting operations (lb/lb) (Table A3)

Q₂ = actual quantity of material used (lb/hr) from abrasive blasting

OH₁ = operating hours from abrasive blasting (hr/month)

EF₁ = emission factor (Table A2)

Qn = actual quantity of natural gas burned per month (use units appropriate for emission factor)

Qb = actual quantity of butane burned per month (use units appropriate for emission factor)

Qp = actual quantity of propane burned per month (use units appropriate for emission factor)
Qd = actual quantity of distillate oil burned per month (use units appropriate for emission factor)
Qbd = actual quantity of biodiesel burned per month (use units appropriate for emission factor)
Qg = actual quantity of gasoline burned per month (use units appropriate for emission factor)
indirect = total emissions from indirect heating source
rice = total emissions from reciprocating internal combustion engines

VOC emissions: Emissions limited to less than 225 tons per year based on a 12-month rolling sum. The emissions during a given month are calculated using Equation A4:

Equation A4:

$$\text{VOC tons per month} = 0.0005 * [(\text{Sum of } M_i \times EF_2) + [(\text{Sum of } (A_i * V_i) + [\text{Sum of } (B_i * Z_i)]) * [(100 - CE)/100] + [\text{Sum of } C_i] + [(\text{EF}_1 * Q_n) + (\text{EF}_1 * Q_b) + (\text{EF}_1 * Q_p) + (\text{EF}_1 * Q_d) + (\text{EF}_1 * Q_{bd})]_{\text{indirect}} + [(\text{EF}_1 * Q_n) + (\text{EF}_1 * Q_d) + (\text{EF}_1 * Q_g)]_{\text{rice}}]$$

where:

0.0005 = conversion factor, ton/lb
i = denotes each separate material used
M = amount of VOC-containing material used and calculating emissions using an emission factor, tons/month
EF₂ = VOC emission factor (Appendix C)
A = amount of VOC containing materials used for painting/coating as purchased, lb/month
V = percent of VOC in A_i as applied, %wt
B = amount of VOC containing materials used for cleaning as purchased, lb/month
Z = percent of VOC in materials, B, as applied, %wt
CE = overall control efficiency VOC control equipment
C = VOC emissions for storage tanks, lb/month
EF₁ = emission factor (Table A2)
Q_n = actual quantity of natural gas burned per month (use units appropriate for emission factor)
Q_b = actual quantity of butane burned per month (use units appropriate for emission factor)
Q_p = actual quantity of propane burned per month (use units appropriate for emission factor)
Q_d = actual quantity of distillate oil burned per month (use units appropriate for emission factor)
Q_{bd} = actual quantity of biodiesel burned per month (use units appropriate for emission factor)
Q_g = actual quantity of gasoline burned per month (use units appropriate for emission factor)
indirect = total emissions from indirect heating source
rice = total emissions from reciprocating internal combustion engines

HAP emissions: Emissions limited to less than 90 tons per year based on a 12-month rolling sum. The emissions during a given month are calculated using a weighted average organic HAP emissions factor based on lbs/ton of resin and gel coat. Permittees shall base the weighted average on the previous 12 months of operation. Multiply the weighted average organic HAP emissions factor by the resin and gel coat use over the same period. Permittees may calculate this organic HAP emissions factor based on the equations in 40 CFR pt. 63, subp. WWW, Table 1, or Permittees may use any organic HAP emissions factor approved by US EPA, such as factors from AP-42, or site-specific organic HAP emissions factors if approved by the MPCA.

Permittees may also use Equation A4 to calculate the HAP emission from non-fiberglass operations by substituting the VOC emission factor or VOC content for the appropriate HAP emission factor or HAP content.

Emission factors:

Emission factors listed in Table A2 are referenced from "Air Pollutant Emission Factors (AP-42) Fifth Edition, Emission Factor Listing for Criteria Air Pollutants".

Table A2. Indirect heating and reciprocating internal combustion engine (RICE) Emission factors

Pollutant	Indirect heating				RICE	
	Natural gas (lb/MMft ³)	Butane (lb/1000 gal)	Propane (lb/1000 gal)	Distillate oil (lb/1000 gal)	Distillate oil (lb/MMBtu)	Biodiesel (lb/MMBtu)
PM	7.6	0.8	0.7	3.3	0.31	0.30
PM ₁₀	7.6	0.8	0.7	3.3	0.31	0.30
PM _{2.5}	7.6	0.8	0.7	3.3	0.31	0.30
SO _x	0.6	0.09S	0.10S	144S	0.29	0.29
NO _x	100.0	15	13	20.0	4.41	4.45
VOC	5.5	0.9	0.8	0.2	0.36	0.32
CO	84.0	8.4	7.5	5.0	0.95	0.90
Pb	0.0005	-	-	0.0	-	-

Notes:

- (1) PM = Particulate Matter
 PM₁₀ = Particulate Matter less than 10 microns
 PM_{2.5} = Particulate Matter less than 2.5 microns
 SO₂ = Sulfur Dioxide
 NO_x = Nitrogen Oxide
 VOC = Volatile Organic Compounds
 CO = Carbon Monoxide
 Pb = Lead
 MM = Million
 Btu = British thermal unit
 lbs = pounds
 ft³ = cubic feet
 gal = gallons
- (2) Natural Gas heating value is 1,050 Btu/standard cubic foot.
 Butane heating value is 102,600 Btu/gal.
 Propane heating value is 91,500 Btu/gal
 Gasoline heating value is 130,000 Btu/gal.
 Distillate Oil (Diesel) heating value is 140,000 Btu/gal
- (3) S for Distillate Oil: Weight percent sulfur in oil. S indicates that the weight percent of sulfur in the oil and should be multiplied by the value given. The maximum weight percent sulfur allowed in this permit is 0.0015%.
- (4) S for Butane and Propane: Sulfur content expressed on grams/1,000 cubic foot gas vapor. S is assumed 0.15 grains/1,000 cubic feet vapor that is equivalent to 0.02% sulfur by weight.
- (5) Biodiesel Emission Factors for criteria pollutants were taken from EPA document "Voluntary Diesel Retrofit Program", www.epa.gov/otaq/retrofit/techlist-biodiesel.htm.

Emissions factors listed in Table A3 for PM, PM₁₀, and PM_{2.5} emissions from abrasive blasting are obtained from Volume I of STAPPA-ALAPCO " Air Quality Permits". PM_{2.5} emissions are assumed to be equivalent to PM₁₀.

Table A3. Abrasive blasting emission factors

Abrasive	Emission factors	
	lb PM/lb abrasive	lb PM10/lb PM
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other	0.010	0.010

Table A4. Application method and transfer efficiency for booths

Application method	Transfer efficiency
Air atomization spray	0.30
Airless spray	0.45
Electrostatic/air atomization	0.70
Electrostatic/airless	0.75
High volume low pressure	0.75
Electrode deposition	0.95
Powder	0.95

Appendix B: 40 CFR pt. 63, subp. M MMM—National emission standards for hazardous air pollutants for surface coating of miscellaneous metal parts and products

§63.3880 What is the purpose of this subpart?

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

§63.3881 Am I subject to this subpart?

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

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

(2) The general use coating subcategory includes all surface coating operations that are not high performance, magnet wire, rubber-to-metal, or extreme performance fluoropolymer coating operations.

(3) The high performance coating subcategory includes surface coating operations that are performed using coatings that meet the definition of high performance architectural coating or high temperature coating in §63.3981.

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

(5) The rubber-to-metal coatings subcategory includes surface coating operations that are performed using coatings that meet the definition of rubber-to-metal coatings in §63.3981.

(6) The extreme performance fluoropolymer coatings subcategory includes surface coating operations that are performed using coatings that meet the definition of extreme performance fluoropolymer coatings in §63.3981.

(b) You are subject to this subpart if you own or operate a new, reconstructed, or existing affected source, as defined in §63.3882, that uses 946 liters (250 gallons (gal)) per year, or more, of coatings that contain hazardous air pollutants (HAP) in the surface coating of miscellaneous metal parts and products defined in paragraph (a) of this section; and that

is a major source, is located at a major source, or is part of a major source of emissions of HAP. A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year or any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year. You do not need to include coatings that meet the definition of non-HAP coating contained in §63.3981 in determining whether you use 946 liters (250 gal) per year, or more, of coatings in the surface coating of miscellaneous metal parts and products.

(c) This subpart does not apply to surface coating or a coating operation that meets any of the criteria of paragraphs (c)(1) through (17) of this section.

(1) A coating operation conducted at a facility where the facility uses only coatings, thinners and other additives, and cleaning materials that contain no organic HAP, as determined according to §63.3941(a).

(2) Surface coating operations that occur at research or laboratory facilities, or is part of janitorial, building, and facility maintenance operations, or that occur at hobby shops that are operated for noncommercial purposes.

(3) Coatings used in volumes of less than 189 liters (50 gal) per year, provided that the total volume of coatings exempt under this paragraph does not exceed 946 liters (250 gal) per year at the facility.

(4) The surface coating of metal parts and products performed on-site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State) or the National Aeronautics and Space Administration, or the surface coating of military munitions manufactured by or for the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State).

(5) Surface coating where plastic is extruded onto metal wire or cable or metal parts or products to form a coating.

(6) Surface coating of metal components of wood furniture that meet the applicability criteria for wood furniture manufacturing (subpart JJ of this part).

(7) Surface coating of metal components of large appliances that meet the applicability criteria for large appliance surface coating (subpart NNNN of this part).

(8) Surface coating of metal components of metal furniture that meet the applicability criteria for metal furniture surface coating (subpart RRRR of this part).

(9) Surface coating of metal components of wood building products that meet the applicability criteria for wood building products surface coating (subpart QQQQ of this part).

(10) Surface coating of metal components of aerospace vehicles that meet the applicability criteria for aerospace manufacturing and rework (40 CFR part 63, subpart GG).

(11) Surface coating of metal parts intended for use in an aerospace vehicle or component using specialty coatings as defined in appendix A to subpart GG of this part.

(12) Surface coating of metal components of ships that meet the applicability criteria for shipbuilding and ship repair (subpart II of this part).

(13) Surface coating of metal using a web coating process that meets the applicability criteria for paper and other web coating (subpart JJJJ of this part).

(14) Surface coating of metal using a coil coating process that meets the applicability criteria for metal coil coating (subpart SSSS of this part).

(15) Surface coating of boats or metal parts of boats (including, but not limited to, the use of assembly adhesives) where the facility meets the applicability criteria for boat manufacturing facilities (subpart VVVV of this part), except where the surface coating of the boat is a metal coating operation performed on personal watercraft or parts of personal watercraft. This subpart does apply to metal coating operations performed on personal watercraft and parts of personal watercraft.

(16) Surface coating of assembled on-road vehicles that meet the applicability criteria for the assembled on-road vehicle subcategory in plastic parts and products surface coating (40 CFR part 63, subpart PPPP).

(17) Surface coating of metal components of automobiles and light-duty trucks that meets the applicability criteria in §63.3082(b) for the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII) at a facility that meets the applicability criteria in §63.3081(b).

(d) If your facility meets the applicability criteria in §63.3081(b) of the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII), and you perform surface coating of metal parts or products that meets both the applicability criteria in §63.3082(c) and the applicability criteria of the Surface Coating of Miscellaneous Metal Parts and Products (40 CFR part 63, subpart MMMM), then for the surface coating of any or all of your metal parts or products that meets the applicability criteria in §63.3082(c), you may choose to comply with the requirements of subpart IIII of this part in lieu of complying with the Surface Coating of Miscellaneous Metal Parts and Products NESHAP. Surface coating operations on metal parts or products (e.g., parts for motorcycles or lawnmowers) not intended for use in automobiles, light-duty trucks, or other motor vehicles as defined in §63.3176 cannot be made part of your affected source under subpart IIII of this part.

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

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

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

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

(ii) You must use liters (gal) of solids used as a measure of relative surface coating activity over a representative period of operation. You may estimate the relative volume of coating solids used from parameters other than coating consumption and volume solids content (e.g., design specifications for the parts or products coated and the number of items produced). The determination of predominant activity must accurately reflect current and projected coating operations and must be verifiable through appropriate documentation. The use of parameters other than coating consumption and volume solids content must be approved by the Administrator. You may use data for any reasonable time period of at least 1 year in determining the relative amount of coating activity, as long as they represent the way the source will continue to operate in the future and are approved by the Administrator. You must determine the predominant activity at your facility and submit the results of that determination with the initial notification required by §63.3910(b). You must also determine predominant activity annually and include the determination in the next semi-annual compliance report required by §63.3920(a).

(3) You may comply with a facility-specific emission limit calculated from the relative amount of coating activity that is subject to each emission limit. If you elect to comply using the facility-specific emission limit alternative, then compliance with the facility-specific emission limit and the emission limitations in this subpart for all surface coating

operations constitutes compliance with this and other applicable surface coating NESHAP. The procedures for calculating the facility-specific emission limit are specified in §63.3890. In calculating a facility-specific emission limit, you must include coating activities that meet the applicability criteria of other surface coating NESHAP and constitute more than 1 percent of total coating activities at your facility. You must not consider any surface coating activity that is subject to the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII) in determining a facility-specific emission limit for your facility. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than 1 percent of total coating activities need not be included in the calculation of the facility-specific emission limit but must be included in the compliance calculations.

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

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

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

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

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

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

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

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

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

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

§63.3883 When do I have to comply with this subpart?

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

(a) For a new or reconstructed affected source, the compliance date is the applicable date in paragraph (a)(1) or (2) of this section:

(1) If the initial startup of your new or reconstructed affected source is before January 2, 2004, the compliance date is January 2, 2004.

(2) If the initial startup of your new or reconstructed affected source occurs after January 2, 2004, the compliance date is the date of initial startup of your affected source.

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

(c) For an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP emissions, the compliance date is specified in paragraphs (c)(1) and (2) of this section.

(1) For any portion of the source that becomes a new or reconstructed affected source subject to this subpart, the compliance date is the date of initial startup of the affected source or January 2, 2004, whichever is later.

(2) For any portion of the source that becomes an existing affected source subject to this subpart, the compliance date is the date 1 year after the area source becomes a major source or 3 years after January 2, 2004, whichever is later.

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

Emission limitations

§63.3890 What emission limits must I meet?

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

(1) For each new general use coating affected source, limit organic HAP emissions to no more than 0.23 kilograms (kg) (1.9 pound (lb)) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(2) For each new high performance coating affected source, limit organic HAP emissions to no more than 3.3 kg (27.5 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(3) For each new magnet wire coating affected source, limit organic HAP emissions to no more than 0.050 kg (0.44 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(4) For each new rubber-to-metal coating affected source, limit organic HAP emissions to no more than 0.81 kg (6.8 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(5) For each new extreme performance fluoropolymer coating affected source, limit organic HAP emissions to no more than 1.5 kg (12.4 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

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

(1) For each existing general use coating affected source, limit organic HAP emissions to no more than 0.31 kg (2.6 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(2) For each existing high performance coating affected source, limit organic HAP emissions to no more than 3.3 kg (27.5 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

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

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

(5) For each existing extreme performance fluoropolymer coating affected source, limit organic HAP emissions to no more than 1.5 kg (12.4 lbs) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

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

(1) If the general use or magnet wire surface coating operations subject to only one of the emission limits specified in paragraphs (a)(1), (3), (b)(1), or (3) of this section account for 90 percent or more of the surface coating activity at your facility (*i.e.*, it is the predominant activity at your facility), then compliance with that one emission limitations in this subpart for all surface coating operations constitutes compliance with the other applicable emission limits. You must use liters (gal) of solids used as a measure of relative surface coating activity over a representative period of operation. You

may estimate the relative volume of coating solids used from parameters other than coating consumption and volume solids content (e.g., design specifications for the parts or products coated and the number of items produced). The determination of predominant activity must accurately reflect current and projected coating operations and must be verifiable through appropriate documentation. The use of parameters other than coating consumption and volume solids content must be approved by the Administrator. You may use data for any reasonable time period of at least 1 year in determining the relative amount of coating activity, as long as they represent the way the source will continue to operate in the future and are approved by the Administrator. You must determine the predominant activity at your facility and submit the results of that determination with the initial notification required by §63.3910(b). Additionally, you must determine the facility's predominant activity annually and include the determination in the next semi-annual compliance report required by §63.3920(a).

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

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

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

$$\text{Facility-Specific Emission Limit} = \frac{\sum_{i=1}^n (\text{Limit}_i)(\text{Solids}_i)}{\sum_{i=1}^n (\text{Solids}_i)} \quad (\text{Eq. 1})$$

Where:

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

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

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

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

(iii) If you need to convert an emission limit in another surface coating NESHAP from kg (lb) organic HAP per kg (lb) coating solids used to kg (lb) organic HAP per liter (gal) coating solids used, you must use the default solids density of 1.26 kg solids per liter coating solids (10.5 lb solids per gal solids).

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

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

(a) *Compliant material option.* Demonstrate that the organic HAP content of each coating used in the coating operation(s) is less than or equal to the applicable emission limit in §63.3890, and that each thinner and/or other additive, and cleaning material used contains no organic HAP. You must meet all the requirements of §§63.3940, 63.3941, and 63.3942 to demonstrate compliance with the applicable emission limit using this option.

(b) *Emission rate without add-on controls option.* Demonstrate that, based on the coatings, thinners and/or other additives, and cleaning materials used in the coating operation(s), the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in §63.3890, calculated as a rolling 12-month emission rate and determined on a monthly basis. You must meet all the requirements of §§63.3950, 63.3951, and 63.3952 to demonstrate compliance with the emission limit using this option.

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

§63.3892 What operating limits must I meet?

(a) For any coating operation(s) on which you use the compliant material option or the emission rate without add-on controls option, you are not required to meet any operating limits.

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

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

§63.3893 What work practice standards must I meet?

- (a) For any coating operation(s) on which you use the compliant material option or the emission rate without add-on controls option, you are not required to meet any work practice standards.
- (b) If you use the emission rate with add-on controls option, you must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners and/or other additives, and cleaning materials used in, and waste materials generated by the controlled coating operation(s) for which you use this option; or you must meet an alternative standard as provided in paragraph (c) of this section. The plan must specify practices and procedures to ensure that, at a minimum, the elements specified in paragraphs (b)(1) through (5) of this section are implemented.
- (1) All organic-HAP-containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be stored in closed containers.
- (2) Spills of organic-HAP-containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be minimized.
- (3) Organic-HAP-containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes.
- (4) Mixing vessels which contain organic-HAP-containing coatings and other materials must be closed except when adding to, removing, or mixing the contents.
- (5) Emissions of organic HAP must be minimized during cleaning of storage, mixing, and conveying equipment.
- (c) As provided in §63.6(g), we, the U.S. Environmental Protection Agency, may choose to grant you permission to use an alternative to the work practice standards in this section.

General compliance requirements

§63.3900 What are my general requirements for complying with this subpart?

- (a) You must be in compliance with the emission limitations in this subpart as specified in paragraphs (a)(1) and (2) of this section.
- (1) Any coating operation(s) for which you use the compliant material option or the emission rate without add-on controls option, as specified in §63.3891(a) and (b), must be in compliance with the applicable emission limit in §63.3890 at all times.
- (2) Any coating operation(s) for which you use the emission rate with add-on controls option, as specified in §63.3891(c), must be in compliance with the emission limitations as specified in paragraphs (a)(2)(i) through (iii) of this section.
- (i) The coating operation(s) must be in compliance with the applicable emission limit in §63.3890 at all times except during periods of startup, shutdown, and malfunction.
- (ii) The coating operation(s) must be in compliance with the operating limits for emission capture systems and add-on control devices required by §63.3892 at all times except during periods of startup, shutdown, and malfunction, and except for solvent recovery systems for which you conduct liquid-liquid material balances according to §63.3961(j).
- (iii) The coating operation(s) must be in compliance with the work practice standards in §63.3893 at all times.
- (b) You must always operate and maintain your affected source, including all air pollution control and monitoring equipment you use for purposes of complying with this subpart, according to the provisions in §63.6(e)(1)(i).
- (c) If your affected source uses an emission capture system and add-on control device, you must develop a written startup, shutdown, and malfunction plan according to the provisions in §63.6(e)(3). The plan must address the startup, shutdown, and corrective actions in the event of a malfunction of the emission capture system or the add-on control device. The plan must also address any coating operation equipment that may cause increased emissions or that would affect capture efficiency if the process equipment malfunctions, such as conveyors that move parts among enclosures.

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

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

Notifications, Reports, and Records

§63.3910 What notifications must I submit?

- (a) *General.* You must submit the notifications in §§63.7(b) and (c), 63.8(f)(4), and 63.9(b) through (e) and (h) that apply to you by the dates specified in those sections, except as provided in paragraphs (b) and (c) of this section.
- (b) *Initial Notification.* You must submit the initial notification required by §63.9(b) for a new or reconstructed affected source no later than 120 days after initial startup or 120 days after January 2, 2004, whichever is later. For an existing affected source, you must submit the initial notification no later than 1 year after January 2, 2004. If you are using compliance with the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (subpart IIII of this part) as provided for under §63.3881(d) to constitute compliance with this subpart for any or all of your metal parts coating operations, then you must include a statement to this effect in your initial notification, and no other notifications are required under this subpart in regard to those metal parts coating operations. If you are complying with another NESHAP that constitutes the predominant activity at your facility under §63.3881(e)(2) to constitute compliance with this subpart for your metal parts coating operations, then you must include a statement to this effect in your initial notification, and no other notifications are required under this subpart in regard to those metal parts coating operations.
- (c) *Notification of compliance status.* You must submit the notification of compliance status required by §63.9(h) no later than 30 calendar days following the end of the initial compliance period described in §63.3940, §63.3950, or §63.3960 that applies to your affected source. The notification of compliance status must contain the information specified in paragraphs (c)(1) through (11) of this section and in §63.9(h).
- (1) Company name and address.
 - (2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
 - (3) Date of the report and beginning and ending dates of the reporting period. The reporting period is the initial compliance period described in §63.3940, §63.3950, or §63.3960 that applies to your affected source.
 - (4) Identification of the compliance option or options specified in §63.3891 that you used on each coating operation in the affected source during the initial compliance period.
 - (5) Statement of whether or not the affected source achieved the emission limitations for the initial compliance period.
 - (6) If you had a deviation, include the information in paragraphs (c)(6)(i) and (ii) of this section.
 - (i) A description and statement of the cause of the deviation.
 - (ii) If you failed to meet the applicable emission limit in §63.3890, include all the calculations you used to determine the kg (lb) of organic HAP emitted per liter (gal) coating solids used. You do not need to submit information provided by the materials' suppliers or manufacturers, or test reports.
 - (7) For each of the data items listed in paragraphs (c)(7)(i) through (iv) of this section that is required by the compliance option(s) you used to demonstrate compliance with the emission limit, include an example of how you determined the value, including calculations and supporting data. Supporting data may include a copy of the information provided by the supplier or manufacturer of the example coating or material, or a summary of the results of testing conducted according to §63.3941(a), (b), or (c). You do not need to submit copies of any test reports.
 - (i) Mass fraction of organic HAP for one coating, for one thinner and/or other additive, and for one cleaning material.
 - (ii) Volume fraction of coating solids for one coating.

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

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

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

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

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

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

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

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

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

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

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

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

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

§63.3920 What reports must I submit?

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

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

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

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

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

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

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

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

(i) Company name and address.

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

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

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

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

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

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

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

(5) *Deviations: Compliant material option.* If you used the compliant material option and there was a deviation from the applicable organic HAP content requirements in §63.3890, the semiannual compliance report must contain the information in paragraphs (a)(5)(i) through (iv) of this section.

(i) Identification of each coating used that deviated from the applicable emission limit, and each thinner and/or other additive, and cleaning material used that contained organic HAP, and the dates and time periods each was used.

(ii) The calculation of the organic HAP content (using Equation 2 of §63.3941) for each coating identified in paragraph (a)(5)(i) of this section. You do not need to submit background data supporting this calculation (*e.g.*, information provided by coating suppliers or manufacturers, or test reports).

(iii) The determination of mass fraction of organic HAP for each thinner and/or other additive, and cleaning material identified in paragraph (a)(5)(i) of this section. You do not need to submit background data supporting this calculation (*e.g.*, information provided by material suppliers or manufacturers, or test reports).

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

(6) *Deviations: Emission rate without add-on controls option.* If you used the emission rate without add-on controls option and there was a deviation from the applicable emission limit in §63.3890, the semiannual compliance report must contain the information in paragraphs (a)(6)(i) through (iii) of this section.

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

(ii) The calculations used to determine the 12-month organic HAP emission rate for the compliance period in which the deviation occurred. You must submit the calculations for Equations 1, 1A through 1C, 2, and 3 of §63.3951; and if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.3951(e)(4). You do not need to submit background data supporting these calculations (*e.g.*, information provided by materials suppliers or manufacturers, or test reports).

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

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

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

(ii) The calculations used to determine the 12-month organic HAP emission rate for each compliance period in which a deviation occurred. You must provide the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1 and 1A through 1C of §63.3951; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.3951(e)(4); the calculation of the total volume of coating solids used each month using Equation 2 of §63.3951; the

calculation of the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of §63.3961, and Equations 2, 3, and 3A through 3C of §63.3961, as applicable; the calculation of the total mass of organic HAP emissions each month using Equation 4 of §63.3961; and the calculation of the 12-month organic HAP emission rate using Equation 5 of §63.3961. You do not need to submit the background data supporting these calculations (*e.g.*, information provided by materials suppliers or manufacturers, or test reports).

- (iii) The date and time that each malfunction started and stopped.
 - (iv) A brief description of the CPMS.
 - (v) The date of the latest CPMS certification or audit.
 - (vi) The date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks.
 - (vii) The date, time, and duration that each CPMS was out-of-control, including the information in §63.8(c)(8).
 - (viii) The date and time period of each deviation from an operating limit in Table 1 to this subpart; date and time period of any bypass of the add-on control device; and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
 - (ix) A summary of the total duration of each deviation from an operating limit in Table 1 to this subpart and each bypass of the add-on control device during the semiannual reporting period, and the total duration as a percent of the total source operating time during that semiannual reporting period.
 - (x) A breakdown of the total duration of the deviations from the operating limits in Table 1 of this subpart and bypasses of the add-on control device during the semiannual reporting period into those that were due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
 - (xi) A summary of the total duration of CPMS downtime during the semiannual reporting period and the total duration of CPMS downtime as a percent of the total source operating time during that semiannual reporting period.
 - (xii) A description of any changes in the CPMS, coating operation, emission capture system, or add-on control device since the last semiannual reporting period.
 - (xiii) For each deviation from the work practice standards, a description of the deviation, the date and time period of the deviation, and the actions you took to correct the deviation.
 - (xiv) A statement of the cause of each deviation.
- (b) *Performance test reports.* If you use the emission rate with add-on controls option, you must submit reports of performance test results for emission capture systems and add-on control devices no later than 60 days after completing the tests as specified in §63.10(d)(2).
- (c) *Startup, shutdown, malfunction reports.* If you used the emission rate with add-on controls option and you had a startup, shutdown, or malfunction during the semiannual reporting period, you must submit the reports specified in paragraphs (c)(1) and (2) of this section.
- (1) If your actions were consistent with your startup, shutdown, and malfunction plan, you must include the information specified in §63.10(d) in the semiannual compliance report required by paragraph (a) of this section.
 - (2) If your actions were not consistent with your startup, shutdown, and malfunction plan, you must submit an immediate startup, shutdown, and malfunction report as described in paragraphs (c)(2)(i) and (ii) of this section.
- (i) You must describe the actions taken during the event in a report delivered by facsimile, telephone, or other means to the Administrator within 2 working days after starting actions that are inconsistent with the plan.

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

§63.3930 What records must I keep?

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

(a) A copy of each notification and report that you submitted to comply with this subpart, and the documentation supporting each notification and report. If you are using the predominant activity alternative under §63.3890(c), you must keep records of the data and calculations used to determine the predominant activity. If you are using the facility-specific emission limit alternative under §63.3890(c), you must keep records of the data used to calculate the facility-specific emission limit for the initial compliance demonstration. You must also keep records of any data used in each annual predominant activity determination and in the calculation of the facility-specific emission limit for each 12-month compliance period included in the semi-annual compliance reports.

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

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

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

(2) For the compliant material option, a record of the calculation of the organic HAP content for each coating, using Equation 2 of §63.3941.

(3) For the emission rate without add-on controls option, a record of the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1, 1A through 1C, and 2 of §63.3951; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.3951(e)(4); the calculation of the total volume of coating solids used each month using Equation 2 of §63.3951; and the calculation of each 12-month organic HAP emission rate using Equation 3 of §63.3951.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(i) [Reserved]

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

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

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

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

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

(4) For each capture system that is a PTE, the data and documentation you used to support a determination that the capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and has a capture efficiency of 100 percent, as specified in §63.3965(a).

(5) For each capture system that is not a PTE, the data and documentation you used to determine capture efficiency according to the requirements specified in §§63.3964 and 63.3965(b) through (e), including the records specified in paragraphs (k)(5)(i) through (iii) of this section that apply to you.

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

the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.

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

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

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

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

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

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

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

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

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

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

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

Compliance requirements for the compliant material option

§63.3940 By what date must I conduct the initial compliance demonstration?

You must complete the initial compliance demonstration for the initial compliance period according to the requirements in §63.3941. The initial compliance period begins on the applicable compliance date specified in §63.3883 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through that month plus the next 12 months. The initial compliance demonstration includes the calculations according to §63.3941 and supporting documentation showing that during the initial compliance period, you used no coating with an organic HAP content that exceeded the applicable emission limit in §63.3890, and that you used no thinners and/or other additives, or cleaning materials that contained organic HAP as determined according to §63.3941(a).

§63.3941 How do I demonstrate initial compliance with the emission limitations?

You may use the compliant material option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. You must use either the emission rate without add-on controls option or the emission rate with add-on controls option for any coating operation in the affected source for which you do not use this option. To demonstrate initial compliance using the compliant material option, the coating operation or group of coating operations must use no coating with an organic HAP content that exceeds the applicable emission limits in §63.3890 and must use no thinner and/or other additive, or cleaning material that contains organic HAP as determined according to this section. Any coating operation for which you use the compliant material option is not required to meet the operating limits or work practice standards required in §§63.3892 and 63.3893, respectively. You must conduct a separate initial compliance demonstration for each general use, high performance, magnet wire, rubber-to-metal, and extreme performance fluoropolymer coating operation unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.3890(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.3890(c), you must demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You must meet all the requirements of this section. Use the procedures in this section on each coating, thinner and/or other additive, and cleaning material in the condition it is in when it is received from its manufacturer or supplier and prior to any alteration. You do not need to redetermine the organic HAP content of coatings, thinners and/or other additives, and cleaning materials that are reclaimed on-site (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coating operation for which you use the compliant material option, provided these materials in their condition as received were demonstrated to comply with the compliant material option.

(a) *Determine the mass fraction of organic HAP for each material used.* You must determine the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during the compliance period by using one of the options in paragraphs (a)(1) through (5) of this section.

(1) *Method 311 (appendix A to 40 CFR part 63).* You may use Method 311 for determining the mass fraction of organic HAP. Use the procedures specified in paragraphs (a)(1)(i) and (ii) of this section when performing a Method 311 test.

(i) Count each organic HAP that is measured to be present at 0.1 percent by mass or more for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is measured to be 0.5 percent of the material by mass, you do not have to count it. Express the mass fraction of each organic HAP you count as a value truncated to four places after the decimal point (*e.g.*, 0.3791).

(ii) Calculate the total mass fraction of organic HAP in the test material by adding up the individual organic HAP mass fractions and truncating the result to three places after the decimal point (*e.g.*, 0.763).

(2) *Method 24 (appendix A to 40 CFR part 60).* For coatings, you may use Method 24 to determine the mass fraction of nonaqueous volatile matter and use that value as a substitute for mass fraction of organic HAP. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may use the alternative method contained in appendix A to subpart P of this part, rather than Method 24. You may use the volatile fraction that is emitted, as measured by the alternative method in appendix A to subpart P of this part, as a substitute for the mass fraction of organic HAP.

(3) *Alternative method.* You may use an alternative test method for determining the mass fraction of organic HAP once the Administrator has approved it. You must follow the procedure in §63.7(f) to submit an alternative test method for approval.

(4) *Information from the supplier or manufacturer of the material.* You may rely on information other than that generated by the test methods specified in paragraphs (a)(1) through (3) of this section, such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds. For

example, if toluene (not an OSHA carcinogen) is 0.5 percent of the material by mass, you do not have to count it. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may rely on manufacturer's data that expressly states the organic HAP or volatile matter mass fraction emitted. If there is a disagreement between such information and results of a test conducted according to paragraphs (a)(1) through (3) of this section, then the test method results will take precedence unless, after consultation, you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(5) *Solvent blends.* Solvent blends may be listed as single components for some materials in data provided by manufacturers or suppliers. Solvent blends may contain organic HAP which must be counted toward the total organic HAP mass fraction of the materials. When test data and manufacturer's data for solvent blends are not available, you may use the default values for the mass fraction of organic HAP in these solvent blends listed in Table 3 or 4 to this subpart. If you use the tables, you must use the values in Table 3 for all solvent blends that match Table 3 entries according to the instructions for Table 3, and you may use Table 4 only if the solvent blends in the materials you use do not match any of the solvent blends in Table 3 and you know only whether the blend is aliphatic or aromatic. However, if the results of a Method 311 (appendix A to 40 CFR part 63) test indicate higher values than those listed on Table 3 or 4 to this subpart, the Method 311 results will take precedence unless, after consultation, you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(b) *Determine the volume fraction of coating solids for each coating.* You must determine the volume fraction of coating solids (liters (gal) of coating solids per liter (gal) of coating) for each coating used during the compliance period by a test, by information provided by the supplier or the manufacturer of the material, or by calculation, as specified in paragraphs (b)(1) through (4) of this section. If test results obtained according to paragraph (b)(1) of this section do not agree with the information obtained under paragraph (b)(3) or (4) of this section, the test results will take precedence unless, after consultation, you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(1) *ASTM Method D2697-86 (Reapproved 1998) or ASTM Method D6093-97 (Reapproved 2003).* You may use ASTM Method D2697-86 (Reapproved 1998), "Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings" (incorporated by reference, see §63.14), or ASTM Method D6093-97 (Reapproved 2003), "Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer" (incorporated by reference, see §63.14), to determine the volume fraction of coating solids for each coating. Divide the nonvolatile volume percent obtained with the methods by 100 to calculate volume fraction of coating solids.

(2) *Alternative method.* You may use an alternative test method for determining the solids content of each coating once the Administrator has approved it. You must follow the procedure in §63.7(f) to submit an alternative test method for approval.

(3) *Information from the supplier or manufacturer of the material.* You may obtain the volume fraction of coating solids for each coating from the supplier or manufacturer.

(4) *Calculation of volume fraction of coating solids.* You may determine the volume fraction of coating solids using Equation 1 of this section:

$$V_s = 1 - \frac{m_{\text{volatiles}}}{D_{\text{avg}}} \quad (\text{Eq. 1})$$

Where:

V_s = Volume fraction of coating solids, liters (gal) coating solids per liter (gal) coating.

$m_{\text{volatiles}}$ = Total volatile matter content of the coating, including HAP, volatile organic compounds (VOC), water, and exempt compounds, determined according to Method 24 in appendix A of 40 CFR part 60, grams volatile matter per liter coating.

D_{avg} = Average density of volatile matter in the coating, grams volatile matter per liter volatile matter, determined from test results using ASTM Method D1475-98, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" (incorporated by reference, see §63.14), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475-98 test results and other information sources, the test results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(c) *Determine the density of each coating.* Determine the density of each coating used during the compliance period from test results using ASTM Method D1475-98, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" (incorporated by reference, see §63.14), information from the supplier or manufacturer of the material, or specific gravity data for pure chemicals. If there is disagreement between ASTM Method D1475-98 test results and the supplier's or manufacturer's information, the test results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(d) *Determine the organic HAP content of each coating.* Calculate the organic HAP content, kg (lb) of organic HAP emitted per liter (gal) coating solids used, of each coating used during the compliance period using Equation 2 of this section:

$$H_c = \frac{(D_c)(W_c)}{V_s} \quad (\text{Eq. 2})$$

Where:

H_c = Organic HAP content of the coating, kg organic HAP emitted per liter (gal) coating solids used.

D_c = Density of coating, kg coating per liter (gal) coating, determined according to paragraph (c) of this section.

W_c = Mass fraction of organic HAP in the coating, kg organic HAP per kg coating, determined according to paragraph (a) of this section.

V_s = Volume fraction of coating solids, liter (gal) coating solids per liter (gal) coating, determined according to paragraph (b) of this section.

(e) *Compliance demonstration.* The calculated organic HAP content for each coating used during the initial compliance period must be less than or equal to the applicable emission limit in §63.3890; and each thinner and/or other additive, and cleaning material used during the initial compliance period must contain no organic HAP, determined according to paragraph (a) of this section. You must keep all records required by §§63.3930 and 63.3931. As part of the notification of compliance status required in §63.3910, you must identify the coating operation(s) for which you used the compliant material option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because you used no coatings for which the organic HAP content exceeded the applicable emission limit in §63.3890, and you used no thinners and/or other additives, or cleaning materials that contained organic HAP, determined according to the procedures in paragraph (a) of this section.

§63.3942 How do I demonstrate continuous compliance with the emission limitations?

(a) For each compliance period to demonstrate continuous compliance, you must use no coating for which the organic HAP content (determined using Equation 2 of §63.3941) exceeds the applicable emission limit in §63.3890, and use no thinner and/or other additive, or cleaning material that contains organic HAP, determined according to §63.3941(a). A compliance period consists of 12 months. Each month, after the end of the initial compliance period described in §63.3940, is the end of a compliance period consisting of that month and the preceding 11 months. If you are complying with a facility-specific emission limit under §63.3890(c), you must also perform the calculation using Equation 1 in §63.3890(c)(2) on a monthly basis using the data from the previous 12 months of operation.

(b) If you choose to comply with the emission limitations by using the compliant material option, the use of any coating, thinner and/or other additive, or cleaning material that does not meet the criteria specified in paragraph (a) of this

section is a deviation from the emission limitations that must be reported as specified in §§63.3910(c)(6) and 63.3920(a)(5).

(c) As part of each semiannual compliance report required by §63.3920, you must identify the coating operation(s) for which you used the compliant material option. If there were no deviations from the applicable emission limit in §63.3890, submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because you used no coatings for which the organic HAP content exceeded the applicable emission limit in §63.3890, and you used no thinner and/or other additive, or cleaning material that contained organic HAP, determined according to §63.3941(a).

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

Compliance requirements for the emission rate without add-on controls option

§63.3950 By what date must I conduct the initial compliance demonstration?

You must complete the initial compliance demonstration for the initial compliance period according to the requirements of §63.3951. The initial compliance period begins on the applicable compliance date specified in §63.3883 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You must determine the mass of organic HAP emissions and volume of coating solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the calculations according to §63.3951 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in §63.3890.

§63.3951 How do I demonstrate initial compliance with the emission limitations?

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

(a) *Determine the mass fraction of organic HAP for each material.* Determine the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each month according to the requirements in §63.3941(a).

(b) *Determine the volume fraction of coating solids.* Determine the volume fraction of coating solids (liter (gal) of coating solids per liter (gal) of coating) for each coating used during each month according to the requirements in §63.3941(b).

(c) *Determine the density of each material.* Determine the density of each liquid coating, thinner and/or other additive, and cleaning material used during each month from test results using ASTM Method D1475-98, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" (incorporated by reference, see §63.14), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If you are including powder coatings in the compliance determination, determine the density of powder coatings, using ASTM Method D5965-02, "Standard Test Methods for Specific Gravity of Coating Powders" (incorporated by reference, see §63.14), or information from the supplier. If there is disagreement between ASTM Method D1475-98 or ASTM Method D5965-02 test results and other such information sources, the test results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct. If you purchase materials or monitor consumption by weight instead of volume, you do not need to determine material density. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, 1C, and 2 of this section.

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

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

$$H_e = A + B + C - R_w \quad (\text{Eq. 1})$$

Where:

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

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

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

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

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

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

$$A = \sum_{i=1}^M (\text{Vol}_{c,i}) (D_{c,i}) (W_{c,i}) \quad (\text{Eq. 1A})$$

Where:

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

$\text{Vol}_{c,i}$ = Total volume of coating, i, used during the month, liters.

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

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

m = Number of different coatings used during the month.

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

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

Where:

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

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

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

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

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

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

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

Where:

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

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

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

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

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

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

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

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

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

(iv) You must document the methodology you use to determine the amount of waste materials and the total mass of organic HAP they contain, as required in §63.3930(h). If waste manifests include this information, they may be used as part of the documentation of the amount of waste materials and mass of organic HAP contained in them.

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

$$V_{st} = \sum_{i=1}^m (Vol_{c,i}) (V_{s,i}) \quad (Eq. 2)$$

Where:

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

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

$V_{s,i}$ = Volume fraction of coating solids for coating, i , liter solids per liter coating, determined according to §63.3941(b).

m = Number of coatings used during the month.

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

$$H_{yy} = \frac{\sum_{y=1}^n H_e}{\sum_{y=1}^n V_{st}} \quad (Eq. 3)$$

Where:

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

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

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

y = Identifier for months.

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

(h) *Compliance demonstration.* The organic HAP emission rate for the initial compliance period calculated using Equation 3 of this section must be less than or equal to the applicable emission limit for each subcategory in §63.3890 or the predominant activity or facility-specific emission limit allowed in §63.3890(c). You must keep all records as required by §§63.3930 and 63.3931. As part of the notification of compliance status required by §63.3910, you must identify the coating operation(s) for which you used the emission rate without add-on controls option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in §63.3890, determined according to the procedures in this section.

§63.3952 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance, the organic HAP emission rate for each compliance period, determined according to §63.3951(a) through (g), must be less than or equal to the applicable emission limit in §63.3890. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in

§63.3950 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in §63.3951(a) through (g) on a monthly basis using data from the previous 12 months of operation. If you are complying with a facility-specific emission limit under §63.3890(c), you must also perform the calculation using Equation 1 in §63.3890(c)(2) on a monthly basis using the data from the previous 12 months of operation.

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

(c) As part of each semiannual compliance report required by §63.3920, you must identify the coating operation(s) for which you used the emission rate without add-on controls option. If there were no deviations from the emission limitations, you must submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in §63.3890, determined according to §63.3951(a) through (g).

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

Compliance requirements for the emission rate with add-on controls option

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

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

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in §63.3883. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to §63.3961(j), you must conduct a performance test of each capture system and add-on control device according to §§63.3964, 63.3965, and 63.3966 and establish the operating limits required by §63.3892 no later than 180 days after the applicable compliance date specified in §63.3883. For a solvent recovery system for which you conduct liquid-liquid material balances according to §63.3961(j), you must initiate the first material balance no later than the applicable compliance date specified in §63.3883. For magnet wire coating operations you may, with approval, conduct a performance test of one representative magnet wire coating machine for each group of identical or very similar magnet wire coating machines.

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

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

(4) You do not need to comply with the operating limits for the emission capture system and add-on control device required by §63.3892 until after you have completed the performance tests specified in paragraph (a)(1) of this section. Instead, you must maintain a log detailing the operation and maintenance of the emission capture system, add-on

control device, and continuous parameter monitors during the period between the compliance date and the performance test. You must begin complying with the operating limits for your affected source on the date you complete the performance tests specified in paragraph (a)(1) of this section. For magnet wire coating operations, you must begin complying with the operating limits for all identical or very similar magnet wire coating machines on the date you complete the performance test of a representative magnet wire coating machine. The requirements in this paragraph (a)(4) do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements in §63.3961(j).

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

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

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

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

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

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

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

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

§63.3961 How do I demonstrate initial compliance?

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

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

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

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

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

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

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

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

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

Where:

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

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

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

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

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

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

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

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

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

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

Where:

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

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

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

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

m = Number of different coatings used.

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

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

Where:

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

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

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

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

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

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

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

Where:

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

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

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

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

p = Number of different cleaning materials used.

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

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

Where:

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

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

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

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

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

(i) [Reserved]

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

(1) For each solvent recovery system, install, calibrate, maintain, and operate according to the manufacturer's specifications, a device that indicates the cumulative amount of volatile organic matter recovered by the solvent recovery system each month. The device must be initially certified by the manufacturer to be accurate to within ± 2.0 percent of the mass of volatile organic matter recovered.

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

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

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

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

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

$$R_V = 100 \frac{M_{VR}}{\sum_{i=1}^m Vol_i D_i W_{c,i} + \sum_{j=1}^n Vol_j D_j W_{t,j} + \sum_{k=1}^p Vol_k D_k W_{s,k}} \quad (Eq. 2)$$

Where:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$H_{CSR} = (A_{CSR} + B_{CSR} + C_{CSR}) \left(\frac{R_V}{100} \right) \quad (Eq. 3)$$

Where:

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

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

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

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

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

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

$$A_{CSR} = \sum_{i=1}^m (Vol_{c,i})(D_{c,i})(W_{c,i}) \quad (Eq. 3A)$$

Where:

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

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

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

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

m = Number of different coatings used.

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

$$B_{CSR} = \sum_{j=1}^n (Vol_{t,j})(D_{t,j})(W_{t,j}) \quad (Eq. 3B)$$

Where:

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

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

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

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

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

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

$$C_{CSR} = \sum_{k=1}^z (Vol_{s,k})(D_{s,k})(W_{s,k}) \quad (Eq. 3C)$$

Where:

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

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

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

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

p = Number of different cleaning materials used.

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

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

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

where:

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

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

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

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

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

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

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

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

Where:

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

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

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

y = Identifier for months.

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

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

compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in §63.3890, and you achieved the operating limits required by §63.3892 and the work practice standards required by §63.3893.

§63.3962 [Reserved]

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

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

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

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

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

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

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

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

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

(g)-(i) [Reserved]

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

§63.3964 What are the general requirements for performance tests?

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

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

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

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

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

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

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

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

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

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

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

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings, thinners and/or other additives, and cleaning materials are applied, and all areas where emissions from these applied coatings and materials subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions for routing to an add-on control device, such as the entrance and exit areas of an oven

or spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.

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

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

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

Where:

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

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

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

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

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

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

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

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

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

$$CE = \frac{(TVH_{used} - TVH_{uncaptured})}{TVH_{used}} \times 100 \quad (Eq. 2)$$

Where:

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

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

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

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

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

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

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

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

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

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

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

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

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

$$CE = \frac{TVH_{\text{captured}}}{(TVH_{\text{captured}} + TVH_{\text{uncaptured}})} \times 100 \quad (\text{Eq. 3})$$

Where:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Where:

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

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

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

0.0416 = Conversion factor for molar volume, kg-moles per cubic meter (mol/m³) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg)).

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

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

Where:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(1) You must monitor or secure the valve or closure mechanism controlling the bypass line in a nondiverting position in such a way that the valve or closure mechanism cannot be opened without creating a record that the valve was opened.

The method used to monitor or secure the valve or closure mechanism must meet one of the requirements specified in paragraphs (b)(1)(i) through (v) of this section.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(vi) Perform leak checks monthly.

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

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

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

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

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

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

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

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

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

Other Requirements and Information

§63.3980 Who implements and enforces this subpart?

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

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

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

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

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

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

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

§63.3981 What definitions apply to this subpart?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Table 1 to Subpart MMMM of Part 63—Operating limits if using the emission rate with add-on controls option

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

For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .
1. Thermal oxidizer	a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to §63.3967(a)	i. Collecting the combustion temperature data according to §63.3968(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average combustion temperature at or above the temperature limit.
2. Catalytic oxidizer	a. The average temperature measured just before the catalyst bed in any 3-hour period must not fall below the limit established according to §63.3967(b) (for magnet wire coating machines, temperature can be monitored before or after the catalyst bed); and either	i. Collecting the temperature data according to §63.3968(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature before (or for magnet wire coating machines after) the catalyst bed at or above the temperature limit.
	b. Ensure that the average temperature difference across the catalyst bed in any 3-hour period does not fall below the temperature difference limit established according to §63.3967(b) (2); or	i. Collecting the temperature data according to §63.3968(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature difference at or above the temperature difference limit.
	c. Develop and implement an inspection and maintenance plan according to §63.3967(b)(4) or for magnet wire coating machines according to section 3.0 of appendix A to this subpart	i. Maintaining and up-to-date inspection and maintenance plan, records of annual catalyst activity checks, records of monthly inspections of the oxidizer system, and records of the annual internal inspections of the catalyst bed. If a problem is discovered during a monthly or annual inspection required by §63.3967(b)(4) or for magnet wire coating machines by section 3.0 of appendix A to this subpart, you must take corrective action as soon as practicable consistent with the manufacturer's recommendations.
3. Regenerative carbon adsorber	a. The total regeneration desorbing gas (<i>e.g.</i> , steam or nitrogen) mass flow for each carbon bed regeneration cycle must not fall below the	i. Measuring the total regeneration desorbing gas (<i>e.g.</i> , steam or nitrogen) mass flow for each regeneration cycle according to §63.3968(d); and

For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .
	total regeneration desorbing gas mass flow limit established according to §63.3967(c); and	ii. Maintaining the total regeneration desorbing gas mass flow at or above the mass flow limit.
	b. The temperature of the carbon bed, after completing each regeneration and any cooling cycle, must not exceed the carbon bed temperature limit established according to §63.3967(c)	i. Measuring the temperature of the carbon bed after completing each regeneration and any cooling cycle according to §63.3968(d); and ii. Operating the carbon beds such that each carbon bed is not returned to service until completing each regeneration and any cooling cycle until the recorded temperature of the carbon bed is at or below the temperature limit.
4. Condenser	a. The average condenser outlet (product side) gas temperature in any 3-hour period must not exceed the temperature limit established according to §63.3967(d)	i. Collecting the condenser outlet (product side) gas temperature according to §63.3968(e); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average gas temperature at the outlet at or below the temperature limit.
5. Concentrators, including zeolite wheels and rotary carbon adsorbers	a. The average gas temperature of the desorption concentrate stream in any 3-hour period must not fall below the limit established according to §63.3967(e); and	i. Collecting the temperature data according to 63.3968(f); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature at or above the temperature limit.
	b. The average pressure drop of the dilute stream across the concentrator in any 3-hour period must not fall below the limit established according to §63.3967(e)	i. Collecting the pressure drop data according to 63.3968(f); ii. Reducing the pressure drop data to 3-hour block averages; and iii. Maintaining the 3-hour average pressure drop at or above the pressure drop limit.
6. Emission capture system that is a PTE according to §63.3965(a)	a. The direction of the air flow at all times must be into the enclosure; and either	i. Collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to §63.3968(b)(1) or the pressure drop across the enclosure according to §63.3968(g)(2); and ii. Maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.
	b. The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minutes; or	i. See items 6.a.i and 6.a.ii.
	c. The pressure drop across the enclosure must be at least 0.007 inch H ₂ O, as established in Method 204 of appendix M to 40 CFR part 51	i. See items 6.a.i and 6.a.ii.
7. Emission capture system that is not a PTE according to §63.3965(a)	a. The average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to §63.3967(f)	i. Collecting the gas volumetric flow rate or duct static pressure for each capture device according to §63.3968(g); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limited.

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

You must comply with the applicable General Provisions requirements according to the following table:

Citation	Subject	Applicable to subpart MMMM	Explanation
§63.1(a)(1)-(14)	General Applicability	Yes	
§63.1(b)(1)-(3)	Initial Applicability Determination	Yes	Applicability to subpart MMMM is also specified in §63.3881.
§63.1(c)(1)	Applicability After Standard Established	Yes	
§63.1(c)(2)-(3)	Applicability of Permit Program for Area Sources	No	Area sources are not subject to subpart MMMM.
§63.1(c)(4)-(5)	Extensions and Notifications	Yes	
§63.1(e)	Applicability of Permit Program Before Relevant Standard is Set	Yes	
§63.2	Definitions	Yes	Additional definitions are specified in §63.3981.
§63.1(a)-(c)	Units and Abbreviations	Yes	
§63.4(a)(1)-(5)	Prohibited Activities	Yes	
§63.4(b)-(c)	Circumvention/Severability	Yes	
§63.5(a)	Construction/Reconstruction	Yes	
§63.5(b)(1)-(6)	Requirements for Existing Newly Constructed, and Reconstructed Sources	Yes	
§63.5(d)	Application for Approval of Construction/Reconstruction	Yes	
§63.5(e)	Approval of Construction/Reconstruction	Yes	
§63.5(f)	Approval of Construction/Reconstruction Based on Prior State Review	Yes	
§63.6(a)	Compliance With Standards and Maintenance Requirements—Applicability	Yes	
§63.6(b)(1)-(7)	Compliance Dates for New and Reconstructed Sources	Yes	Section 63.3883 specifies the compliance dates.
§63.6(c)(1)-(5)	Compliance Dates for Existing Sources	Yes	Section 63.3883 specifies the compliance dates.
§63.6(e)(1)-(2)	Operation and Maintenance	Yes	
§63.6(e)(3)	Startup, Shutdown, and Malfunction Plan	Yes	Only sources using an add-on control device to comply with the standard must complete startup, shutdown, and malfunction plans.
§63.6(f)(1)	Compliance Except During Startup, Shutdown, and Malfunction	Yes	Applies only to sources using an add-on control device to comply with the standard.
§63.6(f)(2)-(3)	Methods for Determining Compliance.	Yes	
§63.6(g)(1)-(3)	Use of an Alternative Standard	Yes	

Citation	Subject	Applicable to subpart M MMM	Explanation
§63.6(h)	Compliance With Opacity/Visible Emission Standards	No	Subpart M MMM does not establish opacity standards and does not require continuous opacity monitoring systems (COMS).
§63.6(i)(1)-(16)	Extension of Compliance	Yes	
§63.6(j)	Presidential Compliance Exemption	Yes	
§63.7(a)(1)	Performance Test Requirements—Applicability	Yes	Applies to all affected sources. Additional requirements for performance testing are specified in §§63.3964, 63.3965, and 63.3966.
§63.7(a)(2)	Performance Test Requirements—Dates	Yes	Applies only to performance tests for capture system and control device efficiency at sources using these to comply with the standard. Section 63.3960 specifies the schedule for performance test requirements that are earlier than those specified in §63.7(a)(2).
§63.7(a)(3)	Performance Tests Required By the Administrator	Yes	
§63.7(b)-(e)	Performance Test Requirements—Notification, Quality Assurance, Facilities Necessary for Safe Testing, Conditions During Test	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standard.
§63.7(f)	Performance Test Requirements—Use of Alternative Test Method	Yes	Applies to all test methods except those used to determine capture system efficiency.
§63.7(g)-(h)	Performance Test Requirements—Data Analysis, Recordkeeping, Reporting, Waiver of Test	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standard.
§63.8(a)(1)-(3)	Monitoring Requirements—Applicability	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for monitoring are specified in §63.3968.
§63.8(a)(4)	Additional Monitoring Requirements	No	Subpart M MMM does not have monitoring requirements for flares.
§63.8(b)	Conduct of Monitoring	Yes	
§63.8(c)(1)-(3)	Continuous Monitoring Systems (CMS) Operation and Maintenance	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for CMS operations and maintenance are specified in §63.3968.
§63.8(c)(4)	CMS	No	§63.3968 specifies the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply.
§63.8(c)(5)	COMS	No	Subpart M MMM does not have opacity or visible emission standards.
§63.8(c)(6)	CMS Requirements	No	Section 63.3968 specifies the requirements for monitoring systems for capture systems and add-on control devices at sources using these to comply.

Citation	Subject	Applicable to subpart M MMM	Explanation
§63.8(c)(7)	CMS Out-of-Control Periods	Yes	
§63.8(c)(8)	CMS Out-of-Control Periods and Reporting	No	§63.3920 requires reporting of CMS out-of-control periods.
§63.8(d)-(e)	Quality Control Program and CMS Performance Evaluation	No	Subpart M MMM does not require the use of continuous emissions monitoring systems.
§63.8(f)(1)-(5)	Use of an Alternative Monitoring Method	Yes	
§63.8(f)(6)	Alternative to Relative Accuracy Test	No	Subpart M MMM does not require the use of continuous emissions monitoring systems.
§63.8(g)(1)-(5)	Data Reduction	No	Sections 63.3967 and 63.3968 specify monitoring data reduction.
§63.9(a)-(d)	Notification Requirements	Yes	
§63.9(e)	Notification of Performance Test	Yes	Applies only to capture system and add-on control device performance tests at sources using these to comply with the standard.
§63.9(f)	Notification of Visible Emissions/Opacity Test	No	Subpart M MMM does not have opacity or visible emissions standards.
§63.9(g)(1)-(3)	Additional Notifications When Using CMS	No	Subpart M MMM does not require the use of continuous emissions monitoring systems.
§63.9(h)	Notification of Compliance Status	Yes	Section 63.3910 specifies the dates for submitting the notification of compliance status.
§63.9(i)	Adjustment of Submittal Deadlines	Yes	
§63.9(j)	Change in Previous Information	Yes	
§63.10(a)	Recordkeeping/Reporting—Applicability and General Information	Yes	
§63.10(b)(1)	General Recordkeeping Requirements	Yes	Additional requirements are specified in §§63.3930 and 63.3931.
§63.10(b)(2)(i)-(v)	Recordkeeping Relevant to Startup, Shutdown, and Malfunction Periods and CMS	Yes	Requirements for startup, shutdown, and malfunction records only apply to add-on control devices used to comply with the standard.
§63.10(b)(2)(vi)-(xi)		Yes	
§63.10(b)(2)(xii)	Records	Yes	
§63.10(b)(2)(xiii)		No	Subpart M MMM does not require the use of continuous emissions monitoring systems.
§63.10(b)(2)(xiv)		Yes	
§63.10(b)(3)	Recordkeeping Requirements for Applicability Determinations	Yes	
§63.10(c)(1)-(6)	Additional Recordkeeping Requirements for Sources with CMS	Yes	

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

Table 3 to Subpart MMMM of Part 63—Default organic HAP mass fraction for solvents and solvent blends

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

Solvent/solvent blend	CAS. No.	Average organic HAP mass fraction	Typical organic HAP, percent by mass
1. Toluene	108-88-3	1.0	Toluene.
2. Xylene(s)	1330-20-7	1.0	Xylenes, ethylbenzene.
3. Hexane	110-54-3	0.5	n-hexane.
4. n-Hexane	110-54-3	1.0	n-hexane.
5. Ethylbenzene	100-41-4	1.0	Ethylbenzene.
6. Aliphatic 140		0	None.
7. Aromatic 100		0.02	1% xylene, 1% cumene.

8. Aromatic 150		0.09	Naphthalene.
9. Aromatic naphtha	64742-95-6	0.02	1% xylene, 1% cumene.
10. Aromatic solvent	64742-94-5	0.1	Naphthalene.
11. Exempt mineral spirits	8032-32-4	0	None.
12. Ligroines (VM & P)	8032-32-4	0	None.
13. Lactol spirits	64742-89-6	0.15	Toluene.
14. Low aromatic white spirit	64742-82-1	0	None.
15. Mineral spirits	64742-88-7	0.01	Xylenes.
16. Hydrotreated naphtha	64742-48-9	0	None.
17. Hydrotreated light distillate	64742-47-8	0.001	Toluene.
18. Stoddard solvent	8052-41-3	0.01	Xylenes.
19. Super high-flash naphtha	64742-95-6	0.05	Xylenes.
20. Varsol [®] solvent	8052-49-3	0.01	0.5% xylenes, 0.5% ethylbenzene.
21. VM & P naphtha	64742-89-8	0.06	3% toluene, 3% xylene.
22. Petroleum distillate mixture	68477-31-6	0.08	4% naphthalene, 4% biphenyl.

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

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

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

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

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

^cMedium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.

Appendix A to Subpart MMMM of Part 63—Alternative capture efficiency and destruction efficiency measurement and monitoring procedures for magnet wire coating operations

1.0 Introduction.

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

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

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

disassembly includes removal of the oven insulation. Oven reassembly often requires the installation of new oven insulation.

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

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

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

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

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

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

2.0 Capture Efficiency.

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

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

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

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

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

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

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

3.0 Control Device Efficiency.

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

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

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

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

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

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

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

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where:

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

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

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

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

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

- 3.7 If the mass, $MASS_i$, of each coating, solvent, additive, or cleaning material, i , used during the test run is measured directly then $MASS_i$ can be substituted for $VOL_i \times D_i$ in Equation 1 in section 3.6.
- 3.8 Determine the TVHC output ($TVHC_{outlet}$) from the control device, as carbon, during each test run using the methods in §63.3966(a) and the procedure for determining M_{fo} in §63.3966(d). $TVHC_{outlet}$ equals M_{fo} times the length of the test run in hours.
- 3.9 Determine the control device efficiency (DRE) for each test run using Equation 2:

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

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- 3.10 The efficiency of the control device is the average of the three individual test run values determined in section 3.9.
- 3.11 As an alternative to establishing and monitoring the destruction efficiency operating parameters for catalytic oxidizers in §63.3967(b), the monitoring described in sections 3.12 and 3.13 may be used for magnet wire coating machines equipped with catalytic oxidizers.
- 3.12 During the performance test, you must monitor and record the temperature either just before or just after the catalyst bed at least once every 15 minutes during each of the three test runs. Use the data collected during the performance test to calculate and record the average temperature either just before or just after the catalyst bed during the performance test. This is the minimum operating limit for your catalytic oxidizer and for the catalytic oxidizers in identical or very similar magnet wire coating machines represented by the tested magnet wire coating machine.
- 3.13 You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s). The plan must address, at a minimum, the elements specified in sections 3.14 and 3.15, and the elements specified in either (a) section 3.16 or (b) sections 3.17 and 3.18.
- 3.14 You must conduct a monthly external inspection of each catalytic oxidizer system, including the burner assembly and fuel supply lines for problems and, as necessary, adjust the equipment to assure proper air-to-fuel mixtures.
- 3.15 You must conduct an annual internal inspection of each accessible catalyst bed to check for channeling, abrasion, and settling. If problems are found, you must replace the catalyst bed or take corrective action consistent with the manufacturer's recommendations. This provision does not apply to internal catalysts which cannot be accessed without disassembling the magnet wire oven.
- 3.16 You must take a sample of each catalyst bed and perform an analysis of the catalyst activity (*i.e.*, conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures. This sampling and analysis must be done within the time period shown in Table 1 below of the most recent of the last catalyst activity test or the last catalyst replacement. For example, if the warranty for the catalyst is 3 years and the catalyst was more recently replaced then the sampling and analysis must be done within the earlier of 26,280 operating hours or 5 calendar years of the last catalyst replacement. If the warranty for the catalyst is 3 years and the catalyst was more recently tested then the sampling and analysis must be done within the earlier of 13,140 operating hours or 3 calendar years of the last catalyst activity test. If problems are found during the catalyst activity test, you must replace the catalyst bed or take corrective action consistent with the manufacturer's recommendations.

Table 1—Catalyst monitoring requirements

If the catalyst was last (more recently) replaced and the warranty period is . . .	Then the time between catalyst replacement and the next catalyst activity test cannot exceed the earlier of . . .	And the catalyst was more recently tested, then the time between catalyst activity tests cannot exceed the earlier of . . .
1 year	8,760 operating hours or 5 calendar years	8,760 operating hours or 3 calendar years.

2 years	15,520 operating hours or 5 calendar years	8,760 operating hours or 3 calendar years.
3 years	26,280 operating hours or 5 calendar years	13,100 operating hours or 3 calendar years.
4 years	35,040 operating hours or 5 calendar years	17,520 operating hours or 3 calendar years.
5 or more years	43,800 operating hours or 5 calendar years	21,900 operating hours or 3 calendar years.

3.17 During the performance test, you must determine the average concentration of organic compounds as carbon in the magnet wire oven exhaust stack gases (C_c in Equation 1 in §63.3966(d)) and the destruction efficiency of the catalytic oxidizer, and calculate the operating limit for oven exhaust stack gas concentration as follows. You must identify the highest organic HAP content coating used on this magnet wire coating machine or any identical or very similar magnet wire coating machines to which the same destruction efficiency test results will be applied. Calculate the percent emission reduction necessary to meet the magnet wire coating emission limit when using this coating. Calculate the average concentration of organic compounds as carbon in the magnet wire oven exhaust stack gases that would be equivalent to exactly meeting the magnet wire coating emissions limit when using the highest organic HAP content coating. The maximum operating limit for oven exhaust stack gas concentration equals 90 percent of this calculated concentration.

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

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

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

Appendix C: 40 CFR pt. 63, subp. PPPP—National emission standards for hazardous air pollutants for surface coating of plastic parts and products

§63.4480 What is the purpose of this subpart?

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

§63.4481 Am I subject to this subpart?

(a) Plastic parts and products include, but are not limited to, plastic components of the following types of products as well as the products themselves: Motor vehicle parts and accessories for automobiles, trucks, recreational vehicles; sporting and recreational goods; toys; business machines; laboratory and medical equipment; and household and other consumer products. Except as provided in paragraph (c) of this section, the source category to which this subpart applies is the surface coating of any plastic parts or products, as described in paragraph (a)(1) of this section, and it includes the subcategories listed in paragraphs (a)(2) through (5) of this section.

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

(2) The general use coating subcategory includes all surface coating operations that are not automotive lamp coating operations, thermoplastic olefin (TPO) coating operations, or assembled on-road vehicle coating operations.

(3) The automotive lamp coating subcategory includes the surface coating of plastic components of the body of an exterior automotive lamp including, but not limited to, headlamps, tail lamps, turn signals, and marker (clearance) lamps; typical coatings used are reflective argent coatings and clear topcoats. This subcategory does not include the coating of interior automotive lamps, such as dome lamps and instrument panel lamps.

(4) The TPO coating subcategory includes the surface coating of TPO substrates; typical coatings used are adhesion promoters, color coatings, clear coatings and topcoats. The coating of TPO substrates on fully assembled on-road vehicles is not included in the TPO coating subcategory.

(5) The assembled on-road vehicle coating subcategory includes surface coating of fully assembled motor vehicles and trailers intended for on-road use, including, but not limited to: automobiles, light-duty trucks, heavy duty trucks, and busses that have been repaired after a collision or otherwise repainted; fleet delivery trucks; and motor homes and other recreational vehicles (including camping trailers and fifth wheels). This subcategory also includes the incidental coating of parts, such as radiator grilles, that are removed from the fully assembled on-road vehicle to facilitate concurrent coating of all parts associated with the vehicle. The assembled on-road vehicle coating subcategory does not include the surface coating of plastic parts prior to their attachment to an on-road vehicle on an original equipment manufacturer's (OEM) assembly line. The assembled on-road vehicle coating subcategory also does not include the use of adhesives, sealants, and caulks used in assembling on-road vehicles. Body fillers used to correct small surface defects and rubbing compounds used to remove surface scratches are not considered coatings subject to this subpart.

(b) You are subject to this subpart if you own or operate a new, reconstructed, or existing affected source, as defined in §63.4482, that uses 378 liters (100 gallons (gal)) per year, or more, of coatings that contain hazardous air pollutants (HAP) in the surface coating of plastic parts and products defined in paragraph (a) of this section; and that is a major source, is located at a major source, or is part of a major source of emissions of HAP. A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year or any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year. You do not need to include coatings that meet the definition of non-HAP coating contained in §63.4581 in determining whether you use 378 liters (100 gallons) per year, or more, of coatings in the surface coating of plastic parts and products.

(c) This subpart does not apply to surface coating or a coating operation that meets any of the criteria of paragraphs (c)(1) through (17) of this section.

(1) A coating operation conducted at a facility where the facility uses only coatings, thinners and other additives, and cleaning materials that contain no organic HAP, as determined according to §63.3941(a).

(2) Surface coating operations that occur at research or laboratory facilities, or is part of janitorial, building, and facility maintenance operations, or that occur at hobby shops that are operated for noncommercial purposes.

(3) The surface coating of plastic parts and products performed on-site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State) or the National Aeronautics and Space Administration, or the surface coating of military munitions manufactured by or for the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State).

- (4) Surface coating where plastic is extruded onto plastic parts or products to form a coating.
 - (5) Surface coating of magnet wire.
 - (6) In-mold coating operations or gel coating operations in the manufacture of reinforced plastic composite parts that meet the applicability criteria for reinforced plastics composites production (subpart WWWW of this part).
 - (7) Surface coating of plastic components of wood furniture that meet the applicability criteria for wood furniture manufacturing (subpart JJ of this part).
 - (8) Surface coating of plastic components of large appliances that meet the applicability criteria for large appliance surface coating (subpart NNNN of this part).
 - (9) Surface coating of plastic components of metal furniture that meet the applicability criteria for metal furniture surface coating (subpart RRRR of this part).
 - (10) Surface coating of plastic components of wood building products that meet the applicability criteria for wood building products surface coating (subpart QQQQ of this part).
 - (11) Surface coating of plastic components of aerospace vehicles that meet the applicability criteria for aerospace manufacturing and rework (40 CFR part 63, subpart GG).
 - (12) Surface coating of plastic parts intended for use in an aerospace vehicle or component using specialty coatings as defined in appendix A to subpart GG of this part.
 - (13) Surface coating of plastic components of ships that meet the applicability criteria for shipbuilding and ship repair (subpart II of this part).
 - (14) Surface coating of plastic using a web coating process that meets the applicability criteria for paper and other web coating (subpart JJJ of this part).
 - (15) Surface coating of fiberglass boats or parts of fiberglass boats (including, but not limited to, the use of assembly adhesives) where the facility meets the applicability criteria for boat manufacturing (subpart VVVV of this part), except where the surface coating of the boat is a post-mold coating operation performed on personal watercraft or parts of personal watercraft. This subpart does apply to post-mold coating operations performed on personal watercraft and parts of personal watercraft.
 - (16) Surface coating of plastic components of automobiles and light-duty trucks that meet the applicability criteria in §63.3082(b) of the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII) at a facility that meets the applicability criteria in §63.3081(b).
 - (17) Screen printing.
- (d) If your facility meets the applicability criteria in §63.3081(b) of the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII) and you perform surface coating of plastic parts or products that meets both the applicability criteria in §63.3082(c) and the applicability criteria of this subpart, then for the surface coating of any or all of your plastic parts or products that meets the applicability criteria in §63.3082(c), you may choose to comply with the requirements of subpart IIII of this part in lieu of complying with this subpart. Surface coating operations on plastic parts or products (e.g., parts for motorcycles or lawnmowers) not intended for use in automobiles, light-duty trucks, or other motor vehicles as defined in §63.3176 cannot be made part of your affected source under subpart IIII of this part.
- (e) If you own or operate an affected source that meets the applicability criteria of this subpart and at the same facility you also perform surface coating that meets the applicability criteria of any other final surface coating NESHAP in this part, you may choose to comply as specified in paragraph (e)(1), (2), or (3) of this section.
- (1) You may have each surface coating operation that meets the applicability criteria of a separate NESHAP comply with that NESHAP separately.

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

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

(ii) You must use kilogram (kg) (pound (lb)) of solids used as a measure of relative surface coating activity over a representative period of operation. You may estimate the relative mass of coating solids used from parameters other than coating consumption and mass solids content (*e.g.*, design specifications for the parts or products coated and the number of items produced). The determination of predominant activity must accurately reflect current and projected coating operations and must be verifiable through appropriate documentation. The use of parameters other than coating consumption and mass solids content must be approved by the Administrator. You may use data for any reasonable time period of at least 1 year in determining the relative amount of coating activity, as long as they represent the way the source will continue to operate in the future and are approved by the Administrator. You must determine the predominant activity at your facility and submit the results of that determination with the initial notification required by §63.4510(b). You must also determine predominant activity annually and include the determination in the next semi-annual compliance report required by §63.4520(a).

(3) You may comply with a facility-specific emission limit calculated from the relative amount of coating activity that is subject to each emission limit. If you elect to comply using the facility-specific emission limit alternative, then compliance with the facility-specific emission limit and the emission limitations in this subpart for all surface coating operations constitutes compliance with this subpart and other applicable surface coating NESHAP. The procedures for calculating the facility-specific emission limit are specified in §63.4490. In calculating a facility-specific emission limit, you must include coating activities that meet the applicability criteria of other surface coating NESHAP and constitute more than 1 percent of total coating activities at your facility. You must not consider any surface coating activity that is subject to the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII) in determining a facility-specific emission limit for your facility. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than 1 percent of total coating activities need not be included in the calculation of the facility-specific emission limit but must be included in the compliance calculations.

§63.4482 What parts of my plant does this subpart cover?

(a) This subpart applies to each new, reconstructed, and existing affected source within each of the four subcategories listed in §63.4481(a).

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

(1) All coating operations as defined in §63.4581;

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

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

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

(c) An affected source is a new source if it meets the criteria in paragraph (c)(1) of this section and the criteria in either paragraph (c)(2) or (3) of this section.

(1) You commenced the construction of the source after December 4, 2002 by installing new coating equipment.

(2) The new coating equipment is used to coat plastic parts and products at a source where no plastic parts surface coating was previously performed.

(3) The new coating equipment is used to perform plastic parts and products coating in a subcategory that was not previously performed.

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

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

§63.4483 When do I have to comply with this subpart?

The date by which you must comply with this subpart is called the compliance date. The compliance date for each type of affected source is specified in paragraphs (a) through (c) of this section. The compliance date begins the initial compliance period during which you conduct the initial compliance demonstration described in §§63.4540, 63.4550, and 63.4560.

(a) For a new or reconstructed affected source, the compliance date is the applicable date in paragraph (a)(1) or (2) of this section:

(1) If the initial startup of your new or reconstructed affected source is before April 19, 2004, the compliance date is April 19, 2004.

(2) If the initial startup of your new or reconstructed affected source occurs after April 19, 2004, the compliance date is the date of initial startup of your affected source.

(b) For an existing affected source, the compliance date is the date 3 years after April 19, 2004.

(c) For an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP emissions, the compliance date is specified in paragraphs (c)(1) and (2) of this section.

(1) For any portion of the source that becomes a new or reconstructed affected source subject to this subpart, the compliance date is the date of initial startup of the affected source or April 19, 2004, whichever is later.

(2) For any portion of the source that becomes an existing affected source subject to this subpart, the compliance date is the date 1 year after the area source becomes a major source or 3 years after April 19, 2004, whichever is later.

(d) You must meet the notification requirements in §63.4510 according to the dates specified in that section and in subpart A of this part. Some of the notifications must be submitted before the compliance dates described in paragraphs (a) through (c) of this section.

Emission Limitations

§63.4490 What emission limits must I meet?

(a) For a new or reconstructed affected source, you must limit organic HAP emissions to the atmosphere from the affected source to the applicable limit specified in paragraphs (a)(1) through (4) of this section, except as specified in paragraph (c) of this section, determined according to the requirements in §63.4541, §63.4551, or §63.4561.

(1) For each new general use coating affected source, limit organic HAP emissions to no more than 0.16 kg (0.16 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period.

(2) For each new automotive lamp coating affected source, limit organic HAP emissions to no more than 0.26 kg (0.26 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period.

(3) For each new TPO coating affected source, limit organic HAP emissions to no more than 0.22 kg (0.22 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period.

(4) For each new assembled on-road vehicle coating affected source, limit organic HAP emissions to no more than 1.34 kg (1.34 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period.

(b) For an existing affected source, you must limit organic HAP emissions to the atmosphere from the affected source to the applicable limit specified in paragraphs (b)(1) through (4) of this section, except as specified in paragraph (c) of this section, determined according to the requirements in §63.4541, §63.4551, or §63.4561.

(1) For each existing general use coating affected source, limit organic HAP emissions to no more than 0.16 kg (0.16 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period.

(2) For each existing automotive lamp coating affected source, limit organic HAP emissions to no more than 0.45 kg (0.45 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period.

(3) For each existing TPO coating affected source, limit organic HAP emissions to no more than 0.26 kg (0.26 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period.

(4) For each existing assembled on-road vehicle coating affected source, limit organic HAP emissions to no more than 1.34 kg (1.34 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period.

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

(1) If the general use or TPO surface coating operations subject to only one of the emission limits specified in paragraphs (a)(1), (a)(3), (b)(1), or (b)(3) of this section account for 90 percent or more of the surface coating activity at your facility (*i.e.*, it is the predominant activity at your facility), then compliance with that emission limitation for all surface coating operations constitutes compliance with the other applicable emission limitations. You must use kg (lb) of solids used as a measure of relative surface coating activity over a representative period of operation. You may estimate the relative mass of coating solids used from parameters other than coating consumption and mass solids content (*e.g.*, design specifications for the parts or products coated and the number of items produced). The determination of predominant activity must accurately reflect current and projected coating operations and must be verifiable through appropriate documentation. The use of parameters other than coating consumption and mass solids content must be approved by the Administrator. You may use data for any reasonable time period of at least 1 year in determining the relative amount of coating activity, as long as they represent the way the source will continue to operate in the future and are approved by the Administrator. You must determine the predominant activity at your facility and submit the results of that determination with the initial notification required by §63.4510(b). Additionally, you must determine the facility's predominant activity annually and include the determination in the next semi-annual compliance report required by §63.4520(a).

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

(i) You are required to calculate the facility-specific emission limit for your facility when you submit the notification of compliance status required in §63.4510(c), and on a monthly basis afterward using the coating data for the relevant 12-month compliance period.

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

$$\text{Facility - Specific Emission Limit} = \frac{\sum_{i=1}^n (\text{Limit}_i)(\text{Solids}_i)}{\sum_{i=1}^n (\text{Solids}_i)} \quad (\text{Eq. 1})$$

Where:

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

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

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

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

(iii) If you need to convert an emission limit in another surface coating NESHAP from kg (lb) organic HAP per liter (gallon) coating solids used to kg (lb) organic HAP per kg (lb) coating solids used, you must use the default solids density of 1.50 kg solids per liter coating solids (12.5 lb solids per gal solids).

§63.4491 What are my options for meeting the emission limits?

You must include all coatings (as defined in §63.4581), thinners and/or other additives, and cleaning materials used in the affected source when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in §63.4490. To make this determination, you must use at least one of the three compliance options listed in paragraphs (a) through (c) of this section. You may apply any of the compliance options to an individual coating operation, or to multiple coating operations as a group, or to the entire affected source. You may use different compliance options for different coating operations, or at different times on the same coating operation. You may employ different compliance options when different coatings are applied to the same part, or when the same coating is applied to different parts. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you must document this switch as required by §63.4530(c), and you must report it in the next semiannual compliance report required in §63.4520.

(a) *Compliant material option.* Demonstrate that the organic HAP content of each coating used in the coating operation(s) is less than or equal to the applicable emission limit in §63.4490, and that each thinner and/or other additive, and cleaning material used contains no organic HAP. You must meet all the requirements of §§63.4540, 63.4541, and 63.4542 to demonstrate compliance with the applicable emission limit using this option.

(b) *Emission rate without add-on controls option.* Demonstrate that, based on the coatings, thinners and/or other additives, and cleaning materials used in the coating operation(s), the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in §63.4490, calculated as a rolling 12-month emission

rate and determined on a monthly basis. You must meet all the requirements of §§63.4550, 63.4551, and 63.4552 to demonstrate compliance with the emission limit using this option.

(c) *Emission rate with add-on controls option.* Demonstrate that, based on the coatings, thinners and/or other additives, and cleaning materials used in the coating operation(s), and the emissions reductions achieved by emission capture systems and add-on controls, the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in §63.4490, calculated as a rolling 12-month emission rate and determined on a monthly basis. If you use this compliance option, you must also demonstrate that all emission capture systems and add-on control devices for the coating operation(s) meet the operating limits required in §63.4492, except for solvent recovery systems for which you conduct liquid-liquid material balances according to §63.4561(j), and that you meet the work practice standards required in §63.4493. You must meet all the requirements of §§63.4560 through 63.4568 to demonstrate compliance with the emission limits, operating limits, and work practice standards using this option.

§63.4492 What operating limits must I meet?

(a) For any coating operation(s) on which you use the compliant material option or the emission rate without add-on controls option, you are not required to meet any operating limits.

(b) For any controlled coating operation(s) on which you use the emission rate with add-on controls option, except those for which you use a solvent recovery system and conduct a liquid-liquid material balance according to §63.4561(j), you must meet the operating limits specified in Table 1 to this subpart. These operating limits apply to the emission capture and control systems on the coating operation(s) for which you use this option, and you must establish the operating limits during the performance test according to the requirements in §63.4567. You must meet the operating limits at all times after you establish them.

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

§63.4493 What work practice standards must I meet?

(a) For any coating operation(s) on which you use the compliant material option or the emission rate without add-on controls option, you are not required to meet any work practice standards.

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

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

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

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

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

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

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

General Compliance Requirements

§63.4500 What are my general requirements for complying with this subpart?

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

(1) Any coating operation(s) for which you use the compliant material option or the emission rate without add-on controls option, as specified in §63.4491(a) and (b), must be in compliance with the applicable emission limit in §63.4490 at all times.

(2) Any coating operation(s) for which you use the emission rate with add-on controls option, as specified in §63.4491(c), must be in compliance with the emission limitations as specified in paragraphs (a)(2)(i) through (iii) of this section.

(i) The coating operation(s) must be in compliance with the applicable emission limit in §63.4490 at all times except during periods of startup, shutdown, and malfunction.

(ii) The coating operation(s) must be in compliance with the operating limits for emission capture systems and add-on control devices required by §63.4492 at all times except during periods of startup, shutdown, and malfunction, and except for solvent recovery systems for which you conduct liquid-liquid material balances according to §63.4561(j).

(iii) The coating operation(s) must be in compliance with the work practice standards in §63.4493 at all times.

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

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

§63.4501 What parts of the General Provisions apply to me?

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

Notifications, Reports, and Records

§63.4510 What notifications must I submit?

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

(b) *Initial notification.* You must submit the initial notification required by §63.9(b) for a new or reconstructed affected source no later than 120 days after initial startup or 120 days after April 19, 2004, whichever is later. For an existing affected source, you must submit the initial notification no later than 1 year after April 19, 2004. If you are using compliance with the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (subpart IIII of this part) as provided for under §63.4481(d) to constitute compliance with this subpart for any or all of your plastic parts coating operations, then you must include a statement to this effect in your initial notification, and no other notifications are required under this subpart in regard to those plastic parts coating operations. If you are complying with another NESHAP that constitutes the predominant activity at your facility under §63.4481(e)(2) to constitute compliance with this subpart for your plastic parts coating operations, then you must include a statement to this effect in your initial notification, and no other notifications are required under this subpart in regard to those plastic parts coating operations.

(c) *Notification of compliance status.* You must submit the notification of compliance status required by §63.9(h) no later than 30 calendar days following the end of the initial compliance period described in §63.4540, §63.4550, or §63.4560 that applies to your affected source. The notification of compliance status must contain the information specified in paragraphs (c)(1) through (11) of this section and in §63.9(h).

- (1) Company name and address.
- (2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
- (3) Date of the report and beginning and ending dates of the reporting period. The reporting period is the initial compliance period described in §63.4540, §63.4550, or §63.4560 that applies to your affected source.
- (4) Identification of the compliance option or options specified in §63.4491 that you used on each coating operation in the affected source during the initial compliance period.
- (5) Statement of whether or not the affected source achieved the emission limitations for the initial compliance period.
- (6) If you had a deviation, include the information in paragraphs (c)(6)(i) and (ii) of this section.
 - (i) A description and statement of the cause of the deviation.
 - (ii) If you failed to meet the applicable emission limit in §63.4490, include all the calculations you used to determine the kg (lb) organic HAP emitted per kg (lb) coating solids used. You do not need to submit information provided by the materials' suppliers or manufacturers, or test reports.
- (7) For each of the data items listed in paragraphs (c)(7)(i) through (iv) of this section that is required by the compliance option(s) you used to demonstrate compliance with the emission limit, include an example of how you determined the value, including calculations and supporting data. Supporting data may include a copy of the information provided by the supplier or manufacturer of the example coating or material, or a summary of the results of testing conducted according to §63.4541(a), (b), or (c). You do not need to submit copies of any test reports.
 - (i) Mass fraction of organic HAP for one coating, for one thinner and/or other additive, and for one cleaning material.
 - (ii) Mass fraction of coating solids for one coating.
 - (iii) Density for one coating, one thinner and/or other additive, and one cleaning material, except that if you use the compliant material option, only the example coating density is required.
 - (iv) The amount of waste materials and the mass of organic HAP contained in the waste materials for which you are claiming an allowance in Equation 1 of §63.4551.
- (8) The calculation of kg (lb) organic HAP emitted per kg (lb) coating solids used for the compliance option(s) you used, as specified in paragraphs (c)(8)(i) through (iii) of this section.
 - (i) For the compliant material option, provide an example calculation of the organic HAP content for one coating, using Equation 1 of §63.4541.
 - (ii) For the emission rate without add-on controls option, provide the calculation of the total mass of organic HAP emissions for each month; the calculation of the total mass of coating solids used each month; and the calculation of the 12-month organic HAP emission rate using Equations 1 and 1A through 1C, 2, and 3, respectively, of §63.4551.
 - (iii) For the emission rate with add-on controls option, provide the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month, using Equations 1 and 1A through 1C of §63.4551; the calculation of the total mass of coating solids used each month using Equation 2 of §63.4551; the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of §63.4561 and Equations 2, 3, and 3A through 3C of §63.4561, as applicable; the calculation of the total mass of organic HAP emissions each month using Equation 4 of §63.4561; and the calculation of the 12-month organic HAP emission rate using Equation 5 of §63.4561.
- (9) For the emission rate with add-on controls option, you must include the information specified in paragraphs (c)(9)(i) through (iv) of this section, except that the requirements in paragraphs (c)(9)(i) through (iii) of this section do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to §63.4561(j).

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

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

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

(iv) A statement of whether or not you developed and implemented the work practice plan required by §63.4493.

(10) If you are complying with a single emission limit representing the predominant activity under §63.4490(c)(1), include the calculations and supporting information used to demonstrate that this emission limit represents the predominant activity as specified in §63.4490(c)(1).

(11) If you are complying with a facility-specific emission limit under §63.4490(c)(2), include the calculation of the facility-specific emission limit and any supporting information as specified in §63.4490(c)(2).

§63.4520 What reports must I submit?

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

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

(i) The first semiannual compliance report must cover the first semiannual reporting period which begins the day after the end of the initial compliance period described in §63.4540, §63.4550, or §63.4560 that applies to your affected source and ends on June 30 or December 31, whichever date is the first date following the end of the initial compliance period.

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

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

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

(2) *Inclusion with title V report.* Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a semiannual compliance report pursuant to this section along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the semiannual compliance report includes all required information concerning

deviations from any emission limitation in this subpart, its submission will be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a semiannual compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permitting authority.

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

(i) Company name and address.

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

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

(iv) Identification of the compliance option or options specified in §63.4491 that you used on each coating operation during the reporting period. If you switched between compliance options during the reporting period, you must report the beginning and ending dates for each option you used.

(v) If you used the emission rate without add-on controls or the emission rate with add-on controls compliance option (§63.4491(b) or (c)), the calculation results for each rolling 12-month organic HAP emission rate during the 6-month reporting period.

(vi) If you used the predominant activity alternative (§63.4490(c)(1)), include the annual determination of predominant activity if it was not included in the previous semi-annual compliance report.

(vii) If you used the facility-specific emission limit alternative (§63.4490(c)(2)), include the calculation of the facility-specific emission limit for each 12-month compliance period during the 6-month reporting period.

(4) *No deviations.* If there were no deviations from the emission limitations in §§63.4490, 63.4492, and 63.4493 that apply to you, the semiannual compliance report must include a statement that there were no deviations from the emission limitations during the reporting period. If you used the emission rate with add-on controls option and there were no periods during which the continuous parameter monitoring systems (CPMS) were out-of-control as specified in §63.8(c)(7), the semiannual compliance report must include a statement that there were no periods during which the CPMS were out-of-control during the reporting period.

(5) *Deviations: Compliant material option.* If you used the compliant material option and there was a deviation from the applicable organic HAP content requirements in §63.4490, the semiannual compliance report must contain the information in paragraphs (a)(5)(i) through (iv) of this section.

(i) Identification of each coating used that deviated from the applicable emission limit, and each thinner and/or other additive, and cleaning material used that contained organic HAP, and the dates and time periods each was used.

(ii) The calculation of the organic HAP content (using Equation 1 of §63.4541) for each coating identified in paragraph (a)(5)(i) of this section. You do not need to submit background data supporting this calculation (*e.g.*, information provided by coating suppliers or manufacturers, or test reports).

(iii) The determination of mass fraction of organic HAP for each thinner and/or other additive, and cleaning material identified in paragraph (a)(5)(i) of this section. You do not need to submit background data supporting this calculation (*e.g.*, information provided by material suppliers or manufacturers, or test reports).

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

(6) *Deviations: Emission rate without add-on controls option.* If you used the emission rate without add-on controls option and there was a deviation from the applicable emission limit in §63.4490, the semiannual compliance report must contain the information in paragraphs (a)(6)(i) through (iii) of this section.

(i) The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in §63.4490.

(ii) The calculations used to determine the 12-month organic HAP emission rate for the compliance period in which the deviation occurred. You must submit the calculations for Equations 1, 1A through 1C, 2, and 3 of §63.4551; and if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.4551(e)(4). You do not need to submit background data supporting these calculations (*e.g.*, information provided by materials suppliers or manufacturers, or test reports).

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

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

(i) The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in §63.4490.

(ii) The calculations used to determine the 12-month organic HAP emission rate for each compliance period in which a deviation occurred. You must provide the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1 and 1A through 1C of §63.4551; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.4551(e)(4); the calculation of the total mass of coating solids used each month using Equation 2 of §63.4551; the calculation of the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of §63.4561, and Equations 2, 3, and 3A through 3C of §63.4561, as applicable; the calculation of the total mass of organic HAP emissions each month using Equation 4 of §63.4561; and the calculation of the 12-month organic HAP emission rate using Equation 5 of §63.4561. You do not need to submit the background data supporting these calculations (*e.g.*, information provided by materials suppliers or manufacturers, or test reports).

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

(iv) A brief description of the CPMS.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

§63.4530 What records must I keep?

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

(a) A copy of each notification and report that you submitted to comply with this subpart, and the documentation supporting each notification and report. If you are using the predominant activity alternative under §63.4490(c), you must keep records of the data and calculations used to determine the predominant activity. If you are using the facility-specific emission limit alternative under §63.4490(c), you must keep records of the data used to calculate the facility-specific emission limit for the initial compliance demonstration. You must also keep records of any data used in each annual predominant activity determination and in the calculation of the facility-specific emission limit for each 12-month compliance period included in the semi-annual compliance reports.

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

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

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

- (2) For the compliant material option, a record of the calculation of the organic HAP content for each coating, using Equation 1 of §63.4541.
- (3) For the emission rate without add-on controls option, a record of the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1, 1A through 1C, and 2 of §63.4551 and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.4551(e)(4); the calculation of the total mass of coating solids used each month using Equation 2 of §63.4551; and the calculation of each 12-month organic HAP emission rate using Equation 3 of §63.4551.
- (4) For the emission rate with add-on controls option, records of the calculations specified in paragraphs (c)(4)(i) through (v) of this section.
- (i) The calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1 and 1A through 1C of §63.4551; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.4551(e)(4);
- (ii) The calculation of the total mass of coating solids used each month using Equation 2 of §63.4551;
- (iii) The calculation of the mass of organic HAP emission reduction by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of §63.4561 and Equations 2, 3, and 3A through 3C of §63.4561, as applicable;
- (iv) The calculation of each month's organic HAP emission rate using Equation 4 of §63.4561; and
- (v) The calculation of each 12-month organic HAP emission rate using Equation 5 of §63.4561.
- (d) A record of the name and mass of each coating, thinner and/or other additive, and cleaning material used during each compliance period. If you are using the compliant material option for all coatings at the source, you may maintain purchase records for each material used rather than a record of the mass used.
- (e) A record of the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each compliance period.
- (f) A record of the mass fraction of coating solids for each coating used during each compliance period.
- (g) If you use an allowance in Equation 1 of §63.4551 for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage, and disposal facility (TSDF) according to §63.4551(e)(4), you must keep records of the information specified in paragraphs (g)(1) through (3) of this section.
- (1) The name and address of each TSDF to which you sent waste materials for which you use an allowance in Equation 1 of §63.4551, a statement of which subparts under 40 CFR parts 262, 264, 265, and 266 apply to the facility; and the date of each shipment.
- (2) Identification of the coating operations producing waste materials included in each shipment and the month or months in which you used the allowance for these materials in Equation 1 of §63.4551.
- (3) The methodology used in accordance with §63.4551(e)(4) to determine the total amount of waste materials sent to or the amount collected, stored, and designated for transport to a TSDF each month; and the methodology to determine the mass of organic HAP contained in these waste materials. This must include the sources for all data used in the determination, methods used to generate the data, frequency of testing or monitoring, and supporting calculations and documentation, including the waste manifest for each shipment.
- (h) You must keep records of the date, time, and duration of each deviation.
- (i) If you use the emission rate with add-on controls option, you must keep the records specified in paragraphs (i)(1) through (8) of this section.
- (1) For each deviation, a record of whether the deviation occurred during a period of startup, shutdown, or malfunction.

- (2) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.
- (3) The records required to show continuous compliance with each operating limit specified in Table 1 to this subpart that applies to you.
- (4) For each capture system that is a PTE, the data and documentation you used to support a determination that the capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and has a capture efficiency of 100 percent, as specified in §63.4565(a).
- (5) For each capture system that is not a PTE, the data and documentation you used to determine capture efficiency according to the requirements specified in §§63.4564 and 63.4565(b) through (e), including the records specified in paragraphs (i)(5)(i) through (iii) of this section that apply to you.
- (i) *Records for a liquid-to-uncaptured gas protocol using a temporary total enclosure or building enclosure.* Records of the mass of total volatile hydrocarbon (TVH) as measured by Method 204A or 204F of appendix M to 40 CFR part 51 for each material used in the coating operation, and the total TVH for all materials used during each capture efficiency test run, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run, as measured by Method 204D or 204E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.
- (ii) *Records for a gas-to-gas protocol using a temporary total enclosure or a building enclosure.* Records of the mass of TVH emissions captured by the emission capture system as measured by Method 204B or 204C of appendix M to 40 CFR part 51 at the inlet to the add-on control device, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run as measured by Method 204D or 204E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.
- (iii) *Records for an alternative protocol.* Records needed to document a capture efficiency determination using an alternative method or protocol as specified in §63.4565(e), if applicable.
- (6) The records specified in paragraphs (i)(6)(i) and (ii) of this section for each add-on control device organic HAP destruction or removal efficiency determination as specified in §63.4566.
- (i) Records of each add-on control device performance test conducted according to §§63.4564 and 63.4566.
- (ii) Records of the coating operation conditions during the add-on control device performance test showing that the performance test was conducted under representative operating conditions.
- (7) Records of the data and calculations you used to establish the emission capture and add-on control device operating limits as specified in §63.4567 and to document compliance with the operating limits as specified in Table 1 to this subpart.
- (8) A record of the work practice plan required by §63.4493 and documentation that you are implementing the plan on a continuous basis.

§63.4531 In what form and for how long must I keep my records?

- (a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database.
- (b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

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

Compliance Requirements for the Compliant Material Option

§63.4540 By what date must I conduct the initial compliance demonstration?

You must complete the initial compliance demonstration for the initial compliance period according to the requirements in §63.4541. The initial compliance period begins on the applicable compliance date specified in §63.4483 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through that month plus the next 12 months. The initial compliance demonstration includes the calculations according to §63.4541 and supporting documentation showing that during the initial compliance period, you used no coating with an organic HAP content that exceeded the applicable emission limit in §63.4490, and that you used no thinners and/or other additives, or cleaning materials that contained organic HAP as determined according to §63.4541(a).

§63.4541 How do I demonstrate initial compliance with the emission limitations?

You may use the compliant material option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. You must use either the emission rate without add-on controls option or the emission rate with add-on controls option for any coating operation in the affected source for which you do not use this option. To demonstrate initial compliance using the compliant material option, the coating operation or group of coating operations must use no coating with an organic HAP content that exceeds the applicable emission limits in §63.4490 and must use no thinner and/or other additive, or cleaning material that contains organic HAP as determined according to this section. Any coating operation for which you use the compliant material option is not required to meet the operating limits or work practice standards required in §§63.4492 and 63.4493, respectively. You must conduct a separate initial compliance demonstration for each general use coating, TPO coating, automotive lamp coating, and assembled on-road vehicle coating affected source unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.4490(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.4490(c), you must demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You must meet all the requirements of this section. Use the procedures in this section on each coating, thinner and/or other additive, and cleaning material in the condition it is in when it is received from its manufacturer or supplier and prior to any alteration. You do not need to redetermine the organic HAP content of coatings, thinners and/or other additives, and cleaning materials that are reclaimed on-site (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coating operation for which you use the compliant material option, provided these materials in their condition as received were demonstrated to comply with the compliant material option.

(a) *Determine the mass fraction of organic HAP for each material used.* You must determine the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during the compliance period by using one of the options in paragraphs (a)(1) through (5) of this section.

(1) *Method 311 (appendix A to 40 CFR part 63).* You may use Method 311 for determining the mass fraction of organic HAP. Use the procedures specified in paragraphs (a)(1)(i) and (ii) of this section when performing a Method 311 test.

(i) Count each organic HAP that is measured to be present at 0.1 percent by mass or more for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is measured to be 0.5 percent of the material by mass, you do not have to count it. Express the mass fraction of each organic HAP you count as a value truncated to four places after the decimal point (e.g., 0.3791).

(ii) Calculate the total mass fraction of organic HAP in the test material by adding up the individual organic HAP mass fractions and truncating the result to three places after the decimal point (*e.g.*, 0.763).

(2) *Method 24 (appendix A to 40 CFR part 60)*. For coatings, you may use Method 24 to determine the mass fraction of nonaqueous volatile matter and use that value as a substitute for mass fraction of organic HAP. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may use the alternative method contained in appendix A to this subpart, rather than Method 24. You may use the volatile fraction that is emitted, as measured by the alternative method in appendix A to this subpart, as a substitute for the mass fraction of organic HAP.

(3) *Alternative method*. You may use an alternative test method for determining the mass fraction of organic HAP once the Administrator has approved it. You must follow the procedure in §63.7(f) to submit an alternative test method for approval.

(4) *Information from the supplier or manufacturer of the material*. You may rely on information other than that generated by the test methods specified in paragraphs (a)(1) through (3) of this section, such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is 0.5 percent of the material by mass, you do not have to count it. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may rely on manufacturer's data that expressly states the organic HAP or volatile matter mass fraction emitted. If there is a disagreement between such information and results of a test conducted according to paragraphs (a)(1) through (3) of this section, then the test method results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(5) *Solvent blends*. Solvent blends may be listed as single components for some materials in data provided by manufacturers or suppliers. Solvent blends may contain organic HAP which must be counted toward the total organic HAP mass fraction of the materials. When test data and manufacturer's data for solvent blends are not available, you may use the default values for the mass fraction of organic HAP in these solvent blends listed in Table 3 or 4 to this subpart. If you use the tables, you must use the values in Table 3 for all solvent blends that match Table 3 entries according to the instructions for Table 3, and you may use Table 4 only if the solvent blends in the materials you use do not match any of the solvent blends in Table 3 and you know only whether the blend is aliphatic or aromatic. However, if the results of a Method 311 (appendix A to 40 CFR part 63) test indicate higher values than those listed on Table 3 or 4 to this subpart, the Method 311 results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(b) *Determine the mass fraction of coating solids for each coating*. You must determine the mass fraction of coating solids (kg (lb) of coating solids per kg (lb) of coating) for each coating used during the compliance period by a test, by information provided by the supplier or the manufacturer of the material, or by calculation, as specified in paragraphs (b)(1) through (3) of this section.

(1) *Method 24 (appendix A to 40 CFR part 60)*. Use Method 24 for determining the mass fraction of coating solids. For reactive adhesives in which some of the liquid fraction reacts to form solids, you may use the alternative method contained in appendix A to this subpart, rather than Method 24, to determine the mass fraction of coating solids.

(2) *Alternative method*. You may use an alternative test method for determining the solids content of each coating once the Administrator has approved it. You must follow the procedure in §63.7(f) to submit an alternative test method for approval.

(3) *Information from the supplier or manufacturer of the material*. You may obtain the mass fraction of coating solids for each coating from the supplier or manufacturer. If there is disagreement between such information and the test method results, then the test method results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(c) *Calculate the organic HAP content of each coating.* Calculate the organic HAP content, kg (lb) organic HAP emitted per kg (lb) coating solids used, of each coating used during the compliance period using Equation 1 of this section:

$$H_c = \frac{W_c}{S_c} \quad (\text{Eq. 1})$$

Where:

H_c = Organic HAP content of the coating, kg (lb) of organic HAP emitted per kg (lb) coating solids used.

W_c = Mass fraction of organic HAP in the coating, kg organic HAP per kg coating, determined according to paragraph (a) of this section.

S_c = Mass fraction of coating solids, kg coating solids per kg coating, determined according to paragraph (b) of this section.

(d) *Compliance demonstration.* The calculated organic HAP content for each coating used during the initial compliance period must be less than or equal to the applicable emission limit in §63.4490; and each thinner and/or other additive, and cleaning material used during the initial compliance period must contain no organic HAP, determined according to paragraph (a) of this section. You must keep all records required by §§63.4530 and 63.4531. As part of the notification of compliance status required in §63.4510, you must identify the coating operation(s) for which you used the compliant material option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because you used no coatings for which the organic HAP content exceeded the applicable emission limit in §63.4490, and you used no thinners and/or other additives, or cleaning materials that contained organic HAP, determined according to the procedures in paragraph (a) of this section.

§63.4542 How do I demonstrate continuous compliance with the emission limitations?

(a) For each compliance period to demonstrate continuous compliance, you must use no coating for which the organic HAP content (determined using Equation 1 of §63.4541) exceeds the applicable emission limit in §63.4490, and use no thinner and/or other additive, or cleaning material that contains organic HAP, determined according to §63.4541(a). A compliance period consists of 12 months. Each month, after the end of the initial compliance period described in §63.4540, is the end of a compliance period consisting of that month and the preceding 11 months. If you are complying with a facility-specific emission limit under §63.4490(c), you must also perform the calculation using Equation 1 in §63.4490(c)(2) on a monthly basis using the data from the previous 12 months of operation.

(b) If you choose to comply with the emission limitations by using the compliant material option, the use of any coating, thinner and/or other additive, or cleaning material that does not meet the criteria specified in paragraph (a) of this section is a deviation from the emission limitations that must be reported as specified in §§63.4510(c)(6) and 63.4520(a)(5).

(c) As part of each semiannual compliance report required by §63.4520, you must identify the coating operation(s) for which you used the compliant material option. If there were no deviations from the applicable emission limit in §63.4490, submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because you used no coatings for which the organic HAP content exceeded the applicable emission limit in §63.4490, and you used no thinner and/or other additive, or cleaning material that contained organic HAP, determined according to §63.4541(a).

(d) You must maintain records as specified in §§63.4530 and 63.4531.

Compliance requirements for the emission rate without add-on controls option

§63.4550 By what date must I conduct the initial compliance demonstration?

You must complete the initial compliance demonstration for the initial compliance period according to the requirements of §63.4551. The initial compliance period begins on the applicable compliance date specified in §63.4483 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You must determine the mass of organic HAP emissions and mass of coating solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the calculations according to §63.4551 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in §63.4490.

§63.4551 How do I demonstrate initial compliance with the emission limitations?

You may use the emission rate without add-on controls option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. You must use either the compliant material option or the emission rate with add-on controls option for any coating operation in the affected source for which you do not use this option. To demonstrate initial compliance using the emission rate without add-on controls option, the coating operation or group of coating operations must meet the applicable emission limit in §63.4490, but is not required to meet the operating limits or work practice standards in §§63.4492 and 63.4493, respectively. You must conduct a separate initial compliance demonstration for each general use, TPO, automotive lamp, and assembled on-road vehicle coating operation unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.4490(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.4490(c), you must demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You must meet all the requirements of this section. When calculating the organic HAP emission rate according to this section, do not include any coatings, thinners and/or other additives, or cleaning materials used on coating operations for which you use the compliant material option or the emission rate with add-on controls option. You do not need to redetermine the mass of organic HAP in coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coating operation for which you use the emission rate without add-on controls option. If you use coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site, the amount of each used in a month may be reduced by the amount of each that is reclaimed. That is, the amount used may be calculated as the amount consumed to account for materials that are reclaimed.

(a) *Determine the mass fraction of organic HAP for each material.* Determine the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each month according to the requirements in §63.4541(a).

(b) *Determine the mass fraction of coating solids.* Determine the mass fraction of coating solids (kg (lb) of coating solids per kg (lb) of coating) for each coating used during each month according to the requirements in §63.4541(b).

(c) *Determine the density of each material.* Determine the density of each liquid coating, thinner and/or other additive, and cleaning material used during each month from test results using ASTM Method D1475-98, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" (incorporated by reference, see §63.14), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475-98 and other such information sources, the test results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct. If you purchase materials or monitor consumption by weight instead of volume, you do not need to determine material density. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, 1C, and 2 of this section.

(d) *Determine the volume of each material used.* Determine the volume (liters) of each coating, thinner and/or other additive, and cleaning material used during each month by measurement or usage records. If you purchase materials or

monitor consumption by weight instead of volume, you do not need to determine the volume of each material used. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, 1C, and 2 of this section.

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

$$H_e = A + B + C - R_w \quad (\text{Eq. 1})$$

Where:

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

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

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

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

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

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

$$A = \sum_{i=1}^m (\text{Vol}_{c,i}) (D_{c,i}) (W_{c,i}) \quad (\text{Eq. 1A})$$

Where:

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

$\text{Vol}_{c,i}$ = Total volume of coating, i, used during the month, liters.

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

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating. For reactive adhesives as defined in §63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

m = Number of different coatings used during the month.

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

$$B = \sum_{j=1}^n (\text{Vol}_{t,j}) (D_{t,j}) (W_{t,j}) \quad (\text{Eq. 1B})$$

Where:

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

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

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

$W_{t,j}$ = Mass fraction of organic HAP in thinner and/or other additive, j, kg organic HAP per kg thinner and/or other additive. For reactive adhesives as defined in §63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

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

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

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

Where:

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

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

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

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

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

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

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

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

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

(iv) You must document the methodology you use to determine the amount of waste materials and the total mass of organic HAP they contain, as required in §63.4530(g). If waste manifests include this information, they may be used as part of the documentation of the amount of waste materials and mass of organic HAP contained in them.

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

$$M_{st} = \sum_{i=1}^m (Vol_{c,i})(D_{c,i})(M_{s,i}) \quad (Eq. 2)$$

Where:

M_{st} = Total mass of coating solids used during the month, kg.

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

$D_{c,i}$ = Density of coating, i, kgs per liter coating, determined according to §63.4551(c).

$M_{s,i}$ = Mass fraction of coating solids for coating, i, kgs solids per kg coating, determined according to §63.4541(b).

m = Number of coatings used during the month.

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

$$H_{yr} = \frac{\sum_{y=1}^n H_e}{\sum_{y=1}^n M_{st}} \quad (\text{Eq. 3})$$

Where:

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

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

M_{st} = Total mass of coating solids used during month, y, kg, as calculated by Equation 2 of this section.

y = Identifier for months.

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

(h) *Compliance demonstration.* The organic HAP emission rate for the initial compliance period calculated using Equation 3 of this section must be less than or equal to the applicable emission limit for each subcategory in §63.4490 or the predominant activity or facility-specific emission limit allowed in §63.4490(c). You must keep all records as required by §§63.4530 and 63.4531. As part of the notification of compliance status required by §63.4510, you must identify the coating operation(s) for which you used the emission rate without add-on controls option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in §63.4490, determined according to the procedures in this section.

§63.4552 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance, the organic HAP emission rate for each compliance period, determined according to §63.4551(a) through (g), must be less than or equal to the applicable emission limit in §63.4490. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in §63.4550 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in §63.4551(a) through (g) on a monthly basis using data from the previous 12 months of operation. If you are complying with a facility-specific emission limit under §63.4490(c), you must also perform the calculation using Equation 1 in §63.4490(c)(2) on a monthly basis using the data from the previous 12 months of operation.

(b) If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in §63.4490, this is a deviation from the emission limitation for that compliance period and must be reported as specified in §§63.4510(c)(6) and 63.4520(a)(6).

(c) As part of each semiannual compliance report required by §63.4520, you must identify the coating operation(s) for which you used the emission rate without add-on controls option. If there were no deviations from the emission limitations, you must submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in §63.4490, determined according to §63.4551(a) through (g).

(d) You must maintain records as specified in §§63.4530 and 63.4531.

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

§63.4560 By what date must I conduct performance tests and other initial compliance demonstrations?

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

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in §63.4483. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to §63.4561(j), you must conduct a performance test of each capture system and add-on control device according to §§63.4564, 63.4565, and 63.4566 and establish the operating limits required by §63.4492 no later than 180 days after the applicable compliance date specified in §63.4483. For a solvent recovery system for which you conduct liquid-liquid material balances according to §63.4561(j), you must initiate the first material balance no later than the applicable compliance date specified in §63.4483.

(2) You must develop and begin implementing the work practice plan required by §63.4493 no later than the compliance date specified in §63.4483.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of §63.4561. The initial compliance period begins on the applicable compliance date specified in §63.4483 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You must determine the mass of organic HAP emissions and mass of coatings solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§63.4564, 63.4565, and 63.4566; results of liquid-liquid material balances conducted according to §63.4561(j); calculations according to §63.4561 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in §63.4490; the operating limits established during the performance tests and the results of the continuous parameter monitoring required by §63.4568; and documentation of whether you developed and implemented the work practice plan required by §63.4493.

(4) You do not need to comply with the operating limits for the emission capture system and add-on control device required by §63.4492 until after you have completed the performance tests specified in paragraph (a)(1) of this section. Instead, you must maintain a log detailing the operation and maintenance of the emission capture system, add-on control device, and continuous parameter monitors during the period between the compliance date and the performance test. You must begin complying with the operating limits for your affected source on the date you complete the performance tests specified in paragraph (a)(1) of this section. The requirements in this paragraph (a)(4) do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements in §63.4561(j).

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

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in §63.4483. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to §63.4561(j), you must conduct a performance test of each capture system and add-on control device according to the procedures in §§63.4564, 63.4565, and 63.4566 and establish the operating limits required by §63.4492 no later than the compliance date specified in §63.4483. For a solvent recovery system for which you conduct liquid-liquid material balances according to §63.4561(j), you must initiate the first material balance no later than the compliance date specified in §63.4483.

(2) You must develop and begin implementing the work practice plan required by §63.4493 no later than the compliance date specified in §63.4483.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of §63.4561. The initial compliance period begins on the applicable compliance date specified in §63.4483 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You must determine the mass of organic HAP emissions and mass of coatings solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§63.4564, 63.4565, and 63.4566; results of liquid-liquid material balances conducted according to §63.4561(j); calculations according to §63.4561 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in §63.4490; the operating limits established during the performance tests and the results of the continuous parameter monitoring required by §63.4568; and documentation of whether you developed and implemented the work practice plan required by §63.4493.

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

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

(2) Either no process or equipment changes must have been made since the previous test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

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

§63.4561 How do I demonstrate initial compliance?

(a) You may use the emission rate with add-on controls option for any coating operation, for any group of coating operations in the affected source, or for all of the coating operations in the affected source. You may include both controlled and uncontrolled coating operations in a group for which you use this option. You must use either the compliant material option or the emission rate without add-on controls option for any coating operation in the affected source for which you do not use the emission rate with add-on controls option. To demonstrate initial compliance, the coating operation(s) for which you use the emission rate with add-on controls option must meet the applicable emission limitations in §§63.4490, 63.4492, and 63.4493. You must conduct a separate initial compliance demonstration for each general use, TPO, automotive lamp, and assembled on-road vehicle coating operation, unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.4490(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in §63.4490(c), you must demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You must meet all the requirements of this section. When calculating the organic HAP emission rate according to this section, do not include any coatings, thinners and/or other additives, or cleaning materials used on coating operations for which you use the compliant material option or the emission rate without add-on controls option. You do not need to redetermine the mass of organic HAP in coatings, thinners and/or other additives, or cleaning materials that have been reclaimed onsite (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coatings operation(s) for which you use the emission rate with add-on controls option. If you use coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site, the amount of each used in a month may be reduced by the amount of each that is reclaimed. That is, the amount used may be calculated as the amount consumed to account for materials that are reclaimed.

(b) *Compliance with operating limits.* Except as provided in §63.4560(a)(4), and except for solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements of paragraph (j) of this section, you must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by §63.4492, using the procedures specified in §§63.4567 and 63.4568.

(c) *Compliance with work practice requirements.* You must develop, implement, and document your implementation of the work practice plan required by §63.4493 during the initial compliance period, as specified in §63.4530.

(d) *Compliance with emission limits.* You must follow the procedures in paragraphs (e) through (n) of this section to demonstrate compliance with the applicable emission limit in §63.4490 for each affected source in each subcategory.

(e) *Determine the mass fraction of organic HAP, density, volume used, and mass fraction of coating solids.* Follow the procedures specified in §63.4551(a) through (d) to determine the mass fraction of organic HAP, density, and volume of each coating, thinner and/or other additive, and cleaning material used during each month; and the mass fraction of coating solids for each coating used during each month.

(f) *Calculate the total mass of organic HAP emissions before add-on controls.* Using Equation 1 of §63.4551, calculate the total mass of organic HAP emissions before add-on controls from all coatings, thinners and/or other additives, and cleaning materials used during each month in the coating operation or group of coating operations for which you use the emission rate with add-on controls option.

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

(h) *Calculate the organic HAP emission reduction for each controlled coating operation not using liquid-liquid material balance.* Use Equation 1 of this section to calculate the organic HAP emission reduction for each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances. The calculation applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coatings, thinners and/or other additives, and cleaning materials that are used in the coating operation served by the emission capture system and add-on control device during each month. You must assume zero efficiency for the emission capture system and add-on control device for any period of time a deviation specified in §63.4563(c) or (d) occurs in the controlled coating operation, including a deviation during a period of startup, shutdown, or malfunction, unless you have other data indicating the actual efficiency of the emission capture system and add-on control device and the use of these data is approved by the Administrator. Equation 1 of this section treats the materials used during such a deviation as if they were used on an uncontrolled coating operation for the time period of the deviation.

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

Where:

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

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

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

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

R_W = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the compliance period, kg, determined according to §63.4951(e)(4). (You may assign a value of zero to R_W if you do not wish to use this allowance.)

H_{UNC} = Total mass of organic HAP in the coatings, thinners and/or other additives, and cleaning materials used during all deviations specified in §63.4563(c) and (d) that occurred during the month in the controlled coating operation, kg, as calculated in Equation 1D of this section.

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent. Use the test methods and procedures specified in §§63.4564 and 63.4565 to measure and record capture efficiency.

DRE = Organic HAP destruction or removal efficiency of the add-on control device, percent. Use the test methods and procedures in §§63.4564 and 63.4566 to measure and record the organic HAP destruction or removal efficiency.

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

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

Where:

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

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

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

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg per kg. For reactive adhesives as defined in §63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

m = Number of different coatings used.

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

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

Where:

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

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

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

$W_{t,j}$ = Mass fraction of organic HAP in thinner and/or other additive, j, kg per kg. For reactive adhesives as defined in §63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

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

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

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

Where:

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

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

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

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

p = Number of different cleaning materials used.

(4) Calculate the mass of organic HAP in the coatings, thinners and/or other additives, and cleaning materials used in the controlled coating operation during deviations specified in §63.4563(c) and (d), using Equation 1D of this section:

$$H_{UNC} = \sum_{h=1}^q (Vol_h)(D_h)(W_h) \quad (Eq. 1D)$$

Where:

H_{UNC} = Total mass of organic HAP in the coatings, thinners and/or other additives, and cleaning materials used during all deviations specified in §63.4563(c) and (d) that occurred during the month in the controlled coating operation, kg.

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

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

W_h = Mass fraction of organic HAP in coating, thinner and/or other additives, or cleaning material, h, kg organic HAP per kg coating. For reactive adhesives as defined in §63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

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

(i) [Reserved]

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

(1) For each solvent recovery system, install, calibrate, maintain, and operate according to the manufacturer's specifications, a device that indicates the cumulative amount of volatile organic matter recovered by the solvent recovery system each month. The device must be initially certified by the manufacturer to be accurate to within ± 2.0 percent of the mass of volatile organic matter recovered.

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

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

(4) Determine the density of each coating, thinner and/or other additive, and cleaning material used in the coating operation controlled by the solvent recovery system during the month, kg per liter, according to §63.4551(c).

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

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

$$R_V = 100 \frac{M_{VR}}{\sum_{i=1}^m Vol_i D_i WV_{c,i} + \sum_{j=1}^n Vol_j D_j WV_{t,j} + \sum_{k=1}^p Vol_k D_k WV_{s,k}} \quad (Eq. 2)$$

Where:

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

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

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

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

$WV_{c,i}$ = Mass fraction of volatile organic matter for coating, i , kg volatile organic matter per kg coating. For reactive adhesives as defined in §63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

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

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

$WV_{t,j}$ = Mass fraction of volatile organic matter for thinner and/or other additive, j , kg volatile organic matter per kg thinner and/or other additive. For reactive adhesives as defined in §63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

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

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

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

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

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

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

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

$$H_{CSR} = (A_{CSR} + B_{CSR} + C_{CSR}) \left(\frac{R_v}{100} \right) \quad (Eq. 3)$$

Where:

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

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

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

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

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

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

$$A_{CSR} = \sum_{i=1}^m (Vol_{c,i})(D_{c,i})(W_{c,i}) \quad (Eq. 3A)$$

Where:

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

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

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

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating. For reactive adhesives as defined in §63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

m = Number of different coatings used.

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

$$B_{CSR} = \sum_{j=1}^n (Vol_{t,j})(D_{t,j})(W_{t,j}) \quad (Eq. 3B)$$

Where:

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

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

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

$W_{t,j}$ = Mass fraction of organic HAP in thinner and/or other additive, j, kg organic HAP per kg thinner and/or other additive. For reactive adhesives as defined in §63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

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

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

$$C_{CSR} = \sum_{k=1}^p (Vol_{s,k})(D_{s,k})(W_{s,k}) \quad (Eq. 3C)$$

Where:

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

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

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

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

p = Number of different cleaning materials used.

(k) *Calculate the total mass of coating solids used.* Determine the total mass of coating solids used, kg, which is the combined mass of coating solids for all the coatings used during each month in the coating operation or group of coating operations for which you use the emission rate with add-on controls option, using Equation 2 of §63.4551.

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

$$H_{HAP} = H_e - \sum_{i=1}^q (H_{C,i}) - \sum_{j=1}^r (H_{CSR,j}) \quad (Eq. 4)$$

Where:

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

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

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

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

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

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

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

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

Where:

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

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

$M_{\text{st},y}$ = Total mass of coating solids used during month, y, kg, from Equation 2 of §63.4551.

y = Identifier for months.

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

(n) *Compliance demonstration.* The organic HAP emission rate for the initial compliance period, calculated using Equation 5 of this section, must be less than or equal to the applicable emission limit for each subcategory in §63.4490 or the predominant activity or facility-specific emission limit allowed in §63.4490(c). You must keep all records as required by §§63.4530 and 63.4531. As part of the notification of compliance status required by §63.4510, you must identify the coating operation(s) for which you used the emission rate with add-on controls option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in §63.4490, and you achieved the operating limits required by §63.4492 and the work practice standards required by §63.4493.

§63.4562 [Reserved]

§63.4563 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance with the applicable emission limit in §63.4490, the organic HAP emission rate for each compliance period, determined according to the procedures in §63.4561, must be equal to or less than the applicable emission limit in §63.4490. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in §63.4560 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in §63.4561 on a monthly basis using data from the previous 12 months of operation. If you are complying with a facility-specific emission limit under §63.4490(c), you must also perform the calculation using Equation 1 in §63.4490(c)(2) on a monthly basis using the data from the previous 12 months of operation.

(b) If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in §63.4490, this is a deviation from the emission limitation for that compliance period that must be reported as specified in §§63.4510(c)(6) and 63.4520(a)(7).

(c) You must demonstrate continuous compliance with each operating limit required by §63.4492 that applies to you, as specified in Table 1 to this subpart, when the coating line is in operation.

(1) If an operating parameter is out of the allowed range specified in Table 1 to this subpart, this is a deviation from the operating limit that must be reported as specified in §§63.4510(c)(6) and 63.4520(a)(7).

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

(d) You must meet the requirements for bypass lines in §63.4568(b) for controlled coating operations for which you do not conduct liquid-liquid material balances. If any bypass line is opened and emissions are diverted to the atmosphere when the coating operation is running, this is a deviation that must be reported as specified in §§63.4510(c)(6) and 63.4520(a)(7). For the purposes of completing the compliance calculations specified in §§63.4561(h), you must treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation as indicated in Equation 1 of §63.4561.

(e) You must demonstrate continuous compliance with the work practice standards in §63.4493. If you did not develop a work practice plan, or you did not implement the plan, or you did not keep the records required by §63.4530(i)(8), this is a deviation from the work practice standards that must be reported as specified in §§63.4510(c)(6) and 63.4520(a)(7).

(f) As part of each semiannual compliance report required in §63.4520, you must identify the coating operation(s) for which you used the emission rate with add-on controls option. If there were no deviations from the emission limitations, submit a statement that you were in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in §63.4490, and you achieved the operating limits required by §63.4492 and the work practice standards required by §63.4493 during each compliance period.

(g)-(i) [Reserved]

(j) You must maintain records as specified in §§63.4530 and 63.4531.

§63.4564 What are the general requirements for performance tests?

(a) You must conduct each performance test required by §63.4560 according to the requirements in §63.7(e)(1) and under the conditions in this section, unless you obtain a waiver of the performance test according to the provisions in §63.7(h).

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

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

(b) You must conduct each performance test of an emission capture system according to the requirements in §63.4565. You must conduct each performance test of an add-on control device according to the requirements in §63.4566.

§63.4565 How do I determine the emission capture system efficiency?

You must use the procedures and test methods in this section to determine capture efficiency as part of the performance test required by §63.4560.

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

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

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

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

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

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

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

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

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

Where:

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

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

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

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

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

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

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

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

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

$$CE = \frac{(TVH_{used} - TVH_{uncaptured})}{TVH_{used}} \times 100 \quad (Eq. 2)$$

Where:

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

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

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

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

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

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

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

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

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

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

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

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

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

$$CE = \frac{TVH_{\text{captured}}}{(TVH_{\text{captured}} + TVH_{\text{uncaptured}})} \times 100 \quad (\text{Eq. 3})$$

Where:

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

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

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

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

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

§63.4566 How do I determine the add-on control device emission destruction or removal efficiency?

You must use the procedures and test methods in this section to determine the add-on control device emission destruction or removal efficiency as part of the performance test required by §63.4560. You must conduct three test runs as specified in §63.7(e)(3) and each test run must last at least 1 hour.

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

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

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

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

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

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

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

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

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

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

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

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

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

Where:

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

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

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

0.0416 = Conversion factor for molar volume, kg-moles per cubic meter (mol/m³) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg)).

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

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

Where:

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

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

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

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

§63.4567 How do I establish the emission capture system and add-on control device operating limits during the performance test?

During the performance test required by §63.4560 and described in §§63.4564, 63.4565, and 63.4566, you must establish the operating limits required by §63.4492 according to this section, unless you have received approval for alternative monitoring and operating limits under §63.8(f) as specified in §63.4492.

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

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

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

(b) *Catalytic oxidizers.* If your add-on control device is a catalytic oxidizer, establish the operating limits according to either paragraphs (b)(1) and (2) or paragraphs (b)(3) and (4) of this section.

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

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

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

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

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

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

(iii) Annual internal inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found during the annual internal inspection of the catalyst, you must replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations. If the catalyst bed is replaced and is not of like or better kind and quality as the old catalyst then you must conduct a new performance test to determine destruction efficiency according to §63.4566. If a catalyst bed is replaced and the replacement catalyst is of like or better kind and quality as the old catalyst, then a new performance test to determine destruction efficiency is not required and you may continue to use the previously established operating limits for that catalytic oxidizer.

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

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

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

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

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

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

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

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

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

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

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

(f) *Emission capture systems.* For each capture device that is not part of a PTE that meets the criteria of §63.4565(a), establish an operating limit for either the gas volumetric flow rate or duct static pressure, as specified in paragraphs (f)(1) and (2) of this section. The operating limit for a PTE is specified in Table 1 to this subpart.

(1) During the capture efficiency determination required by §63.4560 and described in §§63.4564 and 63.4565, you must monitor and record either the gas volumetric flow rate or the duct static pressure for each separate capture device in your emission capture system at least once every 15 minutes during each of the three test runs at a point in the duct between the capture device and the add-on control device inlet.

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

§63.4568 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(v) *Flow direction indicator.* Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow direction indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the

emissions are directed to the add-on control device or diverted from the add-on control device. Each time the flow direction changes, the next reading of the time of occurrence and flow direction must be recorded. The flow direction indicator must be installed in each bypass line or air makeup supply line that could divert the emissions away from the add-on control device to the atmosphere.

(2) If any bypass line is opened, you must include a description of why the bypass line was opened and the length of time it remained open in the semiannual compliance reports required in §63.4520.

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

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

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

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

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

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

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

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

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

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

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

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

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

(e) *Condensers.* If you are using a condenser, you must monitor the condenser outlet (product side) gas temperature and comply with paragraphs (a) and (e)(1) and (2) of this section.

(1) The temperature monitor must provide a gas temperature record at least once every 15 minutes.

(2) For all condensers, you must meet the requirements in paragraphs (c)(3)(i) through (v) of this section for each temperature monitoring device.

(f) *Concentrators*. If you are using a concentrator, such as a zeolite wheel or rotary carbon bed concentrator, you must comply with the requirements in paragraphs (f)(1) and (2) of this section.

(1) You must install a temperature monitor in the desorption gas stream. The temperature monitor must meet the requirements in paragraphs (a) and (c)(3) of this section.

(2) You must install a device to monitor pressure drop across the zeolite wheel or rotary carbon bed. The pressure monitoring device must meet the requirements in paragraphs (a) and (g)(2) of this section.

(g) *Emission capture systems*. The capture system monitoring system must comply with the applicable requirements in paragraphs (g)(1) and (2) of this section.

(1) For each flow measurement device, you must meet the requirements in paragraphs (a) and (g)(1)(i) through (vii) of this section.

(i) Locate a flow sensor in a position that provides a representative flow measurement in the duct from each capture device in the emission capture system to the add-on control device.

(ii) Use a flow sensor with an accuracy of at least 10 percent of the flow.

(iii) Perform an initial sensor calibration in accordance with the manufacturer's requirements.

(iv) Perform a validation check before initial use or upon relocation or replacement of a sensor. Validation checks include comparison of sensor values with electronic signal simulations or via relative accuracy testing.

(v) Conduct an accuracy audit every quarter and after every deviation. Accuracy audit methods include comparisons of sensor values with electronic signal simulations or via relative accuracy testing.

(vi) Perform leak checks monthly.

(vii) Perform visual inspections of the sensor system quarterly if there is no redundant sensor.

(2) For each pressure drop measurement device, you must comply with the requirements in paragraphs (a) and (g)(2)(i) through (vii) of this section.

(i) Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure drop across each opening you are monitoring.

(ii) Use a pressure sensor with an accuracy of at least 0.5 inches of water column or 5 percent of the measured value, whichever is larger.

(iii) Perform an initial calibration of the sensor according to the manufacturer's requirements.

(iv) Conduct a validation check before initial operation or upon relocation or replacement of a sensor. Validation checks include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.

(v) Conduct accuracy audits every quarter and after every deviation. Accuracy audits include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.

(vi) Perform monthly leak checks on pressure connections. A pressure of at least 1.0 inches of water column to the connection must yield a stable sensor result for at least 15 seconds.

(vii) Perform a visual inspection of the sensor at least monthly if there is no redundant sensor.

Other Requirements and Information

§63.4580 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. Environmental Protection Agency (EPA), or a delegated authority such as your State, local, or tribal agency. If the Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are listed in paragraphs (c)(1) through (4) of this section:

(1) Approval of alternatives to the requirements in §§63.4481 through 4483 and §§63.4490 through 4493.

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

§63.4581 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in 40 CFR 63.2, and in this section as follows:

Additive means a material that is added to a coating after purchase from a supplier (e.g., catalysts, activators, accelerators).

Add-on control means an air pollution control device, such as a thermal oxidizer or carbon adsorber, that reduces pollution in an air stream by destruction or removal before discharge to the atmosphere.

Adhesive, adhesive coating means any chemical substance that is applied for the purpose of bonding two surfaces together. Products used on humans and animals, adhesive tape, contact paper, or any other product with an adhesive incorporated onto or in an inert substrate shall not be considered adhesives under this subpart.

Assembled on-road vehicle coating means any coating operation in which coating is applied to the surface of some component or surface of a fully assembled motor vehicle or trailer intended for on-road use including, but not limited to, components or surfaces on automobiles and light-duty trucks that have been repaired after a collision or otherwise repainted, fleet delivery trucks, and motor homes and other recreational vehicles (including camping trailers and fifth wheels). Assembled on-road vehicle coating includes the concurrent coating of parts of the assembled on-road vehicle that are painted off-vehicle to protect systems, equipment, or to allow full coverage. Assembled on-road vehicle coating does not include surface coating operations that meet the applicability criteria of the Automobiles and Light-Duty Trucks NESHAP. Assembled on-road vehicle coating also does not include the use of adhesives, sealants, and caulks used in assembling on-road vehicles.

Automotive lamp coating means any coating operation in which coating is applied to the surface of some component of the body of an exterior automotive lamp, including the application of reflective argent coatings and clear topcoats. Exterior automotive lamps include head lamps, tail lamps, turn signals, brake lights, and side marker lights. Automotive lamp coating does not include any coating operation performed on an assembled on-road vehicle.

Capture device means a hood, enclosure, room, floor sweep, or other means of containing or collecting emissions and directing those emissions into an add-on air pollution control device.

Capture efficiency or capture system efficiency means the portion (expressed as a percentage) of the pollutants from an emission source that is delivered to an add-on control device.

Capture system means one or more capture devices intended to collect emissions generated by a coating operation in the use of coatings or cleaning materials, both at the point of application and at subsequent points where emissions

from the coatings and cleaning materials occur, such as flashoff, drying, or curing. As used in this subpart, multiple capture devices that collect emissions generated by a coating operation are considered a single capture system.

Cleaning material means a solvent used to remove contaminants and other materials, such as dirt, grease, oil, and dried or wet coating (e.g., depainting), from a substrate before or after coating application or from equipment associated with a coating operation, such as spray booths, spray guns, racks, tanks, and hangers. Thus, it includes any cleaning material used on substrates or equipment or both.

Coating means a material applied to a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, paints, sealants, liquid plastic coatings, caulks, inks, adhesives, and maskants. Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances, or paper film or plastic film which may be pre-coated with an adhesive by the film manufacturer, are not considered coatings for the purposes of this subpart. A liquid plastic coating means a coating made from fine particle-size polyvinyl chloride (PVC) in solution (also referred to as a plastisol).

Coating operation means equipment used to apply cleaning materials to a substrate to prepare it for coating application (surface preparation) or to remove dried coating; to apply coating to a substrate (coating application) and to dry or cure the coating after application; or to clean coating operation equipment (equipment cleaning). A single coating operation may include any combination of these types of equipment, but always includes at least the point at which a given quantity of coating or cleaning material is applied to a given part and all subsequent points in the affected source where organic HAP are emitted from the specific quantity of coating or cleaning material on the specific part. There may be multiple coating operations in an affected source. Coating application with handheld, non-refillable aerosol containers, touch-up markers, or marking pens is not a coating operation for the purposes of this subpart.

Coatings solids means the nonvolatile portion of the coating that makes up the dry film.

Continuous parameter monitoring system (CPMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this subpart, used to sample, condition (if applicable), analyze, and provide a record of coating operation, or capture system, or add-on control device parameters.

Controlled coating operation means a coating operation from which some or all of the organic HAP emissions are routed through an emission capture system and add-on control device.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

- (1) Fails to meet any requirement or obligation established by this subpart including but not limited to, any emission limit or operating limit or work practice standard;
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or
- (3) Fails to meet any emission limit, or operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Emission limitation means the aggregate of all requirements associated with a compliance option including emission limit, operating limit, work practice standard, etc.

Enclosure means a structure that surrounds a source of emissions and captures and directs the emissions to an add-on control device.

Exempt compound means a specific compound that is not considered a VOC due to negligible photochemical reactivity. The exempt compounds are listed in 40 CFR 51.100(s).

Facility maintenance means the routine repair or renovation (including the surface coating) of the tools, equipment, machinery, and structures that comprise the infrastructure of the affected facility and that are necessary for the facility to function in its intended capacity.

General use coating means any coating operation that is not an automotive lamp, TPO, or assembled on-road vehicle coating operation.

Hobby shop means any surface coating operation, located at an affected source, that is used exclusively for personal, noncommercial purposes by the affected source's employees or assigned personnel.

Manufacturer's formulation data means data on a material (such as a coating) that are supplied by the material manufacturer based on knowledge of the ingredients used to manufacture that material, rather than based on testing of the material with the test methods specified in §63.4541. Manufacturer's formulation data may include, but are not limited to, information on density, organic HAP content, volatile organic matter content, and coating solids content.

Mass fraction of coating solids means the ratio of the mass of solids (also known as the mass of nonvolatiles) to the mass of a coating in which it is contained; kg of coating solids per kg of coating.

Mass fraction of organic HAP means the ratio of the mass of organic HAP to the mass of a material in which it is contained, expressed as kg of organic HAP per kg of material.

Month means a calendar month or a pre-specified period of 28 days to 35 days to allow for flexibility in recordkeeping when data are based on a business accounting period.

Non-HAP coating means, for the purposes of this subpart, a coating that contains no more than 0.1 percent by mass of any individual organic HAP that is an OSHA-defined carcinogen as specified in 29 CFR 1910.1200(d)(4) and no more than 1.0 percent by mass for any other individual HAP.

Organic HAP content means the mass of organic HAP emitted per mass of coating solids used for a coating calculated using Equation 1 of §63.4541. The organic HAP content is determined for the coating in the condition it is in when received from its manufacturer or supplier and does not account for any alteration after receipt. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, organic HAP content is the mass of organic HAP that is emitted, rather than the organic HAP content of the coating as it is received.

Permanent total enclosure (PTE) means a permanently installed enclosure that meets the criteria of Method 204 of appendix M, 40 CFR part 51, for a PTE and that directs all the exhaust gases from the enclosure to an add-on control device.

Personal watercraft means a vessel (boat) which uses an inboard motor powering a water jet pump as its primary source of motive power and which is designed to be operated by a person or persons sitting, standing, or kneeling on the vessel, rather than in the conventional manner of sitting or standing inside the vessel.

Plastic part and product means any piece or combination of pieces of which at least one has been formed from one or more resins. Such pieces may be solid, porous, flexible or rigid.

Protective oil means an organic material that is applied to metal for the purpose of providing lubrication or protection from corrosion without forming a solid film. This definition of protective oil includes, but is not limited to, lubricating oils, evaporative oils (including those that evaporate completely), and extrusion oils.

Reactive adhesive means adhesive systems composed, in part, of volatile monomers that react during the adhesive curing reaction, and, as a result, do not evolve from the film during use. These volatile components instead become integral parts of the adhesive through chemical reaction. At least 70 percent of the liquid components of the system, excluding water, react during the process.

Research or laboratory facility means a facility whose primary purpose is for research and development of new processes and products, that is conducted under the close supervision of technically trained personnel, and is not engaged in the manufacture of final or intermediate products for commercial purposes, except in a *de minimis* manner.

Responsible official means responsible official as defined in 40 CFR 70.2.

Startup, initial means the first time equipment is brought online in a facility.

Surface preparation means use of a cleaning material on a portion of or all of a substrate. This includes use of a cleaning material to remove dried coating, which is sometimes called depainting.

Temporary total enclosure means an enclosure constructed for the purpose of measuring the capture efficiency of pollutants emitted from a given source as defined in Method 204 of appendix M, 40 CFR part 51.

Thermoplastic olefin (TPO) means polyolefins (blends of polypropylene, polyethylene and its copolymers). This also includes blends of TPO with polypropylene and polypropylene alloys including, but not limited to, thermoplastic elastomer (TPE), TPE polyurethane (TPU), TPE polyester (TPEE), TPE polyamide (TPAE), and thermoplastic elastomer polyvinyl chloride (TPVC).

Thermoplastic olefin (TPO) coating means any coating operation in which the coatings are components of a system of coatings applied to a TPO substrate, including adhesion promoters, primers, color coatings, clear coatings and topcoats. Thermoplastic olefin coating does not include the coating of TPO substrates on assembled on-road vehicles.

Thinner means an organic solvent that is added to a coating after the coating is received from the supplier.

Total volatile hydrocarbon (TVH) means the total amount of nonaqueous volatile organic matter determined according to Methods 204 and 204A through 204F of appendix M to 40 CFR part 51 and substituting the term TVH each place in the methods where the term VOC is used. The TVH includes both VOC and non-VOC.

Uncontrolled coating operation means a coating operation from which none of the organic HAP emissions are routed through an emission capture system and add-on control device.

Volatile organic compound (VOC) means any compound defined as VOC in 40 CFR 51.100(s).

Wastewater means water that is generated in a coating operation and is collected, stored, or treated prior to being discarded or discharged.

Table 1 to Subpart PPPP of Part 63—Operating limits if using the emission rate with add-on controls option

If you are required to comply with operating limits by §63.4491(c), you must comply with the applicable operating limits in the following table:

For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .
1. Thermal oxidizer	a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to §63.4567(a).	i. Collecting the combustion temperature data according to §63.4568(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average combustion temperature at or above the temperature limit.
2. Catalytic oxidizer	a. The average temperature measured just before the catalyst bed in any 3-hour period must not fall below the limit established according to §63.4567(b); and either	i. Collecting the temperature data according to §63.4568(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature before the catalyst bed at or above the temperature limit.
	b. Ensure that the average temperature difference across the catalyst bed in any 3-hour period does not fall below the temperature difference limit established according to §63.4567(b)(2); or	i. Collecting the temperature data according to §63.4568(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature difference at or above the temperature difference limit.
	c. Develop and implement an inspection and maintenance plan according to §63.4567(b)(4).	i. Maintaining an up-to-date inspection and maintenance plan, records of annual catalyst activity checks, records of monthly inspections of the oxidizer system, and records of the annual internal inspections of the catalyst bed. If a problem is discovered during a monthly or annual inspection required by §63.4567(b)(4), you must take corrective action

For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .
		as soon as practicable consistent with the manufacturer's recommendations.
3. Regenerative carbon adsorber	a. The total regeneration desorbing gas (<i>e.g.</i> , steam or nitrogen) mass flow for each carbon bed regeneration cycle must not fall below the total regeneration desorbing gas mass flow limit established according to §63.4567(c); and	i. Measuring the total regeneration desorbing gas (<i>e.g.</i> , steam or nitrogen) mass flow for each regeneration cycle according to §63.4568(d); and ii. Maintaining the total regeneration desorbing gas mass flow at or above the mass flow limit.
	b. The temperature of the carbon bed, after completing each regeneration and any cooling cycle, must not exceed the carbon bed temperature limit established according to §63.4567(c).	i. Measuring the temperature of the carbon bed after completing each regeneration and any cooling cycle according to §63.4568(d); and ii. Operating the carbon beds such that each carbon bed is not returned to service until completing each regeneration and any cooling cycle until the recorded temperature of the carbon bed is at or below the temperature limit.
4. Condenser	a. The average condenser outlet (product side) gas temperature in any 3-hour period must not exceed the temperature limit established according to §63.4567(d).	i. Collecting the condenser outlet (product side) gas temperature according to §63.4568(e); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average gas temperature at the outlet at or below the temperature limit.
5. Concentrators, including zeolite wheels and rotary carbon adsorbers	a. The average gas temperature of the desorption concentrate stream in any 3-hour period must not fall below the limit established according to §63.4567(e); and	i. Collecting the temperature data according to §63.4568(f); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature at or above the temperature limit.
	b. The average pressure drop of the dilute stream across the concentrator in any 3-hour period must not fall below the limit established according to §63.4567(e).	i. Collecting the pressure drop data according to §63.4568(f); ii. Reducing the pressure drop data to 3-hour block averages; and iii. Maintaining the 3-hour average pressure drop at or above the pressure drop limit.
6. Emission capture system that is a PTE according to §63.4565(a)	a. The direction of the air flow at all times must be into the enclosure; and either	i. Collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to §63.4568(g)(1) or the pressure drop across the enclosure according to §63.4568(g)(2); and ii. Maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.
	b. The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or	i. See items 6.a.i and 6.a.ii.
	c. The pressure drop across the enclosure must be at least 0.007 inch H ₂ O, as established in Method 204 of appendix M to 40 CFR part 51.	i. See items 6.a.i and 6.a.ii.
7. Emission capture system that is not a PTE according to §63.4565(a)	a. The average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure	i. Collecting the gas volumetric flow rate or duct static pressure for each capture device according to §63.4568(g); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limit.

For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .
	limit established for that capture device according to §63.4567(f).	

Table 2 to Subpart PPPP of Part 63—Applicability of General Provisions to Subpart PPPP of Part 63

You must comply with the applicable General Provisions requirements according to the following table

Citation	Subject	Applicable to subpart PPPP	Explanation
§63.1(a)(1)-(14)	General Applicability	Yes.	
§63.1(b)(1)-(3)	Initial Applicability Determination	Yes	Applicability to subpart PPPP is also specified in §63.4481.
§63.1(c)(1)	Applicability After Standard Established	Yes.	
§63.1(c)(2)-(3)	Applicability of Permit Program for Area Sources	No	Area sources are not subject to subpart PPPP.
§63.1(c)(4)-(5)	Extensions and Notifications	Yes.	
§63.1(e)	Applicability of Permit Program Before Relevant Standard is Set	Yes.	
§63.2	Definitions	Yes	Additional definitions are specified in §63.4581.
§63.3(a)-(c)	Units and Abbreviations	Yes.	
§63.4(a)(1)-(5)	Prohibited Activities	Yes.	
§63.4(b)-(c)	Circumvention/Severability	Yes.	
§63.5(a)	Construction/Reconstruction	Yes.	
§63.5(b)(1)-(6)	Requirements for Existing, Newly Constructed, and Reconstructed Sources	Yes.	
§63.5(d)	Application for Approval of Construction/Reconstruction	Yes.	
§63.5(e)	Approval of Construction/Reconstruction	Yes.	
§63.5(f)	Approval of Construction/Reconstruction Based on Prior State Review	Yes.	
§63.6(a)	Compliance With Standards and Maintenance Requirements—Applicability	Yes.	
§63.6(b)(1)-(7)	Compliance Dates for New and Reconstructed Sources	Yes	Section 63.4483 specifies the compliance dates.
§63.6(c)(1)-(5)	Compliance Dates for Existing Sources	Yes	Section 63.4483 specifies the compliance dates.
§63.6(e)(1)-(2)	Operation and Maintenance	Yes.	

Citation	Subject	Applicable to subpart PPPP	Explanation
§63.6(e)(3)	Startup, Shutdown, and Malfunction Plan	Yes	Only sources using an add-on control device to comply with the standard must complete startup, shutdown, and malfunction plans.
§63.6(f)(1)	Compliance Except During Startup, Shutdown, and Malfunction	Yes	Applies only to sources using an add-on control device to comply with the standard.
§63.6(f)(2)-(3)	Methods for Determining Compliance	Yes.	
§63.6(g)(1)-(3)	Use of an Alternative Standard	Yes.	
§63.6(h)	Compliance With Opacity/Visible Emission Standards	No	Subpart PPPP does not establish opacity standards and does not require continuous opacity monitoring systems (COMS).
§63.6(i)(1)-(16)	Extension of Compliance	Yes.	
§63.6(j)	Presidential Compliance Exemption	Yes.	
§63.7(a)(1)	Performance Test Requirements—Applicability	Yes	Applies to all affected sources. Additional requirements for performance testing are specified in §§63.4564, 63.4565, and 63.4566.
§63.7(a)(2)	Performance Test Requirements—Dates	Yes	Applies only to performance tests for capture system and control device efficiency at sources using these to comply with the standards. Section 63.4560 specifies the schedule for performance test requirements that are earlier than those specified in §63.7(a)(2).
§63.7(a)(3)	Performance Tests Required By the Administrator	Yes.	
§63.7(b)-(e)	Performance Test Requirements—Notification, Quality Assurance, Facilities Necessary for Safe Testing, Conditions During Test	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standards.
§63.7(f)	Performance Test Requirements—Use Alternative Test Method	Yes	Applies to all test methods except those of used to determine capture system efficiency.
§63.7(g)-(h)	Performance Test Requirements—Data Analysis, Recordkeeping, Reporting, Waiver of Test	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standards.
§63.8(a)(1)-(3)	Monitoring Requirements—Applicability	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standards. Additional requirements for monitoring are specified in §63.4568.
§63.8(a)(4)	Additional Monitoring Requirements	No	Subpart PPPP does not have monitoring requirements for flares.
§63.8(b)	Conduct of Monitoring	Yes.	
§63.8(c)(1)-(3)	Continuous Monitoring Systems (CMS) Operation and Maintenance	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for CMS operations and maintenance are specified in §63.4568.

Citation	Subject	Applicable to subpart PPPP	Explanation
§63.8(c)(4)	CMS	No	Section 63.4568 specifies the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply.
§63.8(c)(5)	COMS	No	Subpart PPPP does not have opacity or visible emission standards.
§63.8(c)(6)	CMS Requirements	No	Section 63.4568 specifies the requirements for monitoring systems for capture systems and add-on control devices at sources using these to comply.
§63.8(c)(7)	CMS Out-of-Control Periods	Yes.	
§63.8(c)(8)	CMS Out-of-Control Periods and Reporting	No	Section 63.4520 requires reporting of CMS out-of-control periods.
§63.8(d)-(e)	Quality Control Program and CMS Performance Evaluation	No	Subpart PPPP does not require the use of continuous emissions monitoring systems.
§63.8(f)(1)-(5)	Use of an Alternative Monitoring Method	Yes.	
§63.8(f)(6)	Alternative to Relative Accuracy Test	No	Subpart PPPP does not require the use of continuous emissions monitoring systems.
§63.8(g)(1)-(5)	Data Reduction	No	Sections 63.4567 and 63.4568 specify monitoring data reduction.
§63.9(a)-(d)	Notification Requirements	Yes.	
§63.9(e)	Notification of Performance Test	Yes	Applies only to capture system and add-on control device performance tests at sources using these to comply with the standards.
§63.9(f)	Notification of Visible Emissions/Opacity Test	No	Subpart PPPP does not have opacity or visible emission standards.
§63.9(g)(1)-(3)	Additional Notifications When Using CMS	No	Subpart PPPP does not require the use of continuous emissions monitoring systems.
§63.9(h)	Notification of Compliance Status	Yes	Section 63.4510 specifies the dates for submitting the notification of compliance status.
§63.9(i)	Adjustment of Submittal Deadlines	Yes.	
§63.9(j)	Change in Previous Information	Yes.	
§63.10(a)	Recordkeeping/Reporting—Applicability and General Information	Yes.	
§63.10(b)(1)	General Recordkeeping Requirements	Yes	Additional requirements are specified in §§63.4530 and 63.4531.
§63.10(b)(2)(i)-(v)	Recordkeeping Relevant to Startup, Shutdown, and Malfunction Periods and CMS	Yes	Requirements for startup, shutdown, and malfunction records only apply to add-on control devices used to comply with the standards.
§63.10(b)(2)(vi)-(xi)		Yes.	
§63.10(b)(2)(xii)	Records	Yes.	
§63.10(b)(2)(xiii)		No	Subpart PPPP does not require the use of continuous emissions monitoring systems.

Citation	Subject	Applicable to subpart PPPP	Explanation
§63.10(b)(2)(xiv)		Yes.	
§63.10(b)(3)	Recordkeeping Requirements for Applicability Determinations	Yes.	
§63.10(c)(1)-(6)	Additional Recordkeeping Requirements for Sources with CMS	Yes	
§63.10(c)(7)-(8)		No	The same records are required in §63.4520(a)(7).
§63.10(c)(9)-(15)		Yes.	
§63.10(d)(1)	General Reporting Requirements	Yes	Additional requirements are specified in §63.4520.
§63.10(d)(2)	Report of Performance Test Results	Yes	Additional requirements are specified in §63.4520(b).
§63.10(d)(3)	Reporting Opacity or Visible Emissions Observations	No	Subpart PPPP does not require opacity or visible emissions observations.
§63.10(d)(4)	Progress Reports for Sources With Compliance Extensions	Yes.	
§63.10(d)(5)	Startup, Shutdown, and Malfunction Reports	Yes	Applies only to add-on control devices at sources using these to comply with the standards.
§63.10(e)(1)-(2)	Additional CMS Reports	No	Subpart PPPP does not require the use of continuous emissions monitoring systems.
§63.10(e)(3)	Excess Emissions/CMS Performance Reports	No	Section 63.4520(b) specifies the contents of periodic compliance reports.
§63.10(e)(4)	COMS Data Reports	No	Subpart PPPP does not specify requirements for opacity or COMS.
§63.10(f)	Recordkeeping/Reporting Waiver	Yes.	
§63.11	Control Device Requirements/Flares	No	Subpart PPPP does not specify use of flares for compliance.
§63.12	State Authority and Delegations	Yes.	
§63.13	Addresses	Yes.	
§63.14	Incorporation by Reference	Yes.	
§63.15	Availability of Information/Confidentiality	Yes.	

Table 3 to Subpart PPPP of Part 63—Default Organic HAP Mass Fraction for Solvents and Solvent Blends

You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data and which match either the solvent blend name or the chemical abstract series (CAS) number. If a solvent blend matches both the name and CAS number for an entry, that entry's organic HAP mass fraction must be used for that solvent blend. Otherwise, use the organic HAP mass fraction for the entry matching either the solvent blend name or CAS number, or use the organic HAP mass fraction from table 4 to this subpart if neither the name or CAS number match.

Solvent/solvent blend	CAS. No.	Average organic HAP mass fraction	Typical organic HAP, percent by mass
1. Toluene	108-88-3	1.0	Toluene.
2. Xylene(s)	1330-20-7	1.0	Xylenes, ethylbenzene.
3. Hexane	110-54-3	0.5	n-hexane.
4. n-Hexane	110-54-3	1.0	n-hexane.
5. Ethylbenzene	100-41-4	1.0	Ethylbenzene.
6. Aliphatic 140		0	None.
7. Aromatic 100		0.02	1% xylene, 1% cumene.
8. Aromatic 150		0.09	Naphthalene.
9. Aromatic naphtha	64742-95-6	0.02	1% xylene, 1% cumene.
10. Aromatic solvent	64742-94-5	0.1	Naphthalene.
11. Exempt mineral spirits	8032-32-4	0	None.
12. Ligroines (VM & P)	8032-32-4	0	None.
13. Lactol spirits	64742-89-6	0.15	Toluene.
14. Low aromatic white spirit	64742-82-1	0	None.
15. Mineral spirits	64742-88-7	0.01	Xylenes.
16. Hydrotreated naphtha	64742-48-9	0	None.
17. Hydrotreated light distillate	64742-47-8	0.001	Toluene.
18. Stoddard solvent	8052-41-3	0.01	Xylenes.
19. Super high-flash naphtha	64742-95-6	0.05	Xylenes.
20. Varsol® solvent	8052-49-3	0.01	0.5% xylenes, 0.5% ethylbenzene.
21. VM & P naphtha	64742-89-8	0.06	3% toluene, 3% xylene.
22. Petroleum distillate mixture	68477-31-6	0.08	4% naphthalene, 4% biphenyl.

Table 4 to Subpart PPPP of Part 63—Default organic HAP mass fraction for petroleum solvent groups

You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data.

Solvent type	Average organic HAP mass fraction	Typical organic HAP, percent by mass
Aliphatic ^b	0.03	1% Xylene, 1% Toluene, and 1% Ethylbenzene.
Aromatic ^c	0.06	4% Xylene, 1% Toluene, and 1% Ethylbenzene.

^aUse this table only if the solvent blend does not match any of the solvent blends in Table 3 to this subpart by either solvent blend name or CAS number and you only know whether the blend is aliphatic or aromatic.

^bMineral Spirits 135, Mineral Spirits 150 EC, Naphtha, Mixed Hydrocarbon, Aliphatic Hydrocarbon, Aliphatic Naphtha, Naphthol Spirits, Petroleum Spirits, Petroleum Oil, Petroleum Naphtha, Solvent Naphtha, Solvent Blend.

^cMedium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.

Appendix A to Subpart PPPP of Part 63—Determination of weight volatile matter content and weight solids content of reactive adhesives

1.0 Applicability and Principle

1.1 *Applicability:* This method applies to the determination of weight volatile matter content and weight solids content for most one-part or multiple-part reactive adhesives. Reactive adhesives are composed, in large part, of monomers that react during the adhesive curing reaction, and, as a result, do not volatilize. The monomers become integral parts of the cured adhesive through chemical reaction. At least 70 weight percent of the system, excluding water and non-volatile solids such as fillers, react during the process. This method is not appropriate for cyanoacrylates. For cyanoacrylates, South Coast Air Quality Management District Test Method 316B should be used. This method is not appropriate for one-part moisture cure urethane adhesives or for silicone adhesives. For one-part moisture cure urethane adhesives and for silicone adhesives, EPA Method 24 should be used.

1.2 *Principle:* One-part and multiple-part reactive adhesives undergo a reactive conversion from liquid to solid during the application and assembly process. Reactive adhesives are applied to a single surface, but then are usually quickly covered with another mating surface to achieve a bonded assembly. The monomers employed in such systems typically react and are converted to non-volatile solids. If left uncovered, as in a Method 24 (ASTM D2369) test, the reaction is inhibited by the presence of oxygen and volatile loss of the reactive components competes more heavily with the cure reaction. If this were to happen under normal use conditions, the adhesives would not provide adequate performance. This method minimizes this undesirable deterioration of the adhesive performance.

2.0 Materials and Apparatus

2.1 Aluminum foil, aluminum sheet, non-leaching plastic film or non-leaching plastic sheet, approximately 3 inches by 3 inches. Precondition the foil, film, or sheet for 30 minutes in an oven at 110 ± 5 degrees Celsius and store in a desiccator prior to use. Use tongs or rubber gloves or both to handle the foil, film, or sheet.

2.2 Flat, rigid support panels slightly larger than the foil, film, or sheet. Polypropylene with a minimum thickness of $\frac{1}{8}$ inch is recommended for the support panels. Precondition the support panels for 30 minutes in an oven at 110 ± 5 degrees Celsius and store in a desiccator prior to use. Use tongs or rubber gloves or both to handle the support panels.

2.3 Aluminum spacers, $\frac{1}{8}$ inch thick. Precondition the spacers for 30 minutes in an oven at 110 ± 5 degrees Celsius and store in a desiccator prior to use. Use tongs or rubber gloves or both to handle the spacers.

2.4 Forced draft oven, type IIA or IIB as specified in ASTM E145-94 (Reapproved 2001), "Standard Specification for Gravity-Convection and Forced-Ventilation Ovens" (incorporated by reference, see §63.14).

2.5 Electronic balance capable of weighing to ± 0.0001 grams (0.1 mg).

2.6 Flat bottom weight (approximately 3 lbs) or clamps.

Material and Apparatus Notes

1—The foil, film, or sheet should be thick or rigid enough so that it can be easily handled in the test procedure.

3.0 Procedure

3.1 Two procedures are provided. In Procedure A the initial specimen weight is determined by weighing the foil, film, or sheet before and after the specimen is dispensed onto the foil, film, or sheet. In Procedure B the initial specimen weight is determined by weighing the adhesive cartridge (kit) before and after the specimen is dispensed.

3.2 At least four test specimens should be run for each test material. Run the test at room temperature, 74 degrees Fahrenheit (23 degrees Celsius).

Procedure A

1. Zero electronic balance.
2. Place 2 pieces of aluminum foil (or aluminum sheet, plastic film, or plastic sheet) on scale.
3. Record weight of aluminum foils. (A).
4. Tare balance.

5. Remove top piece of aluminum foil.
6. Dispense a 10 to 15 gram specimen of premixed adhesive onto bottom piece of aluminum foil. Place second piece of aluminum foil on top of the adhesive specimen to make a sandwich.
7. Record weight of sandwich (specimen and aluminum foils). (B).
8. Remove sandwich from scale, place sandwich between two support panels with aluminum spacers at the edges of the support panels to make a supported sandwich. The spacers provide a standard gap. Take care to mate the edges.
9. Place the supported sandwich on a flat surface.
10. Place the weight on top of the supported sandwich to spread the adhesive specimen to a uniform thickness within the sandwich. Check that no adhesive squeezes out from between the pieces of aluminum foil or through tears in the aluminum foil.
11. Allow to cure 24 hours.
12. Remove the sandwich from between the support panels. Record the weight of the sandwich. This is referred to as the 24 hr weight. (C).
13. Bake sandwich at 110 degrees Celsius for 1 hour.
14. Remove sandwich from the oven, place immediately in a desiccator, and cool to room temperature. Record post bake sandwich weight. (D).

Procedure B

1. Zero electronic balance.
2. Place two pieces of aluminum foil (or aluminum sheet, plastic film, or plastic sheet) on scale.
3. Record weight of aluminum foils. (A).
4. Tare balance.
5. Place one support panel on flat surface. Place first piece of aluminum foil on top of this support panel.
6. Record the weight of a pre-mixed sample of adhesive in its container. If dispensing the adhesive from a cartridge (kit), record the weight of the cartridge (kit) plus any dispensing tips. (F).
7. Dispense a 10 to 15 gram specimen of mixed adhesive onto the first piece of aluminum foil. Place second piece of aluminum foil on top of the adhesive specimen to make a sandwich.
8. Record weight of the adhesive container. If dispensing the adhesive from a cartridge (kit), record the weight of the cartridge (kit) plus any dispensing tips. (G).
9. Place the aluminum spacers at the edges of the bottom support panel polypropylene sheet. The spacers provide a standard gap.
10. Place the second support panel on top of the assembly to make a supported sandwich. Take care to mate the edges.
11. Place the supported sandwich on a flat surface.
12. Place the weight on top of the supported sandwich to spread the adhesive specimen to a uniform thickness within the sandwich. Check that no adhesive squeezes out from between the pieces of aluminum foil or through tears in the aluminum foil.
13. Allow to cure 24 hours.
14. Remove the sandwich from between the support panels. Record the weight of the sandwich. This is referred to as the 24 hr weight. (C).
15. Bake sandwich at 110 degrees Celsius for 1 hour.
16. Remove sandwich from the oven, place immediately in a desiccator, and cool to room temperature.
17. Record post-bake sandwich weight. (D).

Procedural notes

- 1—The support panels may be omitted if the aluminum foil (or aluminum sheet, plastic film, or plastic sheet) will not tear and the adhesive specimen will spread to a uniform thickness within the sandwich when the flat weight is placed directly on top of the sandwich.
- 2—Clamps may be used instead of a flat bottom weight to spread the adhesive specimen to a uniform thickness within the sandwich.

3—When dispensing from a static mixer, purging is necessary to ensure uniform, homogeneous specimens. The weighing in Procedure B, Step 6 must be performed after any purging.

4—Follow the adhesive manufacturer's directions for mixing and for dispensing from a cartridge (kit).

4.0 Calculations

4.1 The total weight loss from curing and baking of each specimen is used to determine the weight percent volatile matter content of that specimen

Procedure A

Weight of original specimen (S) = (B)–(A)

Weight of post-bake specimen (P) = (D)–(A)

Total Weight Loss (L) = (S)–(P)

Procedure B

Weight of original specimen (S) = (F)–(G)

Weight of post-bake specimen (P) = (D)–(A)

Total Weight Loss (L) = (S)–(P)

Procedure A and Procedure B

Weight Percent Volatile Matter Content

$(V) = [(Total\ weight\ loss)/(Initial\ specimen\ weight)] \times 100 = [(L)/(S)] \times 100$

4.2 The weight volatile matter content of a material is the average of the weight volatile matter content of each specimen of that material. For example, if four specimens of a material were tested, then the weight percent volatile matter content for that material is:

$V = [V1 + V2 + V3 + V4]/4$

Where:

Vi = the weight percent volatile matter content of specimen i of the material.

4.3 The weight percent solids content of the material is calculated from the weight percent volatile content of the material.

Weight Percent Solids Content (N) = 100–(V)

Calculation Notes

1—The weight loss during curing and the weight loss during baking may be calculated separately. These values may be useful for identifying sources of variation in the results obtained for different specimens of the same material.

2—For both Procedure A and Procedure B, the weight loss during curing is (S)–[(C)–(A)] and the weight loss during baking is (C)–(D).

Appendix D: Table 1 to 40 CFR pt. 63, subp. WWWW—national emission standards for hazardous air pollutants for reinforced plastic composites production, equations to calculate organic hap emissions factors for specific open molding and centrifugal casting process streams

As specified in 40 CFR Section 63.5810, use the equations in the following table to calculate organic HAP emissions factors for specific open molding and centrifugal casting process streams:

If your operation type is a new or existing...	And you use...	With...	Use this organic HAP Emissions Factor (EF) Equation for materials with less than 33% organic HAP (19% organic HAP for nonatomized gel coat)... ^{2,3,4}	Use this organic HAP Emissions Factor (EF) Equation for materials with 33% or more organic HAP (19% for nonatomized gel coat)... ^{2,3,4}
1. open molding	a. Manual resin application	i. nonvapor-suppressed resin	$EF = 0.126 \times \% \text{ HAP} \times 2000$	$EF = ((0.286 \times \% \text{ HAP}) - 0.0529) \times 2000$
		ii. vapor-suppressed resin	$EF = 0.126 \times \% \text{ HAP} \times 2000 \times (1 - (0.5 \times \text{VSE factor}))$	$EF = ((0.286 \times \% \text{ HAP}) - 0.0529) \times 2000 \times (1 - (0.5 \times \text{VSE factor}))$

If your operation type is a new or existing...	And you use...	With...	Use this organic HAP Emissions Factor (EF) Equation for materials with less than 33% organic HAP (19% organic HAP for nonatomized gel coat)... ^{2,3,4}	Use this organic HAP Emissions Factor (EF) Equation for materials with 33% or more organic HAP (19% for nonatomized gel coat)... ^{2,3,4}
		iii. vacuum bagging/closed mold curing with roll-out	$EF = 0.126 \times \% \text{ HAP} \times 2000 \times 0.8$	$EF = ((0.286 \times \% \text{ HAP}) - 0.0529) \times 2000 \times 0.8$
		iv. vacuum bagging/closed mold curing without roll-out	$EF = 0.126 \times \% \text{ HAP} \times 2000 \times 0.5$	$EF = ((0.286 \times \% \text{ HAP}) - 0.0529) \times 2000 \times 0.5$
	b. atomized mechanical resin application	i. nonvapor-suppressed resin	$EF = 0.169 \times \% \text{ HAP} \times 2000$	$EF = ((0.714 \times \% \text{ HAP}) - 0.18) \times 2000$
		ii. vapor-suppressed resin	$EF = 0.169 \times \% \text{ HAP} \times 2000 \times (1 - (0.45 \times \text{VSE factor}))$	$EF = ((0.714 \times \% \text{ HAP}) - 0.18) \times 2000 \times (1 - (0.45 \times \text{VSE factor}))$
		iii. vacuum bagging/closed mold curing with roll-out	$EF = 0.169 \times \% \text{ HAP} \times 2000 \times 0.85$	$EF = ((0.714 \times \% \text{ HAP}) - 0.18) \times 2000 \times 0.85$
		iv. vacuum bagging/closed mold curing without roll-out	$EF = 0.169 \times \% \text{ HAP} \times 2000 \times 0.55$	$EF = ((0.714 \times \% \text{ HAP}) - 0.18) \times 2000 \times 0.55$
	c. nonatomized mechanical resin application	i. nonvapor-suppressed resin	$EF = 0.107 \times \% \text{ HAP} \times 2000$	$EF = ((0.157 \times \% \text{ HAP}) - 0.0165) \times 2000$
		ii. vapor-suppressed resin	$EF = 0.107 \times \% \text{ HAP} \times 2000 \times (1 - (0.45 \times \text{VSE factor}))$	$EF = ((0.157 \times \% \text{ HAP}) - 0.0165) \times 2000 \times (1 - (0.45 \times \text{VSE factor}))$
		iii. vacuum bagging/closed mold curing with roll-out	$EF = 0.107 \times \% \text{ HAP} \times 2000 \times 0.85$	$EF = ((0.157 \times \% \text{ HAP}) - 0.0165) \times 2000 \times 0.85$
		iv. vacuum bagging/closed mold curing without roll-out	$EF = 0.107 \times \% \text{ HAP} \times 2000 \times 0.55$	$EF = ((0.157 \times \% \text{ HAP}) - 0.0165) \times 2000 \times 0.55$
	d. atomized mechanical resin application with robotic or automated spray control ⁵	nonvapor-suppressed resin	$EF = 0.169 \times \% \text{ HAP} \times 2000 \times 0.77$	$EF = 0.77 \times ((0.714 \times \% \text{ HAP}) - 0.18) \times 2000$
	e. filament application ⁶	i. nonvapor-suppressed resin	$EF = 0.184 \times \% \text{ HAP} \times 2000$	$EF = ((0.2746 \times \% \text{ HAP}) - 0.0298) \times 2000$
		ii. vapor-suppressed resin	$EF = 0.12 \times \% \text{ HAP} \times 2000$	$EF = ((0.2746 \times \% \text{ HAP}) - 0.0298) \times 2000 \times 0.65$
	f. atomized spray gel coat application	nonvapor-suppressed gel coat	$EF = 0.445 \times \% \text{ HAP} \times 2000$	$EF = ((1.03646 \times \% \text{ HAP}) - 0.195) \times 2000$
	g. nonatomized spray gel coat application	nonvapor-suppressed gel coat	$EF = 0.185 \times \% \text{ HAP} \times 2000$	$EF = ((0.4506 \times \% \text{ HAP}) - 0.0505) \times 2000$
	h. atomized spray gel coat application using robotic or automated spray	nonvapor-suppressed gel coat	$EF = 0.445 \times \% \text{ HAP} \times 2000 \times 0.73$	$EF = ((1.03646 \times \% \text{ HAP}) - 0.195) \times 2000 \times 0.73$

If your operation type is a new or existing...	And you use...	With...	Use this organic HAP Emissions Factor (EF) Equation for materials with less than 33% organic HAP (19% organic HAP for nonatomized gel coat)... ^{2,3,4}	Use this organic HAP Emissions Factor (EF) Equation for materials with 33% or more organic HAP (19% for nonatomized gel coat)... ^{2,3,4}
2. Centrifugal casting operations ^{7,8}	a. heated air blown through molds	nonvapor-suppressed gel coat	EF = 0.558 x % HAP x 2000	EF = 0.558 x % HAP x 2000
	b. vented molds, but air vented through the molds is not heated.	nonvapor-suppressed gel coat	EF = 0.026 x % HAP x 2000	EF = 0.026 x % HAP x 2000

Notes to Table 1 to 40 CFR Part 63, Subpart WWWW

¹The equations in Table 1 are intended for use in calculating emission factors to demonstrate compliance with the emission limits in Subpart WWWW. These equations may not be most appropriate method to calculate emission estimates for other purposes. However, this does not preclude a facility from using the equations to calculate emissions factors for purposes then rule compliance if these equations are the most accurate available.

²To obtain the organic HAP emissions factor value for an operation with an add-on control device multiply the EF above by the add-on control factor calculated using Equation 1 of Sec. 63.5810. The organic HAP emissions factors have units of lbs of organic HAP per ton of resin or gel coat applied.

³Percent HAP means total weight percent of organic HAP (styrene, methyl methacrylate, and any other organic HAP) in the resin or gel coat prior to the addition of fillers, catalyst, and promoters. Input the percent HAP as a decimal, i.e. 33 percent HAP should be input as 0.33, not 33.

⁴The VSE factor means the percent reduction in organic HAP emissions expressed as a decimal measured by the VSE test method of appendix A to 40 CFR pt. 63, subp. WWWW.

⁵This equation is based on an organic HAP emissions factor equation developed for mechanical atomized controlled spray. It may only be used for automated or robotic spray systems with atomized spray. All spray operations using hand held spray guns must use the appropriate mechanical atomized or mechanical nonatomized organic HAP emissions factor equation. Automated or robotic spray systems using nonatomized spray should use the appropriate nonatomized mechanical resin application equation.

⁶Applies only to filament application using an open resin bath. If resin is applied manually or with a spray gun, use the appropriate manual or mechanical application organic HAP emissions factor equation.

⁷These equations are for centrifugal casting operations where the mold is vented during spinning. Centrifugal casting operations where the mold is completely sealed after resin injection are considered to be closed molding operations.

⁸If a centrifugal casting operation uses mechanical or manual resin application techniques to apply resin to an open centrifugal casting mold, use the appropriate open molding equation with covered cure and no rollout to determine an emission factor for operations prior to the closing of the centrifugal casting mold. If the closed centrifugal casting mold is vented during spinning, use the appropriate centrifugal casting equation to calculate an emission factor for the portion of the process where spinning and cure occur. If a centrifugal casting operation uses mechanical or manual resin application techniques to apply resin to an open centrifugal casting mold, and the mold is then closed and is not vented, treat the entire operation as open molding with covered cure and no rollout to determine emission factors.

Appendix E: Table 7 to 40 CFR pt. 63, subp. WWWW—National emission standards for hazardous air pollutants for reinforced plastic composites production, options allowing use of the same resin across different operations that use the same resin type

As specified in 40 CFR Section 63.5810(d), when electing to use the same resin(s) for multiple resin application methods, you may use any resin(s) with an organic HAP content less than or equal to the values shown in the following table, or any combination of resins whose weighted average organic HAP content based on a 12-month rolling average is less than or equal to the values shown the following table:

If your facility has the following resin type and application method...	The highest resin weight is *** percent organic HAP content, or weighted average weight percent organic HAP content, you can use for...	Is...
1. CR/HS resins, centrifugal casting ^{1,2}	a. CR/HS mechanical	³ 48.0
	b. CR/HS filament application	48.0
	c. CR/HS manual	48.0
2. CR/HS resins, nonatomized mechanical	a. CR/HS filament application	46.4
	b. CR/HS manual	46.4
3. CR/HS resins, filament application	CR/HS manual	42.0
4. non-CR/HS resins, filament application	a. non-CR/HS mechanical	³ 45.0
	b. non-CR/HS manual	45.0
	c. non-CR/HS centrifugal casting ^{1,2}	45.0
5. non-CR/HS resins, nonatomized mechanical	b. non-CR/HS manual	38.5
	c. non-CR/HS centrifugal casting ^{1,2}	38.5
6. non-CR/HS resins, centrifugal casting ^{1,2}	non-CR/HS manual	37.5
7. tooling resins, nonatomized mechanical	tooling manual	91.4
8. tooling resins, manual	tooling atomized mechanical	45.9

Notes to Table 7 to 40 CFR Part 63, Subpart WWWW

¹If the centrifugal casting operation blows heated air through the molds, then 95 percent capture and control must be used if the facility wishes to use this compliance option.

²If the centrifugal casting molds are not vented, the facility may treat the centrifugal casting operations as if they were vented if they wish to use this compliance option.

³Nonatomized mechanical application must be used.

Appendix F: Table 8 to 40 CFR pt. 63, subp. WWWW—National Emission Standards for Hazardous Air Pollutants for Reinforced Plastic Composites Production, Initial Compliance with Organic HAP Emissions Limits

As specified in 40 CFR Section 63.5860(a), you must demonstrate initial compliance with organic HAP emissions limits as specified in the following table:

For...	That must meet the following organic HAP emissions limit...	You have demonstrated initial compliance if...
1. open molding and centrifugal casting operations	a. an organic HAP emissions limit shown in Tables 3 or 5 to this subpart, or an organic HAP content limit shown in Table 7 to this subpart	i. you have met the appropriate organic HAP emissions limits for these operations as calculated using the procedures in 40 CFR Section 63.5810 on a 12-month rolling average 1 year after the appropriate compliance date, and/or
		ii. you demonstrate that any individual resins or gel coats not included in (i) above, as applied, meet their applicable emission limits, or
		iii. you demonstrate using the appropriate values in Table 7 to this subpart that the weighted average of all resins and gel coats for each resin type and application method meet the appropriate organic HAP contents.

For...	That must meet the following organic HAP emissions limit...	You have demonstrated initial compliance if...
2. open molding centrifugal casting, continuous lamination/casting, SMC and BMC manufacturing, and mixing operations	a. reduce total organic HAP emissions by at least 95 percent by weight	total organic HAP emissions, based on the results of the capture efficiency and destruction efficiency testing specified in Table 6 to this subpart, are reduced by at least 95 percent by weight.
3. continuous lamination/casting operations	a. reduce total organic HAP emissions, by at least 58.5 weight percent, or	total organic HAP emissions, based on the results of the capture efficiency and destruction efficiency in Table 6 to this subpart and the calculation procedures specified in 40 CFR Sections 63.5865 through 63.5890, are reduced by at least 58.5 percent by weight.
	b. not exceed an organic HAP emissions limit of 15.7 lbs of organic HAP per ton of neat resin plus and neat gel coat plus	total organic HAP emissions, based on the results of the capture efficiency and destruction efficiency testing specified in Table 6 to this subpart and the calculation procedures specified in 40 CFR Sections 63.5865 through 63.5890, do not exceed 15.7 lbs of organic HAP per ton of neat resin plus and neat gel coat plus
4. continuous lamination/casting operations	a. reduce total organic HAP emissions by at least 95 weight percent or	total organic HAP emissions, based on the results of the capture efficiency and destruction efficiency testing specified in Table 6 to this subpart and the calculation procedures specified in 40 CFR Sections 63.5865 through 63.5890, are reduced by at least 95 percent by weight
	b. not exceed an organic HAP emissions limit of 1.47 lbs of organic HAP per ton of neat resin plus and neat gel coat plus	total organic HAP emissions, based on the results of the capture efficiency and destruction efficiency testing specified in Table 6 and the calculation procedures specified in 40 CFR Sections 63.5865 through 63.5890, do not exceed 1.47 lbs of organic HAP of per ton of neat resin plus and neat gel coat plus.
5. pultrusion operations	a. reduce total organic HAP emissions by at least 60 percent by weight	i. total organic HAP emissions, based on the results of the capture efficiency and add-on control device destruction efficiency testing specified in Table 6 to this subpart, are reduced by at least 60 percent by weight, and/or
		ii. as part of the notification of initial compliance status, the owner/operator submits a certified statement that all pultrusion lines not controlled with an add-on control device, but for which an emission reduction is being claimed, are using direct die injection, and/or wet-area enclosures that meet the criteria of 40 CFR Section 63.5830.
6. pultrusion operations	a. reduce total organic HAP emissions by at least 95 percent by weight	i. total organic HAP emissions, based on the results of the capture efficiency and add-on control device destruction efficiency testing specified in Table 6 to this subpart, are reduced by at least 95 percent by weight.

Appendix G: Table 9 to 40 CFR pt. 63, subp. WWWW—National emission standards for hazardous air pollutants for reinforced plastic composites production, initial compliance with work practice standards

As specified in 40 CFR Section 63.5860(a), you must demonstrate initial compliance with work practice standards as specified in the following table:

For...	That must meet the following standards...	You have demonstrated initial compliance if...
1. a new or existing closed molding operation using	uncover, unwrap or expose only one charge per mold cycle per compression/injection molding machine. For machines with multiple molds, one charge means sufficient material to fill all molds for one cycle. For machines with robotic	the owner or operator submits a certified statement in the notice of compliance status that only one charge is uncovered, unwrapped, or

For...	That must meet the following standards...	You have demonstrated initial compliance if...
compression/injection molding	loaders, no more than one charge may be exposed prior to the loader. For machines fed by hoppers, sufficient material may be uncovered to fill the hopper. Hoppers must be closed when not adding materials. Materials may be uncovered to feed to slitting machines. Materials must be recovered after slitting	exposed per mold cycle per compression/injection molding machine, or prior to the loader, hoppers are closed except when adding materials, and materials are recovered after slitting.
2. a new or existing cleaning operation	not use cleaning solvents that contain HAP, except that styrene may be used in closed systems, and organic HAP containing materials may be used to clean cured resin from application equipment. Application equipment includes any equipment that directly contacts resin between storage and applying resin to the mold or reinforcement	the owner or operator submits a certified statement in the notice of compliance status that all cleaning materials, except styrene contained in closed systems, or materials used to clean cured resin from application equipment, contain no HAP
3. a new or existing materials HAP-containing materials storage operation	keep containers that store HAP-containing materials closed or covered except during the addition or removal of materials. Bulk HAP-containing materials storage tanks may be vented as necessary for safety	the owner or operator submits a certified statement in the notice of compliance status that all HAP-containing storage containers are kept closed or covered except when adding or removing materials, and that any bulk storage tanks are vented only as necessary for safety.
4. an existing or new SMC manufacturing operation	close or cover the resin delivery system to the doctor box on each SMC manufacturing machine. The doctor box itself may be open	the owner or operator submits a certified statement in the notice of compliance status that the resin delivery system is closed or covered.
5. an existing or new SMC manufacturing operation	use a nylon containing film to enclose SMC	the owner or operator submits a certified statement in the notice of compliance status that a nylon-containing film is used to enclose SMC.
6. an existing or new mixing or BMC manufacturing operation	use mixer covers with no visible gaps present in the mixer covers, except that gaps of up to 1 inch are permissible around mixer shafts and any required instrumentation	the owner or operator submits a certified statement in the notice of compliance status that mixer covers are closed during mixing except when adding materials to the mixers, and that gaps around mixer shafts and required instrumentation are less than 1 inch.
7. an existing mixing or BMC manufacturing operation	not actively vent mixers to the atmosphere while the mixing agitator is turning, except that venting is allowed during addition of materials, or as necessary prior to adding materials for safety	the owner or operator submits a certified statement in the notice of compliance status that mixers are not actively vented to the atmosphere when the agitator is turning except when adding materials or as necessary for safety.
8. a new or existing mixing or BMC manufacturing operation	keep the mixer covers closed during mixing except when adding materials to the mixing vessels	the owner or operator submits a certified statement in the notice of compliance status that mixers closed except when adding materials to the mixing vessels.

For...	That must meet the following standards...	You have demonstrated initial compliance if...
9. a new or existing pultrusion operation manufacturing parts that meet the following criteria: 1,000 or more reinforcements or the glass equivalent of 1,000 ends of 113 yield roving or more; and have a cross sectional area of 60 square inches or more that is not subject to the 95 percent organic HAP emission reduction requirement	i. Not allow vents from the building ventilation system, or local or portable fans to blow directly on or across the wet-out area(s), ii. not permit point suction of ambient air in the wet-out area(s) unless that air is directed to a control device, iii. use devices such as deflectors, baffles, and curtains when practical to reduce air flow velocity across the wet-out area(s), iv. direct any compressed air exhausts away from resin and wet-out area(s), v. convey resin collected from drip-off pans or other devices to reservoirs, tanks, or sumps via covered troughs, pipes, or other covered conveyance that shields the resin from the ambient air, vi. clover all reservoirs, tanks, sumps, or HAP-containing materials storage vessels except when they are being charged or filled, and vii. cover or shield from ambient air resin delivery systems to the wet-out area(s) from reservoirs, tanks, or sumps where practical.	the owner or operator submits a certified statement in the notice of compliance status that they have complied with all the requirements listed in 9.i through 9.vii.

Appendix H: Table 10 to 40 CFR pt. 63, subp. WWWW—National emission standards for hazardous air pollutants for reinforced plastic composites production, data requirements for new and existing continuous lamination lines and continuous casting lines complying with a percent reduction limit on a per line basis

As required in 40 CFR Section 63.5865(a), in order to comply with a percent reduction limit for continuous lamination lines and continuous casting lines you must determine the data in the following table:

For each line where the wet-out area...	And the oven...	You must determine...
1. Has an enclosure that is not a permanent total enclosure (PTE) and the captured organic HAP emissions are controlled by an add-on control device	a. Is uncontrolled	i. Annual uncontrolled wet-out area organic HAP emissions, ii. Annual controlled wet-out area organic HAP emissions, iii. Annual uncontrolled oven organic HAP emissions, iv. The capture efficiency of the wet-out area enclosure, v. The destruction efficiency of the add-on control device, and vi. The amount of neat resin plus and neat gel coat plus applied.
2. Has an enclosure that is a PTE and the captured organic HAP emissions are controlled by an add-on control device	a. Is uncontrolled	i. Annual uncontrolled wet-out area organic HAP emissions, ii. Annual controlled wet-out area organic HAP emissions, iii. Annual uncontrolled oven organic HAP emissions, iv. That the wet-out area enclosure meets the requirements of EPA Method 204 of appendix M to 40 CFR part 51 for a PTE, v. The destruction efficiency of the add-on control device, and vi. The amount of neat resin plus and neat gel coat plus applied.
3. Is uncontrolled	a. Is controlled by an add-on control device	i. Annual uncontrolled wet-out area organic HAP emissions, ii. Annual uncontrolled oven organic HAP emissions, iii. Annual controlled oven organic HAP emissions, iv. The capture efficiency of the oven, v. the destruction efficiency of the add-on control device, and vi. the amount of neat resin plus and neat gel coat plus applied.
4. Has an enclosure that is not a PTE and the captured organic	a. Is controlled by an add-on control device	i. Annual uncontrolled wet-out area organic HAP emissions, ii. Annual controlled wet-out area organic HAP emissions, iii. Annual uncontrolled oven organic HAP emissions,

For each line where the wet-out area...	And the oven...	You must determine...
HAP emissions are controlled by an add-on control device		iv. Annual controlled oven organic HAP emissions; v. The capture efficiency of the wet-out area enclosure, vi. Inlet organic HAP emissions to the add-on control device, vii. Outlet organic HAP emissions from the add-on control device, and viii. The amount of neat resin plus and neat gel coat plus applied.
5. Has an enclosure that is a PTE and the captured organic HAP emissions are controlled by an add-on control device	a. Is controlled by an add-on control device	i. That the wet-out area enclosure meets the requirements of EPA Method 204 of appendix M to 40 CFR part 51 for a PTE, ii. The capture efficiency of the oven, and iii. The destruction efficiency of the add-on control device.

Appendix I: Table 11 to 40 CFR pt. 63, subp. WWWW—National emission standards for hazardous air pollutants for reinforced plastic composites production, data requirements for new and existing continuous lamination lines and continuous casting lines complying with a percent reduction limit on a per line basis

As required in 40 CFR Section 63.5865, in order to comply with a percent reduction limit or a lbs/ton limit on an averaging basis for continuous lamination lines and continuous casting lines you must determine the data in the following table:

For each...	That...	You must determine...
1. Wet-out area	Is uncontrolled	Annual uncontrolled wet-out area organic HAP emissions.
2. Wet-out area	a. Has an enclosure that is not a PTE	i. The capture efficiency of the enclosure, and ii. Annual organic HAP emissions that escape the enclosure.
3. Wet-out area	Has an enclosure that is a PTE	That the enclosure meets the requirements of EPA Method 204 of appendix M to 40 CFR part 51 for a PTE.
4. Oven	Is uncontrolled	Annual uncontrolled oven organic HAP emissions.
5. Line	a. Is controlled or uncontrolled	i. The amount of neat resin plus applied, and ii. The amount of neat gel coat plus applied.
6. Add-on control device		i. Total annual inlet organic HAP emissions, and total annual outlet organic HAP emissions.

Appendix J: Table 12 to 40 CFR pt. 63, subp. WWWW—National emission standards for hazardous air pollutants for reinforced plastic composites production, data requirements for new and existing lamination lines and continuous casting lines complying with a lbs/ton organic hap emissions limit on a per line basis

As required in 40 CFR Section 63.5865(b), in order to comply with a lbs/ton organic HAP emissions limit for continuous lamination lines and continuous casting lines you must determine the data in the following table:

For each line where the wet-out area...	And the oven...	You must determine...
1. Is uncontrolled	a. Is uncontrolled	i. Annual uncontrolled wet-out area organic HAP emissions, ii. Annual uncontrolled oven organic HAP emissions, and iii. Annual neat resin plus and neat gel coat plus applied.
2. Has an enclosure that is not a PTE and the captured organic HAP emissions are controlled by an add-on control device	a. Is uncontrolled	i. Annual uncontrolled wet-out area organic HAP emissions, ii. Annual controlled wet-out area organic HAP emissions, iii. Annual uncontrolled oven organic HAP emissions, iv. The capture efficiency of the wet-out area enclosure, v. The destruction efficiency of the add-on control device, and vi. The amount of neat resin plus and neat gel coat plus applied.
. Has an enclosure that is a PTE, and the captured organic HAP	a. Is uncontrolled	i. Annual uncontrolled wet-out area organic HAP emissions, ii. Annual controlled wet-out area organic HAP emissions, iii. Annual uncontrolled oven organic HAP emissions,

For each line where the wet-out area...	And the oven...	You must determine...
emissions are controlled by an add-on control device		iv. That the wet-out area enclosure meets the requirements of EPA Method 204 of appendix M to 40 CFR part 51 for a PTE, v. The destruction efficiency of the add-on control device, and vi. The amount of neat resin plus and neat gel coat plus applied.
4. Is uncontrolled	a. Is controlled by an add-on control device	i. Annual uncontrolled wet-out area organic HAP emissions, ii. Annual uncontrolled oven organic HAP emissions, iii. Annual controlled oven organic HAP emissions, iv. The capture efficiency of the oven, v. The destruction efficiency of the add-on control device, and vi. The amount of neat resin plus and neat gel coat plus applied.
5. Has an enclosure that is not a PTE and the captured organic HAP emissions are controlled by an add-on control device	a. Is controlled by an add-on control device	i. Annual uncontrolled wet-out area organic HAP emissions, ii. Annual controlled wet-out area organic HAP emissions, iii. Annual uncontrolled oven organic HAP emissions, iv. Annual controlled oven organic HAP emissions, v. The capture efficiency of the wet-out area enclosure, vi. The capture efficiency of the oven, vii. The destruction efficiency of the add-on control device, and viii. The amount of neat resin plus and neat gel coat plus applied.
6. Has an enclosure that is a PTE, and the captured organic HAP emissions are controlled by add-on control device	a. Is controlled by an add-on control device	i. That the wet-out area enclosure meets the requirements of EPA Method 204 of appendix M to 40 CFR part 51 for a PTE, ii. The capture efficiency of the oven, iii. Inlet organic HAP emissions to the an add-on control device, and iv. Outlet organic HAP emissions from the add-on control device.

Appendix K: Table 13 to 40 CFR pt. 63, subp. WWWW—National Emission Standards for Hazardous Air Pollutants for Reinforced Plastic Composites Production, Applicability and Timing of Notifications

As required in §63.5905(a), you must determine the applicable notifications and submit them by the dates shown in the following table:

If your facility ...	You must submit...	By this date...
1. Is an existing source subject to this subpart	An Initial Notification containing the information specified in §63.9(b)(2)	No later than the dates specified in §63.9(b)(2).
2. Is a new source subject to this subpart	The notifications specified in §63.9(b)(4) and (5)	No later than the dates specified §63.9(b)(4) and (5).
3. Qualifies for a compliance extension as specified in §63.9(c)	A request for a compliance extension as specified in §63.9(c)	No later than the dates specified in §63.6(i).
4. Is complying with organic HAP emissions limit averaging provisions	A Notification of Compliance Status as specified in §63.9(h)	No later than 1 year plus 30 days after your facility's compliance date.
5. Is complying with organic HAP content limits, application equipment requirements, or organic HAP emissions limit other than organic	A Notification of Compliance Status as specified in §63.9(h)	No later than 30 calendar days after your facility's compliance date.

If your facility ...	You must submit...	By this date...
HAP emissions limit averaging		
6. Is complying by using an add-on control device	a. A notification of intent to conduct a performance test as specified in §63.9(e)	No later than the date specified in §63.9(e).
	b. A notification of the date for the CMS performance evaluation as specified in §63.9(g)	The date of submission of notification of intent to conduct a performance test.
	c. A Notification of Compliance Status as specified in §63.9(h)	No later than 60 calendar days after the completion of the add-on control device performance test and CMS performance evaluation.

Appendix L: 40 CFR Section 63.5810 Equations to 40 CFR pt. 63, subp. WWWW—National emission standards for hazardous air pollutants for reinforced plastic composites production

Equation 1

$$\text{Add-on Control Factor} = 1 - \frac{\% \text{ Control Efficiency}}{100} \quad (\text{Eq. 1})$$

Where:

Percent Control Efficiency = a value calculated from organic HAP emissions test measurements made according to the requirements of 40 CFR Section 63.5850 to 40 CFR pt. 63, subp. WWWW.

Equation 2

$$\text{Average organic HAP Emissions Factor} = \frac{\sum_{i=1}^n (\text{Actual Process Stream } EF_i * \text{Material}_i)}{\sum_{i=1}^n \text{Material}_i} \quad (\text{Eq. 2})$$

Where:

Actual Process Stream EF_i = actual organic HAP emissions factor for process stream i , lbs/ton;

Material_i = neat resin plus or neat gel coat plus used during the last 12 calendar months for process stream i , tons;

n = number of process streams where you calculated an organic HAP emissions factor.

Equation 3

$$\text{Weighted Average Emission Limit} = \frac{\sum_{i=1}^n (EL_i * \text{Material}_i)}{\sum_{i=1}^n \text{Material}_i} \quad (\text{Eq. 3})$$

Where:

EL_i = organic HAP emissions limit for operation type i , lbs/ton from Tables 3 or 5 to this subpart;

Material_i = neat resin plus or neat gel coat plus used during the last 12-month period for operation type i , tons;

n = number of operations.

Equation 4

$$\frac{\text{Actual Weighted Average organic HAP Emissions Factor}}{\text{Factor}} = \frac{\sum_{i=1}^n (\text{Actual Operation } EF_i * \text{Material}_i)}{\sum_{i=1}^n \text{Material}_i} \quad (\text{Eq. 4})$$

Where:

Actual Individual EF_i = Actual organic HAP emissions factor for operation type i , lbs/ton;
 Material $_i$ = neat resin plus or neat gel coat plus used during the last 12 calendar months for operation type i , tons;
 n = number of operations.

Appendix M: 40 CFR Section 63.5890 Equations to 40 CFR pt. 63, subp. WWW—National emission standards for hazardous air pollutants for reinforced plastic composites production

Equation 1

Compliant line optio: Use Equation 1 of 40 CFR Section 63.5810 to calculate an organic HAP emissions factor in lbs/ton.
 Combination option: Use Equations 1 and 2 of 40 CFR Section 63.5810, as applicable, to demonstrate compliance.

$$E = \frac{WAE_u + WAE_c + O_u + O_c}{(R + G)} \quad (\text{Eq. 1})$$

Where:

E = HAP emissions factor in lbs/ton of resin and gel coat
 WAE_u = uncontrolled wet-out area organic HAP emissions, lbs per year
 WAE_c = controlled wet-out area organic HAP emissions, lbs per year
 O_u = uncontrolled oven organic HAP emissions, lbs per year
 O_c = controlled oven organic HAP emissions, lbs per year
 R = total usage of neat resin plus, tpy
 G = total usage of neat gel coat plus, tpy

Equation 2

Averaging option: Use Equation 2 of 40 CFR Section 63.5810 to demonstrate compliance. Combination option: Use Equations 1 and 2 of 40 CFR Section 63.5810, as applicable, to demonstrate compliance.

$$E = \frac{\sum_{i=1}^m WAE_{ui} + \sum_{i=1}^o WAE_{ci} + \sum_{j=1}^n O_{uj} + \sum_{j=1}^p O_{cj}}{(R + G)} \quad (\text{Eq. 2})$$

Where:

E = HAP emissions factor in lbs/ton of resin and gel coat
 WAE_{ui} = uncontrolled organic HAP emissions from wet-out area i , lbs per year
 WAE_{ci} = controlled organic HAP emissions from wet-out area i , lbs per year
 O_{uj} = uncontrolled organic HAP emissions from oven j , lbs per year
 O_{cj} = controlled organic HAP emissions from oven j , lbs per year
 i = number of wet-out areas
 j = number of ovens
 m = number of wet-out areas uncontrolled
 n = number of ovens uncontrolled
 o = number of wet-out areas controlled

p = number of ovens controlled
R = total usage of neat resin plus, tpy
G = total usage of neat gel coat plus, tpy

Appendix N: 40 CFR pt. 63, subp. A – General Provisions

§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 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)-(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).

(b) Initial applicability determination for this part.

(1) The provisions of this part apply to the owner or operator of any stationary source that—

- (i) Emits or has the potential to emit any hazardous air pollutant listed in or pursuant to section 112(b) of the Act; and
- (ii) Is subject to any standard, limitation, prohibition, or other federally enforceable requirement established pursuant to this part.

(2) [Reserved]

(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) Except as provided in §63.10(b)(3), if a relevant standard has been established under this part, the owner or operator of an affected source may be required to obtain a title V permit from a permitting authority in the State in which the source is located. Emission standards promulgated in this part for area sources pursuant to section 112(c)(3) of the Act will specify whether—

- (i) States will have the option to exclude area sources affected by that standard from the requirement to obtain a title V permit (i.e., the standard will exempt the category of area sources altogether from the permitting requirement);
- (ii) States will have the option to defer permitting of area sources in that category until the Administrator takes rulemaking action to determine applicability of the permitting requirements; or
- (iii) If a standard fails to specify what the permitting requirements will be for area sources affected by such a standard, then area sources that are subject to the standard will be subject to the requirement to obtain a title V permit without any deferral.

(3)-(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.

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 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 noncompliance 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 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

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.

Force majeure means, for purposes of §63.7, an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the affected facility's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility.

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.

(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.

One-hour period, unless otherwise defined in an applicable subpart, means any 60-minute period commencing on the hour.

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).

Pollution Prevention means *source reduction* as defined under the Pollution Prevention Act (42 U.S.C. 13101-13109). The definition is as follows:

(1) *Source reduction* is any practice that:

- (i) Reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, or disposal; and
- (ii) Reduces the hazards to public health and the environment associated with the release of such substances, pollutants, or contaminants.

(2) The term *source reduction* includes equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control.

(3) The term *source reduction* does not include any practice that alters the physical, chemical, or biological characteristics or the volume of a hazardous substance, pollutant, or contaminant through a process or activity which itself is not integral to and necessary for the production of a product or the providing of a service.

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 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, unless otherwise defined in a relevant standard, means the replacement of components of an affected or a previously nonaffected 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.

Source at a Performance Track member facility means a major or area source located at a facility which has been accepted by EPA for membership in the Performance Track Program (as described at www.epa.gov/PerformanceTrack) and is still a member of the Program. The Performance Track Program is a

voluntary program that encourages continuous environmental improvement through the use of environmental management systems, local community outreach, and measurable results.

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 or portion of an affected source for any purpose.

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

m³ = cubic meter

mg = milligram = 10⁻³ gram

ml = milliliter = 10⁻³ liter

mm = millimeter = 10⁻³ meter

Mg = megagram = 10⁶ gram = metric ton

MJ = megajoule

mol = mole

N = newton

ng = nanogram = 10⁻⁹ gram

nm = nanometer = 10⁻⁹ meter

Pa = pascal

s = second

V = volt
W = watt
 Ω = ohm
 μg = microgram = 10^{-6} gram
 μl = microliter = 10^{-6} liter
(b) *Other units of measure:*
Btu = British thermal unit
 $^{\circ}\text{C}$ = 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
 $^{\circ}\text{F}$ degree Fahrenheit
ft = feet
ft² = square feet
ft³ = cubic feet
gal = gallon
gr = grain
g-eq = gram equivalent
g-mole = gram mole
hr = hour
in. = inch
in. H₂O = 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
 $^{\circ}\text{R}$ = 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

yd² = square yards

yr = year

(c) *Miscellaneous:*

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)-(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

(c) *Fragmentation.* Fragmentation after November 15, 1990 which divides ownership of an operation, within the same facility among various owners where there is no real change in control, will not affect applicability. The owner and operator must not use fragmentation or phasing of reconstruction activities (i.e., intentionally dividing reconstruction into multiple parts for purposes of avoiding new source requirements) to avoid becoming subject to new source requirements.

§63.5 Preconstruction review and notification requirements.

(a) *Applicability.*

(1) This section implements the preconstruction review requirements of section 112(i)(1). After the effective date of a relevant standard, promulgated pursuant to section 112(d), (f), or (h) of the Act, under this part, the preconstruction review requirements in this section apply to the owner or operator of new affected sources and reconstructed affected sources that are major-emitting as specified in this section. New and reconstructed affected sources that commence construction or reconstruction before the effective date of a relevant standard

are not subject to the preconstruction review requirements specified in paragraphs (b)(3), (d), and (e) of this section.

(2) This section includes notification requirements for new affected sources and reconstructed affected sources that are not major-emitting affected sources and that are or become subject to a relevant promulgated emission standard after the effective date of a relevant standard promulgated under this part.

(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.

(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. 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.

(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 replacements 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 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.

(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) Except as specified in paragraphs (b)(3) and (4) of this section, the owner or operator of a new or reconstructed affected source for which construction or reconstruction commences after proposal of a relevant standard that has an initial startup before the effective date of a relevant standard established under this part pursuant to section 112(d), (f), or (h) of the Act must comply with such standard not later than the standard's effective date.

(2) Except as specified in paragraphs (b)(3) and (4) of this section, the owner or operator of a new or reconstructed affected source that has an initial startup after the effective date of a relevant standard established under this part pursuant to section 112(d), (f), or (h) of the Act must comply with such standard upon startup of the source.

(3) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established under this part pursuant to section 112(d), 112(f), or 112(h) of the Act but before the effective date (that is, promulgation) of such standard shall comply with the relevant emission standard not later than the date 3 years after the effective date if:

(i) The promulgated standard (that is, the relevant standard) is more stringent than the proposed standard; for purposes of this paragraph, a finding that controls or compliance methods are "more stringent" must include control technologies or performance criteria and compliance or compliance assurance methods that are different but are substantially equivalent to those required by the promulgated rule, as determined by the Administrator (or his or her authorized representative); and

(ii) The owner or operator complies with the standard as proposed during the 3-year period immediately after the effective date.

(4) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established pursuant to section 112(d) of the Act but before the proposal date of a relevant standard established pursuant to section 112(f) shall not be required to comply with the section 112(f) emission standard until the date 10 years after the date construction or reconstruction is commenced, except that, if the section 112(f) standard is promulgated more than 10 years after construction or reconstruction is commenced, the owner or operator must comply with the standard as provided in paragraphs (b)(1) and (2) of this section.

(5) The owner or operator of a new source that is subject to the compliance requirements of paragraph (b)(3) or (4) of this section must notify the Administrator in accordance with §63.9(d)

(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.*

(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. This plan must be

developed by the owner or operator by the source's compliance date for that relevant standard. The purpose of the startup, shutdown, and malfunction plan is to—

- (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).

(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 §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 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 §70.2 and §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 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—*

(1) *Applicability.* The opacity and visible emission standards set forth in this part must 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 opacity and visible emission standards set forth in this part, then that emission point shall still be required to comply with the opacity and visible emission standards and other applicable requirements.

(2) *Methods for determining compliance.*

(i) The Administrator will determine compliance with opacity and visible emission standards in this part based on the results of the test method specified in an applicable subpart. Whenever a continuous opacity monitoring system (COMS) is required to be installed to determine compliance with numerical opacity emission standards in this part, compliance with opacity emission standards in this part shall be determined by using the results from the COMS. Whenever an opacity emission test method is not specified, compliance with opacity emission standards in this part shall be determined by conducting observations in accordance with Test Method 9 in appendix A of part 60 of this chapter or the method specified in paragraph (h)(7)(ii) of this section. Whenever a visible emission test method is not specified, compliance with visible emission standards in this part shall be determined by conducting observations in accordance with Test Method 22 in appendix A of part 60 of this chapter.

(ii) [Reserved]

(iii) If an affected source undergoes opacity or visible emission 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 opacity or visible emission test was conducted within a reasonable amount of time before a performance test is required to be conducted under the relevant standard;
- (B) The opacity or visible emission test was conducted under representative operating conditions for the source;
- (C) The opacity or visible emission test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in §63.7(e); and
- (D) The opacity or visible emission test was appropriately quality-assured, as specified in §63.7(c) of this section.

(3) [Reserved]

(4) *Notification of opacity or visible emission observations.* The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting opacity or visible emission observations in accordance with §63.9(f), if such observations are required for the source by a relevant standard.

(5) *Conduct of opacity or visible emission observations.* When a relevant standard under this part includes an opacity or visible emission standard, the owner or operator of an affected source shall comply with the following:

(i) For the purpose of demonstrating initial compliance, opacity or visible emission observations shall be conducted concurrently with the initial performance test required in §63.7 unless one of the following conditions applies:

(A) If no performance test under §63.7 is required, opacity or visible emission observations shall be conducted within 60 days after achieving the maximum production rate at which a new or reconstructed source will be operated, but not later than 120 days after initial startup of the source, or within 120 days after the effective date of the relevant standard in the case of new sources that start up before the standard's effective date. If no performance test under §63.7 is required, opacity or visible emission observations shall be conducted within 120 days after the compliance date for an existing or modified source; or

(B) If visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under §63.7, or within the time period specified in paragraph (h)(5)(i)(A) of this section, the source's owner or operator shall reschedule the opacity or visible emission observations as soon after the initial performance test, or time period, as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. The rescheduled opacity or visible emission observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under §63.7. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity or visible emission observations from being made concurrently with the initial performance test in accordance with procedures contained in Test Method 9 or Test Method 22 in appendix A of part 60 of this chapter.

(ii) For the purpose of demonstrating initial compliance, the minimum total time of opacity observations shall be 3 hours (30 6-minute averages) for the performance test or other required set of observations (e.g., for fugitive-type emission sources subject only to an opacity emission standard).

(iii) The owner or operator of an affected source to which an opacity or visible emission standard in this part applies shall conduct opacity or visible emission observations in accordance with the provisions of this section, record the results of the evaluation of emissions, and report to the Administrator the opacity or visible emission results in accordance with the provisions of §63.10(d).

(iv) [Reserved]

(v) Opacity readings of portions of plumes that contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity emission standards.

(6) *Availability of records.* The owner or operator of an affected source shall make available, upon request by the Administrator, such records that the Administrator deems necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification.

(7) *Use of a continuous opacity monitoring system.*

(i) The owner or operator of an affected source required to use a continuous opacity monitoring system (COMS) shall record the monitoring data produced during a performance test required under §63.7 and shall furnish the Administrator a written report of the monitoring results in accordance with the provisions of §63.10(e)(4).

(ii) Whenever an opacity emission test method has not been specified in an applicable subpart, or an owner or operator of an affected source is required to conduct Test Method 9 observations (see appendix A of part 60 of this chapter), the owner or operator may submit, for compliance purposes, COMS data results produced during any performance test required under §63.7 in lieu of Method 9 data. If the owner or operator elects to submit COMS data for compliance with the opacity emission standard, he or she shall notify the Administrator of that decision, in writing, simultaneously with the notification under §63.7(b) of the date the performance test is scheduled to begin. Once the owner or operator of an affected source has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent performance tests required under §63.7, unless the owner or operator notifies the Administrator in writing to the contrary not later than with the notification under §63.7(b) of the date the subsequent performance test is scheduled to begin.

(iii) For the purposes of determining compliance with the opacity emission standard during a performance test required under §63.7 using COMS data, the COMS data shall be reduced to 6-minute averages over the duration of the mass emission performance test.

(iv) The owner or operator of an affected source using a COMS for compliance purposes is responsible for demonstrating that he/she has complied with the performance evaluation requirements of §63.8(e), that the COMS has been properly maintained, operated, and data quality-assured, as specified in §63.8(c) and §63.8(d), and that the resulting data have not been altered in any way.

(v) Except as provided in paragraph (h)(7)(ii) of this section, the results of continuous monitoring by a COMS that indicate that the opacity at the time visual observations were made was not in excess of the emission standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the affected source proves that, at the time of the alleged violation, the instrument used was properly maintained, as specified in §63.8(c), and met Performance Specification 1 in appendix B of part 60 of this chapter, and that the resulting data have not been altered in any way.

(8) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with an opacity or visible emission standard upon obtaining all the compliance information required by the relevant standard (including the written reports of the results of the performance tests required by §63.7, the results of Test Method 9 or another required opacity or visible emission test method, the observer certification

required by paragraph (h)(6) of this section, and the continuous opacity monitoring system results, whichever is/are applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

(9) Adjustment to an opacity emission standard.

(i) If the Administrator finds under paragraph (h)(8) of this section that an affected source is in compliance with all relevant standards for which initial performance tests were conducted under §63.7, but during the time such performance tests were conducted fails to meet any relevant opacity emission standard, the owner or operator of such source may petition the Administrator to make appropriate adjustment to the opacity emission standard for the affected source. Until the Administrator notifies the owner or operator of the appropriate adjustment, the relevant opacity emission standard remains applicable.

(ii) The Administrator may grant such a petition upon a demonstration by the owner or operator that—

(A) The affected source and its associated air pollution control equipment were operated and maintained in a manner to minimize the opacity of emissions during the performance tests;

(B) The performance tests were performed under the conditions established by the Administrator; and

(C) The affected source and its associated air pollution control equipment were incapable of being adjusted or operated to meet the relevant opacity emission standard.

(iii) The Administrator will establish an adjusted opacity emission standard for the affected source meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity emission standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity emission standard in the FEDERAL REGISTER.

(iv) After the Administrator promulgates an adjusted opacity emission standard for an affected source, the owner or operator of such source shall be subject to the new opacity emission standard, and the new opacity emission standard shall apply to such source during any subsequent performance tests.

(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).

(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 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.

(3) The date by which on-site construction, installation of emission control equipment, or a process change is to be completed; and

(4) The date by which final compliance is to be achieved;

(C)-(D)

(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 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.

(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) Except as provided in paragraph (a)(4) of this section, 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) Except as provided in paragraph (a)(4) of this section, 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.

(4) If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure:

(i) The owner or operator shall notify the Administrator, in writing as soon as practicable following the date the owner or operator first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline specified in paragraph (a)(2) or (a)(3) of this section, or elsewhere in this part, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.

(ii) The owner or operator shall provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure occurs.

(iii) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Administrator. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practicable.

(iv) Until an extension of the performance test deadline has been approved by the Administrator under paragraphs (a)(4)(i), (a)(4)(ii), and (a)(4)(iii) of this section, the owner or operator of the affected facility remains strictly subject to the requirements of this part.

(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, 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 performance testing shall include a test method performance audit (PA) during the performance test. The PAs consist of blind audit samples supplied by an accredited audit sample provider and analyzed during the performance test in order to provide a measure of test data bias. Gaseous audit samples are designed to audit the performance of the sampling system as well as the analytical system and must be collected by the sampling system during the compliance test just as the compliance samples are collected. If a liquid or solid audit sample is designed to audit the sampling system, it must also be collected by the sampling system during the compliance test. If multiple sampling systems or sampling trains are used during the compliance test for any of the test methods, the tester is only required to use one of the sampling systems per method to collect the audit sample. The audit sample must be analyzed by the same analyst using the same analytical reagents and analytical system and at the same time as the compliance samples. Retests are required when there is a failure to produce acceptable results for an audit sample. However, if the audit results do not affect the compliance or noncompliance status of the affected facility, the compliance authority may waive the reanalysis requirement, further audits, or retests and accept the results of the compliance test. Acceptance of the test results shall constitute a waiver of the reanalysis requirement, further audits, or retests. The compliance authority may also use the audit sample failure and the compliance test results as evidence to determine the compliance or noncompliance status of the affected facility. A blind audit sample is a sample whose value is known only to the sample provider and is not revealed to the tested facility until after they report the measured value of the audit sample. For pollutants that exist in the gas phase at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in air or nitrogen that can be introduced into the sampling system of the test method at or near the same entry point as a sample from the emission source. If no gas phase audit samples are available, an acceptable alternative is a sample of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. For samples that exist only in a liquid or solid form at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. An accredited audit sample provider (AASP) is an organization that has been accredited to prepare audit samples by an independent, third party accrediting body.

(A) The source owner, operator, or representative of the tested facility shall obtain an audit sample, if commercially available, from an AASP for each test method used for regulatory compliance purposes. No audit samples are required for the following test methods: Methods 3A and 3C of appendix A-3 of part 60 of this chapter; Methods 6C, 7E, 9, and 10 of appendix A-4 of part 60; Methods 18 and 19 of appendix A-6 of part 60; Methods 20, 22, and 25A of appendix A-7 of part 60; Methods 30A and 30B of appendix A-8 of part 60; and Methods 303, 318, 320, and 321 of appendix A of this part. If multiple sources at a single facility are tested during a

compliance test event, only one audit sample is required for each method used during a compliance test. The compliance authority responsible for the compliance test may waive the requirement to include an audit sample if they believe that an audit sample is not necessary. "Commercially available" means that two or more independent AASPs have blind audit samples available for purchase. If the source owner, operator, or representative cannot find an audit sample for a specific method, the owner, operator, or representative shall consult the EPA Web site at the following URL, www.epa.gov/ttn/emc, to confirm whether there is a source that can supply an audit sample for that method. If the EPA Web site does not list an available audit sample at least 60 days prior to the beginning of the compliance test, the source owner, operator, or representative shall not be required to include an audit sample as part of the quality assurance program for the compliance test. When ordering an audit sample, the source owner, operator, or representative shall give the sample provider an estimate for the concentration of each pollutant that is emitted by the source or the estimated concentration of each pollutant based on the permitted level and the name, address, and phone number of the compliance authority. The source owner, operator, or representative shall report the results for the audit sample along with a summary of the emission test results for the audited pollutant to the compliance authority and shall report the results of the audit sample to the AASP. The source owner, operator, or representative shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the AASP. If the method being audited is a method that allows the samples to be analyzed in the field and the tester plans to analyze the samples in the field, the tester may analyze the audit samples prior to collecting the emission samples provided a representative of the compliance authority is present at the testing site. The tester may request, and the compliance authority may grant, a waiver to the requirement that a representative of the compliance authority must be present at the testing site during the field analysis of an audit sample. The source owner, operator, or representative may report the results of the audit sample to the compliance authority and then report the results of the audit sample to the AASP prior to collecting any emission samples. The test protocol and final test report shall document whether an audit sample was ordered and utilized and the pass/fail results as applicable.

(B) An AASP shall have and shall prepare, analyze, and report the true value of audit samples in accordance with a written technical criteria document that describes how audit samples will be prepared and distributed in a manner that will ensure the integrity of the audit sample program. An acceptable technical criteria document shall contain standard operating procedures for all of the following operations:

- (1) Preparing the sample;
- (2) Confirming the true concentration of the sample;
- (3) Defining the acceptance limits for the results from a well qualified tester. This procedure must use well established statistical methods to analyze historical results from well qualified testers. The acceptance limits shall be set so that there is 95 percent confidence that 90 percent of well qualified labs will produce future results that are within the acceptance limit range;
- (4) Providing the opportunity for the compliance authority to comment on the selected concentration level for an audit sample;
- (5) Distributing the sample to the user in a manner that guarantees that the true value of the sample is unknown to the user;

(6) Recording the measured concentration reported by the user and determining if the measured value is within acceptable limits;

(7) Reporting the results from each audit sample in a timely manner to the compliance authority and to the source owner, operator, or representative by the AASP. The AASP shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the source owner, operator, or representative. The results shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, and whether the testing company passed or failed the audit. The AASP shall report the true value of the audit sample to the compliance authority. The AASP may report the true value to the source owner, operator, or representative if the AASP's operating plan ensures that no laboratory will receive the same audit sample twice.

(8) Evaluating the acceptance limits of samples at least once every two years to determine in consultation with the voluntary consensus standard body if they should be changed.

(9) Maintaining a database, accessible to the compliance authorities, of results from the audit that shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, the true value of the audit sample, the acceptance range for the measured value, and whether the testing company passed or failed the audit.

(C) The accrediting body shall have a written technical criteria document that describes how it will ensure that the AASP is operating in accordance with the AASP technical criteria document that describes how audit samples are to be prepared and distributed. This document shall contain standard operating procedures for all of the following operations:

(1) Checking audit samples to confirm their true value as reported by the AASP.

(2) Performing technical systems audits of the AASP's facilities and operating procedures at least once every two years.

(3) Providing standards for use by the voluntary consensus standard body to approve the accrediting body that will accredit the audit sample providers.

(D) The technical criteria documents for the accredited sample providers and the accrediting body shall be developed through a public process guided by a voluntary consensus standards body (VCSB). The VCSB shall operate in accordance with the procedures and requirements in the Office of Management and Budget *Circular A-119*. A copy of Circular A-119 is available upon request by writing the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, by calling (202) 395-6880 or downloading online at http://standards.gov/standards_gov/a119.cfm. The VCSB shall approve all accrediting bodies. The Administrator will review all technical criteria documents. If the technical criteria documents do not meet the minimum technical requirements in paragraphs (c)(2)(iii)(B) through (C) of this section, the technical criteria documents are not acceptable and the proposed audit sample program is not capable of producing audit samples of sufficient quality to be used in a

compliance test. All acceptable technical criteria documents shall be posted on the EPA Web site at the following URL, <http://www.epa.gov/ttn/emc>.

(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—

(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.

(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
- (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.

(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) Contents of a performance test, CMS performance evaluation, or CMS quality assurance test report (electronic or paper submitted copy). Unless otherwise specified in a relevant standard, test method, CMS performance specification, or quality assurance requirement for a CMS, or as otherwise approved by the Administrator in writing, the report shall include the elements identified in paragraphs (g)(2)(i) through (vi) of this section.

(i) General identification information for the facility including a mailing address, the physical address, the owner or operator or responsible official (where applicable) and his/her email address, and the appropriate Federal Registry System (FRS) number for the facility.

(ii) Purpose of the test including the applicable regulation requiring the test, the pollutant(s) and other parameters being measured, the applicable emission standard, and any process parameter component, and a brief process description.

(iii) Description of the emission unit tested including fuel burned, control devices, and vent characteristics; the appropriate source classification code (SCC); the permitted maximum process rate (where applicable); and the sampling location.

(iv) Description of sampling and analysis procedures used and any modifications to standard procedures, quality assurance procedures and results, record of process operating conditions that demonstrate the applicable test conditions are met, and values for any operating parameters for which limits were being set during the test.

(v) Where a test method, CEMS, PEMS, or COMS performance specification, or on-going quality assurance requirement for a CEMS, PEMS, or COMS requires you record or report, the following shall be included in your report: Record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, chain-of-custody documentation, and example calculations for reported results.

(vi) Identification of the company conducting the performance test including the primary office address, telephone number, and the contact for this test including his/her email address.

(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—

(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) Additional monitoring requirements for control devices used to comply with provisions in relevant standards of this part are specified in §63.11.

(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.*

(1) The owner or operator of an affected source shall maintain and operate each 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 §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) Unless otherwise approved by the Administrator, minimum procedures for COMS shall include a method for producing a simulated zero opacity condition and an upscale (high-level) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of all the analyzer's internal optical surfaces and all electronic circuitry, including the lamp and photodetector assembly normally used in the measurement of opacity.

(6) 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)(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

(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) 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.*

(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—*

(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 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.* (i) The owner or operator shall furnish the Administrator a copy of a written report of the results of the performance evaluation containing the information specified in §63.7(g)(2)(i) through (vi) simultaneously with the results of the performance test required under §63.7 or within 60 days of completion of the performance evaluation, unless otherwise specified in a 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 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—*

(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).

(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 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. 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 8.4 of Performance Specification 2.

(g) *Reduction of monitoring data.*

- (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 O₂ 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.
- (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) 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)-(iv) [Reserved]

(v) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

(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.* The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting the opacity or visible emission observations specified in §63.6(h)(5), if such observations are required for the source by a relevant standard. The notification shall be submitted with the notification of the performance test date, as specified in paragraph (e) of this section, or if no performance test is required or visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under §63.7, the owner or operator shall deliver or postmark the notification not less than 30 days before the opacity or visible emission observations are scheduled to take place.

(g) *Additional notification requirements for sources with continuous monitoring systems.* 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.*

(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 60th 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 60th (or other required) day following completion of the initial performance test and again before the close of business on the 60th (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 30th 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 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 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.

(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 §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 §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 §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 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 section, 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 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, and except as provided in §63.16, 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).

(3) *Reporting results of opacity or visible emission observations.* The owner or operator of an affected source required to conduct opacity or visible emission observations by a relevant standard shall report the opacity or visible emission results (produced using Test Method 9 or Test Method 22, or an alternative to these test methods) along with the results of the performance test required under §63.7. If no performance test is required, or if visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the performance test required under §63.7, the owner or operator shall report the opacity or visible emission results before the close of business on the 30th day following the completion of the opacity or visible emission 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 §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 §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 §63.9(i).

(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.

(2) *Reporting results of continuous monitoring system performance evaluations.*

(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.*

(i) Excess emissions and parameter monitoring exceedances are defined in relevant standards. The owner or operator of an affected source required to install a CMS by a relevant standard shall submit an excess emissions and continuous monitoring system performance report and/or a summary report to the Administrator semiannually, except when—

(A) More frequent reporting is specifically required by a relevant standard;

(B) The Administrator determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source; or

(C) [Reserved]

(D) The affected source is complying with the Performance Track Provisions of §63.16, which allows less frequent reporting.

(ii) *Request to reduce frequency of excess emissions and continuous monitoring system performance reports.* Notwithstanding the frequency of reporting requirements specified in paragraph (e)(3)(i) of this section, an owner or operator who is required by a relevant standard to submit excess emissions and continuous monitoring system performance (and summary) reports on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(A) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected source's excess emissions and continuous monitoring system performance reports continually demonstrate that the source is in compliance with the relevant standard;

(B) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and the relevant standard; and

(C) The Administrator does not object to a reduced frequency of reporting for the affected source, as provided in paragraph (e)(3)(iii) of this section.

(iii) The frequency of reporting of excess emissions and continuous monitoring system performance (and summary) reports required to comply with a relevant standard may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the 5-year recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(iv) As soon as CMS data indicate that the source is not in compliance with any emission limitation or operating parameter specified in the relevant standard, the frequency of reporting shall revert to the frequency specified in the relevant standard, and the owner or operator shall submit an excess emissions and continuous monitoring system performance (and summary) report for the noncomplying emission points at the next appropriate reporting period following the noncomplying event. After demonstrating ongoing compliance with the relevant standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard, as provided for in paragraphs (e)(3)(ii) and (e)(3)(iii) of this section.

(v) *Content and submittal dates for excess emissions and monitoring system performance reports.* All excess emissions and monitoring system performance reports and all summary reports, if required, shall be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate. Written reports of excess emissions or exceedances of process or control system parameters shall include all the information required in paragraphs (c)(5) through (c)(13) of this section, in §§63.8(c)(7) and 63.8(c)(8), and in the relevant standard, and they shall contain the name, title, and signature of the responsible official who is certifying the accuracy of the report. When no excess emissions or exceedances of a parameter have occurred, or a CMS has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.

(vi) *Summary report.* As required under paragraphs (e)(3)(vii) and (e)(3)(viii) of this section, one summary report shall be submitted for the hazardous air pollutants monitored at each affected source (unless the relevant standard specifies that more than one summary report is required, e.g., one summary report for each hazardous air pollutant monitored). The summary report shall be entitled “Summary Report—Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance” and shall contain the following information:

- (A) The company name and address of the affected source;
- (B) An identification of each hazardous air pollutant monitored at the affected source;
- (C) The beginning and ending dates of the reporting period;
- (D) A brief description of the process units;
- (E) The emission and operating parameter limitations specified in the relevant standard(s);
- (F) The monitoring equipment manufacturer(s) and model number(s);
- (G) The date of the latest CMS certification or audit;
- (H) The total operating time of the affected source during the reporting period;
- (I) An emission data summary (or similar summary if the owner or operator monitors control system parameters), including the total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes;
- (J) A CMS performance summary (or similar summary if the owner or operator monitors control system parameters), including the total CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS 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;

(K) A description of any changes in CMS, processes, or controls since the last reporting period;

(L) The name, title, and signature of the responsible official who is certifying the accuracy of the report; and

(M) The date of the report.

(vii) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is less than 1 percent of the total operating time for the reporting period, and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report shall be submitted, and the full excess emissions and continuous monitoring system performance report need not be submitted unless required by the Administrator.

(viii) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is 1 percent or greater of the total operating time for the reporting period, or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, both the summary report and the excess emissions and continuous monitoring system performance report shall be submitted.

(4) *Reporting continuous opacity monitoring system data produced during a performance test.* The owner or operator of an affected source required to use a COMS shall record the monitoring data produced during a performance test required under §63.7 and shall furnish the Administrator a written report of the monitoring results. The report of COMS data shall be submitted simultaneously with the report of the performance test results required in paragraph (d)(2) of this section.

(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 recordkeeping 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 and work practice requirements.

(a) *Applicability.*

(1) The applicability of this section is set out in §63.1(a)(4).

(2) This section contains requirements for control devices used to comply with applicable subparts of this part. The requirements are placed here for administrative convenience and apply only to facilities covered by subparts referring to this section.

(3) This section also contains requirements for an alternative work practice used to identify leaking equipment. This alternative work practice is placed here for administrative convenience and is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(b) *Flares.*

(1) Owners or operators using flares to comply with the provisions of this part shall monitor these control devices to assure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators using flares shall monitor these control devices.

(2) Flares shall be steam-assisted, air-assisted, or non-assisted.

(3) Flares shall be operated at all times when emissions may be vented to them.

(4) Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. Test Method 22 in appendix A of part 60 of this chapter shall be used to determine the compliance of flares with the visible emission provisions of this part. The observation period is 2 hours and shall be used according to Method 22.

(5) Flares shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(6) An owner/operator has the choice of adhering to the heat content specifications in paragraph (b)(6)(ii) of this section, and the maximum tip velocity specifications in paragraph (b)(7) or (b)(8) of this section, or adhering to the requirements in paragraph (b)(6)(i) of this section.

(i)(A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume) or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity V_{\max} , as determined by the following equation:

$$V_{\max} = (X_{H_2} - K_1) * K_2$$

Where:

V_{\max} = Maximum permitted velocity, m/sec.

K_1 = Constant, 6.0 volume-percent hydrogen.

K_2 = Constant, 3.9(m/sec)/volume-percent hydrogen.

X_{H_2} = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in §63.14).

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (b)(7)(i) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted at 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted at 7.45 M/scm (200 Btu/scf) or greater if the flares is non-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

Where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C.

K = Constant =

$$1.740 \times 10^{-7} \left(\frac{1}{ppmv} \right) \left(\frac{\text{g-mole}}{\text{scm}} \right) \left(\frac{\text{MJ}}{\text{kcal}} \right)$$

where the standard temperature for (g-mole/scm) is 20 °C.

C_i = Concentration of sample component i in ppmv on a wet basis, as measured for organics by Test Method 18 and measured for hydrogen and carbon monoxide by American Society for Testing and Materials (ASTM) D1946-77 or 90 (Reapproved 1994) (incorporated by reference as specified in §63.14).

H_i = Net heat of combustion of sample component i, kcal/g-mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in §63.14) if published values are not available or cannot be calculated.

n = Number of sample components.

(7)(i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (b)(7)(ii) and (b)(7)(iii) of this section. The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), as determined by Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60 of this chapter, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, less than the velocity V_{max} , as determined by the method specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed.

The maximum permitted velocity, V_{\max} , for flares complying with this paragraph shall be determined by the following equation:

$$\text{Log}_{10}(V_{\max}) = (H_T + 28.8)/31.7$$

Where:

V_{\max} = Maximum permitted velocity, m/sec.

28.8 = Constant.

31.7 = Constant.

H_T = The net heating value as determined in paragraph (b)(6) of this section.

(8) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity V_{\max} . The maximum permitted velocity, V_{\max} , for air-assisted flares shall be determined by the following equation:

$$V_{\max} = 8.71 + 0.708(H_T)$$

Where:

V_{\max} = Maximum permitted velocity, m/sec.

8.71 = Constant.

0.708 = Constant.

H_T = The net heating value as determined in paragraph (b)(6)(ii) of this section.

(c) *Alternative work practice for monitoring equipment for leaks.* Paragraphs (c), (d), and (e) of this section apply to all equipment for which the applicable subpart requires monitoring with a 40 CFR part 60, appendix A-7, Method 21 monitor, except for closed vent systems, equipment designated as leakless, and equipment identified in the applicable subpart as having no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background. An owner or operator may use an optical gas imaging instrument instead of a 40 CFR part 60, appendix A-7, Method 21 monitor. Requirements in the existing subparts that are specific to the Method 21 instrument do not apply under this section. All other requirements in the applicable subpart that are not addressed in paragraphs (c), (d), and (e) of this section continue to apply. For example, equipment specification requirements, and non-Method 21 instrument recordkeeping and reporting requirements in the applicable subpart continue to apply. The terms defined in paragraphs (c)(1) through (5) of this section have meanings that are specific to the alternative work practice standard in paragraphs (c), (d), and (e) of this section.

(1) *Applicable subpart* means the subpart in 40 CFR parts 60, 61, 63, and 65 that requires monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(2) *Equipment* means pumps, valves, pressure relief valves, compressors, open-ended lines, flanges, connectors, and other equipment covered by the applicable subpart that require monitoring with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(3) *Imaging* means making visible emissions that may otherwise be invisible to the naked eye.

(4) *Optical gas imaging instrument* means an instrument that makes visible emissions that may otherwise be invisible to the naked eye.

(5) *Repair* means that equipment is adjusted, or otherwise altered, in order to eliminate a leak.

(6) *Leak* means:

(i) Any emissions imaged by the optical gas instrument;

(ii) Indications of liquids dripping;

(iii) Indications by a sensor that a seal or barrier fluid system has failed; or

(iv) Screening results using a 40 CFR part 60, appendix A-7, Method 21 monitor that exceed the leak definition in the applicable subpart to which the equipment is subject.

(d) The alternative work practice standard for monitoring equipment for leaks is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(1) An owner or operator of an affected source subject to 40 CFR parts 60, 61, 63, or 65 can choose to comply with the alternative work practice requirements in paragraph (e) of this section instead of using the 40 CFR part 60, appendix A-7, Method 21 monitor to identify leaking equipment. The owner or operator must document the equipment, process units, and facilities for which the alternative work practice will be used to identify leaks.

(2) Any leak detected when following the leak survey procedure in paragraph (e)(3) of this section must be identified for repair as required in the applicable subpart.

(3) If the alternative work practice is used to identify leaks, re-screening after an attempted repair of leaking equipment must be conducted using either the alternative work practice or the 40 CFR part 60, Appendix A-7, Method 21 monitor at the leak definition required in the applicable subparts to which the equipment is subject.

(4) The schedule for repair is as required in the applicable subpart.

(5) When this alternative work practice is used for detecting leaking equipment, choose one of the monitoring frequencies listed in Table 1 to subpart A of this part in lieu of the monitoring frequency specified for regulated equipment in the applicable subpart. Reduced monitoring frequencies for good performance are not applicable when using the alternative work practice.

(6) When this alternative work practice is used for detecting leaking equipment, the following are not applicable for the equipment being monitored:

(i) Skip period leak detection and repair;

(ii) Quality improvement plans; or

(iii) Complying with standards for allowable percentage of valves and pumps to leak.

(7) When the alternative work practice is used to detect leaking equipment, the regulated equipment in paragraph (d)(1)(i) of this section must also be monitored annually using a 40 CFR part 60, Appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart. The owner or operator may choose the specific monitoring period (for example, first quarter) to conduct the annual monitoring. Subsequent monitoring must be conducted every 12 months from the initial period. Owners or operators must keep records of the annual Method 21 screening results, as specified in paragraph (i)(4)(vii) of this section.

(e) An owner or operator of an affected source who chooses to use the alternative work practice must comply with the requirements of paragraphs (e)(1) through (e)(5) of this section.

(1) *Instrument specifications.* The optical gas imaging instrument must comply with the requirements specified in paragraphs (e)(1)(i) and (e)(1)(ii) of this section.

(i) Provide the operator with an image of the potential leak points for each piece of equipment at both the detection sensitivity level and within the distance used in the daily instrument check described in paragraph (e)(2) of this section. The detection sensitivity level depends upon the frequency at which leak monitoring is to be performed.

(ii) Provide a date and time stamp for video records of every monitoring event.

(2) *Daily instrument check.* On a daily basis, and prior to beginning any leak monitoring work, test the optical gas imaging instrument at the mass flow rate determined in paragraph (e)(2)(i) of this section in accordance with the procedure specified in paragraphs (e)(2)(ii) through (e)(2)(iv) of this section for each camera configuration used during monitoring (for example, different lenses used), unless an alternative method to demonstrate daily instrument checks has been approved in accordance with paragraph (e)(2)(v) of this section.

(i) Calculate the mass flow rate to be used in the daily instrument check by following the procedures in paragraphs (e)(2)(i)(A) and (e)(2)(i)(B) of this section.

(A) For a specified population of equipment to be imaged by the instrument, determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, within the distance to be used in paragraph (e)(2)(iv)(B) of this section, at or below the standard detection sensitivity level.

(B) Multiply the standard detection sensitivity level, corresponding to the selected monitoring frequency in Table 1 of subpart A of this part, by the mass fraction of detectable chemicals from the stream identified in paragraph (e)(2)(i)(A) of this section to determine the mass flow rate to be used in the daily instrument check, using the following equation.

$$E_{dic} = (E_{sds}) \sum_{i=1}^k x_i$$

Where:

E_{dic} = Mass flow rate for the daily instrument check, grams per hour

x_i = Mass fraction of detectable chemical(s) i seen by the optical gas imaging instrument, within the distance to be used in paragraph (e)(2)(iv)(B) of this section, at or below the standard detection sensitivity level, E_{sds} .

E_{sds} = Standard detection sensitivity level from Table 1 to subpart A, grams per hour

k = Total number of detectable chemicals emitted from the leaking equipment and seen by the optical gas imaging instrument.

(ii) Start the optical gas imaging instrument according to the manufacturer's instructions, ensuring that all appropriate settings conform to the manufacturer's instructions.

(iii) Use any gas chosen by the user that can be viewed by the optical gas imaging instrument and that has a purity of no less than 98 percent.

(iv) Establish a mass flow rate by using the following procedures:

(A) Provide a source of gas where it will be in the field of view of the optical gas imaging instrument.

(B) Set up the optical gas imaging instrument at a recorded distance from the outlet or leak orifice of the flow meter that will not be exceeded in the actual performance of the leak survey. Do not exceed the operating parameters of the flow meter.

(C) Open the valve on the flow meter to set a flow rate that will create a mass emission rate equal to the mass rate calculated in paragraph (e)(2)(i) of this section while observing the gas flow through the optical gas imaging instrument viewfinder. When an image of the gas emission is seen through the viewfinder at the required emission rate, make a record of the reading on the flow meter.

(v) Repeat the procedures specified in paragraphs (e)(2)(ii) through (e)(2)(iv) of this section for each configuration of the optical gas imaging instrument used during the leak survey.

(vi) To use an alternative method to demonstrate daily instrument checks, apply to the Administrator for approval of the alternative under §63.177 or §63.178, whichever is applicable.

(3) *Leak survey procedure.* Operate the optical gas imaging instrument to image every regulated piece of equipment selected for this work practice in accordance with the instrument manufacturer's operating parameters. All emissions imaged by the optical gas imaging instrument are considered to be leaks and are subject to repair. All emissions visible to the naked eye are also considered to be leaks and are subject to repair.

(4) *Recordkeeping.* Keep the records described in paragraphs (e)(4)(i) through (e)(4)(vii) of this section:

(i) The equipment, processes, and facilities for which the owner or operator chooses to use the alternative work practice.

(ii) The detection sensitivity level selected from Table 1 to subpart A of this part for the optical gas imaging instrument.

(iii) The analysis to determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, as specified in paragraph (e)(2)(i)(A) of this section.

(iv) The technical basis for the mass fraction of detectable chemicals used in the equation in paragraph (e)(2)(i)(B) of this section.

(v) The daily instrument check. Record the distance, per paragraph (e)(2)(iv)(B) of this section, and the flow meter reading, per paragraph (e)(2)(iv)(C) of this section, at which the leak was imaged. Keep a video record of the daily instrument check for each configuration of the optical gas imaging instrument used during the leak survey (for example, the daily instrument check must be conducted for each lens used). The video record must include a time and date stamp for each daily instrument check. The video record must be kept for 5 years.

(vi) *Recordkeeping requirements in the applicable subpart.* A video record must be used to document the leak survey results. The video record must include a time and date stamp for each monitoring event. A video record can be used to meet the recordkeeping requirements of the applicable subparts if each piece of regulated equipment selected for this work practice can be identified in the video record. The video record must be kept for 5 years.

(vii) The results of the annual Method 21 screening required in paragraph (h)(7) of this section. Records must be kept for all regulated equipment specified in paragraph (h)(1) of this section. Records must identify the equipment screened, the screening value measured by Method 21, the time and date of the screening, and calibration information required in the existing applicable subparts.

(5) *Reporting.* Submit the reports required in the applicable subpart. Submit the records of the annual Method 21 screening required in paragraph (h)(7) of this section to the Administrator via e-mail to CCG-AWP@EPA.GOV.

§63.12 State authority and delegations.

(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 in the following list of EPA Regional Offices.

EPA Region I (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont), Director, Office of Ecosystem Protection, 5 Post Office Square—Suite 100, Boston, MA 02109-3912.

EPA Region II (New Jersey, New York, Puerto Rico, Virgin Islands), Director, Air and Waste Management Division, 26 Federal Plaza, New York, NY 10278.

EPA Region III (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia), Director, Air Protection Division, 1650 Arch Street, Philadelphia, PA 19103.

EPA Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee). Director, Air, Pesticides and Toxics Management Division, Atlanta Federal Center, 61 Forsyth Street, Atlanta, GA 30303-3104.

EPA Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air and Radiation Division, 77 West Jackson Blvd., Chicago, IL 60604-3507.

EPA Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas), Director, Air, Pesticides and Toxics, 1445 Ross Avenue, Dallas, TX 75202-2733.

EPA Region VII (Iowa, Kansas, Missouri, Nebraska), Director, Air and Waste Management Division, 11201 Renner Boulevard, Lenexa, Kansas 66219.

EPA Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming) Director, Air and Toxics Technical Enforcement Program, Office of Enforcement, Compliance and Environmental Justice, Mail Code 8ENF-AT, 1595 Wynkoop Street, Denver, CO 80202-1129.

EPA Region IX (Arizona, California, Hawaii, Nevada; the territories of American Samoa and Guam; the Commonwealth of the Northern Mariana Islands; the territories of Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Atoll, Palmyra Atoll, and Wake Islands; and certain U.S. Government activities in the freely associated states of the Republic of the Marshall Islands, the Federated States of Micronesia, and the Republic of Palau), Director, Air Division, 75 Hawthorne Street, San Francisco, CA 94105.

EPA Region X (Alaska, Idaho, Oregon, Washington), Director, Office of Air Quality, 1200 Sixth Avenue (OAQ-107), Seattle, WA 98101.

(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.

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the EPA must publish notice of change in the FEDERAL REGISTER and the material must be available to the public. All approved material is available for inspection at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M St. SW., Washington, DC, telephone number 202-566, and is available from the sources listed below. It is also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030 or go to www.archives.gov/federal-register/cfr/ibr-locations.html.

(b) American Conference of Governmental Industrial Hygienists (ACGIH), Customer Service Department, 1330 Kemper Meadow Drive, Cincinnati, Ohio 45240, telephone number (513) 742-2020.

(1) Industrial Ventilation: A Manual of Recommended Practice, 22nd Edition, 1995, Chapter 3, "Local Exhaust Hoods" and Chapter 5, "Exhaust System Design Procedure." IBR approved for §§63.843(b) and 63.844(b).

(2) Industrial Ventilation: A Manual of Recommended Practice, 23rd Edition, 1998, Chapter 3, "Local Exhaust Hoods" and Chapter 5, "Exhaust System Design Procedure." IBR approved for §§63.1503, 63.1506(c), 63.1512(e), Table 2 to subpart RRR, Table 3 to subpart RRR, and appendix A to subpart RRR, and §63.2984(e).

(3) Industrial Ventilation: A Manual of Recommended Practice for Design, 27th Edition, 2010. IBR approved for §§63.1503, 63.1506(c), 63.1512(e), Table 2 to subpart RRR, Table 3 to subpart RRR, and appendix A to subpart RRR, and §63.2984(e).

(c) 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, 63.1402, and 63.2406.

(2) API Publication 2518, Evaporative Loss from Fixed-roof Tanks, Second Edition, October 1991, IBR approved for §63.150(g).

(3) API Manual of Petroleum Measurement Specifications (MPMS) Chapter 19.2 (API MPMS 19.2), Evaporative Loss From Floating-Roof Tanks, First Edition, April 1997, IBR approved for §§63.1251 and 63.12005.

(d) American Society of Heating, Refrigerating, and Air-Conditioning Engineers at 1791 Tullie Circle, NE., Atlanta, GA 30329 orders@ashrae.org.

(1) American Society of Heating, Refrigerating, and Air Conditioning Engineers Method 52.1, "Gravimetric and Dust-Spot Procedures for Testing Air-Cleaning Devices Used in General Ventilation for Removing Particulate Matter, June 4, 1992," IBR approved for §§63.11173(e) and 63.11516(d).

(2) [Reserved]

(e) American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016-5990, Telephone (800) 843-2763, <http://www.asme.org>; also available from HIS, Incorporated, 15 Inverness Way East, Englewood, CO 80112, Telephone (877) 413-5184, <http://global.ihs.com>.

(1) ANSI/ASME PTC 19.10-1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], issued August 31, 1981, IBR approved for §§63.309(k), 63.457(k), 63.772(e) and (h), 63.865(b), 63.1282(d) and (g), 63.1625(b), 63.3166(a), 63.3360(e), 63.3545(a), 63.3555(a), 63.4166(a), 63.4362(a), 63.4766(a), 63.4965(a), 63.5160(d), table 4 to subpart UUUU, 63.9307(c), 63.9323(a), 63.11148(e), 63.11155(e), 63.11162(f), 63.11163(g), 63.11410(j), 63.11551(a), 63.11646(a), and 63.11945, table 5 to subpart DDDDD, table 4 to subpart JJJJ, table 4 to subpart KKKKK, tables 4 and 5 of subpart UUUUU, table 1 to subpart ZZZZZ, and table 4 to subpart JJJJJ.

(2) [Reserved]

(f) The Association of Florida Phosphate Chemists, P.O. Box 1645, Bartow, Florida 33830.

(1) Book of Methods Used and Adopted By The Association of Florida Phosphate Chemists, Seventh Edition 1991:

(i) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample, IBR approved for §63.606(f), §63.626(f).

(ii) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method A—Volumetric Method, IBR approved for §63.606(f), §63.626(f).

(iii) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method B—Gravimetric Quimociac Method, IBR approved for §63.606(f), §63.626(f).

(iv) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method C—Spectrophotometric Method, IBR approved for §63.606(f), §63.626(f).

(v) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, Method A—Volumetric Method, IBR approved for §63.606(f), §63.626(f), and (g).

(vi) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, Method B—Gravimetric Quimociac Method, IBR approved for §63.606(f), §63.626(f), and (g).

(vii) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, Method C—Spectrophotometric Method, IBR approved for §63.606(f), §63.626(f), and (g).

(2) [Reserved]

(g) Association of Official Analytical Chemists (AOAC) International, Customer Services, Suite 400, 2200 Wilson Boulevard, Arlington, Virginia 22201-3301, Telephone (703) 522-3032, Fax (703) 522-5468.

(1) AOAC Official Method 929.01 Sampling of Solid Fertilizers, Sixteenth edition, 1995, IBR approved for §63.626(g).

(2) AOAC Official Method 929.02 Preparation of Fertilizer Sample, Sixteenth edition, 1995, IBR approved for §63.626(g).

(3) AOAC Official Method 957.02 Phosphorus (Total) in Fertilizers, Preparation of Sample Solution, Sixteenth edition, 1995, IBR approved for §63.626(g).

(4) AOAC Official Method 958.01 Phosphorus (Total) in Fertilizers, Spectrophotometric Molybdovanadophosphate Method, Sixteenth edition, 1995, IBR approved for §63.626(g).

(5) AOAC Official Method 962.02 Phosphorus (Total) in Fertilizers, Gravimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for §63.626(g).

(6) AOAC Official Method 969.02 Phosphorus (Total) in Fertilizers, Alkalimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for §63.626(g).

(7) AOAC Official Method 978.01 Phosphorus (Total) in Fertilizers, Automated Method, Sixteenth edition, 1995, IBR approved for §63.626(g).

(h) ASTM International, 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428-2959, Telephone (610) 832-9585, <http://www.astm.org>; also available from ProQuest, 789 East Eisenhower Parkway, Ann Arbor, MI 48106-1346, Telephone (734) 761-4700, <http://www.proquest.com>.

(1) ASTM D95-05 (Reapproved 2010), Standard Test Method for Water in Petroleum Products and Bituminous Materials by Distillation, approved May 1, 2010, IBR approved for §63.10005(i) and table 6 to subpart DDDDD.

(2) ASTM D240-09 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, approved July 1, 2009, IBR approved for table 6 to subpart DDDDD.

(3) ASTM Method D388-05, Standard Classification of Coals by Rank, approved September 15, 2005, IBR approved for §§63.7575, 63.10042, and 63.11237.

(4) ASTM Method D396-10, Standard Specification for Fuel Oils, including Appendix X1, approved October 1, 2010, IBR approved for §63.10042.

(5) ASTM D396-10, Standard Specification for Fuel Oils, approved October 1, 2010, IBR approved for §§63.7575 and 63.11237.

(6) ASTM D523-89, Standard Test Method for Specular Gloss, IBR approved for §63.782.

(7) ASTM D975-11b, Standard Specification for Diesel Fuel Oils, approved December 1, 2011, IBR approved for §63.7575.

(8) ASTM D1193-77, Standard Specification for Reagent Water, IBR approved for appendix A to part 63: Method 306, Sections 7.1.1 and 7.4.2.

(9) ASTM D1193-91, Standard Specification for Reagent Water, IBR approved for appendix A to part 63: Method 306, Sections 7.1.1 and 7.4.2.

(10) ASTM D1331-89, Standard Test Methods for Surface and Interfacial Tension of Solutions of Surface Active Agents, IBR approved for appendix A to part 63: Method 306B, Sections 6.2, 11.1, and 12.2.2.

(11) ASTM D1475-90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for appendix A to subpart II.

(12) ASTM D1475-98 (Reapproved 2003), "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products," IBR approved for §§63.3151(b), 63.3941(b) and (c), 63.3951(c), 63.4141(b) and (c), and 63.4551(c).

(13) ASTM D1475-13, Standard Test Method for Density of Liquid Coatings, Inks, and Related Products, approved November 1, 2013, IBR approved for §§63.4141(b) and (c), 63.4741(b) and (c), 63.4751(c), and 63.4941(b) and (c).

(14) ASTM Method D1835-05, Standard Specification for Liquefied Petroleum (LP) Gases, approved April 1, 2005, IBR approved for §§63.7575 and 63.11237.

- (15) ASTM D1945-03 (Reapproved 2010), Standard Test Method for Analysis of Natural Gas by Gas Chromatography, Approved January 1, 2010, IBR approved for §§63.670(j), 63.772(h), and 63.1282(g).
- (16) ASTM D1945-14, Standard Test Method for Analysis of Natural Gas by Gas Chromatography, Approved November 1, 2014, IBR approved for §63.670(j).
- (17) ASTM D1946-77, Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for §63.11(b).
- (18) ASTM D1946-90 (Reapproved 1994), Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for §§63.11(b) and 63.1412.
- (19) ASTM D2013/D2013M-09, Standard Practice for Preparing Coal Samples for Analysis, (Approved November 1, 2009), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (20) 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.
- (21) ASTM D2111-10 (Reapproved 2015), Standard Test Methods for Specific Gravity and Density of Halogenated Organic Solvents and Their Admixtures, approved June 1, 2015, IBR approved for §§63.4141(b) and (c) and 63.4741(a).
- (22) ASTM D2216-05, Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass, IBR approved for the definition of "Free organic liquids" in §63.10692.
- (23) ASTM D2234/D2234M-10, Standard Practice for Collection of a Gross Sample of Coal, approved January 1, 2010, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ .
- (24) ASTM D2369-93, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A to subpart II.
- (25) ASTM D2369-95, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A to subpart II.
- (26) ASTM D2369-10 (Reapproved 2015)e, Standard Test Method for Volatile Content of Coatings, approved June 1, 2015, IBR approved for §§63.4141(a) and (b), 63.4161(h), 63.4321(e), 63.4341(e), 63.4351(d), 63.4741(a), 63.4941(a) and (b), and 63.4961(j).
- (27) ASTM D2382-76, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for §63.11(b).
- (28) ASTM D2382-88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for §63.11(b).
- (29) ASTM D2697-86 (Reapproved 1998), Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings, IBR approved for §§63.3161(f), 63.3521(b), 63.3941(b), 63.4141(b), 63.4741(b), 63.4941(b), and 63.5160(c).
- (30) ASTM D2697-03 (Reapproved 2014), Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings, approved July 1, 2014, IBR approved for §§63.4141(b), 63.4741(a) and (b), and 63.4941(b).
- (31) ASTM D2879-83, Standard Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for §§63.111, 63.1402, 63.2406, and 63.12005.
- (32) ASTM D2879-96, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, (Approved 1996), IBR approved for §§63.111, 63.2406, and 63.12005.
- (33) ASTM D2908-74, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved June 27, 1974, IBR approved for §63.1329(c).

- (34) ASTM D2908-91, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved December 15, 1991, IBR approved for §63.1329(c).
- (35) ASTM D2908-91(Reapproved 2001), Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved December 15, 1991, IBR approved for §63.1329(c).
- (36) ASTM D2908-91(Reapproved 2005), Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved December 1, 2005, IBR approved for §63.1329(c).
- (37) ASTM D2908-91(Reapproved 2011), Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved May 1, 2011, IBR approved for §63.1329(c).
- (38) ASTM D2986-95A, "Standard Practice for Evaluation of Air Assay Media by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test," approved September 10, 1995, IBR approved for section 7.1.1 of Method 315 in appendix A to this part.
- (39) ASTM D3173-03 (Reapproved 2008), Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, (Approved February 1, 2008), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (40) ASTM D3257-93, Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography, IBR approved for §63.786(b).
- (41) ASTM D3370-76, Standard Practices for Sampling Water, Approved August 27, 1976, IBR approved for §63.1329(c).
- (42) ASTM D3370-95a, Standard Practices for Sampling Water from Closed Conduits, Approved September 10, 1995, IBR approved for §63.1329(c).
- (43) ASTM D3370-07, Standard Practices for Sampling Water from Closed Conduits, Approved December 1, 2007, IBR approved for §63.1329(c).
- (44) ASTM D3370-08, Standard Practices for Sampling Water from Closed Conduits, Approved October 1, 2008, IBR approved for §63.1329(c).
- (45) ASTM D3370-10, Standard Practices for Sampling Water from Closed Conduits, Approved December 1, 2010, IBR approved for §63.1329(c).
- (46) ASTM D3588-98 (Reapproved 2003), Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels, (Approved May 10, 2003), IBR approved for §§63.772(h) and 63.1282(g).
- (47) ASTM D3695-88, Standard Test Method for Volatile Alcohols in Water by Direct Aqueous-Injection Gas Chromatography, IBR approved for §63.365(e).
- (48) ASTM D3792-91, Standard Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for appendix A to subpart II.
- (49) ASTM D3912-80, Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for §63.782.
- (50) ASTM D4006-11, Standard Test Method for Water in Crude Oil by Distillation, including Annex A1 and Appendix X1, (Approved June 1, 2011), IBR approved for §63.10005(i) and table 6 to subpart DDDDD.
- (51) ASTM D4017-81, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A to subpart II.
- (52) ASTM D4017-90, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A to subpart II.

- (53) ASTM D4017-96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A to subpart II.
- (54) ASTM D4057-06 (Reapproved 2011), Standard Practice for Manual Sampling of Petroleum and Petroleum Products, including Annex A1, (Approved June 1, 2011), IBR approved for §63.10005(i) and table 6 to subpart DDDDD.
- (55) 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.
- (56) ASTM D4084-07, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), (Approved June 1, 2007), IBR approved for table 6 to subpart DDDDD.
- (57) ASTM D4177-95 (Reapproved 2010), Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, including Annexes A1 through A6 and Appendices X1 and X2, (Approved May 1, 2010), IBR approved for §63.10005(i) and table 6 to subpart DDDDD.
- (58) ASTM D4208-02 (Reapproved 2007), Standard Test Method for Total Chlorine in Coal by the Oxygen Bomb Combustion/Ion Selective Electrode Method, approved May 1, 2007, IBR approved for table 6 to subpart DDDDD.
- (59) ASTM D4239-14e1, "Standard Test Method for Sulfur in the Analysis Sample of Coal and Coke Using High-Temperature Tube Furnace Combustion," approved March 1, 2014, IBR approved for §63.849(f).
- (60) ASTM D4256-89, Standard Test Method for Determination of the Decontaminability of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for §63.782.
- (61) ASTM D4256-89 (Reapproved 94), Standard Test Method for Determination of the Decontaminability of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for §63.782.
- (62) ASTM D4606-03 (Reapproved 2007), Standard Test Method for Determination of Arsenic and Selenium in Coal by the Hydride Generation/Atomic Absorption Method, (Approved October 1, 2007), IBR approved for table 6 to subpart DDDDD.
- (63) 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).
- (64) ASTM D4840-99 (Reapproved 2018)e, Standard Guide for Sampling Chain-of-Custody Procedures, approved August 15, 2018, IBR approved for appendix A to part 63.
- (65) ASTM D4891-89 (Reapproved 2006), Standard Test Method for Heating Value of Gases in Natural Gas Range by Stoichiometric Combustion, (Approved June 1, 2006), IBR approved for §§63.772(h) and 63.1282(g).
- (66) ASTM D5066-91 (Reapproved 2001), Standard Test Method for Determination of the Transfer Efficiency Under Production Conditions for Spray Application of Automotive Paints-Weight Basis, IBR approved for §63.3161(g).
- (67) ASTM D5087-02, Standard Test Method for Determining Amount of Volatile Organic Compound (VOC) Released from Solventborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement), IBR approved for §63.3165(e) and appendix A to subpart IIII.
- (68) ASTM D5192-09, Standard Practice for Collection of Coal Samples from Core, (Approved June 1, 2009), IBR approved for table 6 to subpart DDDDD.
- (69) ASTM D5198-09, Standard Practice for Nitric Acid Digestion of Solid Waste, (Approved February 1, 2009), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.

(70) ASTM D5228-92, Standard Test Method for Determination of Butane Working Capacity of Activated Carbon, (Reapproved 2005), IBR approved for §63.11092(b).

(71) ASTM D5291-02, Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Petroleum Products and Lubricants, IBR approved for appendix A to subpart MMMM.

(72) ASTM D5790-95, Standard Test Method for Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography/Mass Spectrometry, IBR approved for Table 4 to subpart UUUU.

(73) ASTM D5864-11, Standard Test Method for Determining Aerobic Aquatic Biodegradation of Lubricants or Their Components, (Approved March 1, 2011), IBR approved for table 6 to subpart DDDDD.

(74) ASTM D5865-10a, Standard Test Method for Gross Calorific Value of Coal and Coke, (Approved May 1, 2010), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.

(75) ASTM D5954-98 (Reapproved 2006), Test Method for Mercury Sampling and Measurement in Natural Gas by Atomic Absorption Spectroscopy, (Approved December 1, 2006), IBR approved for table 6 to subpart DDDDD.

(76) ASTM D5965-02, Standard Test Methods for Specific Gravity of Coating Powders, IBR approved for §§63.3151(b) and 63.3951(c).

(77) ASTM D6053-00, Standard Test Method for Determination of Volatile Organic Compound (VOC) Content of Electrical Insulating Varnishes, IBR approved for appendix A to subpart MMMM.

(78) ASTM D6093-97 (Reapproved 2003), Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer, IBR approved for §§63.3161, 63.3521, 63.3941, and 63.5160(c).

(79) ASTM D6093-97 (Reapproved 2016), Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer, Approved December 1, 2016, IBR approved for §§63.4141(b), 63.4741(a) and (b), and 63.4941(b).

(80) ASTM D6196-03 (Reapproved 2009), Standard Practice for Selection of Sorbents, Sampling, and Thermal Desorption Analysis Procedures for Volatile Organic Compounds in Air, Approved March 1, 2009, IBR approved for appendix A to this part: Method 325A and Method 325B.

(81) ASTM D6266-00a, Test Method for Determining the Amount of Volatile Organic Compound (VOC) Released from Waterborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement), IBR approved for §63.3165(e).

(82) ASTM D6323-98 (Reapproved 2003), Standard Guide for Laboratory Subsampling of Media Related to Waste Management Activities, (Approved August 10, 2003), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.

(83) ASTM D6348-03, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, IBR approved for §§63.457(b) and 63.1349, table 4 to subpart DDDD, table 4 to subpart ZZZZ, and table 8 to subpart HHHHHH.

(84) ASTM D6348-03 (Reapproved 2010), Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, including Annexes A1 through A8, Approved October 1, 2010, IBR approved for §§63.1571(a), 63.4751(i), 63.4752(e), 63.4766(b), tables 4 and 5 to subpart JJJJJ, tables 4 and 6 to subpart KKKKK, tables 1, 2, and 5 to subpart UUUUU and appendix B to subpart UUUUU.

(85) ASTM D6348-12e1, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, Approved February 1, 2012, IBR approved for §63.1571(a).

(86) ASTM D6350-98 (Reapproved 2003), Standard Test Method for Mercury Sampling and Analysis in Natural Gas by Atomic Fluorescence Spectroscopy, (Approved May 10, 2003), IBR approved for table 6 to subpart DDDDD.

(87) ASTM D6357-11, Test Methods for Determination of Trace Elements in Coal, Coke, and Combustion Residues from Coal Utilization Processes by Inductively Coupled Plasma Atomic Emission Spectrometry, (Approved April 1, 2011), IBR approved for table 6 to subpart DDDDD.

(88) ASTM D6376-10, "Standard Test Method for Determination of Trace Metals in Petroleum Coke by Wavelength Dispersive X-Ray Fluorescence Spectroscopy," Approved July 1, 2010, IBR approved for §63.849(f).

(89) ASTM D6420-99, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, IBR approved for §§63.5799, 63.5850, and Table 4 of Subpart UUUU.

(90) ASTM D6420-99 (Reapproved 2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, (Approved October 1, 2004), IBR approved for §§63.457(b), 63.485(g), 60.485a(g), 63.772(a), 63.772(e), 63.1282(a) and (d), 63.2351(b), and 63.2354(b), and table 8 to subpart HHHHHH.

(91) ASTM D6420-99 (Reapproved 2010), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, Approved October 1, 2010, IBR approved for §63.670(j) and appendix A to this part: Method 325B.

(92) ASTM D6522-00, 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 §63.9307(c).

(93) ASTM D6522-00 (Reapproved 2005), 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, (Approved October 1, 2005), IBR approved for table 4 to subpart ZZZZ, table 5 to subpart DDDDDD, table 4 to subpart JJJJJ, and §§63.772(e) and (h)) and 63.1282(d) and (g).

(94) ASTM D6721-01 (Reapproved 2006), Standard Test Method for Determination of Chlorine in Coal by Oxidative Hydrolysis Microcoulometry, (Approved April 1, 2006), IBR approved for table 6 to subpart DDDDD.

(95) ASTM D6722-01 (Reapproved 2006), Standard Test Method for Total Mercury in Coal and Coal Combustion Residues by the Direct Combustion Analysis, (Approved April 1, 2006), IBR approved for Table 6 to subpart DDDDD and Table 5 to subpart JJJJJ.

(96) ASTM D6735-01 (Reapproved 2009), Standard Test Method for Measurement of Gaseous Chlorides and Fluorides from Mineral Calcining Exhaust Sources—Impinger Method, IBR approved for tables 4 and 5 to subpart JJJJJ and tables 4 and 6 to subpart KKKKK.

(97) ASTM D6751-11b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels, (Approved July 15, 2011), IBR approved for §§63.7575 and 63.11237.

(98) ASTM D6784-02 (Reapproved 2008), Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), (Approved April 1, 2008), IBR approved for §§63.11646(a), 63.11647(a) and (d), tables 1, 2, 5, 11, 12t, and 13 to subpart DDDDD, tables 4 and 5 to subpart JJJJJ, tables 4 and 6 to subpart KKKKK, table 4 to subpart JJJJJ, table 5 to subpart UUUUU, and appendix A to subpart UUUUU.

(99) ASTM D6883-04, Standard Practice for Manual Sampling of Stationary Coal from Railroad Cars, Barges, Trucks, or Stockpiles, (Approved June 1, 2004), IBR approved for table 6 to subpart DDDDD.

(100) ASTM D7430-11ae1, Standard Practice for Mechanical Sampling of Coal, (Approved October 1, 2011), IBR approved for table 6 to subpart DDDDD.

(101) ASTM D7520-13, Standard Test Method for Determining the Opacity of a Plume in an Outdoor Ambient Atmosphere, approved December 1, 2013. IBR approved for §§63.1510(f), 63.1511(d), 63.1512(a), 63.1517(b) and 63.1625(b).

(102) ASTM D7520-16, Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere, approved April 1, 2016, IBR approved for §§63.1625(b).

(103) ASTM E145-94 (Reapproved 2001), Standard Specification for Gravity-Convection and Forced-Ventilation Ovens, IBR approved for appendix A to subpart PPPP.

(104) 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).

(105) ASTM E260-91, General Practice for Packed Column Gas Chromatography, IBR approved for §§63.750(b) and 63.786(b).

(106) ASTM E260-96, General Practice for Packed Column Gas Chromatography, IBR approved for §§63.750(b) and 63.786(b).

(107) ASTM E515-95 (Reapproved 2000), Standard Test Method for Leaks Using Bubble Emission Techniques, IBR approved for §63.425(i).

(108) ASTM E711-87 (Reapproved 2004), Standard Test Method for Gross Calorific Value of Refuse-Derived Fuel by the Bomb Calorimeter, (Approved August 28, 1987), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.

(109) ASTM E776-87 (Reapproved 2009), Standard Test Method for Forms of Chlorine in Refuse-Derived Fuel, (Approved July 1, 2009), IBR approved for table 6 to subpart DDDDD.

(110) ASTM E871-82 (Reapproved 2006), Standard Test Method for Moisture Analysis of Particulate Wood Fuels, (Approved November 1, 2006), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.

(111) ASTM UOP539-12, Refinery Gas Analysis by GC, Copyright 2012 (to UOP), IBR approved for §63.670(j).

(i) Bay Area Air Quality Management District (BAAQMD), 939 Ellis Street, San Francisco, California 94109, <http://www.arb.ca.gov/DRDB/BA/CURHTML/ST/st30.pdf>.

(1) "BAAQMD Source Test Procedure ST-30—Static Pressure Integrity Test, Underground Storage Tanks," adopted November 30, 1983, and amended December 21, 1994, IBR approved for §63.11120(a).

(2) [Reserved]

(j) British Standards Institute, 389 Chiswick High Road, London W4 4AL, United Kingdom.

(1) BS EN 1593:1999, Non-destructive Testing: Leak Testing—Bubble Emission Techniques, IBR approved for §63.425(i).

(2) BS EN 14662-4:2005, Ambient air quality standard method for the measurement of benzene concentrations—Part 4: Diffusive sampling followed by thermal desorption and gas chromatography, Published June 27, 2005, IBR approved for appendix A to this part: Method 325A and Method 325B.

(k) California Air Resources Board (CARB), 1001 I Street, P.O. Box 2815, Sacramento, CA 95812-2815, Telephone (916) 327-0900, <http://www.arb.ca.gov/>.

(1) Method 428, "Determination Of Polychlorinated Dibenzo-P-Dioxin (PCDD), Polychlorinated Dibenzofuran (PCDF), and Polychlorinated Biphenyle Emissions from Stationary Sources," amended September 12, 1990, IBR approved for §63.849(a)(13) and (14).

(2) Method 429, Determination of Polycyclic Aromatic Hydrocarbon (PAH) Emissions from Stationary Sources, Adopted September 12, 1989, Amended July 28, 1997, IBR approved for §63.1625(b).

(3) California Air Resources Board Vapor Recovery Test Procedure TP-201.1—"Volumetric Efficiency for Phase I Vapor Recovery Systems," adopted April 12, 1996, and amended February 1, 2001 and October 8, 2003, IBR approved for §63.11120(b).

(4) California Air Resources Board Vapor Recovery Test Procedure TP-201.1E—"Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves," adopted October 8, 2003, IBR approved for §63.11120(a).

(5) California Air Resources Board Vapor Recovery Test Procedure TP-201.3—"Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities," adopted April 12, 1996 and amended March 17, 1999, IBR approved for §63.11120(a).

(l) Composite Panel Association, 19465 Deerfield Avenue, Suite 306, Leesburg, VA 20176, Telephone (703)724-1128, and www.compositepanel.org.

(1) ANSI A135.4-2012, Basic Hardboard, approved June 8, 2012, IBR approved for §63.4781.

(2) [Reserved]

(m) Environmental Protection Agency. Air and Radiation Docket and Information Center, 1200 Pennsylvania Avenue NW., Washington, DC 20460, telephone number (202) 566-1745.

(1) *California Regulatory Requirements Applicable to the Air Toxics Program*, November 16, 2010, IBR approved for §63.99(a).

(2) *New Jersey's Toxic Catastrophe Prevention Act Program*, (July 20, 1998), IBR approved for §63.99(a).

(3) 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).

(4) State of Delaware Regulations Governing the Control of Air Pollution (October 2000), IBR approved for §63.99(a).

(5) Massachusetts Department of Environmental Protection regulations at 310 CMR 7.26(10)-(16), Air Pollution Control, effective as of September 5, 2008, corrected March 6, 2009, and 310 CMR 70.00, Environmental Results Program Certification, effective as of December 28, 2007. IBR approved for §63.99(a).

(6)(i) New Hampshire Regulations at Env-Sw 2100, Management and Control of Asbestos Disposal Sites Not Operated after July 9, 1981, effective February 16, 2010 (including a letter from Thomas S. Burack, Commissioner, Department of Environmental Services, State of New Hampshire, to Carol J. Holahan, Director, Office of Legislative Services, dated February 12, 2010, certifying that the enclosed rule, Env-Sw 2100, is the official version of this rule), IBR approved for §63.99(a).

(ii) New Hampshire Code of Administrative Rules: Chapter Env-A 1800, Asbestos Management and Control, effective as of May 5, 2017 (certified with June 23, 2017 letter from Clark B. Freise, Assistant Commissioner, Department of Environmental Services, State of New Hampshire), as follows: Revision Notes #1 and #2; Part Env-A 1801-1807, excluding Env-A 1801.02(e), Env-A 1801.07, Env-A 1802.02, Env-A 1802.04, Env-A 1802.07-1802.09, Env-A 1802.13, Env-A 1802.15-1802.17, Env-A 1802.25, Env-A 1802.31, Env-A 1802.37, Env-A 1802.40, Env-A 1802.44, and Env-A 1803.05-1803.09; and Appendices B, C, and D; IBR approved for §63.99(a).

- (7) Maine Department of Environmental Protection regulations at Chapter 125, Perchloroethylene Dry Cleaner Regulation, effective as of June 2, 1991, last amended on June 24, 2009. IBR approved for §63.99(a).
- (8) California South Coast Air Quality Management District's "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989," IBR approved for §§63.11173(e) and 63.11516(d).
- (9) California South Coast Air Quality Management District's "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns, September 26, 2002," Revision 0, IBR approved for §§63.11173(e) and 63.11516(d).
- (10) Rhode Island Department of Environmental Management regulations at Air Pollution Control Regulation No. 36, Control of Emissions from Organic Solvent Cleaning, effective April 8, 1996, last amended October 9, 2008, IBR approved for §63.99(a).
- (11) Rhode Island Air Pollution Control, General Definitions Regulation, effective July 19, 2007, last amended October 9, 2008. IBR approved for §63.99(a).
- (12) Alaska Statute 42.45.045. Renewable energy grant fund and recommendation program, available at <http://www.legis.state.ak.us/basis/folio.asp>, IBR approved for §63.6675.
- (13) Vermont Air Pollution Control Regulations, Chapter 5, Air Pollution Control, section 5-253.11, Perchloroethylene Dry Cleaning, effective as of December 15, 2016. Incorporation by reference approved for §63.99(a).
- (n) U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue NW., Washington, DC 20460, (202) 272-0167, <http://www.epa.gov>.
- (1) EPA-453/R-01-005, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Integrated Iron and Steel Plants—Background Information for Proposed Standards, Final Report, January 2001, IBR approved for §63.7491(g).
- (2) EPA-454/B-08-002, Office of Air Quality Planning and Standards (OAQPS), Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Meteorological Measurements, Version 2.0 (Final), March 24, 2008, IBR approved for §63.658(d) and appendix A to this part: Method 325A.
- (3) EPA-454/R-98-015, Office of Air Quality Planning and Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance, September 1997, <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=2000D5T6.PDF>, IBR approved for §§63.548(e), 63.864(e), 63.7525(j), 63.8450(e), 63.8600(e), and 63.11224(f).
- (4) EPA-454/R-99-005, Office of Air Quality Planning and Standards (OAQPS), Meteorological Monitoring Guidance for Regulatory Modeling Applications, February 2000, IBR approved for appendix A to this part: Method 325A.
- (5) EPA/600/R-12/531, EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards, May 2012, IBR approved for §63.2163(b).
- (6) EPA-625/3-89-016, Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update, March 1989. IBR approved for §63.1513(d).
- (7) SW-846-3020A, Acid Digestion of Aqueous Samples And Extracts For Total Metals For Analysis By GFAA Spectroscopy, Revision 1, July 1992, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.

- (8) SW-846-3050B, Acid Digestion of Sediments, Sludges, and Soils, Revision 2, December 1996, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (9) SW-846-7470A, Mercury In Liquid Waste (Manual Cold-Vapor Technique), Revision 1, September 1994, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (10) SW-846-7471B, Mercury In Solid Or Semisolid Waste (Manual Cold-Vapor Technique), Revision 2, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (11) SW-846-8015C, Nonhalogenated Organics by Gas Chromatography, Revision 3, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for §§63.11960, 63.11980, and table 10 to subpart HHHHHH.
- (12) SW-846-8260B, Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS), Revision 2, December 1996, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for §§63.11960, 63.11980, and table 10 to subpart HHHHHH.
- (13) SW-846-8270D, Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS), Revision 4, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for §§63.11960, 63.11980, and table 10 to subpart HHHHHH.
- (14) SW-846-8315A, Determination of Carbonyl Compounds by High Performance Liquid Chromatography (HPLC), Revision 1, December 1996, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for §§63.11960 and 63.11980, and table 10 to subpart HHHHHH.
- (15) SW-846-5050, Bomb Preparation Method for Solid Waste, Revision 0, September 1994, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition IBR approved for table 6 to subpart DDDDD.
- (16) SW-846-6010C, Inductively Coupled Plasma-Atomic Emission Spectrometry, Revision 3, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.
- (17) SW-846-6020A, Inductively Coupled Plasma-Mass Spectrometry, Revision 1, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.
- (18) SW-846-7060A, Arsenic (Atomic Absorption, Furnace Technique), Revision 1, September 1994, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.
- (19) SW-846-7740, Selenium (Atomic Absorption, Furnace Technique), Revision 0, September 1986, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.
- (20) SW-846-9056, Determination of Inorganic Anions by Ion Chromatography, Revision 1, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(21) SW-846-9076, Test Method for Total Chlorine in New and Used Petroleum Products by Oxidative Combustion and Microcoulometry, Revision 0, September 1994, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(22) SW-846-9250, Chloride (Colorimetric, Automated Ferricyanide AAI), Revision 0, September 1986, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(23) Method 200.8, Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma—Mass Spectrometry, Revision 5.4, 1994, IBR approved for table 6 to subpart DDDDD.

(24) Method 1631 Revision E, Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Absorption Fluorescence Spectrometry, Revision E, EPA-821-R-02-019, August 2002, IBR approved for table 6 to subpart DDDDD.

(o) International Standards Organization (ISO), 1, ch. de la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland, + 41 22 749 01 11, <http://www.iso.org/iso/home.htm>.

(1) ISO 6978-1:2003(E), Natural Gas—Determination of Mercury—Part 1: Sampling of Mercury by Chemisorption on Iodine, First edition, October 15, 2003, IBR approved for table 6 to subpart DDDDD.

(2) ISO 6978-2:2003(E), Natural gas—Determination of Mercury—Part 2: Sampling of Mercury by Amalgamation on Gold/Platinum Alloy, First edition, October 15, 2003, IBR approved for table 6 to subpart DDDDD.

(3) ISO 16017-2:2003(E): Indoor, ambient and workplace air—sampling and analysis of volatile organic compounds by sorbent tube/thermal desorption/capillary gas chromatography—Part 2: Diffusive sampling, May 15, 2003, IBR approved for appendix A to this part: Method 325A and Method 325B.

(p) 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>.

(1) NCASI Method DI/MEOH-94.03, Methanol in Process Liquids and Wastewaters by GC/FID, Issued May 2000, IBR approved for §§63.457 and 63.459.

(2) NCASI Method CI/WP-98.01, Chilled Impinger Method For Use At Wood Products Mills to Measure Formaldehyde, Methanol, and Phenol, 1998, Methods Manual, IBR approved for table 4 to subpart DDDD.

(3) NCASI Method DI/HAPS-99.01, Selected HAPs In Condensates by GC/FID, Issued February 2000, IBR approved for §63.459(b).

(4) NCASI Method IM/CAN/WP-99.02, Impinger/Canister Source Sampling Method for Selected HAPs and Other Compounds at Wood Products Facilities, January 2004, Methods Manual, IBR approved for table 4 to subpart DDDD.

(5) NCASI Method ISS/FP A105.01, Impinger Source Sampling Method for Selected Aldehydes, Ketones, and Polar Compounds, December 2005, Methods Manual, IBR approved for table 4 to subpart DDDD and §§63.4751(i) and 63.4752(e).

(q) National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161, (703) 605-6000 or (800) 553-6847; or for purchase from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 512-1800.

(1) Handbook 44, Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices 1998, IBR approved for §63.1303(e).

(2) "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, Third Edition. (A suffix of "A" in the method number indicates revision one (the method has been revised once). A suffix of "B" in the method number indicates revision two (the method has been revised twice).

(i) Method 0023A, "Sampling Method for Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofuran Emissions from Stationary Sources," dated December 1996, IBR approved for §63.1208(b).

(ii) Method 9071B, "n-Hexane Extractable Material (HEM) for Sludge, Sediment, and Solid Samples," dated April 1998, IBR approved for §63.7824(e).

(iii) Method 9095A, "Paint Filter Liquids Test," dated December 1996, IBR approved for §§63.7700(b) and 63.7765.

(iv) Method 9095B, "Paint Filter Liquids Test," (revision 2), dated November 2004, IBR approved for the definition of "Free organic liquids" in §§63.10692, 63.10885(a), and the definition of "Free liquids" in §63.10906.

(v) SW-846 74741B, Revision 2, "Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique)," February 2007, IBR approved for §63.11647(f).

(3) National Institute of Occupational Safety and Health (NIOSH) test method compendium, "NIOSH Manual of Analytical Methods," NIOSH publication no. 94-113, Fourth Edition, August 15, 1994.

(i) NIOSH Method 2010, "Amines, Aliphatic," Issue 2, August 15, 1994, IBR approved for §63.7732(g).

(ii) [Reserved]

(r) North American Electric Reliability Corporation, 1325 G Street, NW., Suite 600, Washington, DC 20005-3801, <http://www.nerc.com>, http://www.nerc.com/files/EOP0002-3_1.pdf.

(1) North American Electric Reliability Corporation Reliability Standard EOP-002-3, Capacity and Energy Emergencies, adopted August 5, 2010, IBR approved for §63.6640(f).

(2)[Reserved]

(s) Technical Association of the Pulp and Paper Industry (TAPPI), 15 Technology Parkway South, Norcross, GA 30092, (800) 332-8686, <http://www.tappi.org>.

(1) TAPPI T 266, Determination of Sodium, Calcium, Copper, Iron, and Manganese in Pulp and Paper by Atomic Absorption Spectroscopy (Reaffirmation of T 266 om-02), Draft No. 2, July 2006, IBR approved for table 6 to subpart DDDDD.

(2) [Reserved]

(t) Texas Commission on Environmental Quality (TCEQ) Library, Post Office Box 13087, Austin, Texas 78711-3087, telephone number (512) 239-0028, http://www.tceq.state.tx.us/assets/public/implementation/air/sip/sipdocs/2002-12-HGB/02046sipapp_ado.pdf.

(1) "Air Stripping Method (Modified El Paso Method) for Determination of Volatile Organic Compound Emissions from Water Sources," Revision Number One, dated January 2003, Sampling Procedures Manual, Appendix P: Cooling Tower Monitoring, January 31, 2003, IBR approved for §§63.654(c) and (g), 63.655(i), and 63.11920.

(2) [Reserved]

§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.

§63.16 Performance Track Provisions.

(a) Notwithstanding any other requirements in this part, an affected source at any major source or any area source at a Performance Track member facility, which is subject to regular periodic reporting under any subpart of this part, may submit such periodic reports at an interval that is twice the length of the regular period specified in the applicable subparts; provided, that for sources subject to permits under 40 CFR part 70 or 71 no interval so calculated for any report of the results of any required monitoring may be less frequent than once in every six months.

(b) Notwithstanding any other requirements in this part, the modifications of reporting requirements in paragraph (c) of this section apply to any major source at a Performance Track member facility which is subject to requirements under any of the subparts of this part and which has:

- (1) Reduced its total HAP emissions to less than 25 tons per year;
- (2) Reduced its emissions of each individual HAP to less than 10 tons per year; and
- (3) Reduced emissions of all HAPs covered by each MACT standard to at least the level required for full compliance with the applicable emission standard.

(c) For affected sources at any area source at a Performance Track member facility and which meet the requirements of paragraph (b)(3) of this section, or for affected sources at any major source that meet the requirements of paragraph (b) of this section:

(1) If the emission standard to which the affected source is subject is based on add-on control technology, and the affected source complies by using add-on control technology, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is meeting the emission standard by continuing to use that control technology. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).

(2) If the emission standard to which the affected source is subject is based on add-on control technology, and the affected source complies by using pollution prevention, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is continuing to use pollution prevention to reduce HAP emissions to levels at or below those required by the applicable emission standard. The affected source must maintain records of all calculations that demonstrate the level of HAP emissions required by the emission standard as well as the level of HAP emissions achieved by the affected source. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).

(3) If the emission standard to which the affected source is subject is based on pollution prevention, and the affected source complies by using pollution prevention and reduces emissions by an additional 50 percent or greater than required by the applicable emission standard, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is continuing to use pollution prevention to reduce HAP emissions by an additional 50 percent or greater than required by the applicable emission standard. The affected source must maintain records of all calculations that demonstrate the level of HAP emissions required by the emission standard as well as the level of HAP emissions achieved by the affected source. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).

(4) Notwithstanding the provisions of paragraphs (c)(1) through (3), of this section, for sources subject to permits under 40 CFR part 70 or 71, the results of any required monitoring and recordkeeping must be reported not less frequently than once in every six months.

Table 1 to Subpart A of Part 63—Detection sensitivity levels (grams per hour)

Monitoring frequency per subpart ^a	Detection sensitivity level
Bi-Monthly	60
Semi-Quarterly	85
Monthly	100

^aWhen this alternative work practice is used to identify leaking equipment, the owner or operator must choose one of the monitoring frequencies listed in this table, in lieu of the monitoring frequency specified in the applicable subpart. Bi-monthly means every other month. Semi-quarterly means twice per quarter. Monthly means once per month.

Appendix O: 40 CFR pt. 60, subp. A – General provisions

§60.1 Applicability.

(a) Except as provided in subparts B and C, the provisions of this part apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

(b) Any new or revised standard of performance promulgated pursuant to section 111(b) of the Act shall apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of such new or revised standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

(c) In addition to complying with the provisions of this part, the owner or operator of an affected facility may be required to obtain an operating permit issued to stationary sources by an authorized State air pollution control agency or by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to Title V of the Clean Air Act (Act) as amended November 15, 1990 (42 U.S.C. 7661). For more information about obtaining an operating permit see part 70 of this chapter.

(d) *Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia.*

(1) This paragraph applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia (“site”).

(2) Except for compliance with 40 CFR 60.49b(u), the site shall have the option of either complying directly with the requirements of this part, or reducing the site-wide emissions caps in accordance with the procedures set forth in a permit issued pursuant to 40 CFR 52.2454. If the site chooses the option of reducing the site-wide

emissions caps in accordance with the procedures set forth in such permit, the requirements of such permit shall apply in lieu of the otherwise applicable requirements of this part.

(3) Notwithstanding the provisions of paragraph (d)(2) of this section, for any provisions of this part except for Subpart Kb, the owner/operator of the site shall comply with the applicable provisions of this part if the Administrator determines that compliance with the provisions of this part is necessary for achieving the objectives of the regulation and the Administrator notifies the site in accordance with the provisions of the permit issued pursuant to 40 CFR 52.2454.

§60.2 Definitions.

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.*)

Administrator means the Administrator of the Environmental Protection Agency or his authorized representative.

Affected facility means, with reference to a stationary source, any apparatus to which a standard is applicable.

Alternative method means any method of sampling and analyzing for an air pollutant which is not a reference or equivalent method but which has been demonstrated to the Administrator's satisfaction to, in specific cases, produce results adequate for his determination of compliance.

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).

Capital expenditure means an expenditure for a physical or operational change to an existing facility which exceeds the product of the applicable "annual asset guideline repair allowance percentage" specified in the latest edition of Internal Revenue Service (IRS) Publication 534 and the existing facility's basis, as defined by section 1012 of the Internal Revenue Code. However, the total expenditure for a physical or operational change to an existing facility must not be reduced by any "excluded additions" as defined in IRS Publication 534, as would be done for tax purposes.

Clean coal technology demonstration project means a project using funds appropriated under the heading 'Department of Energy-Clean Coal Technology', up to a total amount of \$2,500,000,000 for commercial demonstrations of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency.

Commenced means, with respect to the definition of *new source* in section 111(a)(2) of the Act, that an owner or operator has undertaken a continuous program of construction or modification 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 modification.

Construction means fabrication, erection, or installation of an affected facility.

Continuous monitoring system means the total equipment, required under the emission monitoring sections in applicable subparts, used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters.

Electric utility steam generating unit means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.

Equivalent method means any method of sampling and analyzing for an air pollutant which has been demonstrated to the Administrator's satisfaction to have a consistent and quantitatively known relationship to the reference method, under specified conditions.

Excess Emissions and Monitoring Systems Performance Report is a report that must be submitted periodically by a source in order to provide data on its compliance with stated emission limits and operating parameters, and on the performance of its monitoring systems.

Existing facility means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in this part, and the construction or modification of which was commenced before the date of proposal of that standard; or any apparatus which could be altered in such a way as to be of that type.

Force majeure means, for purposes of §60.8, an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the affected facility's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility.

Isokinetic sampling means sampling in which the linear velocity of the gas entering the sampling nozzle is equal to that of the undisturbed gas stream at the sample point.

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.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Modification means any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.

Monitoring device means the total equipment, required under the monitoring of operations sections in applicable subparts, used to measure and record (if applicable) process parameters.

Nitrogen oxides means all oxides of nitrogen except nitrous oxide, as measured by test methods set forth in this part.

One-hour period means any 60-minute period commencing on the hour.

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

Owner or operator means any person who owns, leases, operates, controls, or supervises an affected facility or a stationary source of which an affected facility is a part.

Part 70 permit means any permit issued, renewed, or revised pursuant to part 70 of this chapter.

Particulate matter means any finely divided solid or liquid material, other than uncombined water, as measured by the reference methods specified under each applicable subpart, or an equivalent or alternative method.

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.

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).

Proportional sampling means sampling at a rate that produces a constant ratio of sampling rate to stack gas flow rate.

Reactivation of a very clean coal-fired electric utility steam generating unit means any physical change or change in the method of operation associated with the commencement of commercial operations by a coal-fired utility unit after a period of discontinued operation where the unit:

(1) Has not been in operation for the two-year period prior to the enactment of the Clean Air Act Amendments of 1990, and the emissions from such unit continue to be carried in the permitting authority's emissions inventory at the time of enactment;

(2) Was equipped prior to shut-down with a continuous system of emissions control that achieves a removal efficiency for sulfur dioxide of no less than 85 percent and a removal efficiency for particulates of no less than 98 percent;

(3) Is equipped with low-NO_x burners prior to the time of commencement of operations following reactivation; and

(4) Is otherwise in compliance with the requirements of the Clean Air Act.

Reference method means any method of sampling and analyzing for an air pollutant as specified in the applicable subpart.

Repowering means replacement of an existing coal-fired boiler with one of the following clean coal technologies: atmospheric or pressurized fluidized bed combustion, integrated gasification combined cycle, magnetohydrodynamics, direct and indirect coal-fired turbines, integrated gasification fuel cells, or as determined by the Administrator, in consultation with the Secretary of Energy, a derivative of one or more of these technologies, and any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of November 15, 1990. Repowering shall also include any oil and/or gas-fired unit which has been awarded clean coal technology demonstration funding as of January 1, 1991, by the Department of Energy.

Run means the net period of time during which an emission sample is collected. Unless otherwise specified, a run may be either intermittent or continuous within the limits of good engineering practice.

Shutdown means the cessation of operation of an affected facility for any purpose.

Six-minute period means any one of the 10 equal parts of a one-hour period.

Standard means a standard of performance proposed or promulgated under this part.

Standard conditions means a temperature of 293 K (68F) and a pressure of 101.3 kilopascals (29.92 in Hg).

Startup means the setting in operation of an affected facility for any purpose.

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.

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.

Volatile Organic Compound means any organic compound which participates in atmospheric photochemical reactions; or which is measured by a reference method, an equivalent method, an alternative method, or which is determined by procedures specified under any subpart.

§60.3 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
m—meter
m³—cubic meter
mg—milligram—10⁻³ gram
mm—millimeter—10⁻³ meter
Mg—megagram—10⁶ gram
mol—mole
N—newton
ng—nanogram—10⁻⁹ gram
nm—nanometer—10⁻⁹ meter
Pa—pascal
s—second
V—volt
W—watt
Ω—ohm
μg—microgram—10⁻⁶ gram

(b) Other units of measure:

Btu—British thermal unit
°C—degree Celsius (centigrade)
cal—calorie
cfm—cubic feet per minute
cu ft—cubic feet
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
gal—gallon
gr—grain
g-eq—gram equivalent

hr—hour
in—inch
k—1,000
l—liter
lpm—liter per minute
lb—pound
meq—milliequivalent
min—minute
ml—milliliter
mol. wt.—molecular weight
ppb—parts per billion
ppm—parts per million
psia—pounds per square inch absolute
psig—pounds per square inch gage
°R—degree Rankine
scf—cubic feet at standard conditions
scfh—cubic feet per hour at standard conditions
scm—cubic meter at standard conditions
sec—second
sq ft—square feet
std—at standard conditions

(c) Chemical nomenclature:

CdS—cadmium sulfide
CO—carbon monoxide
CO₂—carbon dioxide
HCl—hydrochloric acid
Hg—mercury
H₂O—water
H₂S—hydrogen sulfide
H₂SO₄—sulfuric acid
N₂—nitrogen
NO—nitric oxide
NO₂—nitrogen dioxide
NO_x—nitrogen oxides
O₂—oxygen
SO₂—sulfur dioxide
SO₃—sulfur trioxide
SO_x—sulfur oxides

(d) Miscellaneous:

A.S.T.M.—American Society for Testing and Materials

§60.4 Address.

(a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted in duplicate to the appropriate Regional Office of the U.S. Environmental Protection Agency to the attention of the Director of the Division indicated in the following list of EPA Regional Offices.

Region I (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont), Director, Office of Ecosystem Protection, U.S. Environmental Protection Agency, 5 Post Office Square—Suite 100, Boston, MA 02109-3912.

Region II (New Jersey, New York, Puerto Rico, Virgin Islands), Director, Air and Waste Management Division, U.S. Environmental Protection Agency, Federal Office Building, 26 Federal Plaza (Foley Square), New York, NY 10278.

Region III (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia), Director, Air Protection Division, Mail Code 3AP00, 1650 Arch Street, Philadelphia, PA 19103-2029.

Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee), Director, Air, Pesticides and Toxics Management Division, U.S. Environmental Protection Agency, 61 Forsyth St. SW., Suite 9T43, Atlanta, Georgia 30303-8960.

Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air and Radiation Division, U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, IL 60604-3590.

Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas); Director; Air, Pesticides, and Toxics Division; U.S. Environmental Protection Agency, 1445 Ross Avenue, Dallas, TX 75202.

Region VII (Iowa, Kansas, Missouri, Nebraska), Director, Air and Waste Management Division, 11201 Renner Boulevard, Lenexa, Kansas 66219.

Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming) Director, Air and Toxics Technical Enforcement Program, Office of Enforcement, Compliance and Environmental Justice, Mail Code 8ENF-AT, 1595 Wynkoop Street, Denver, CO 80202-1129.

Region IX (Arizona, California, Hawaii and Nevada; the territories of American Samoa and Guam; the Commonwealth of the Northern Mariana Islands; the territories of Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Atoll, Palmyra Atoll, and Wake Islands; and certain U.S. Government activities in the freely associated states of the Republic of the Marshall Islands, the Federated States of Micronesia, and the Republic of Palau), Director, Air Division, U.S. Environmental Protection Agency, 75 Hawthorne Street, San Francisco, CA 94105.

Region X (Alaska, Oregon, Idaho, Washington), Director, Air and Waste Management Division, U.S. Environmental Protection Agency, 1200 Sixth Avenue, Seattle, WA 98101.

(b) Section 111(c) directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards of performance for new stationary sources located in such State. All information required to be submitted to EPA under paragraph (a) of this section, must also be submitted to the appropriate State Agency of any State to which this authority has been delegated (provided, that each specific delegation may except sources from a certain Federal or State reporting requirement). The appropriate mailing address for those States whose delegation request has been approved is as follows:

(1) [Reserved]

(2) State of Alabama: Alabama Department of Environmental Management, P.O. Box 301463, Montgomery, Alabama 36130-1463.

(3) State of Alaska, Department of Environmental Conservation, Pouch O, Juneau, AK 99811.

(4) Arizona:

Arizona Department of Environmental Quality, 1110 West Washington Street, Phoenix, AZ 85007.

Maricopa County Air Quality Department, 1001 North Central Avenue, Suite 900, Phoenix, AZ 85004.

Pima County Department of Environmental Quality, 33 North Stone Avenue, Suite 700, Tucson, AZ 85701.

Pinal County Air Quality Control District, 31 North Pinal Street, Building F, Florence, AZ 85132.

NOTE: For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(5) State of Arkansas: Chief, Division of Air Pollution Control, Arkansas Department of Pollution Control and Ecology, 8001 National Drive, P.O. Box 9583, Little Rock, AR 72209.

(6) California:

Amador County Air Pollution Control District, 12200-B Airport Road, Jackson, CA 95642.

Antelope Valley Air Quality Management District, 43301 Division Street, Suite 206, Lancaster, CA 93535.

Bay Area Air Quality Management District, 939 Ellis Street, San Francisco, CA 94109.

Butte County Air Quality Management District, 2525 Dominic Drive, Suite J, Chico, CA 95928.

Calaveras County Air Pollution Control District, 891 Mountain Ranch Road, San Andreas, CA 95249.

Colusa County Air Pollution Control District, 100 Sunrise Blvd., Suite A-3, Colusa, CA 95932-3246.

El Dorado County Air Quality Management District, 2850 Fairlane Court, Bldg. C, Placerville, CA 95667-4100.

Eastern Kern Air Pollution Control District, 2700 "M" Street, Suite 302, Bakersfield, CA 93301-2370.

Feather River Air Quality Management District, 1007 Live Oak Blvd., Suite B-3, Yuba City, CA 95991.

Glenn County Air Pollution Control District, 720 N. Colusa Street, P.O. Box 351, Willows, CA 95988-0351.

Great Basin Unified Air Pollution Control District, 157 Short Street, Suite 6, Bishop, CA 93514-3537.

Imperial County Air Pollution Control District, 150 South Ninth Street, El Centro, CA 92243-2801.

Lake County Air Quality Management District, 885 Lakeport Blvd., Lakeport, CA 95453-5405.

Lassen County Air Pollution Control District, 707 Nevada Street, Suite 1, Susanville, CA 96130.

Mariposa County Air Pollution Control District, P.O. Box 5, Mariposa, CA 95338.

Mendocino County Air Quality Management District, 306 E. Gobbi Street, Ukiah, CA 95482-5511.

Modoc County Air Pollution Control District, 619 North Main Street, Alturas, CA 96101.

Mojave Desert Air Quality Management District, 14306 Park Avenue, Victorville, CA 92392-2310.

Monterey Bay Unified Air Pollution Control District, 24580 Silver Cloud Court, Monterey, CA 93940.

North Coast Unified Air Quality Management District, 2300 Myrtle Avenue, Eureka, CA 95501-3327.

Northern Sierra Air Quality Management District, 200 Litton Drive, Suite 320, P.O. Box 2509, Grass Valley, CA 95945-2509.

Northern Sonoma County Air Pollution Control District, 150 Matheson Street, Healdsburg, CA 95448-4908.

Placer County Air Pollution Control District, 3091 County Center Drive, Suite 240, Auburn, CA 95603.

Sacramento Metropolitan Air Quality Management District, 777 12th Street, Third Floor, Sacramento, CA 95814-1908.

San Diego County Air Pollution Control District, 10124 Old Grove Road, San Diego, CA 92131-1649.

San Joaquin Valley Air Pollution Control District, 1990 E. Gettysburg, Fresno, CA 93726.

San Luis Obispo County Air Pollution Control District, 3433 Roberto Court, San Luis Obispo, CA 93401-7126.

Santa Barbara County Air Pollution Control District, 260 North San Antonio Road, Suite A, Santa Barbara, CA 93110-1315.

Shasta County Air Quality Management District, 1855 Placer Street, Suite 101, Redding, CA 96001-1759.

Siskiyou County Air Pollution Control District, 525 So. Foothill Drive, Yreka, CA 96097-3036.

South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, CA 91765-4182.

Tehama County Air Pollution Control District, P.O. Box 8069 (1750 Walnut Street), Red Bluff, CA 96080-0038.

Tuolumne County Air Pollution Control District, 22365 Airport, Columbia, CA 95310.

Ventura County Air Pollution Control District, 669 County Square Drive, 2nd Floor, Ventura, CA 93003-5417.

Yolo-Solano Air Quality Management District, 1947 Galileo Court, Suite 103, Davis, CA 95616-4882.

NOTE: For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(7) State of Colorado, Department of Public Health and Environment, 4300 Cherry Creek Drive South, Denver, CO 80222-1530.

NOTE: For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(8) State of Connecticut, Bureau of Air Management, Department of Environmental Protection, State Office Building, 165 Capitol Avenue, Hartford, CT 06106.

(9) State of Delaware, Department of Natural Resources & Environmental Control, 89 Kings Highway, P.O. Box 1401, Dover, Delaware 19903.

(10) District of Columbia, Department of Public Health, Air Quality Division, 51 N Street, NE., Washington, DC 20002.

(11) State of Florida: Florida Department of Environmental Protection, Division of Air Resources Management, 2600 Blair Stone Road, MS 5500, Tallahassee, Florida 32399-2400.

(12) State of Georgia: Georgia Department of Natural Resources, Environmental Protection Division, Air Protection Branch, 4244 International Parkway, Suite 120, Atlanta, Georgia 30354.

(13) Hawaii:

Clean Air Branch, Hawaii Department of Health, 919 Ala Moana Blvd., Suite 203, Honolulu, HI 96814.

NOTE: For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(14) State of Idaho, Department of Health and Welfare, Statehouse, Boise, ID 83701.

(15) State of Illinois: Illinois Environmental Protection Agency, 1021 North Grand Avenue East, Springfield, Illinois 62794.

(16) State of Indiana: Indiana Department of Environmental Management, Office of Air Quality, 100 North Senate Avenue, Indianapolis, Indiana 46204.

(17) State of Iowa: Iowa Department of Natural Resources, Environmental Protection Division, Air Quality Bureau, 7900 Hickman Road, Suite 1, Urbandale, IA 50322.

(18) State of Kansas: Kansas Department of Health and Environment, Bureau of Air and Radiation, 1000 S.W. Jackson, Suite 310, Topeka, KS 66612-1366.

(19) Commonwealth of Kentucky: Kentucky Department for Environmental Protection, Division for Air Quality, 300 Sower Boulevard, 2nd Floor, Frankfort, Kentucky 40601 or local agency, Louisville Metro Air Pollution Control District, 701 W. Ormsby Ave., Suite 303, Louisville, Kentucky 40203.

(20) State of Louisiana: Louisiana Department of Environmental Quality, P.O. Box 4301, Baton Rouge, Louisiana 70821-4301.

NOTE: For a list of delegated standards for Louisiana (excluding Indian country), see paragraph (e)(2) of this section.

(21) State of Maine, Bureau of Air Quality Control, Department of Environmental Protection, State House, Station No. 17, Augusta, ME 04333.

(22) State of Maryland, Department of the Environment, 1800 Washington Boulevard, Suite 705, Baltimore, Maryland 21230.

(23) Commonwealth of Massachusetts, Division of Air Quality Control, Department of Environmental Protection, One Winter Street, 7th floor, Boston, MA 02108.

(24) State of Michigan: Michigan Department of Natural Resources and Environment, Air Quality Division, P.O. Box 30028, Lansing, Michigan 48909.

(25) State of Minnesota: Minnesota Pollution Control Agency, Division of Air Quality, 520 Lafayette Road North, St. Paul, Minnesota 55155.

(26) State of Mississippi: Hand Deliver or Courier: Mississippi Department of Environmental Quality, Office of Pollution Control, Air Division, 515 East Amite Street, Jackson, Mississippi 39201, Mailing Address: Mississippi Department of Environmental Quality, Office of Pollution Control, Air Division, P.O. Box 2261, Jackson, Mississippi 39225.

(27) State of Missouri: Missouri Department of Natural Resources, Division of Environmental Quality, P.O. Box 176, Jefferson City, MO 65102.

(28) State of Montana, Department of Environmental Quality, 1520 E. 6th Ave., PO Box 200901, Helena, MT 59620-0901.

NOTE: For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(29) State of Nebraska, Nebraska Department of Environmental Control, P.O. Box 94877, State House Station, Lincoln, NE 68509.

Lincoln-Lancaster County Health Department, Division of Environmental Health, 2200 St. Marys Avenue, Lincoln, NE 68502

(30) Nevada:

Nevada Division of Environmental Protection, 901 South Stewart Street, Suite 4001, Carson City, NV 89701-5249.

Clark County Department of Air Quality and Environmental Management, 500 S. Grand Central Parkway, 1st Floor, P.O. Box 555210, Las Vegas, NV 89155-5210.

Washoe County Health District, Air Quality Management Division, 1001 E. 9th Street, Building A, Suite 115A, Reno, NV 89520.

NOTE: For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(31) State of New Hampshire, Air Resources Division, Department of Environmental Services, 64 North Main Street, Caller Box 2033, Concord, NH 03302-2033.

(32) State of New Jersey: New Jersey Department of Environmental Protection, Division of Environmental Quality, Enforcement Element, John Fitch Plaza, CN-027, Trenton, NJ 08625.

(1) The following table lists the specific source and pollutant categories that have been delegated to the states in Region II. The (X) symbol is used to indicate each category that has been delegated.

Subpart	State			
	New Jersey	New York	Puerto Rico	Virgin Islands
D Fossil-Fuel Fired Steam Generators for Which Construction Commenced After August 17, 1971 (Steam Generators and Lignite Fired Steam Generators)	X	X	X	X
Da Electric Utility Steam Generating Units for Which Construction Commenced After September 18, 1978	X		X	
Db Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X
E Incinerators	X	X	X	X
F Portland Cement Plants	X	X	X	X
G Nitric Acid Plants	X	X	X	X
H Sulfuric Acid Plants	X	X	X	X
I Asphalt Concrete Plants	X	X	X	X
J Petroleum Refineries—(All Categories)	X	X	X	X
K Storage Vessels for Petroleum Liquids Constructed After June 11, 1973, and prior to May 19, 1978	X	X	X	X
Ka Storage Vessels for Petroleum Liquids Constructed After May 18, 1978	X	X	X	
L Secondary Lead Smelters	X	X	X	X
M Secondary Brass and Bronze Ingot Production Plants	X	X	X	X
N Iron and Steel Plants	X	X	X	X
O Sewage Treatment Plants	X	X	X	X
P Primary Copper Smelters	X	X	X	X
Q Primary Zinc Smelters	X	X	X	X
R Primary Lead Smelters	X	X	X	X
S Primary Aluminum Reduction Plants	X	X	X	X
T Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X	X	X	X
U Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X	X	X	X
V Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X	X	X	X
W Phosphate Fertilizer Industry: Triple Superphosphate Plants	X	X	X	X
X Phosphate Fertilizer Industry: Granular Triple Superphosphate	X	X	X	X
Y Coal Preparation Plants	X	X	X	X
Z Ferroally Production Facilities	X	X	X	X
AA Steel Plants: Electric Arc Furnaces	X	X	X	X
AA Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels in Steel Plants	X	X	X	
BB Kraft Pulp Mills	X	X	X	
CC Glass Manufacturing Plants	X	X	X	
DD Grain Elevators	X	X	X	
EE Surface Coating of Metal Furniture	X	X	X	

GG	Stationary Gas Turbines	X	X	X	
HH	Lime Plants	X	X	X	
KK	Lead Acid Battery Manufacturing Plants	X	X		
LL	Metallic Mineral Processing Plants	X	X	X	
MM	Automobile and Light-Duty Truck Surface Coating Operations	X	X		
NN	Phosphate Rock Plants	X	X		
PP	Ammonium Sulfate Manufacturing Plants	X	X		
QC	Graphic Art Industry Publication Rotogravure Printing	X	X	X	X
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X	X	X	
SS	Industrial Surface Coating: Large Appliances	X	X	X	
TT	Metal Coil Surface Coating	X	X	X	
UU	Asphalt Processing and Asphalt Roofing Manufacture	X	X	X	
VV	Equipment Leaks of Volatile Organic Compounds in Synthetic Organic Chemical Manufacturing Industry	X		X	
WW	Beverage Can Surface Coating Industry	X	X	X	
XX	Bulk Gasoline Terminals	X	X	X	
FF	Flexible Vinyl and Urethane Coating and Printing	X	X	X	
GG	Equipment Leaks of VOC in Petroleum Refineries	X		X	
HH	Synthetic Fiber Production Facilities	X		X	
JJJ	Petroleum Dry Cleaners	X	X	X	
KKI	Equipment Leaks of VOC from Onshore Natural Gas Processing Plants				
LLL	Onshore Natural Gas Processing Plants; SO ₂ Emissions		X		
OC	Nonmetallic Mineral Processing Plants		X	X	
PPI	Wool Fiberglass Insulation Manufacturing Plants		X	X	

(33) State of New Mexico: New Mexico Environment Department, P.O. Box 5469, Santa Fe, New Mexico 87502-5469. Note: For a list of delegated standards for New Mexico (excluding Bernalillo County and Indian country), see paragraph (e)(1) of this section.

(i) Albuquerque-Bernalillo County Air Quality Control Board, c/o Environmental Health Department, P.O. Box 1293, Albuquerque, New Mexico 87103.

(ii) [Reserved]

(34) New York: New York State Department of Environmental Conservation, 50 Wolf Road Albany, New York 12233, attention: Division of Air Resources.

(35) State of North Carolina: North Carolina Department of Environmental Quality, Division of Air Quality, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641 or local agencies, Forsyth County Office of Environmental Assistance and Protection, 201 North Chestnut Street, Winston-Salem, North Carolina 27101-4120; Mecklenburg County Land Use and Environmental Services Agency, Air Quality, 2145 Suttle Avenue, Charlotte, North Carolina 28208; Western North Carolina Regional Air Quality Agency, 125 S. Lexington Ave., Suite 101, Asheville, North Carolina 28801-3661.

(36) State of North Dakota, Division of Air Quality, North Dakota Department of Health, P.O. Box 5520, Bismarck, ND 58506-5520.

NOTE: For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(37) State of Ohio:

- (i) Medina, Summit and Portage Counties; Director, Akron Regional Air Quality Management District, 146 South High Street, Room 904, Akron, OH 44308.
- (ii) Stark County; Director, Canton City Health Department, Air Pollution Control Division, 420 Market Avenue North, Canton, Ohio 44702-1544.
- (iii) Butler, Clermont, Hamilton, and Warren Counties; Director, Hamilton County Department of Environmental Services, 250 William Howard Taft Road, Cincinnati, Ohio 45219-2660.
- (iv) Cuyahoga County; Commissioner, Cleveland Department of Public Health, Division of Air Quality, 75 Erieview Plaza 2nd Floor, Cleveland, Ohio 44114.
- (v) Clark, Darke, Greene, Miami, Montgomery, and Preble Counties; Director, Regional Air Pollution Control Agency, 117 South Main Street, Dayton, Ohio 45422-1280.
- (vi) Lucas County and the City of Rossford (in Wood County); Director, City of Toledo, Division of Environmental Services, 348 South Erie Street, Toledo, OH 43604.
- (vii) Adams, Brown, Lawrence, and Scioto Counties; Portsmouth Local Air Agency, 605 Washington Street, Third Floor, Portsmouth, OH 45662.
- (viii) Allen, Ashland, Auglaize, Crawford, Defiance, Erie, Fulton, Hancock, Hardin, Henry, Huron, Marion, Mercer, Ottawa, Paulding, Putnam, Richland, Sandusky, Seneca, Van Wert Williams, Wood (Except City of Rossford), and Wyandot Counties; Ohio Environmental Protection Agency, Northwest District Office, Air Pollution Control, 347 North Dunbridge Road, Bowling Green, Ohio 43402.
- (ix) Ashtabula, Carroll, Columbiana, Holmes, Lorain, and Wayne Counties; Ohio Environmental Protection Agency, Northeast District Office, Air Pollution Unit, 2110 East Aurora Road, Twinsburg, OH 44087.
- (x) Athens, Belmont, Coshocton, Gallia, Guemsey, Harrison, Hocking, Jackson, Jefferson, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Pike, Ross, Tuscarawas, Vinton, and Washington Counties; Ohio Environmental Protection Agency, Southeast District Office, Air Pollution Unit, 2195 Front Street, Logan, OH 43138.
- (xi) Champaign, Clinton, Highland, Logan, and Shelby Counties; Ohio Environmental Protection Agency, Southwest District Office, Air Pollution Unit, 401 East Fifth Street, Dayton, Ohio 45402-2911.
- (xii) Delaware, Fairfield, Fayette, Franklin, Knox, Licking, Madison, Morrow, Pickaway, and Union Counties; Ohio Environmental Protection Agency, Central District Office, Air Pollution control, 50 West Town Street, Suite 700, Columbus, Ohio 43215.
- (xiii) Geauga and Lake Counties; Lake County General Health District, Air Pollution Control, 33 Mill Street, Painesville, OH 44077.
- (xiv) Mahoning and Trumbull Counties; Mahoning-Trumbull Air Pollution Control Agency, 345 Oak Hill Avenue, Suite 200, Youngstown, OH 44502.

(38) State of Oklahoma, Oklahoma State Department of Health, Air Quality Service, P.O. Box 53551, Oklahoma City, OK 73152.

- (i) Oklahoma City and County: Director, Oklahoma City-County Health Department, 921 Northeast 23rd Street, Oklahoma City, OK 73105.
- (ii) Tulsa County: Tulsa City-County Health Department, 4616 East Fifteenth Street, Tulsa, OK 74112.

(39) State of Oregon. (i) Oregon Department of Environmental Quality (ODEQ), 811 SW Sixth Avenue, Portland, OR 97204-1390, <http://www.deq.state.or.us>.

(ii) Lane Regional Air Pollution Authority (LRAPA), 1010 Main Street, Springfield, Oregon 97477,
<http://www.lrapa.org>.

(40)(i) City of Philadelphia, Department of Public Health, Air Management Services, 321 University Avenue,
Philadelphia, Pennsylvania 19104.

(ii) Commonwealth of Pennsylvania, Department of Environmental Protection, Bureau of Air Quality
Control, P.O. Box 8468, 400 Market Street, Harrisburg, Pennsylvania 17105.

(iii) Allegheny County Health Department, Bureau of Environmental Quality, Division of Air Quality, 301
39th Street, Pittsburgh, Pennsylvania 15201.

(41) State of Rhode Island, Division of Air and Hazardous Materials, Department of Environmental Management,
291 Promenade Street, Providence, RI 02908.

(42) State of South Carolina: South Carolina Department of Health and Environmental Control, 2600 Bull Street,
Columbia, South Carolina 29201.

(43) State of South Dakota, Air Quality Program, Department of Environment and Natural Resources, Joe Foss
Building, 523 East Capitol, Pierre, SD 57501-3181.

NOTE: For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(44) State of Tennessee: Tennessee Department of Environment and Conservation, Division of Air Pollution
Control, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 15th Floor, Nashville, Tennessee
37243, or local agencies, Knox County Air Quality Management—Department of Public Health, 140 Dameron
Avenue, Knoxville, Tennessee 37917; Metro Public Health Department, Pollution Control Division, 2500 Charlotte
Ave., Nashville, Tennessee 37209; Chattanooga-Hamilton County Air Pollution Control Bureau, 6125 Preservation
Drive, Chattanooga, Tennessee 37416; Shelby County Health Department, Pollution Control Section, 814 Jefferson
Avenue, Memphis, Tennessee 38105.

(45) State of Texas, Texas Air Control Board, 6330 Highway 290 East, Austin, TX 78723.

(46) State of Utah, Division of Air Quality, Department of Environmental Quality, P.O. Box 144820, Salt Lake City,
UT 84114-4820.

NOTE: For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(47) State of Vermont, Air Pollution Control Division, Agency of Natural Resources, Building 3 South, 103 South
Main Street, Waterbury, VT 05676.

(48) Commonwealth of Virginia, Department of Environmental Quality, 629 East Main Street, Richmond, Virginia
23219.

(49) *State of Washington.*

(i) Washington State Department of Ecology (Ecology), P.O. Box 47600, Olympia, WA 98504-7600,
<http://www.ecy.wa.gov/>

(ii) Benton Clean Air Authority (BCAA), 650 George Washington Way, Richland, WA 99352-4289,
<http://www.bcaa.net/>

(iii) Northwest Air Pollution Control Authority (NWAPA), 1600 South Second St., Mount Vernon, WA
98273-5202, <http://www.nwair.org/>

(iv) Olympic Regional Clean Air Agency (ORCAA), 909 Sleater-Kinney Road S.E., Suite 1, Lacey, WA 98503-
1128, <http://www.orcaa.org/>

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J Petroleum Refineries	X	X	X	X	X	X	X	X
K Storage Vessels for Petroleum Liquids for which Construction, Reconstruction, or Modification Commenced after June 11, 1973 and prior to May 19, 1978	X	X	X	X	X	X	X	X
Ka Storage Vessels for Petroleum Liquids for which Construction, Reconstruction, or Modification Commenced after May 18, 1978 and prior to July 23, 1984	X	X	X	X	X	X	X	X
Kb VOC Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984	X	X	X	X	X	X	X	X
L Secondary Lead Smelters	X	X	X	X	X	X	X	X
M Secondary Brass and Bronze Production Plants	X	X	X	X	X	X	X	X
N Primary Emissions from Basic Oxygen Process Furnaces for which Construction is Commenced after June 11, 1973	X	X	X	X	X	X	X	X
Na Secondary Emissions from Basic Oxygen Process Steel-making Facilities for which Construction is Commenced after January 20, 1983	X	X	X	X	X	X	X	X
O Sewage Treatment Plants	X	X	X	X	X	X	X	X
P Primary Copper Smelters	X	X	X	X	X	X	X	X
Q Primary Zinc Smelters	X	X	X	X	X	X	X	X
R Primary Lead Smelters	X	X	X	X	X	X	X	X
S Primary Aluminum Reduction Plants ¹⁰	X							
T Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X	X	X	X	X	X	X	X
U Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X	X	X	X	X	X	X	X
V Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X	X	X	X	X	X	X	X
W Phosphate Fertilizer Industry: Triple Superphosphate Plants	X	X	X	X	X	X	X	X
X Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X	X	X	X	X	X	X	X
Y Coal Preparation Plants	X	X	X	X	X	X	X	X
Z Ferroalloy Production Facilities	X	X	X	X	X	X	X	X
AA Steel Plants: Electric Arc Furnaces Constructed after October 21, 1974 and on or before August 17, 1983	X	X	X	X	X	X	X	X
AAa Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed after August 7, 1983	X	X	X	X	X	X	X	X
BB Kraft Pulp Mills ¹¹	X							
CC Glass Manufacturing Plants	X	X	X	X	X	X	X	X
DD Grain Elevators	X	X	X	X	X	X	X	X
EE Surface Coating of Metal Furniture	X	X	X	X	X	X	X	X
GG Stationary Gas Turbines	X	X	X	X	X	X	X	X
HH Lime Manufacturing Plants	X	X	X	X	X	X	X	X
KK Lead-Acid Battery Manufacturing Plants	X	X	X	X	X	X	X	X
LL Metallic Mineral Processing Plants	X	X	X	X	X	X	X	X
MM Automobile and Light Duty Truck Surface Coating Operations	X	X	X	X	X	X	X	X
NN Phosphate Rock Plants	X	X	X	X	X	X	X	X
PP Ammonium Sulfate Manufacture	X	X	X	X	X	X	X	X

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QQ Graphic Arts Industry: Publication Rotogravure Printing	X	X	X	X	X	X	X	X
RR Pressure Sensitive Tape and Label Surface Coating Standards	X	X	X	X	X	X	X	X
SS Industrial Surface Coating: Large Appliances	X	X	X	X	X	X	X	X
TT Metal Coil Surface Coating	X	X	X	X	X	X	X	X
UU Asphalt Processing and Asphalt Roof Manufacture	X	X	X	X	X	X	X	X
VV Equipment Leaks of VOC in Synthetic Organic Chemical Manufacturing Industry	X	X	X	X	X	X	X	X
WW Beverage Can Surface Coating Industry	X	X	X	X	X	X	X	X
XX Bulk Gasoline Terminals	X	X	X	X	X	X	X	X
AAA New Residential Wood Heaters								
BBB Rubber Tire Manufacturing Industry	X	X	X	X	X	X	X	X
DDD VOC Emissions from Polymer Manufacturing Industry	X	X	X	X	X	X	X	X
FFF Flexible Vinyl and Urethane Coating and Printing	X	X	X	X	X	X	X	X
GGG Equipment Leaks of VOC in Petroleum Refineries	X	X	X	X	X	X	X	X
HHH Synthetic Fiber Production Facilities	X	X	X	X	X	X	X	X
III VOC Emissions from Synthetic Organic Chemical Manufacturing Industry Air Oxidation Unit Processes	X	X	X	X	X	X	X	X
JJJ Petroleum Dry Cleaners	X	X	X	X	X	X	X	X
KKK Equipment Leaks of VOC from Onshore Natural Gas Processing Plants	X	X	X	X	X	X	X	X
LLL Onshore Natural Gas Processing: SO ₂ Emissions	X	X	X	X	X	X	X	X
NNN VOC Emissions from Synthetic Organic Chemical Manufacturing Industry Distillation Operations	X	X	X	X	X	X	X	X
OOO Nonmetallic Mineral Processing Plants			X		X		X	
PPP Wool Fiberglass Insulation Manufacturing Plants	X	X	X	X	X	X	X	X
QQQ VOC Emissions from Petroleum Refinery Wastewater Systems	X	X	X	X	X	X	X	X
RRR VOCs from Synthetic Organic Chemical Manufacturing Industry Reactor Processes	X	X	X	X	X	X	X	X
SSS Magnetic Tape Coating Facilities	X	X	X	X	X	X	X	X
TTT Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	X	X	X	X	X	X	X	X
UUU Calciners and Dryers in Mineral Industries	X	X	X	X	X	X	X	X
VVV Polymeric Coating of Supporting Substrates Facilities	X	X	X	X	X	X	X	X
WWW Municipal Solid Waste Landfills	X	X	X	X	X	X	X	X
AAAA Small Municipal Waste Combustion Units for which Construction is Commenced after August 30, 1999 or for which Modification or Reconstruction is Commenced after June 6, 2001	X	X		X	X	X		X
BBBB Small Municipal Waste Combustion Units Constructed on or before August 30, 1999 (Emission Guidelines and Compliance Times)								
CCCC Commercial and Industrial Solid Waste Incineration Units for which Construction is Commenced after November, 30, 1999 or for which Modification or Reconstruction is Commenced on or after June 1, 2001	X	X		X	X	X		X
DDDD Commercial and Industrial Solid Waste Incineration Units that Commenced Construction on or before November 30, 1999 (Emission Guidelines and Compliance Times)								

¹Any authority within any subpart of this part that is not delegable, is not delegated. Please refer to Attachment B to the delegation letters for a listing of the NSPS authorities excluded from delegation.

²Washington State Department of Ecology, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001.

³Benton Clean Air Authority, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001.

⁴Northwest Air Pollution Authority, for all NSPS delegated, as in effect on July 1, 2000.

⁵Olympic Regional Clean Air Authority, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001.

⁶Puget Sound Clean Air Authority, for all NSPS delegated, as in effect on July 1, 2002.

⁷Spokane County Air Pollution Control Authority, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001.

⁸Southwest Clean Air Agency, for all NSPS delegated, as in effect on July 1, 2000.

⁹Yakima Regional Clean Air Authority, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001.

¹⁰Subpart S of this part is not delegated to local agencies in Washington because the Washington State Department of Ecology retains sole authority to regulate Primary Aluminum Plants, pursuant to Washington Administrative Code 173-415-010.

¹¹Subpart BB of this part is not delegated to local agencies in Washington because the Washington State Department of Ecology retains sole authority to regulate Kraft and Sulfite Pulping Mills, pursuant to Washington State Administrative Code 173-405-012 and 173-410-012.

(50) State of West Virginia, Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE., Charleston, West Virginia 25304.

(51) State of Wisconsin: Wisconsin Department of Natural Resources, 101 South Webster St., P.O. Box 7921, Madison, Wisconsin 53707-7921.

(52) State of Wyoming, Department of Environmental Quality, Air Quality Division, Herschler Building, 122 West 25th Street, Cheyenne, WY 82002.

NOTE: For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(53) Territory of Guam: Guam Environmental Protection Agency, P.O. Box 22439 GMF, Barrigada, Guam 96921.

NOTE: For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(54) Commonwealth of Puerto Rico: Commonwealth of Puerto Rico Environmental Quality Board, P.O. Box 11488, Santurce, PR 00910, Attention: Air Quality Area Director (see table under §60.4(b)(FF)(1)).

(55) U.S. Virgin Islands: U.S. Virgin Islands Department of Conservation and Cultural Affairs, P.O. Box 578, Charlotte Amalie, St. Thomas, VI 00801.

(56) American Samoa: American Samoa Environmental Protection Agency, P.O. Box PPA, Pago Pago, American Samoa 96799.

NOTE: For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(57) Commonwealth of the Northern Mariana Islands: CNMI Division of Environmental Quality, P.O. Box 501304, Saipan, MP 96950.

NOTE: For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(c) The delegation status table for New Source Performance Standards for Region VIII can be found online at <http://www2.epa.gov/region8/air-program>.

(d) The following tables list the specific part 60 standards that have been delegated unchanged to the air pollution control agencies in Region IX. The (X) symbol is used to indicate each standard that has been delegated. The following provisions of this subpart are not delegated: §§60.4(b), 60.8(b), 60.9, 60.11(b), 60.11(e), 60.13(a), 60.13(d)(2), 60.13(g), 60.13(i).

(1) *Arizona*. The following table identifies delegations for Arizona:

Delegation Status for New Source Performance Standards for Arizona

	Subpart	Air pollution control agency			
		Arizona DEQ	Maricopa County	Pima County	Pinal County
A	General Provisions	X	X	X	X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X	X	X	X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X	X	X	X
Db	Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X
Dc	Small Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X
E	Incinerators	X	X	X	X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	X	X	X	X
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994	X	X	X	
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996	X	X	X	
F	Portland Cement Plants	X	X	X	X
G	Nitric Acid Plants	X	X	X	X
Ga	Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011		X	X	
H	Sulfuric Acid Plant	X	X	X	X
I	Hot Mix Asphalt Facilities	X	X	X	X
J	Petroleum Refineries	X	X	X	X
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007		X	X	
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X	X	X	X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X	X	X	X

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Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X	X	X	X
L	Secondary Lead Smelters	X	X	X	X
M	Secondary Brass and Bronze Production Plants	X	X	X	X
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	X	X	X	X
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	X	X	X	X
O	Sewage Treatment Plants	X	X	X	X
P	Primary Copper Smelters	X	X	X	X
Q	Primary Zinc Smelters	X	X	X	X
R	Primary Lead Smelters	X	X	X	X
S	Primary Aluminum Reduction Plants	X	X	X	X
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X	X	X	X
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X	X	X	X
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X	X	X	X
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X	X	X	X
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X	X	X	X
Y	Coal Preparation and Processing Plants	X	X	X	X
Z	Ferroalloy Production Facilities	X	X	X	X
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X	X	X	X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983	X	X	X	X
BB	Kraft Pulp Mills	X	X	X	X
BBa	Kraft Pulp Mill Sources for which Construction, Reconstruction or Modification Commenced after May 23, 2013		X	X	
CC	Glass Manufacturing Plants	X	X	X	X
DD	Grain Elevators	X	X	X	X
EE	Surface Coating of Metal Furniture	X	X	X	X
FF	(Reserved)				
Ga	Nitric Acid Plants for which Construction, Reconstruction or Modification Commenced after October 14, 2011		X		
GG	Stationary Gas Turbines	X	X	X	X
HH	Lime Manufacturing Plants	X	X	X	X
KK	Lead-Acid Battery Manufacturing Plants	X	X	X	X
LL	Metallic Mineral Processing Plants	X	X	X	X
MM	Automobile and Light Duty Trucks Surface Coating Operations	X	X	X	X
NN	Phosphate Rock Plants	X	X	X	X
PP	Ammonium Sulfate Manufacture	X	X	X	X
QQ	Graphic Arts Industry: Publication Rotogravure Printing	X	X	X	X
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X	X	X	X
SS	Industrial Surface Coating: Large Appliances	X	X	X	X

TT	Metal Coil Surface Coating	X	X	X	X
UU	Asphalt Processing and Asphalt Roofing Manufacture	X	X	X	X
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing	X	X	X	X
VVa	Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006	X	X	X	
WW	Beverage Can Surface Coating Industry	X	X	X	X
XX	Bulk Gasoline Terminals	X	X	X	X
AAA	New Residential Wood Heaters	X	X	X	X
BBB	Rubber Tire Manufacturing Industry	X	X	X	X
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	X	X	X	X
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing	X	X	X	X
GGG	Equipment Leaks of VOC in Petroleum Refineries	X	X	X	X
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006	X	X	X	
HHH	Synthetic Fiber Production Facilities	X	X	X	X
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	X	X	X	X
JJJ	Petroleum Dry Cleaners	X	X	X	X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	X	X	X	X
LLL	Onshore Natural Gas Processing: SO ₂ Emissions	X	X	X	X
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X	X	X	X
OOO	Nonmetallic Mineral Processing Plants	X	X	X	X
PPP	Wool Fiberglass Insulation Manufacturing Plants	X	X	X	X
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems	X	X	X	X
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	X	X		
SSS	Magnetic Tape Coating Facilities	X	X	X	X
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	X	X	X	X
UUU	Calciners and Dryers in Mineral Industries	X	X	X	
VVV	Polymeric Coating of Supporting Substrates Facilities	X	X	X	X
WWW	Municipal Solid Waste Landfills	X	X	X	
AAAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commended After June 6, 2001	X	X	X	
CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001	X	X	X	
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006	X	X	X	
GGGG	(Reserved)				

HHHH	(Reserved)				
IIII	Stationary Compression Ignition Internal Combustion Engines	X	X	X	
JJJJ	Stationary Spark Ignition Internal Combustion Engines		X	X	
KKKK	Stationary Combustion Turbines	X	X	X	
LLLL	New Sewage Sludge Incineration Units			X	
MMM M	Emissions Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units	X			
OOOO	Crude Oil and Natural Gas Production, Transmission, and Distribution		X	X	
QQQQ	Standards of Performance for New Residential Hydronic Heaters and Forced-Air Furnaces		X	X	
TTTT	Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units		X		

(2) *California*. The following tables identify delegations for each of the local air pollution control agencies of California.

(i) Delegations for Amador County Air Pollution Control District, Antelope Valley Air Quality Management District, Bay Area Air Quality Management District, and Butte County Air Quality Management District are shown in the following table:

Delegation Status for New Source Performance Standards for Amador County APCD, Antelope Valley AQMD, Bay Area AQMD, and Butte County AQMD

	Subpart	Air pollution control agency			
		Amador County APCD	Antelope Valley AQMD	Bay Area AQMD	Butte Count AQMD
A	General Provisions		X		
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971		X	X	
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978		X	X	
Db	Industrial-Commercial-Institutional Steam Generating Units		X	X	
Dc	Small Industrial-Commercial-Institutional Steam Generating Units		X	X	
E	Incinerators		X	X	
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994		X	X	
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994		X		
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996		X		
F	Portland Cement Plants		X	X	
G	Nitric Acid Plants		X	X	
Ga	Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011				
H	Sulfuric Acid Plant		X	X	
I	Hot Mix Asphalt Facilities		X	X	
J	Petroleum Refineries		X	X	
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007		X		

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K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978		X	X	
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984		X	X	
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984		X	X	
L	Secondary Lead Smelters		X	X	
M	Secondary Brass and Bronze Production Plants		X	X	
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973		X	X	
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983		X	X	
O	Sewage Treatment Plants		X	X	
P	Primary Copper Smelters		X	X	
Q	Primary Zinc Smelters		X	X	
R	Primary Lead Smelters		X	X	
S	Primary Aluminum Reduction Plants		X	X	
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants		X		
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants		X	X	
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants		X	X	
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants		X	X	
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities		X	X	
Y	Coal Preparation and Processing Plants		X	X	
Z	Ferroalloy Production Facilities		X	X	
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983		X	X	
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983		X	X	
BB	Kraft Pulp Mills		X	X	
CC	Glass Manufacturing Plants		X	X	
DD	Grain Elevators		X	X	
EE	Surface Coating of Metal Furniture		X	X	
FF	(Reserved)				
GG	Stationary Gas Turbines		X	X	
HH	Lime Manufacturing Plants		X	X	
KK	Lead-Acid Battery Manufacturing Plants		X	X	
LL	Metallic Mineral Processing Plants		X	X	
MM	Automobile and Light Duty Trucks Surface Coating Operations		X	X	
NN	Phosphate Rock Plants		X	X	
PP	Ammonium Sulfate Manufacture		X	X	
QQ	Graphic Arts Industry: Publication Rotogravure Printing		X	X	
RR	Pressure Sensitive Tape and Label Surface Coating Operations		X	X	
SS	Industrial Surface Coating: Large Appliances		X	X	

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TT	Metal Coil Surface Coating		X	X	
UU	Asphalt Processing and Asphalt Roofing Manufacture		X	X	
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing		X	X	
VVa	Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006		X		
WW	Beverage Can Surface Coating Industry		X	X	
XX	Bulk Gasoline Terminals				
AAA	New Residential Wood Heaters		X	X	
BBB	Rubber Tire Manufacturing Industry		X	X	
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry		X	X	
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing		X	X	
GGG	Equipment Leaks of VOC in Petroleum Refineries		X	X	
GGG	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction or Modification Commenced After November 7, 2006		X		
HHH	Synthetic Fiber Production Facilities		X	X	
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes		X		
JJJ	Petroleum Dry Cleaners		X	X	
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants		X	X	
LLL	Onshore Natural Gas Processing: SO ₂ Emissions		X		
MMI	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations		X	X	
OOO	Nonmetallic Mineral Processing Plants		X	X	
PPP	Wool Fiberglass Insulation Manufacturing Plants		X	X	
QQC	VOC Emissions From Petroleum Refinery Wastewater Systems		X		
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes		X		
SSS	Magnetic Tape Coating Facilities		X	X	
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines		X	X	
UUU	Calciners and Dryers in Mineral Industries		X	X	
VVV	Polymeric Coating of Supporting Substrates Facilities		X	X	
WW W	Municipal Solid Waste Landfills		X		
AAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commended After June 6, 2001		X		
CCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001		X		

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EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006		X		
GGG	(Reserved)				
HHH	(Reserved)				
III	Stationary Compression Ignition Internal Combustion Engines		X		
JJJ	Stationary Spark Ignition Internal Combustion Engines		X		
KKK	Stationary Combustion Turbines		X		
LLL	New Sewage Sludge Incineration Units				
OOO	Crude Oil and Natural Gas Production, Transmission, and Distribution				

(ii) [Reserved]

(iii) Delegations for Glenn County Air Pollution Control District, Great Basin Unified Air Pollution Control District, Imperial County Air Pollution Control District, and Kern County Air Pollution Control District are shown in the following table:

Delegation Status for New Source Performance Standards for Glenn County APCD, Great Basin Unified APCD, Imperial County APCD, and Kern County APCD

	Subpart	Air pollution control agency			
		Glenn County APCD	Great Basin Unified APCD	Imperial County APCD	Kern County APCD
A	General Provisions		X		X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971		X		X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978		X		X
Db	Industrial-Commercial-Institutional Steam Generating Units		X		X
Dc	Small Industrial Steam Generating Units		X		X
E	Incinerators		X		X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994		X		
Eb	Municipal Waste Combustors Constructed After September 20, 1994				
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996				
F	Portland Cement Plants		X		X
G	Nitric Acid Plants		X		X
H	Sulfuric Acid Plants		X		
I	Hot Mix Asphalt Facilities		X		X
J	Petroleum Refineries		X		X
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978		X		X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984		X		X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984		X		X

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L	Secondary Lead Smelters		X		X
M	Secondary Brass and Bronze Production Plants		X		X
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973		X		X
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983		X		X
O	Sewage Treatment Plants		X		X
P	Primary Copper Smelters		X		X
Q	Primary Zinc Smelters		X		X
R	Primary Lead Smelters		X		X
S	Primary Aluminum Reduction Plants		X		X
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants		X		X
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants		X		X
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants		X		X
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants		X		X
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities		X		X
Y	Coal Preparation Plants		X		X
Z	Ferroalloy Production Facilities		X		X
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983		X		X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983		X		X
BB	Kraft pulp Mills		X		X
CC	Glass Manufacturing Plants		X		X
DD	Grain Elevators		X		X
EE	Surface Coating of Metal Furniture		X		X
FF	(Reserved)				
GG	Stationary Gas Turbines		X		X
HH	Lime Manufacturing Plants		X		X
KK	Lead-Acid Battery Manufacturing Plants		X		X
LL	Metallic Mineral Processing Plants		X		X
MM	Automobile and Light Duty Trucks Surface Coating Operations		X		X
NN	Phosphate Rock Plants		X		X
PP	Ammonium Sulfate Manufacture		X		X
QQ	Graphic Arts Industry: Publication Rotogravure Printing		X		X
RR	Pressure Sensitive Tape and Label Surface Coating Operations		X		X
SS	Industrial Surface Coating: Large Appliances		X		X
TT	Metal Coil Surface Coating		X		X
UU	Asphalt Processing and Asphalt Roofing Manufacture		X		X
VV	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Indust		X		X
WW	Beverage Can Surface Coating Industry		X		X
XX	Bulk Gasoline Terminals				

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AAA	New Residential Wool Heaters		X		X
BBB	Rubber Tire Manufacturing Industry		X		X
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry		X		X
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing		X		X
GGG	Equipment Leaks of VOC in Petroleum Refineries		X		X
HHH	Synthetic Fiber Production Facilities		X		X
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes		X		X
JJJ	Petroleum Dry Cleaners		X		X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants		X		X
LLL	Onshore Natural Gas Processing: SO2 Emissions				X
MMI	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations		X		X
OOO	Nonmetallic Mineral Processing Plants		X		X
PPP	Wool Fiberglass Insulation Manufacturing Plants		X		X
QQC	VOC Emissions From Petroleum Refinery Wastewater Systems		X		X
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes				X
SSS	Magnetic Tape Coating Facilities		X		X
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines		X	X	
UUU	Calciners and Dryers in Mineral Industries		X		X
VVV	Polymeric Coating of Supporting Substrates Facilities		X		X
WW W	Municipal Solid Waste Landfills				X

(iv) Delegations for Lake County Air Quality Management District, Lassen County Air Pollution Control District, Mariposa County Air Pollution Control District, and Mendocino County Air Pollution Control District are shown in the following table:

Delegation Status for New Source Performance Standards for Lake County Air Quality Management District, Lassen County Air Pollution Control District, Mariposa County Air Pollution Control District, and Mendocino County Air Pollution Control District

	Subpart	Air pollution control agency			
		Lake County AQMD	Lassen County APCD	Mariposa County AQMD	Mendocino County AQMD
A	General Provisions	X			X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X			X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1971	X			X
Db	Industrial-Commercial-Institutional Steam Generating Units	X			
Dc	Small Industrial Steam Generating Units	X			X

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E	Incinerators	X			X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	X			X
Eb	Municipal Waste Combustors Constructed After September 20, 1994				
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996				
F	Portland Cement Plants	X			X
G	Nitric Acid Plants	X			X
H	Sulfuric Acid Plants	X			X
I	Hot Mix Asphalt Facilities	X			X
J	Petroleum Refineries	X			X
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X			X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X			X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X			X
L	Secondary Lead Smelters	X			X
M	Secondary Brass and Bronze Production Plants	X			X
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	X			X
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	X			X
O	Sewage Treatment Plants	X			X
P	Primary Copper Smelters	X			X
Q	Primary Zinc Smelters	X			X
R	Primary Lead Smelters	X			X
S	Primary Aluminum Reduction Plants	X			X
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X			X
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X			X
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X			X
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X			X
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X			X
Y	Coal Preparation Plants	X			X
Z	Ferroalloy Production Facilities	X			X
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X			X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983	X			X
BB	Kraft Pulp Mills	X			X

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CC	Glass Manufacturing Plants	X			X
DD	Grain Elevators	X			X
EE	Surface Coating of Metal Furniture	X			X
FF	(Reserved)				
GG	Stationary Gas Turbines	X			X
HH	Lime Manufacturing Plants	X			X
KK	Lead-Acid Battery Manufacturing Plants	X			X
LL	Metallic Mineral Processing Plants	X			X
MM	Automobile and Light Duty Trucks Surface Coating Operations	X			X
NN	Phosphate Rock Plants	X			X
PP	Ammonium Sulfate Manufacture	X			X
QQ	Graphic Arts Industry: Publication Rotogravure Printing	X			X
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X			X
SS	Industrial Surface Coating: Large Appliances	X			X
TT	Metal Coil Surface Coating	X			X
UU	Asphalt Processing and Asphalt Roofing Manufacture	X			X
VV	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry	X			X
WW	Beverage Can Surface Coating Industry	X			X
XX	Bulk Gasoline Terminals				
AAA	New Residential Wool Heaters	X			X
BBB	Rubber Tire Manufacturing Industry	X			X
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	X			X
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing	X			X
GGG	Equipment Leaks of VOC in Petroleum Refineries	X			X
HHH	Synthetic Fiber Production Facilities	X			X
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	X			X
JJJ	Petroleum Dry Cleaners	X			X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	X			X
LLL	Onshore Natural Gas Processing: SO2 Emissions	X			X
MMI	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X			X
OOO	Nonmetallic Mineral Processing Plants	X			X
PPP	Wool Fiberglass Insulation Manufacturing Plants	X			X
QQC	VOC Emissions From Petroleum Refinery Wastewater Systems	X			X
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	X			

SSS	Magnetic Tape Coating Facilities	X			X
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines				
UUU	Calciners and Dryers in Mineral Industries	X			X
VVV	Polymeric Coating of Supporting Substrates Facilities	X			X
WW W	Municipal Solid Waste Landfills	X			

(v) Delegations for Modoc Air Pollution Control District, Mojave Desert Air Quality Management District, Monterey Bay Unified Air Pollution Control District and North Coast Unified Air Quality Management District are shown in the following table:

Delegation Status for New Source Performance Standards for Modoc County APCD, Mojave Desert AQMD, Monterey Bay Unified APCD, and North Coast Unified AQMD

	Subpart	Air pollution control agency			
		Modoc County APC	Mojave Desert AQM	Monterey Bay Unified APCD	North Coast Unified AQMD
A	General Provisions	X	X	X	X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X	X	X	X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X	X	X	X
Db	Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X
Dc	Small Industrial-Commercial-Institutional Steam Generating Units		X	X	
E	Incinerators	X	X	X	X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994		X		
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994		X		
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996		X		
F	Portland Cement Plants	X	X	X	X
G	Nitric Acid Plants	X	X	X	X
Ga	Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011				
H	Sulfuric Acid Plant	X	X	X	X
I	Hot Mix Asphalt Facilities	X	X	X	X
J	Petroleum Refineries	X	X	X	X
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007		X		
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X	X	X	X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X	X	X	X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X	X	X	X
L	Secondary Lead Smelters	X	X	X	X

M	Secondary Brass and Bronze Production Plants	X	X	X	X
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction Commenced After June 11, 1973	X	X	X	X
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	X	X	X	X
O	Sewage Treatment Plants	X	X	X	X
P	Primary Copper Smelters	X	X	X	X
Q	Primary Zinc Smelters	X	X	X	X
R	Primary Lead Smelters	X	X	X	X
S	Primary Aluminum Reduction Plants	X	X	X	X
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X	X	X	X
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X	X	X	X
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X	X	X	X
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X	X	X	X
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X	X	X	X
Y	Coal Preparation and Processing Plants	X	X	X	X
Z	Ferroalloy Production Facilities	X	X	X	X
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X	X	X	X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983	X	X	X	X
BB	Kraft Pulp Mills	X	X	X	X
CC	Glass Manufacturing Plants	X	X	X	X
DD	Grain Elevators	X	X	X	X
EE	Surface Coating of Metal Furniture	X	X	X	X
FF	(Reserved)				
GG	Stationary Gas Turbines	X	X	X	X
HH	Lime Manufacturing Plants	X	X	X	X
KK	Lead-Acid Battery Manufacturing Plants	X	X	X	X
LL	Metallic Mineral Processing Plants	X	X	X	X
MM	Automobile and Light Duty Trucks Surface Coating Operations	X	X	X	X
NN	Phosphate Rock Plants	X	X	X	X
PP	Ammonium Sulfate Manufacture	X	X	X	X
QQ	Graphic Arts Industry: Publication Rotogravure Printing	X	X	X	X
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X	X	X	X
SS	Industrial Surface Coating: Large Appliances	X	X	X	X
TT	Metal Coil Surface Coating	X	X	X	X
UU	Asphalt Processing and Asphalt Roofing Manufacture	X	X	X	X
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing	X	X	X	X
VVa	Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006		X		

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WW	Beverage Can Surface Coating Industry	X	X	X	X
XX	Bulk Gasoline Terminals				
AAA	New Residential Wood Heaters	X	X	X	X
BBB	Rubber Tire Manufacturing Industry	X	X	X	X
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	X	X	X	
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing	X	X	X	X
GGG	Equipment Leaks of VOC in Petroleum Refineries	X	X	X	X
GGG	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006		X		
HHH	Synthetic Fiber Production Facilities	X	X	X	X
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes		X		
JJJ	Petroleum Dry Cleaners	X	X	X	X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	X	X	X	X
LLL	Onshore Natural Gas Processing: SO ₂ Emissions	X	X	X	X
MMI	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X	X	X	
OOO	Nonmetallic Mineral Processing Plants	X	X	X	X
PPP	Wool Fiberglass Insulation Manufacturing Plants	X	X	X	X
QQC	VOC Emissions From Petroleum Refinery Wastewater Systems	X	X	X	X
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes		X		
SSS	Magnetic Tape Coating Facilities	X	X	X	X
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machine	X	X	X	X
UUU	Calciners and Dryers in Mineral Industries		X	X	
VVV	Polymeric Coating of Supporting Substrates Facilities		X	X	X
WW W	Municipal Solid Waste Landfills		X		
AAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001		X		
CCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001		X		
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006		X		
GGG	(Reserved)				
HHH	(Reserved)				
III	Stationary Compression Ignition Internal Combustion Engines		X		

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JJJJ	Stationary Spark Ignition Internal Combustion Engines		X		
KKKK	Stationary Combustion Turbines		X		
LLLL	New Sewage Sludge Incineration Units				
OOO	Crude Oil and Natural Gas Production, Transmission, and Distribution				

(vi) Delegations for Northern Sierra Air Quality Management District, Northern Sonoma County Air Pollution Control District, Placer County Air Pollution Control District, and Sacramento Metropolitan Air Quality Management District are shown in the following table:

Delegation Status for New Source Performance Standards for Northern Sierra Air Quality Management District, Northern Sonoma County Air Pollution Control District, Placer County Air Pollution Control District, and Sacramento Metropolitan Air Quality Management District

	Subpart	Air pollution control agency			
		Northern Sierra AQMD	Northern Sonoma County APCD	Placer County APC	Sacramento Metropolitan AQMD
A	General Provisions		X		X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971		X		X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978		X		X
Db	Industrial-Commercial-Institutional Steam Generating Units				X
Dc	Small Industrial Steam Generating Units				X
E	Incinerators		X		X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994				X
Eb	Municipal Waste Combustors Constructed After September 20, 1994				X
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996				X
F	Portland Cement Plants		X		X
G	Nitric Acid Plants		X		X
H	Sulfuric Acid Plants		X		X
I	Hot Mix Asphalt Facilities		X		X
J	Petroleum Refineries		X		X
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978		X		X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984		X		X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984				X
L	Secondary Lead Smelters		X		X
M	Secondary Brass and Bronze Production Plants		X		X
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973		X		X

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Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983				X
O	Sewage Treatment Plants		X		X
P	Primary Copper Smelters		X		X
Q	Primary Zinc Smelters		X		X
R	Primary Lead Smelters		X		X
S	Primary Aluminum Reduction Plants		X		X
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants		X		X
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants		X		X
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants		X		X
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants		X		X
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities		X		X
Y	Coal Preparation Plants		X		X
Z	Ferroalloy Production Facilities		X		X
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983		X		X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983				X
BB	Kraft pulp Mills		X		X
CC	Glass Manufacturing Plants		X		X
DD	Grain Elevators		X		X
EE	Surface Coating of Metal Furniture				X
FF	(Reserved)				
GG	Stationary Gas Turbines		X		X
HH	Lime Manufacturing Plants		X		X
KK	Lead-Acid Battery Manufacturing Plants				X
LL	Metallic Mineral Processing Plants				X
MM	Automobile and Light Duty Trucks Surface Coating Operations		X		X
NN	Phosphate Rock Plants				X
PP	Ammonium Sulfate Manufacture		X		X
QQ	Graphic Arts Industry: Publication Rotogravure Printing				X
RR	Pressure Sensitive Tape and Label Surface Coating Operations				X
SS	Industrial Surface Coating: Large Appliances				X
TT	Metal Coil Surface Coating				X
UU	Asphalt Processing and Asphalt Roofing Manufacture				X
VV	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry				X
WW	Beverage Can Surface Coating Industry				X
XX	Bulk Gasoline Terminals				
AAA	New Residential Wool Heaters				X
BBB	Rubber Tire Manufacturing Industry				X

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CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry				X
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing				X
GGG	Equipment Leaks of VOC in Petroleum Refineries				X
HHH	Synthetic Fiber Production Facilities				X
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes				X
JJJ	Petroleum Dry Cleaners				X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants				X
LLL	Onshore Natural Gas Processing: SO2 Emissions				X
MMI	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations				X
OOO	Nonmetallic Mineral Processing Plants				X
PPP	Wool Fiberglass Insulation Manufacturing Plants				X
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems				X
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes				X
SSS	Magnetic Tape Coating Facilities				X
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines				X
UUU	Calciners and Dryers in Mineral Industries				X
VVV	Polymeric Coating of Supporting Substrates Facilities				X
WWW	Municipal Solid Waste Landfills				X

(vii) Delegations for San Diego County Air Pollution Control District, San Joaquin Valley Unified Air Pollution Control District, San Luis Obispo County Air Pollution Control District, and Santa Barbara County Air Pollution Control District are shown in the following table:

Delegation Status for New Source Performance Standards for San Diego County APCD, San Joaquin Valley Unified APCD, San Luis Obispo County APCD, and Santa Barbara County APCD

	Subpart	Air pollution control agency			
		San Diego County APCD	San Joaquin Valley Unified APCD	San Luis Obispo County APCD	Santa Barbara County APCD
A	General Provisions	X	X	X	X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X	X	X	X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X	X	X	X
Db	Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X
Dc	Small Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X
E	Incinerators	X	X	X	X

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Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	X	X	X	
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994	X	X		X
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996	X			X
F	Portland Cement Plants	X	X	X	
G	Nitric Acid Plants	X	X	X	
Ga	Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011				
H	Sulfuric Acid Plant	X	X	X	
I	Hot Mix Asphalt Facilities	X	X	X	X
J	Petroleum Refineries	X	X	X	X
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007				X
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X	X	X	X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X	X	X	X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X	X	X	X
L	Secondary Lead Smelters	X	X	X	X
M	Secondary Brass and Bronze Production Plants	X	X	X	X
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	X	X	X	
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	X	X	X	
O	Sewage Treatment Plants	X	X	X	X
P	Primary Copper Smelters	X	X	X	
Q	Primary Zinc Smelters	X	X	X	
R	Primary Lead Smelters	X	X	X	
S	Primary Aluminum Reduction Plants	X	X	X	
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X	X	X	
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X	X	X	
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X	X	X	
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X	X	X	
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X	X	X	
Y	Coal Preparation and Processing Plants	X	X	X	
Z	Ferroalloy Production Facilities	X	X	X	
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X	X	X	
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983	X	X	X	

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BB	Kraft Pulp Mills	X	X	X	
CC	Glass Manufacturing Plants	X	X	X	X
DD	Grain Elevators	X	X	X	X
EE	Surface Coating of Metal Furniture	X	X	X	
FF	(Reserved)				
GG	Stationary Gas Turbines	X	X	X	X
HH	Lime Manufacturing Plants	X	X	X	
KK	Lead-Acid Battery Manufacturing Plants	X	X	X	
LL	Metallic Mineral Processing Plants	X	X	X	
MM	Automobile and Light Duty Trucks Surface Coating Operations	X	X	X	
NN	Phosphate Rock Plants	X	X	X	
PP	Ammonium Sulfate Manufacture	X	X	X	
QQ	Graphic Arts Industry: Publication Rotogravure Printing	X	X	X	
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X	X	X	
SS	Industrial Surface Coating: Large Appliances	X	X	X	
TT	Metal Coil Surface Coating	X	X	X	
UU	Asphalt Processing and Asphalt Roofing Manufacture	X	X	X	
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing	X	X	X	
VVa	Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006				X
WW	Beverage Can Surface Coating Industry	X	X	X	
XX	Bulk Gasoline Terminals				
AAA	New Residential Wood Heaters	X	X	X	X
BBB	Rubber Tire Manufacturing Industry	X	X	X	
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	X	X		
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing	X	X	X	
GGG	Equipment Leaks of VOC in Petroleum Refineries	X	X	X	
GGG	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006				X
HHH	Synthetic Fiber Production Facilities	X	X	X	
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	X	X		
JJJ	Petroleum Dry Cleaners	X	X	X	
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	X	X	X	
LLL	Onshore Natural Gas Processing: SO ₂ Emissions	X	X	X	
MMI	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X	X		

OOO	Nonmetallic Mineral Processing Plants	X	X	X	X
PPP	Wool Fiberglass Insulation Manufacturing Plants	X	X	X	
QQC	VOC Emissions From Petroleum Refinery Wastewater Systems	X	X	X	
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	X	X	X	
SSS	Magnetic Tape Coating Facilities	X	X	X	
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	X	X	X	
UUU	Calciners and Dryers in Mineral Industries	X	X	X	X
VVV	Polymeric Coating of Supporting Substrates Facilities	X	X	X	X
WWW	Municipal Solid Waste Landfills	X	X	X	X
AAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001	X			X
CCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001	X			X
EEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006	X			X
GGG	(Reserved)				
HHH	(Reserved)				
III	Stationary Compression Ignition Internal Combustion Engines				X
JJJ	Stationary Spark Ignition Internal Combustion Engines				X
KKK	Stationary Combustion Turbines	X			X
LLL	New Sewage Sludge Incineration Units				
OOO	Crude Oil and Natural Gas Production, Transmission, and Distribution				

(viii) Delegations for Shasta County Air Quality Management District, Siskiyou County Air Pollution Control District, South Coast Air Quality Management District, and Tehama County Air Pollution Control District are shown in the following table:

Delegation Status for New Source Performance Standards for Shasta County AQMD, Siskiyou County APCD, South Coast AQMD, and Tehama County APCD

	Subpart	Air pollution control agency			
		Shasta County AQMD	Siskiyou County APCD	South Coast AQMD	Tehama County APCD
A	General Provisions	X	X	X	
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X		X	
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978			X	
Db	Industrial-Commercial-Institutional Steam Generating Units			X	
Dc	Small Industrial-Commercial-Institutional Steam Generating Units			X	
E	Incinerators	X		X	

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Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994			X	
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994			X	
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996			X	
F	Portland Cement Plants	X		X	
G	Nitric Acid Plants	X		X	
Ga	Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011				
H	Sulfuric Acid Plant	X		X	
I	Hot Mix Asphalt Facilities	X		X	
J	Petroleum Refineries	X		X	
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007			X	
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X		X	
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984			X	
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984			X	
L	Secondary Lead Smelters	X		X	
M	Secondary Brass and Bronze Production Plants	X		X	
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	X		X	
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983			X	
O	Sewage Treatment Plants	X		X	
P	Primary Copper Smelters	X		X	
Q	Primary Zinc Smelters	X		X	
R	Primary Lead Smelters	X		X	
S	Primary Aluminum Reduction Plants	X		X	
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X		X	
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X		X	
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X		X	
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X		X	
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X		X	
Y	Coal Preparation and Processing Plants	X		X	
Z	Ferroalloy Production Facilities	X		X	
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X		X	
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983			X	
BB	Kraft Pulp Mills	X		X	
CC	Glass Manufacturing Plants			X	

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DD	Grain Elevators	X		X	
EE	Surface Coating of Metal Furniture			X	
FF	(Reserved)				
GG	Stationary Gas Turbines			X	
HH	Lime Manufacturing Plants	X		X	
KK	Lead-Acid Battery Manufacturing Plants			X	
LL	Metallic Mineral Processing Plants			X	
MM	Automobile and Light Duty Trucks Surface Coating Operations			X	
NN	Phosphate Rock Plants			X	
PP	Ammonium Sulfate Manufacture			X	
QQ	Graphic Arts Industry: Publication Rotogravure Printing			X	
RR	Pressure Sensitive Tape and Label Surface Coating Operations			X	
SS	Industrial Surface Coating: Large Appliances			X	
TT	Metal Coil Surface Coating			X	
UU	Asphalt Processing and Asphalt Roofing Manufacture			X	
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing			X	
VVa	Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006			X	
WW	Beverage Can Surface Coating Industry			X	
XX	Bulk Gasoline Terminals				
AAA	New Residential Wood Heaters		X	X	
BBB	Rubber Tire Manufacturing Industry		X	X	
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Indust			X	
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing			X	
GGG	Equipment Leaks of VOC in Petroleum Refineries			X	
GGG	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006			X	
HHH	Synthetic Fiber Production Facilities			X	
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes			X	
JJJ	Petroleum Dry Cleaners			X	
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants			X	
LLL	Onshore Natural Gas Processing: SO ₂ Emissions			X	
MMI	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations			X	
OOO	Nonmetallic Mineral Processing Plants			X	
PPP	Wool Fiberglass Insulation Manufacturing Plants			X	
QQC	VOC Emissions From Petroleum Refinery Wastewater Systems		X	X	

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RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes			X	
SSS	Magnetic Tape Coating Facilities		X	X	
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines		X	X	
UUU	Calciners and Dryers in Mineral Industries			X	
VVV	Polymeric Coating of Supporting Substrates Facilities			X	
WW W	Municipal Solid Waste Landfills			X	
AAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001	X	X	X	
CCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001			X	
EEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006			X	
GGG	(Reserved)				
HHH	(Reserved)				
III	Stationary Compression Ignition Internal Combustion Engines			X	
JJJ	Stationary Spark Ignition Internal Combustion Engines			X	
KKK	Stationary Combustion Turbines			X	
LLL	New Sewage Sludge Incineration Units				
OOO	Crude Oil and Natural Gas Production, Transmission, and Distribution				

(ix) Delegations for Tuolumne County Air Pollution Control District, Ventura County Air Pollution Control District, and Yolo-Solano Air Quality Management District are shown in the following table:

Delegation Status for New Source Performance Standards for Tuolumne County Air Pollution Control District, Ventura County Air Pollution Control District, and Yolo-Solano Air Quality Management District

	Subpart	Air Pollution Control Agency		
		Tuolumne County APCD	Ventura County APCD	Yolo-Solano AQMD
A	General Provisions	X	X	
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X	X	
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X		
Db	Industrial-Commercial-Institutional Steam Generating Units	X	X	
Dc	Small Industrial Steam Generating Units	X		
E	Incinerators	X		
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	X		
Eb	Municipal Waste Combustors Constructed After September 20, 1994	X		
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996	X		

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F	Portland Cement Plants	X		
G	Nitric Acid Plants	X		
H	Sulfuric Acid Plants	X		
I	Hot Mix Asphalt Facilities	X	X	
J	Petroleum Refineries	X	X	
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007			
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X	X	
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X		
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X		
L	Secondary Lead Smelters	X		
M	Secondary Brass and Bronze Production Plants	X		
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	X		
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	X		
O	Sewage Treatment Plants	X		
P	Primary Copper Smelters	X		
Q	Primary Zinc Smelters	X		
R	Primary Lead Smelters	X		
S	Primary Aluminum Reduction Plants	X		
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X		
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X		
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X		
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X		
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X		
Y	Coal Preparation Plants	X		
Z	Ferroalloy Production Facilities	X		
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X	X	
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983	X		
BB	Kraft pulp Mills	X		
CC	Glass Manufacturing Plants	X		
DD	Grain Elevators	X		
EE	Surface Coating of Metal Furniture	X		
FF	(Reserved)			
GG	Stationary Gas Turbines	X		
HH	Lime Manufacturing Plants	X		
KK	Lead-Acid Battery Manufacturing Plants	X		

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LL	Metallic Mineral Processing Plants	X		
MM	Automobile and Light Duty Trucks Surface Coating Operations	X		
NN	Phosphate Rock Plants	X		
PP	Ammonium Sulfate Manufacture	X		
QQ	Graphic Arts Industry: Publication Rotogravure Printing	X		
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X		
SS	Industrial Surface Coating: Large Appliances	X		
TT	Metal Coil Surface Coating	X		
UU	Asphalt Processing and Asphalt Roofing Manufacture	X		
VV	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry	X		
VVa	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006			
WW	Beverage Can Surface Coating Industry	X		
XX	Bulk Gasoline Terminals			
AAA	New Residential Wood Heaters	X		
BBB	Rubber Tire Manufacturing Industry	X		
CCC	(Reserved)			
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	X		
EEE	(Reserved)			
FFF	Flexible Vinyl and Urethane Coating and Printing	X		
GGG	Equipment Leaks of VOC in Petroleum Refineries	X		
GGG	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006			
HHH	Synthetic Fiber Production Facilities	X		
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	X		
JJJ	Petroleum Dry Cleaners	X		
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	X		
LLL	Onshore Natural Gas Processing: SO2 Emissions	X		
MMI	(Reserved)			
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X		
OOO	Nonmetallic Mineral Processing Plants	X	X	
PPP	Wool Fiberglass Insulation Manufacturing Plants	X		
QQC	VOC Emissions From Petroleum Refinery Wastewater Systems	X		
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	X		
SSS	Magnetic Tape Coating Facilities	X		
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	X		
UUU	Calciners and Dryers in Mineral Industries	X		
VVV	Polymeric Coating of Supporting Substrates Facilities	X		

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WW W	Municipal Solid Waste Landfills	X	X	
AAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001	X		
CCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001	X		
EEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006			
GGG	(Reserved)			
III	Stationary Compression Ignition Internal Combustion Engines			
JJJ	Stationary Spark Ignition Internal Combustion Engines			
KKK	Stationary Combustion Turbines			

(3) *Hawaii*. The following table identifies delegations for Hawaii:

Delegation Status for New Source Performance Standards for Hawaii:

	Subpart	Hawaii
A	General Provisions	X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X
Db	Industrial-Commercial-Institutional Steam Generating Units	X
Dc	Small Industrial Steam Generating Units	X
E	Incinerators	X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	X
Eb	Municipal Waste Combustors Constructed After September 20, 1994	X
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996	X
F	Portland Cement Plants	X
G	Nitric Acid Plants	
H	Sulfuric Acid Plants	
I	Hot Mix Asphalt Facilities	X
J	Petroleum Refineries	X
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007	
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X
L	Secondary Lead Smelters	
M	Secondary Brass and Bronze Production Plants	
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1971	

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Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	
O	Sewage Treatment Plants	X
P	Primary Copper Smelters	
Q	Primary Zinc Smelters	
R	Primary Lead Smelters	
S	Primary Aluminum Reduction Plants	
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	
Y	Coal Preparation Plants	X
Z	Ferroalloy Production Facilities	
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983	X
BB	Kraft pulp Mills	
CC	Glass Manufacturing Plants	
DD	Grain Elevators	
EE	Surface Coating of Metal Furniture	
FF	(Reserved)	
GG	Stationary Gas Turbines	X
HH	Lime Manufacturing Plants	
KK	Lead-Acid Battery Manufacturing Plants	
LL	Metallic Mineral Processing Plants	
MM	Automobile and Light Duty Trucks Surface Coating Operations	
NN	Phosphate Rock Plants	
PP	Ammonium Sulfate Manufacture	
QQ	Graphic Arts Industry: Publication Rotogravure Printing	
RR	Pressure Sensitive Tape and Label Surface Coating Operations	
SS	Industrial Surface Coating: Large Appliances	
TT	Metal Coil Surface Coating	
UU	Asphalt Processing and Asphalt Roofing Manufacture	
VV	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry	X
VVa	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006	
WW	Beverage Can Surface Coating Industry	X
XX	Bulk Gasoline Terminals	X
AAA	New Residential Wool Heaters	
BBB	Rubber Tire Manufacturing Industry	
CCC	(Reserved)	

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DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	
EEE	(Reserved)	
FFF	Flexible Vinyl and Urethane Coating and Printing	
GGG	Equipment Leaks of VOC in Petroleum Refineries	X
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006	
HHH	Synthetic Fiber Production Facilities	
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	
JJJ	Petroleum Dry Cleaners	X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	
LLL	Onshore Natural Gas Processing: SO2 Emissions	
MMM	(Reserved)	
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X
OOO	Nonmetallic Mineral Processing Plants	X
PPP	Wool Fiberglass Insulation Manufacturing Plants	
QQQ	VOC Emissions From Petroleum Refinery Wastewater	X
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	
SSS	Magnetic Tape Coating Facilities	
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	
UUU	Calciners and Dryers in Mineral Industries	X
VVV	Polymeric Coating of Supporting Substrates Facilities	X
WWW	Municipal Solid Waste Landfills	X
AAAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001	X
CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001	X
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006	
GGGG	(Reserved)	
IIII	Stationary Compression Ignition Internal Combustion Engines	
JJJJ	Stationary Spark Ignition Internal Combustion Engines	
KKKK	Stationary Combustion Turbines	

(4) Nevada. The following table identifies delegations for Nevada:

Delegation Status for New Source Performance Standards for Nevada

	Subpart	Air pollution control agency		
		Nevada DEP	Clark County	Washoe County
A	General Provisions	X	X	X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X	X	X

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Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X	X	
Db	Industrial-Commercial-Institutional Steam Generating Units	X	X	
Dc	Small Industrial-Commercial-Institutional Steam Generating Units	X	X	
E	Incinerators	X	X	X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	X	X	
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994	X	X	
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996	X	X	
F	Portland Cement Plants	X	X	X
G	Nitric Acid Plants	X	X	
Ga	Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011	X		
H	Sulfuric Acid Plant	X	X	
I	Hot Mix Asphalt Facilities	X	X	X
J	Petroleum Refineries	X	X	
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After March 14, 2007	X		
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X	X	X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X	X	X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X	X	
L	Secondary Lead Smelters	X	X	X
M	Secondary Brass and Bronze Production Plants	X	X	
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	X	X	
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	X	X	
O	Sewage Treatment Plants	X	X	X
P	Primary Copper Smelters	X	X	X
Q	Primary Zinc Smelters	X	X	X
R	Primary Lead Smelters	X	X	X
S	Primary Aluminum Reduction Plants	X	X	
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X	X	
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X	X	
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X	X	
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X	X	
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X	X	
Y	Coal Preparation and Processing Plants	X	X	X
Z	Ferroalloy Production Facilities	X	X	

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AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X	X	
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983	X	X	
BB	Kraft Pulp Mills	X	X	
CC	Glass Manufacturing Plants	X	X	
DD	Grain Elevators	X	X	X
EE	Surface Coating of Metal Furniture	X	X	X
FF	(Reserved)			
GG	Stationary Gas Turbines	X	X	X
HH	Lime Manufacturing Plants	X	X	X
KK	Lead-Acid Battery Manufacturing Plants	X	X	X
LL	Metallic Mineral Processing Plants	X	X	X
MM	Automobile and Light Duty Trucks Surface Coating Operations	X	X	X
NN	Phosphate Rock Plants	X	X	X
PP	Ammonium Sulfate Manufacture	X	X	
QQ	Graphic Arts Industry: Publication Rotogravure Printing	X	X	X
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X	X	
SS	Industrial Surface Coating: Large Appliances	X	X	X
TT	Metal Coil Surface Coating	X	X	X
UU	Asphalt Processing and Asphalt Roofing Manufacture	X	X	X
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing	X	X	X
VVa	Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006	X	X	
WW	Beverage Can Surface Coating Industry	X	X	
XX	Bulk Gasoline Terminals	X	X	
AAA	New Residential Wood Heaters		X	
BBB	Rubber Tire Manufacturing Industry	X	X	
CCC	(Reserved)			
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	X	X	
EEE	(Reserved)			
FFF	Flexible Vinyl and Urethane Coating and Printing	X	X	
GGG	Equipment Leaks of VOC in Petroleum Refineries	X	X	
GGG	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006	X	X	
HHH	Synthetic Fiber Production Facilities	X	X	
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	X	X	
JJJ	Petroleum Dry Cleaners	X	X	X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	X	X	
LLL	Onshore Natural Gas Processing: SO ₂ Emissions	X	X	
MMI	(Reserved)			

NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X	X	
OOC	Nonmetallic Mineral Processing Plants	X	X	
PPP	Wool Fiberglass Insulation Manufacturing Plants	X	X	
QQC	VOC Emissions From Petroleum Refinery Wastewater Systems	X	X	
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	X	X	
SSS	Magnetic Tape Coating Facilities	X	X	
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	X	X	X
UUU	Calciners and Dryers in Mineral Industries	X	X	X
VVV	Polymeric Coating of Supporting Substrates Facilities	X	X	X
WW W	Municipal Solid Waste Landfills	X	X	X
AAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001	X	X	X
CCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001	X	X	X
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004 or for Which Modification or Reconstruction is Commenced on or After June 16, 2006	X	X	X
GGG	(Reserved)			
HHH	(Reserved)			
III	Stationary Compression Ignition Internal Combustion Engines	X	X	X
JJJ	Stationary Spark Ignition Internal Combustion Engines	X	X	X
KKK	Stationary Combustion Turbines	X	X	X
LLL	New Sewage Sludge Incineration Units		X	
OOO	Crude Oil and Natural Gas Production, Transmission, and Distribution	X		

(5) *Guam*. The following table identifies delegations as of June 15, 2001:

Delegation Status for New Source Performance Standards for Guam

	Subpart	Guam
A	General Provisions	X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	
Db	Industrial-Commercial-Institutional Steam Generating Units	
Dc	Small Industrial Steam Generating Units	
E	Incinerators	
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	
Eb	Municipal Waste Combustors Constructed After September 20, 1994	
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996	
F	Portland Cement Plants	X
G	Nitric Acid Plants	

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H	Sulfuric Acid Plants	
I	Hot Mix Asphalt Facilities	X
J	Petroleum Refineries	X
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X

(e) The following lists the specific part 60 standards that have been delegated unchanged to the air pollution control agencies in Region 6.

(1) *New Mexico*. The New Mexico Environment Department has been delegated all part 60 standards promulgated by EPA, except subpart AAA—Standards of Performance for New Residential Wood Heaters; and subpart HHHH—Emission Guidelines and Compliance Times for Coal-Fired Electric Steam Generating Units, as amended in the FEDERAL REGISTER through September 23, 2013.

(2) *Louisiana*. The Louisiana Department of Environmental Quality has been delegated all part 60 standards promulgated by EPA, except subpart AAA—Standards of Performance for New Residential Wood Heaters, as amended in the FEDERAL REGISTER through July 1, 2013.

Delegation Status for Part 60 Standards—State of Louisiana [Excluding Indian Country]

Subpart	Source category	LDEQ ¹
A	General Provisions	Yes
Ce	Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators	Yes
D	Fossil Fueled Steam Generators (>250 MM BTU/hr)	Yes
Da	Electric Utility Steam Generating Units (>250 MM BTU/hr)	Yes
Db	Industrial-Commercial-Institutional Steam Generating Units (100 to 250 MM BTU/hr)	Yes
Dc	Industrial-Commercial-Institutional Small Steam Generating Units (10 to 100 MM BTU/hr)	Yes
E	Incinerators (>50 tons per day)	Yes
Ea	Municipal Waste Combustors	Yes
Eb	Large Municipal Waste Combustors	Yes
Ec	Hospital/Medical/Infectious Waste Incinerators	Yes
F	Portland Cement Plants	Yes
G	Nitric Acid Plants	Yes
Ga	Nitric Acid Plants (after October 14, 2011)	Yes
H	Sulfuric Acid Plants	Yes
I	Hot Mix Asphalt Facilities	Yes
J	Petroleum Refineries	Yes
Ja	Petroleum Refineries (After May 14, 2007)	Yes
K	Storage Vessels for Petroleum Liquids (After 6/11/73 & Before 5/19/78)	Yes
Ka	Storage Vessels for Petroleum Liquids (After 6/11/73 & Before 5/19/78)	Yes
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Stg/Vessels) After 7/23/84	Yes
L	Secondary Lead Smelters Yes	Yes
M	Secondary Brass and Bronze Production Plants	Yes
N	Primary Emissions from Basic Oxygen Process Furnaces (Construction Commenced After June 11, 1973)	Yes

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Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities Construction is Commenced After January 20, 1983	Yes
O	Sewage Treatment Plants	Yes
P	Primary Copper Smelters	Yes
Q	Primary Zinc Smelters	Yes
R	Primary Lead Smelters	Yes
S	Primary Aluminum Reduction Plants	Yes
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Plants	Yes
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	Yes
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	Yes
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	Yes
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	Yes
Y	Coal Preparation Plants	Yes
Z	Ferroalloy Production Facilities	Yes
AA	Steel Plants: Electric Arc Furnaces After 10/21/74 & On or Before 8/17/83	Yes
AAa	Steel Plants: Electric Arc Furnaces & Argon-Oxygen Decarburization Vessels After 8/07/83	Yes
BB	Kraft Pulp Mills	Yes
CC	Glass Manufacturing Plants	Yes
DD	Grain Elevators	Yes
EE	Surface Coating of Metal Furniture	Yes
GG	Stationary Gas Turbines	Yes
HH	Lime Manufacturing Plants	Yes
KK	Lead-Acid Battery Manufacturing Plants	Yes
LL	Metallic Mineral Processing Plants	Yes
MM	Automobile & Light Duty Truck Surface Coating Operations	Yes
NN	Phosphate Manufacturing Plants	Yes
PP	Ammonium Sulfate Manufacture	Yes
QQ	Graphic Arts Industry: Publication Rotogravure Printing	Yes
RR	Pressure Sensitive Tape and Label Surface Coating Operations	Yes
SS	Industrial Surface Coating: Large Appliances	Yes
TT	Metal Coil Surface Coating	Yes
UU	Asphalt Processing and Asphalt Roofing Manufacture	Yes
VV	VOC Equipment Leaks in the SOCFI Industry	Yes
VVa	VOC Equipment Leaks in the SOCFI Industry (After November 7, 2006)	Yes
XX	Bulk Gasoline Terminals	Yes
AAA	New Residential Wood Heaters	No
BBB	Rubber Tire Manufacturing Industry	Yes
DDD	Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry	Yes
FFF	Flexible Vinyl and Urethane Coating and Printing	Yes
GGG	VOC Equipment Leaks in Petroleum Refineries	Yes
HHH	Synthetic Fiber Production	Yes

III	VOC Emissions from the SOCM I Air Oxidation Unit Processes	Yes
JJJ	Petroleum Dry Cleaners	Yes
KKK	VOC Equipment Leaks From Onshore Natural Gas Processing Plants	Yes
LLL	Onshore Natural Gas Processing: SO ₂ Emissions	Yes
NNN	VOC Emissions from SOCM I Distillation Operations	Yes
OOO	Nonmetallic Mineral Processing Plants	Yes
PPP	Wool Fiberglass Insulation Manufacturing Plants	Yes
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems	Yes
RRR	VOC Emissions from SOCM I Reactor Processes	Yes
SSS	Magnetic Tape Coating Operations	Yes
TTT	Industrial Surface Coating: Plastic Parts for Business Machines	Yes
UUU	Calciners and Dryers in Mineral Industries	Yes
VVV	Polymeric Coating of Supporting Substrates Facilities	Yes
WWW	Municipal Solid Waste Landfills	Yes
AAAA	Small Municipal Waste Combustion Units (Construction is Commenced After 8/30/99 or Modification/Reconstruction is Commenced After 6/06/2001)	Yes
CCCC	Commercial & Industrial Solid Waste Incineration Units (Construction is Commenced After 11/30/1999 or Modification/Reconstruction is Commenced on or After 6/01/2001)	Yes
DDDD	Emission Guidelines & Compliance Times for Commercial & Industrial Solid Waste Incineration Units (Commenced Construction On or Before 11/30/1999)	Yes
EEEE	Other Solid Waste Incineration Units (Constructed after 12/09/2004 or Modification/Reconstruction is commenced on or after 06/16/2004)	Yes
IIII	Stationary Compression Ignition Internal Combustion Engines	Yes
JJJJ	Stationary Spark Ignition Internal Combustion Engines	Yes
KKKK	Stationary Combustion Turbines (Construction Commenced After 02/18/2005)	Yes
LLLL	New Sewage Sludge Incineration Units	Yes
MMMM	Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units	Yes
OOOO	Crude Oil and Natural Gas Production, Transmission and Distribution	Yes

¹The Louisiana Department of Environmental Quality (LDEQ) has been delegated all Part 60 standards promulgated by EPA, except subpart AAA—Standards of Performance for New Residential Wood Heaters—as amended in the FEDERAL REGISTER through July 1, 2013.

(3) *Albuquerque-Bernalillo County Air Quality Control Board.* The Albuquerque-Bernalillo County Air Quality Control Board has been delegated all part 60 standards promulgated by EPA, except subpart AAA—Standards of Performance for New Residential Wood Heaters, as amended in the FEDERAL REGISTER through September 13, 2013.

§60.5 Determination of construction or modification.

- (a) When requested to do so by an owner or operator, the Administrator will make a determination of whether action taken or intended to be taken by such owner or operator constitutes construction (including reconstruction) or modification or the commencement thereof within the meaning of this part.
- (b) The Administrator will respond to any request for a determination under paragraph (a) of this section within 30 days of receipt of such request.

§60.6 Review of plans.

- (a) When requested to do so by an owner or operator, the Administrator will review plans for construction or modification for the purpose of providing technical advice to the owner or operator.
- (b)(1) A separate request shall be submitted for each construction or modification project.
- (2) Each request shall identify the location of such project, and be accompanied by technical information describing the proposed nature, size, design, and method of operation of each affected facility involved in such project, including information on any equipment to be used for measurement or control of emissions.
- (c) Neither a request for plans review nor advice furnished by the Administrator in response to such request shall (1) relieve an owner or operator of legal responsibility for compliance with any provision of this part or of any applicable State or local requirement, or (2) prevent the Administrator from implementing or enforcing any provision of this part or taking any other action authorized by the Act.

§60.7 Notification and record keeping.

- (a) Any owner or operator subject to the provisions of this part shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, as follows:
- (1) A notification of the date construction (or reconstruction as defined under §60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.
- (2) [Reserved]
- (3) A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.
- (4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in §60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.
- (5) A notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with §60.13(c). Notification shall be postmarked not less than 30 days prior to such date.
- (6) A notification of the anticipated date for conducting the opacity observations required by §60.11(e)(1) of this part. The notification shall also include, if appropriate, a request for the Administrator to provide a visible emissions reader during a performance test. The notification shall be postmarked not less than 30 days prior to such date.
- (7) A notification that continuous opacity monitoring system data results will be used to determine compliance with the applicable opacity standard during a performance test required by §60.8 in lieu of Method 9 observation data as allowed by §60.11(e)(5) of this part. This notification shall be postmarked not less than 30 days prior to the date of the performance test.
- (b) Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

(c) Each owner or operator required to install a continuous monitoring device shall submit excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and-or summary report form (see paragraph (d) of this section) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information:

- (1) The magnitude of excess emissions computed in accordance with §60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
- (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.
- (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
- (4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

(d) The summary report form shall contain the information and be in the format shown in figure 1 unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

- (1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in §60.7(c) need not be submitted unless requested by the Administrator.
- (2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in §60.7(c) shall both be submitted.

Figure 1—Summary Report—Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant (Circle One—SO₂/NO_x/TRS/H₂S/CO/Opacity)

Reporting period dates: From _____ to _____

Company:

Emission Limitation

Address:

Monitor Manufacturer and Model No.

Date of Latest CMS Certification or Audit

Process Unit(s) Description:

Total source operating time in reporting period¹

Emission data summary ¹		CMS performance summary ¹	
1. Duration of excess emissions in reporting period due to:		1. CMS downtime in reporting period due to:	
a. Startup/shutdown		a. Monitor equipment malfunctions	
b. Control equipment problems		b. Non-Monitor equipment malfunctions	
c. Process problems		c. Quality assurance calibration	

d. Other known causes		d. Other known causes	
e. Unknown causes		e. Unknown causes	
2. Total duration of excess emission		2. Total CMS Downtime	
3. Total duration of excess emissions × (100) [Total source operating time]	% ²	3. [Total CMS Downtime] × (100) [Total source operating time]	% ²

¹For opacity, record all times in minutes. For gases, record all times in hours.

²For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

On a separate page, describe any changes since last quarter in CMS, process or controls. I certify that the information contained in this report is true, accurate, and complete.

Name

Signature

Title

Date

(e)(1) Notwithstanding the frequency of reporting requirements specified in paragraph (c) of this section, an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

- (i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;
- (ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and the applicable standard; and
- (iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in paragraph (e)(2) of this section.

(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in paragraphs (e)(1) and (e)(2) of this section.

(f) Any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records, except as follows:

(1) 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 (f) 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.

(2) 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 (f) of this section, 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.

(3) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (f) of this section, if the Administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.

(g) If notification substantially similar to that in paragraph (a) of this section is required by any other State or local agency, sending the Administrator a copy of that notification will satisfy the requirements of paragraph (a) of this section.

(h) Individual subparts of this part may include specific provisions which clarify or make inapplicable the provisions set forth in this section.

§60.8 Performance tests.

(a) Except as specified in paragraphs (a)(1),(a)(2), (a)(3), and (a)(4) of this section, within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, or at such other times specified by this part, and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

(1) If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure, the owner or operator shall notify the Administrator, in writing as soon as practicable following the date the owner or operator first knew, or through due diligence should have known

that the event may cause or caused a delay in testing beyond the regulatory deadline, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.

(2) The owner or operator shall provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure occurs.

(3) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Administrator. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practicable.

(4) Until an extension of the performance test deadline has been approved by the Administrator under paragraphs (a)(1), (2), and (3) of this section, the owner or operator of the affected facility remains strictly subject to the requirements of this part.

(b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. 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 applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

(d) The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Administrator (or delegated State or local agency) as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator (or delegated State or local agency) by mutual agreement.

(e) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such facility. 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.

(f) Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method.

(1) Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

(2) Contents of report (electronic or paper submitted copy). Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, the report for a performance test shall include the elements identified in paragraphs (f)(2)(i) through (vi) of this section.

(i) General identification information for the facility including a mailing address, the physical address, the owner or operator or responsible official (where applicable) and his/her email address, and the appropriate Federal Registry System (FRS) number for the facility.

(ii) Purpose of the test including the applicable regulation(s) requiring the test, the pollutant(s) and other parameters being measured, the applicable emission standard and any process parameter component, and a brief process description.

(iii) Description of the emission unit tested including fuel burned, control devices, and vent characteristics; the appropriate source classification code (SCC); the permitted maximum process rate (where applicable); and the sampling location.

(iv) Description of sampling and analysis procedures used and any modifications to standard procedures, quality assurance procedures and results, record of process operating conditions that demonstrate the applicable test conditions are met, and values for any operating parameters for which limits were being set during the test.

(v) Where a test method requires you record or report, the following shall be included: Record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, chain-of-custody documentation, and example calculations for reported results.

(vi) Identification of the company conducting the performance test including the primary office address, telephone number, and the contact for this test program including his/her email address.

(g) The performance testing shall include a test method performance audit (PA) during the performance test. The PAs consist of blind audit samples supplied by an accredited audit sample provider and analyzed during the performance test in order to provide a measure of test data bias. Gaseous audit samples are designed to audit the performance of the sampling system as well as the analytical system and must be collected by the sampling system during the compliance test just as the compliance samples are collected. If a liquid or solid audit sample is designed to audit the sampling system, it must also be collected by the sampling system during the compliance test. If multiple sampling systems or sampling trains are used during the compliance test for any of the test methods, the tester is only required to use one of the sampling systems per method to collect the audit sample. The audit sample must be analyzed by the same analyst using the same analytical reagents and analytical system and at the same time as the compliance samples. Retests are required when there is a failure to produce acceptable results for an audit sample. However, if the audit results do not affect the compliance or noncompliance status of the affected

facility, the compliance authority may waive the reanalysis requirement, further audits, or retests and accept the results of the compliance test. Acceptance of the test results shall constitute a waiver of the reanalysis requirement, further audits, or retests. The compliance authority may also use the audit sample failure and the compliance test results as evidence to determine the compliance or noncompliance status of the affected facility. A blind audit sample is a sample whose value is known only to the sample provider and is not revealed to the tested facility until after they report the measured value of the audit sample. For pollutants that exist in the gas phase at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in air or nitrogen that can be introduced into the sampling system of the test method at or near the same entry point as a sample from the emission source. If no gas phase audit samples are available, an acceptable alternative is a sample of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. For samples that exist only in a liquid or solid form at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. An accredited audit sample provider (AASP) is an organization that has been accredited to prepare audit samples by an independent, third party accrediting body.

(1) The source owner, operator, or representative of the tested facility shall obtain an audit sample, if commercially available, from an AASP for each test method used for regulatory compliance purposes. No audit samples are required for the following test methods: Methods 3A and 3C of appendix A-3 of part 60, Methods 6C, 7E, 9, and 10 of appendix A-4 of part 60, Methods 18 and 19 of appendix A-6 of part 60, Methods 20, 22, and 25A of appendix A-7 of part 60, Methods 30A and 30B of appendix A-8 of part 60, and Methods 303, 318, 320, and 321 of appendix A of part 63 of this chapter. If multiple sources at a single facility are tested during a compliance test event, only one audit sample is required for each method used during a compliance test. The compliance authority responsible for the compliance test may waive the requirement to include an audit sample if they believe that an audit sample is not necessary. "Commercially available" means that two or more independent AASPs have blind audit samples available for purchase. If the source owner, operator, or representative cannot find an audit sample for a specific method, the owner, operator, or representative shall consult the EPA Web site at the following URL, www.epa.gov/ttn/emc, to confirm whether there is a source that can supply an audit sample for that method. If the EPA Web site does not list an available audit sample at least 60 days prior to the beginning of the compliance test, the source owner, operator, or representative shall not be required to include an audit sample as part of the quality assurance program for the compliance test. When ordering an audit sample, the source owner, operator, or representative shall give the sample provider an estimate for the concentration of each pollutant that is emitted by the source or the estimated concentration of each pollutant based on the permitted level and the name, address, and phone number of the compliance authority. The source owner, operator, or representative shall report the results for the audit sample along with a summary of the emission test results for the audited pollutant to the compliance authority and shall report the results of the audit sample to the AASP. The source owner, operator, or representative shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the AASP. If the method being audited is a method that allows the samples to be analyzed in the field and the tester plans to analyze the samples in the field, the tester may analyze the audit samples prior to collecting the emission samples provided a representative of the compliance authority is present at the testing site. The tester may request and the compliance authority may grant a waiver to the requirement that a representative of the compliance authority must be present at the testing site during the field analysis of an audit sample. The source owner, operator, or representative may report the results of the audit sample to the compliance authority and report the results of the audit sample to the AASP prior to collecting any emission samples. The test protocol and final test report shall document whether an audit sample was ordered and utilized and the pass/fail results as applicable.

(2) An AASP shall have and shall prepare, analyze, and report the true value of audit samples in accordance with a written technical criteria document that describes how audit samples will be prepared and distributed in a

manner that will ensure the integrity of the audit sample program. An acceptable technical criteria document shall contain standard operating procedures for all of the following operations:

- (i) Preparing the sample;
- (ii) Confirming the true concentration of the sample;
- (iii) Defining the acceptance limits for the results from a well qualified tester. This procedure must use well established statistical methods to analyze historical results from well qualified testers. The acceptance limits shall be set so that there is 95 percent confidence that 90 percent of well qualified labs will produce future results that are within the acceptance limit range.
- (iv) Providing the opportunity for the compliance authority to comment on the selected concentration level for an audit sample;
- (v) Distributing the sample to the user in a manner that guarantees that the true value of the sample is unknown to the user;
- (vi) Recording the measured concentration reported by the user and determining if the measured value is within acceptable limits;
- (vii) The AASP shall report the results from each audit sample in a timely manner to the compliance authority and then to the source owner, operator, or representative. The AASP shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the source owner, operator, or representative. The results shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, and whether the testing company passed or failed the audit. The AASP shall report the true value of the audit sample to the compliance authority. The AASP may report the true value to the source owner, operator, or representative if the AASP's operating plan ensures that no laboratory will receive the same audit sample twice.
- (viii) Evaluating the acceptance limits of samples at least once every two years to determine in cooperation with the voluntary consensus standard body if they should be changed;
- (ix) Maintaining a database, accessible to the compliance authorities, of results from the audit that shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, the true value of the audit sample, the acceptance range for the measured value, and whether the testing company passed or failed the audit.

(3) The accrediting body shall have a written technical criteria document that describes how it will ensure that the AASP is operating in accordance with the AASP technical criteria document that describes how audit samples are to be prepared and distributed. This document shall contain standard operating procedures for all of the following operations:

- (i) Checking audit samples to confirm their true value as reported by the AASP;
- (ii) Performing technical systems audits of the AASP's facilities and operating procedures at least once every two years;
- (iii) Providing standards for use by the voluntary consensus standard body to approve the accrediting body that will accredit the audit sample providers.

(4) The technical criteria documents for the accredited sample providers and the accrediting body shall be developed through a public process guided by a voluntary consensus standards body (VCSB). The VCSB shall

operate in accordance with the procedures and requirements in the Office of Management and Budget Circular A-119. A copy of Circular A-119 is available upon request by writing the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, by calling (202) 395-6880 or downloading online at http://standards.gov/standards_gov/a119.cfm. The VCSB shall approve all accrediting bodies. The Administrator will review all technical criteria documents. If the technical criteria documents do not meet the minimum technical requirements in paragraphs (g)(2) through (4) of this section, the technical criteria documents are not acceptable and the proposed audit sample program is not capable of producing audit samples of sufficient quality to be used in a compliance test. All acceptable technical criteria documents shall be posted on the EPA Web site at the following URL, <http://www.epa.gov/ttn/emc>.

(h) Unless otherwise specified in the applicable subpart, each test location must be verified to be free of cyclonic flow and evaluated for the existence of emission gas stratification and the required number of sampling traverse points. If other procedures are not specified in the applicable subpart to the regulations, use the appropriate procedures in Method 1 to check for cyclonic flow and Method 7E to evaluate emission gas stratification and selection of sampling points.

(i) Whenever the use of multiple calibration gases is required by a test method, performance specification, or quality assurance procedure in a part 60 standard or appendix, Method 205 of 40 CFR part 51, appendix M of this chapter, "Verification of Gas Dilution Systems for Field Instrument Calibrations," may be used.

§60.9 Availability of information.

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. (Information submitted voluntarily to the Administrator for the purposes of §§60.5 and 60.6 is governed by §§2.201 through 2.213 of this chapter and not by §2.301 of this chapter.)

§60.10 State authority.

The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from:

- (a) Adopting and enforcing any emission standard or limitation applicable to an affected facility, provided that such emission standard or limitation is not less stringent than the standard applicable to such facility.
- (b) Requiring the owner or operator of an affected facility to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of such facility.

§60.11 Compliance with standards and maintenance requirements.

- (a) Compliance with standards in this part, other than opacity standards, shall be determined in accordance with performance tests established by §60.8, unless otherwise specified in the applicable standard.
- (b) Compliance with opacity standards in this part shall be determined by conducting observations in accordance with Method 9 in appendix A of this part, any alternative method that is approved by the Administrator, or as provided in paragraph (e)(5) of this section. For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).
- (c) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.
- (d) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating 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, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(e)(1) For the purpose of demonstrating initial compliance, opacity observations shall be conducted concurrently with the initial performance test required in §60.8 unless one of the following conditions apply. If no performance test under §60.8 is required, then opacity observations shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated but no later than 180 days after initial startup of the facility. If visibility or other conditions prevent the opacity observations from being conducted concurrently with the initial performance test required under §60.8, the source owner or operator shall reschedule the opacity observations as soon after the initial performance test as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. In these cases, the 30-day prior notification to the Administrator required in §60.7(a)(6) shall be waived. The rescheduled opacity observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under §60.8. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity observations from being made concurrently with the initial performance test in accordance with procedures contained in Method 9 of appendix B of this part. Opacity readings of portions of plumes which contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity standards. The owner or operator of an affected facility shall make available, upon request by the Administrator, such records as may be necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification. Except as provided in paragraph (e)(5) of this section, the results of continuous monitoring by transmissometer which indicate that the opacity at the time visual observations were made was not in excess of the standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the source shall meet the burden of proving that the instrument used meets (at the time of the alleged violation) Performance Specification 1 in appendix B of this part, has been properly maintained and (at the time of the alleged violation) that the resulting data have not been altered in any way.

(2) Except as provided in paragraph (e)(3) of this section, the owner or operator of an affected facility to which an opacity standard in this part applies shall conduct opacity observations in accordance with paragraph (b) of this section, shall record the opacity of emissions, and shall report to the Administrator the opacity results along with the results of the initial performance test required under §60.8. The inability of an owner or operator to secure a visible emissions observer shall not be considered a reason for not conducting the opacity observations concurrent with the initial performance test.

(3) The owner or operator of an affected facility to which an opacity standard in this part applies may request the Administrator to determine and to record the opacity of emissions from the affected facility during the initial performance test and at such times as may be required. The owner or operator of the affected facility shall report the opacity results. Any request to the Administrator to determine and to record the opacity of emissions from an affected facility shall be included in the notification required in §60.7(a)(6). If, for some reason, the Administrator cannot determine and record the opacity of emissions from the affected facility during the performance test, then the provisions of paragraph (e)(1) of this section shall apply.

(4) An owner or operator of an affected facility using a continuous opacity monitor (transmissometer) shall record the monitoring data produced during the initial performance test required by §60.8 and shall furnish the Administrator a written report of the monitoring results along with Method 9 and §60.8 performance test results.

(5) An owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under §60.8 in lieu of Method 9 observation data. If an owner or operator elects to submit COMS data for compliance with the opacity standard, he shall notify the Administrator of that decision, in writing, at least 30 days before any performance test required under §60.8 is conducted. Once the owner or operator of an

affected facility has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent tests required under §60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during a performance test required under §60.8 using COMS data, the minimum total time of COMS data collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under §60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in §60.13(c) of this part, that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which Method 9 data indicates noncompliance, the Method 9 data will be used to determine compliance with the opacity standard.

(6) Upon receipt from an owner or operator of the written reports of the results of the performance tests required by §60.8, the opacity observation results and observer certification required by §60.11(e)(1), and the COMS results, if applicable, the Administrator will make a finding concerning compliance with opacity and other applicable standards. If COMS data results are used to comply with an opacity standard, only those results are required to be submitted along with the performance test results required by §60.8. If the Administrator finds that an affected facility is in compliance with all applicable standards for which performance tests are conducted in accordance with §60.8 of this part but during the time such performance tests are being conducted fails to meet any applicable opacity standard, he shall notify the owner or operator and advise him that he may petition the Administrator within 10 days of receipt of notification to make appropriate adjustment to the opacity standard for the affected facility.

(7) The Administrator will grant such a petition upon a demonstration by the owner or operator that the affected facility and associated air pollution control equipment was operated and maintained in a manner to minimize the opacity of emissions during the performance tests; that the performance tests were performed under the conditions established by the Administrator; and that the affected facility and associated air pollution control equipment were incapable of being adjusted or operated to meet the applicable opacity standard.

(8) The Administrator will establish an opacity standard for the affected facility meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity standard in the FEDERAL REGISTER.

(f) Special provisions set forth under an applicable subpart shall supersede any conflicting provisions in paragraphs (a) through (e) of this section.

(g) For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, nothing in this part shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

§60.12 Circumvention.

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

§60.13 Monitoring requirements.

(a) For the purposes of this section, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of this section upon promulgation of performance specifications for continuous monitoring systems under appendix B to this part and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, appendix F to this part, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.

(b) All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under §60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.

(c) If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under §60.11(e)(5), he shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, appendix B, of this part before the performance test required under §60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under §60.8 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of this part. The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.

(1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under §60.8 and as described in §60.11(e)(5) shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in paragraph (c) of this section at least 10 days before the performance test required under §60.8 is conducted.

(2) Except as provided in paragraph (c)(1) of this section, the owner or operator of an affected facility shall furnish the Administrator within 60 days of completion two or, upon request, more copies of a written report of the results of the performance evaluation.

(d)(1) Owners and operators of a CEMS installed in accordance with the provisions of this part, must check the zero (or low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once each operating day in accordance with a written procedure. The zero and span must, at a minimum, be adjusted whenever either the 24-hour zero drift or the 24-hour span drift exceeds two times the limit of the applicable performance specification in appendix B of this part. The system must allow the amount of the excess zero and span drift to be recorded and quantified whenever specified. Owners and operators of a COMS installed in accordance with the provisions of this part must check the zero and upscale (span) calibration drifts at least once daily. For a particular COMS, the acceptable range of zero and upscale calibration materials is defined in the applicable version of PS-1 in appendix B of this part. For a COMS, the optical surfaces, exposed to the effluent gases, must be cleaned before performing the zero and upscale drift adjustments, except for systems using automatic zero adjustments. The optical surfaces must be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

(2) Unless otherwise approved by the Administrator, the following procedures must be followed for a COMS. Minimum procedures must include an automated method for producing a simulated zero opacity condition and an upscale opacity condition using a certified neutral density filter or other related technique to produce a known obstruction of the light beam. Such procedures must provide a system check of all active analyzer internal optics with power or curvature, all active electronic circuitry including the light source and photodetector assembly, and electronic or electro-mechanical systems and hardware and or software used during normal measurement operation.

(e) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under paragraph (d) of this section, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(1) All continuous monitoring systems referenced by paragraph (c) of this section for measuring opacity of emissions 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.

(2) All continuous monitoring systems referenced by paragraph (c) of this section for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(f) All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of appendix B of this part shall be used.

(g) When the effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere, the owner or operator may install applicable continuous monitoring systems on each effluent or on the combined effluent. When the affected facilities are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each effluent. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless the installation of fewer systems is approved by the Administrator. When more than one continuous monitoring system is used to measure the emissions from one affected facility (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system.

(h)(1) Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in §60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period.

(2) For continuous monitoring systems other than opacity, 1-hour averages shall be computed as follows, except that the provisions pertaining to the validation of partial operating hours are only applicable for affected facilities that are required by the applicable subpart to include partial hours in the emission calculations:

(i) Except as provided under paragraph (h)(2)(iii) of this section, for a full operating hour (any clock hour with 60 minutes of unit operation), at least four valid data points are required to calculate the hourly average, *i.e.*, one data point in each of the 15-minute quadrants of the hour.

(ii) Except as provided under paragraph (h)(2)(iii) of this section, for a partial operating hour (any clock hour with less than 60 minutes of unit operation), at least one valid data point in each 15-minute quadrant of the hour in which the unit operates is required to calculate the hourly average.

(iii) For any operating hour in which required maintenance or quality-assurance activities are performed:

(A) If the unit operates in two or more quadrants of the hour, a minimum of two valid data points, separated by at least 15 minutes, is required to calculate the hourly average; or

(B) If the unit operates in only one quadrant of the hour, at least one valid data point is required to calculate the hourly average.

(iv) If a daily calibration error check is failed during any operating hour, all data for that hour shall be invalidated, unless a subsequent calibration error test is passed in the same hour and the requirements of paragraph (h)(2)(iii) of this section are met, based solely on valid data recorded after the successful calibration.

(v) For each full or partial operating hour, all valid data points shall be used to calculate the hourly average.

(vi) Except as provided under paragraph (h)(2)(vii) of this section, data recorded during periods of continuous monitoring system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph.

(vii) Owners and operators complying with the requirements of §60.7(f)(1) or (2) must include any data recorded during periods of monitor breakdown or malfunction in the data averages.

(viii) When specified in an applicable subpart, hourly averages for certain partial operating hours shall not be computed or included in the emission averages (e.g., hours with < 30 minutes of unit operation under §60.47b(d)).

(ix) Either arithmetic or integrated averaging of all data may be used to calculate the hourly averages. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O₂ or ng/J of pollutant).

(3) All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in the applicable subpart. After conversion into units of the standard, the data may be rounded to the same number of significant digits used in the applicable subpart to specify the emission limit.

(i) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring procedures or requirements of this part including, but not limited to the following:

(1) Alternative monitoring requirements when installation of a continuous monitoring system or monitoring device specified by this part would not provide accurate measurements due to liquid water or other interferences caused by substances in the effluent gases.

(2) Alternative monitoring requirements when the affected facility is infrequently operated.

(3) Alternative monitoring requirements to accommodate continuous monitoring systems that require additional measurements to correct for stack moisture conditions.

(4) Alternative locations for installing continuous monitoring systems or monitoring devices when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements.

(5) Alternative methods of converting pollutant concentration measurements to units of the standards.

(6) Alternative procedures for performing daily checks of zero and span drift that do not involve use of span gases or test cells.

(7) Alternatives to the A.S.T.M. test methods or sampling procedures specified by any subpart.

(8) Alternative continuous monitoring systems that do not meet the design or performance requirements in Performance Specification 1, appendix B, but adequately demonstrate a definite and consistent relationship between its measurements and the measurements of opacity by a system complying with the requirements in Performance Specification 1. The Administrator may require that such demonstration be performed for each affected facility.

(9) Alternative monitoring requirements when the effluent from a single affected facility or the combined effluent from two or more affected facilities is released to the atmosphere through more than one point.

(j) An alternative to the relative accuracy (RA) test specified in Performance Specification 2 of appendix B may be requested as follows:

(1) An alternative to the reference method tests for determining RA is available for sources with emission rates demonstrated to be less than 50 percent of the applicable standard. A source owner or operator may petition the Administrator to waive the RA test in Section 8.4 of Performance Specification 2 and substitute the procedures in Section 16.0 if the results of a performance test conducted according to the requirements in §60.8

of this subpart or other tests performed following the criteria in §60.8 demonstrate that the emission rate of the pollutant of interest in the units of the applicable standard is less than 50 percent of the applicable standard. For sources subject to standards expressed as control efficiency levels, a source owner or operator may petition the Administrator to waive the RA test and substitute the procedures in Section 16.0 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 continuous emission monitoring system is used to determine compliance continuously with the applicable standard. The petition to waive the RA test shall include a detailed description of the procedures to be applied. Included shall be location and procedure for conducting the alternative, the concentration or response levels of the alternative RA materials, and the other equipment checks included in the alternative procedure. The Administrator will review the petition for completeness and applicability. The determination to grant a waiver will depend on the intended use of the CEMS data (e.g., data collection purposes other than NSPS) and may require specifications more stringent than in Performance Specification 2 (e.g., the applicable emission limit is more stringent than NSPS).

(2) The waiver of a CEMS RA test will be reviewed and may be rescinded at such time, following successful completion of the alternative RA procedure, that the CEMS data indicate that the source emissions are approaching the level. The criterion for reviewing the waiver is the collection of CEMS data showing that emissions have exceeded 70 percent of the applicable standard for seven, consecutive, averaging periods as specified by the applicable regulation(s). For sources subject to standards expressed as control efficiency levels, the criterion for reviewing the waiver is the collection of CEMS data showing that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for seven, consecutive, averaging periods as specified by the applicable regulation(s) [e.g., §§60.45(g) (2) and (3), 60.73(e), and 60.84(e)]. It is the responsibility of the source operator to maintain records and determine the level of emissions relative to the criterion on the waiver of RA testing. If this criterion is exceeded, the owner or operator must notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increasing emissions. The Administrator will review the notification and may rescind the waiver and require the owner or operator to conduct a RA test of the CEMS as specified in Section 8.4 of Performance Specification 2.

§60.14 Modification.

(a) Except as provided under paragraphs (e) and (f) of this section, any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.

(b) Emission rate shall be expressed as kg/hr of any pollutant discharged into the atmosphere for which a standard is applicable. The Administrator shall use the following to determine emission rate:

(1) Emission factors as specified in the latest issue of "Compilation of Air Pollutant Emission Factors," EPA Publication No. AP-42, or other emission factors determined by the Administrator to be superior to AP-42 emission factors, in cases where utilization of emission factors demonstrates that the emission level resulting from the physical or operational change will either clearly increase or clearly not increase.

(2) Material balances, continuous monitor data, or manual emission tests in cases where utilization of emission factors as referenced in paragraph (b)(1) of this section does not demonstrate to the Administrator's satisfaction whether the emission level resulting from the physical or operational change will either clearly increase or clearly not increase, or where an owner or operator demonstrates to the Administrator's satisfaction that there are reasonable grounds to dispute the result obtained by the Administrator utilizing emission factors as referenced in paragraph (b)(1) of this section. When the emission rate is based on results from manual emission tests or continuous monitoring systems, the procedures specified in appendix C of this part shall be used to determine whether an increase in emission rate has occurred. Tests shall be conducted under such conditions as

the Administrator shall specify to the owner or operator based on representative performance of the facility. At least three valid test runs must be conducted before and at least three after the physical or operational change. All operating parameters which may affect emissions must be held constant to the maximum feasible degree for all test runs.

- (c) The addition of an affected facility to a stationary source as an expansion to that source or as a replacement for an existing facility shall not by itself bring within the applicability of this part any other facility within that source.
- (d) [Reserved]
- (e) The following shall not, by themselves, be considered modifications under this part:
- (1) Maintenance, repair, and replacement which the Administrator determines to be routine for a source category, subject to the provisions of paragraph (c) of this section and §60.15.
 - (2) An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility.
 - (3) An increase in the hours of operation.
 - (4) Use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to that source type, as provided by §60.1, the existing facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if that use could be accomplished under the facility's construction specifications as amended prior to the change. Conversion to coal required for energy considerations, as specified in section 111(a)(8) of the Act, shall not be considered a modification.
 - (5) The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or is replaced by a system which the Administrator determines to be less environmentally beneficial.
 - (6) The relocation or change in ownership of an existing facility.
- (f) Special provisions set forth under an applicable subpart of this part shall supersede any conflicting provisions of this section.
- (g) Within 180 days of the completion of any physical or operational change subject to the control measures specified in paragraph (a) of this section, compliance with all applicable standards must be achieved.
- (h) No physical change, or change in the method of operation, at an existing electric utility steam generating unit shall be treated as a modification for the purposes of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the 5 years prior to the change.
- (i) Repowering projects that are awarded funding from the Department of Energy as permanent clean coal technology demonstration projects (or similar projects funded by EPA) are exempt from the requirements of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the five years prior to the change.
- (j)(1) Repowering projects that qualify for an extension under section 409(b) of the Clean Air Act are exempt from the requirements of this section, provided that such change does not increase the actual hourly emissions of any pollutant regulated under this section above the actual hourly emissions achievable at that unit during the 5 years prior to the change.
- (2) This exemption shall not apply to any new unit that:
 - (i) Is designated as a replacement for an existing unit;

(ii) Qualifies under section 409(b) of the Clean Air Act for an extension of an emission limitation compliance date under section 405 of the Clean Air Act; and

(iii) Is located at a different site than the existing unit.

(k) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project is exempt from the requirements of this section. A *temporary clean coal control technology demonstration project*, for the purposes of this section is a clean coal technology demonstration project that is operated for a period of 5 years or less, and which complies with the State implementation plan for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.

(l) The reactivation of a very clean coal-fired electric utility steam generating unit is exempt from the requirements of this section.

§60.15 Reconstruction.

(a) An existing facility, upon reconstruction, becomes an affected facility, irrespective of any change in emission rate.

(b) "Reconstruction" means the replacement of components of an existing facility 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 entirely new facility, and

(2) It is technologically and economically feasible to meet the applicable standards set forth in this part.

(c) "Fixed capital cost" means the capital needed to provide all the depreciable components.

(d) If an owner or operator of an existing facility proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, he shall notify the Administrator of the proposed replacements. The notice must be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced and must include the following information:

(1) Name and address of the owner or operator.

(2) The location of the existing facility.

(3) A brief description of the existing facility and the components which are to be replaced.

(4) A description of the existing air pollution control equipment and the proposed air pollution control equipment.

(5) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new facility.

(6) The estimated life of the existing facility after the replacements.

(7) A discussion of any economic or technical limitations the facility may have in complying with the applicable standards of performance after the proposed replacements.

(e) The Administrator will determine, within 30 days of the receipt of the notice required by paragraph (d) of this section and any additional information he may reasonably require, whether the proposed replacement constitutes reconstruction.

(f) The Administrator's determination under paragraph (e) shall be based on:

(1) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new facility;

- (2) The estimated life of the facility after the replacements compared to the life of a comparable entirely new facility;
- (3) The extent to which the components being replaced cause or contribute to the emissions from the facility; and
- (4) Any economic or technical limitations on compliance with applicable standards of performance which are inherent in the proposed replacements.

(g) Individual subparts of this part may include specific provisions which refine and delimit the concept of reconstruction set forth in this section.

§60.16 Priority list.

Prioritized major source categories

Priority Number ¹	Source Category
1.	Synthetic Organic Chemical Manufacturing Industry (SOCMI) and Volatile Organic Liquid Storage Vessels and Handling Equipment
	(a) SOCMI unit processes
	(b) Volatile organic liquid (VOL) storage vessels and handling equipment
	(c) SOCMI fugitive sources
	(d) SOCMI secondary sources
2.	Industrial Surface Coating: Cans
3.	Petroleum Refineries: Fugitive Sources
4.	Industrial Surface Coating: Paper
5.	Dry Cleaning
	(a) Perchloroethylene
	(b) Petroleum solvent
6.	Graphic Arts
7.	Polymers and Resins: Acrylic Resins
8.	Mineral Wool (Deleted)
9.	Stationary Internal Combustion Engines
10.	Industrial Surface Coating: Fabric
11.	Industrial-Commercial-Institutional Steam Generating Units.
12.	Incineration: Non-Municipal (Deleted)
13.	Non-Metallic Mineral Processing
14.	Metallic Mineral Processing
15.	Secondary Copper (Deleted)
16.	Phosphate Rock Preparation
17.	Foundries: Steel and Gray Iron
18.	Polymers and Resins: Polyethylene
19.	Charcoal Production
20.	Synthetic Rubber
	(a) Tire manufacture
	(b) SBR production

Permit issued: [month day, year]
Permit expires: [month day, year]

[permit number]
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21.	Vegetable Oil
22.	Industrial Surface Coating: Metal Coil
23.	Petroleum Transportation and Marketing
24.	By-Product Coke Ovens
25.	Synthetic Fibers
26.	Plywood Manufacture
27.	Industrial Surface Coating: Automobiles
28.	Industrial Surface Coating: Large Appliances
29.	Crude Oil and Natural Gas Production
30.	Secondary Aluminum
31.	Potash (Deleted)
32.	Lightweight Aggregate Industry: Clay, Shale, and Slate ²
33.	Glass
34.	Gypsum
35.	Sodium Carbonate
36.	Secondary Zinc (Deleted)
37.	Polymers and Resins: Phenolic
38.	Polymers and Resins: Urea-Melamine
39.	Ammonia (Deleted)
40.	Polymers and Resins: Polystyrene
41.	Polymers and Resins: ABS-SAN Resins
42.	Fiberglass
43.	Polymers and Resins: Polypropylene
44.	Textile Processing
45.	Asphalt Processing and Asphalt Roofing Manufacture
46.	Brick and Related Clay Products
47.	Ceramic Clay Manufacturing (Deleted)
48.	Ammonium Nitrate Fertilizer
49.	Castable Refractories (Deleted)
50.	Borax and Boric Acid (Deleted)
51.	Polymers and Resins: Polyester Resins
52.	Ammonium Sulfate
53.	Starch
54.	Perlite
55.	Phosphoric Acid: Thermal Process (Deleted)
56.	Uranium Refining
57.	Animal Feed Defluorination (Deleted)
58.	Urea (for fertilizer and polymers)
59.	Detergent (Deleted)
<i>Other Source Categories</i>	
Lead acid battery manufacture ³	

Organic solvent cleaning ³
Industrial surface coating: metal furniture ³
Stationary gas turbines ⁴
Municipal solid waste landfills ⁴

¹Low numbers have highest priority, e.g., No. 1 is high priority, No. 59 is low priority.

²Formerly titled "Sintering: Clay and Fly Ash".

³Minor source category, but included on list since an NSPS is being developed for that source category.

⁴Not prioritized, since an NSPS for this major source category has already been promulgated.

§60.17 Incorporations by reference.

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the EPA must publish notice of change in the FEDERAL REGISTER and the material must be available to the public. All approved material is available for inspection at the EPA Docket Center, Public Reading Room, EPA WJC West, Room 3334, 1301 Constitution Ave. NW., Washington, DC, telephone number 202-566-1744, and is available from the sources listed below. It is also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030 or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(b) American Gas Association, available through ILL Infodisk, 610 Winters Avenue, Paramus, New Jersey 07652:

(1) American Gas Association Report No. 3: Orifice Metering for Natural Gas and Other Related Hydrocarbon Fluids, Part 1: General Equations and Uncertainty Guidelines (1990), IBR approved for §60.107a(d).

(2) American Gas Association Report No. 3: Orifice Metering for Natural Gas and Other Related Hydrocarbon Fluids, Part 2: Specification and Installation Requirements (2000), IBR approved for §60.107a(d).

(3) American Gas Association Report No. 11: Measurement of Natural Gas by Coriolis Meter (2003), IBR approved for §60.107a(d).

(4) American Gas Association Transmission Measurement Committee Report No. 7: Measurement of Gas by Turbine Meters (Revised February 2006), IBR approved for §60.107a(d).

(c) American Hospital Association (AHA) Service, Inc., Post Office Box 92683, Chicago, Illinois 60675-2683. You may inspect a copy at the EPA's Air and Radiation Docket and Information Center (Docket A-91-61, Item IV-J-124), Room M-1500, 1200 Pennsylvania Ave. NW., Washington, DC 20460.

(1) An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities. American Society for Health Care Environmental Services of the American Hospital Association. Chicago, Illinois. 1993. AHA Catalog No. 057007. ISBN 0-87258-673-5. IBR approved for §§60.35e and 60.55c.

(2) [Reserved]

(d) The following material is available for purchase from the American National Standards Institute (ANSI), 25 W. 43rd Street, 4th Floor, New York, NY 10036, Telephone (212) 642-4980, and is also available at the following Web site: <http://www.ansi.org>.

(1) ANSI No. C12.20-2010 American National Standard for Electricity Meters—0.2 and 0.5 Accuracy Classes (Approved August 31, 2010), IBR approved for §60.5535(d).

(2) [Reserved]

(e) American Petroleum Institute (API), 1220 L Street NW., Washington, DC 20005.

(1) API Publication 2517, Evaporation Loss from External Floating Roof Tanks, Second Edition, February 1980, IBR approved for §§60.111(i), 60.111a(f), and 60.116b(e).

(2) API Manual of Petroleum Measurement Standards, Chapter 22—Testing Protocol, Section 2—Differential Pressure Flow Measurement Devices, First Edition, August 2005, IBR approved for §60.107a(d).

(f) American Public Health Association, 1015 18th Street NW., Washington, DC 20036.

(1) “Standard Methods for the Examination of Water and Wastewater,” 16th edition, 1985. Method 303F: “Determination of Mercury by the Cold Vapor Technique.” Incorporated by reference for appendix A-8 to part 60, Method 29, §§9.2.3, 10.3, and 11.1.3.

(2) 2540 G. Total, Fixed, and Volatile Solids in Solid and Semisolid Samples, in Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998, IBR approved for §60.154(b).

(g) The following material is available for purchase from the American Society of Mechanical Engineers (ASME), Two Park Avenue, New York, NY 10016-5990, Telephone (800) 843-2763, and is also available at the following Web site: <http://www.asme.org>.

(1) ASME Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th Edition (1971), IBR approved for §§60.58a(h), 60.58b(i), 60.1320(a), and 60.1810(a).

(2) ASME MFC-3M-2004, Measurement of Fluid Flow in Pipes Using Orifice, Nozzle, and Venturi, IBR approved for §60.107a(d).

(3) ASME/ANSI MFC-4M-1986 (Reaffirmed 2008), Measurement of Gas Flow by Turbine Meters, IBR approved for §60.107a(d).

(4) ASME/ANSI MFC-5M-1985 (Reaffirmed 2006), Measurement of Liquid Flow in Closed Conduits Using Transit-Time Ultrasonic Flowmeters, IBR approved for §60.107a(d).

(5) ASME MFC-6M-1998 (Reaffirmed 2005), Measurement of Fluid Flow in Pipes Using Vortex Flowmeters, IBR approved for §60.107a(d).

(6) ASME/ANSI MFC-7M-1987 (Reaffirmed 2006), Measurement of Gas Flow by Means of Critical Flow Venturi Nozzles, IBR approved for §60.107a(d).

(7) ASME/ANSI MFC-9M-1988 (Reaffirmed 2006), Measurement of Liquid Flow in Closed Conduits by Weighing Method, IBR approved for §60.107a(d).

(8) ASME MFC-11M-2006, Measurement of Fluid Flow by Means of Coriolis Mass Flowmeters, IBR approved for §60.107a(d).

(9) ASME MFC-14M-2003, Measurement of Fluid Flow Using Small Bore Precision Orifice Meters, IBR approved for §60.107a(d).

(10) ASME MFC-16-2007, Measurement of Liquid Flow in Closed Conduits with Electromagnetic Flowmeters, IBR approved for §60.107a(d).

(11) ASME MFC-18M-2001, Measurement of Fluid Flow Using Variable Area Meters, IBR approved for §60.107a(d).

(12) ASME MFC-22-2007, Measurement of Liquid by Turbine Flowmeters, IBR approved for §60.107a(d).

(13) ASME PTC 4.1-1964 (Reaffirmed 1991), Power Test Codes: Test Code for Steam Generating Units (with 1968 and 1969 Addenda), IBR approved for §§60.46b, 60.58a(h), 60.58b(i), 60.1320(a), and 60.1810(a).

(14) ASME/ANSI PTC 19.10-1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], (Issued August 31, 1981), IBR approved for §§60.56c(b), 60.63(f), 60.106(e), 60.104a(d), (h), (i), and (j), 60.105a(b), (d), (f), and (g), 60.106a(a), 60.107a(a), (c), and (d), tables 1 and 3 to subpart EEEE, tables 2 and 4 to subpart FFFF, table 2 to subpart JJJJ, §§60.285a(f), 60.4415(a), 60.2145(s) and (t), 60.2710(s) and (t), 60.2730(q), 60.4900(b), 60.5220(b), tables 1 and 2 to subpart LLLL, tables 2 and 3 to subpart MMMM, §§60.5406(c), 60.5406a(c), 60.5407a(g), 60.5413(b), 60.5413a(b), and 60.5413a(d).

(15) ASME PTC 22-2014, Gas Turbines: Performance Test Codes, (Issued December 31, 2014), IBR approved for §60.5580.

(16) ASME PTC 46-1996, Performance Test Code on Overall Plant Performance, (Issued October 15, 1997), IBR approved for §60.5580.

(17) ASME QRO-1-1994, Standard for the Qualification and Certification of Resource Recovery Facility Operators, IBR approved for §§60.54b(a) and (b), 60.56a, 60.1185(a) and (c), and 60.1675(a) and (c).

(h) The following material is available for purchase from ASTM International, 100 Barr Harbor Drive, P.O. Box CB700, West Conshohocken, Pennsylvania 19428-2959, (800) 262-1373, <http://www.astm.org>.

(1) ASTM A99-76, Standard Specification for Ferromanganese, IBR approved for §60.261.

(2) ASTM A99-82 (Reapproved 1987), Standard Specification for Ferromanganese, IBR approved for §60.261.

(3) ASTM A100-69, Standard Specification for Ferrosilicon, IBR approved for §60.261.

(4) ASTM A100-74, Standard Specification for Ferrosilicon, IBR approved for §60.261.

(5) ASTM A100-93, Standard Specification for Ferrosilicon, IBR approved for §60.261.

(6) ASTM A101-73, Standard Specification for Ferrochromium, IBR approved for §60.261.

(7) ASTM A101-93, Standard Specification for Ferrochromium, IBR approved for §60.261.

(8) ASTM A482-76, Standard Specification for Ferrochromesilicon, IBR approved for §60.261.

(9) ASTM A482-93, Standard Specification for Ferrochromesilicon, IBR approved for §60.261.

(10) ASTM A483-64, Standard Specification for Silicomanganese, IBR approved for §60.261.

(11) ASTM A483-74 (Reapproved 1988), Standard Specification for Silicomanganese, IBR approved for §60.261.

(12) ASTM A495-76, Standard Specification for Calcium-Silicon and Calcium Manganese-Silicon, IBR approved for §60.261.

(13) ASTM A495-94, Standard Specification for Calcium-Silicon and Calcium Manganese-Silicon, IBR approved for §60.261.

(14) ASTM D86-78, Distillation of Petroleum Products, IBR approved for §§60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).

(15) ASTM D86-82, Distillation of Petroleum Products, IBR approved for §§60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).

(16) ASTM D86-90, Distillation of Petroleum Products, IBR approved for §§60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).

(17) ASTM D86-93, Distillation of Petroleum Products, IBR approved for §§60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).

(18) ASTM D86-95, Distillation of Petroleum Products, IBR approved for §§60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).

- (19) ASTM D86-96, Distillation of Petroleum Products, (Approved April 10, 1996), IBR approved for §§60.562-2(d), 60.593(d), 60.593a(d), 60.633(h), 60.5401(f), 60.5401a(f).
- (20) ASTM D129-64, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §§60.106(j) and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (21) ASTM D129-78, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §§60.106(j) and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (22) ASTM D129-95, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §§60.106(j) and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (23) ASTM D129-00, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §60.335(b).
- (24) ASTM D129-00 (Reapproved 2005), Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §60.4415(a).
- (25) ASTM D240-76, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, IBR approved for §§60.46(c), 60.296(b), and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (26) ASTM D240-92, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, IBR approved for §§60.46(c), 60.296(b), and appendix A-7: Method 19, Section 12.5.2.2.3.
- (27) ASTM D240-02 (Reapproved 2007), Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, (Approved May 1, 2007), IBR approved for §60.107a(d).
- (28) ASTM D270-65, Standard Method of Sampling Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.1.
- (29) ASTM D270-75, Standard Method of Sampling Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.1.
- (30) ASTM D323-82, Test Method for Vapor Pressure of Petroleum Products (Reid Method), IBR approved for §§60.111(l), 60.111a(g), 60.111b, and 60.116b(f).
- (31) ASTM D323-94, Test Method for Vapor Pressure of Petroleum Products (Reid Method), IBR approved for §§60.111(l), 60.111a(g), 60.111b, and 60.116b(f).
- (32) ASTM D388-77, Standard Specification for Classification of Coals by Rank, IBR approved for §§60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (33) ASTM D388-90, Standard Specification for Classification of Coals by Rank, IBR approved for §§60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (34) ASTM D388-91, Standard Specification for Classification of Coals by Rank, IBR approved for §§60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (35) ASTM D388-95, Standard Specification for Classification of Coals by Rank, IBR approved for §§60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (36) ASTM D388-98a, Standard Specification for Classification of Coals by Rank, IBR approved for §§60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (37) ASTM D388-99 (Reapproved 2004)^{e1} Standard Classification of Coals by Rank, IBR approved for §§60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, 60.251, and 60.5580.

- (38) ASTM D396-78, Standard Specification for Fuel Oils, IBR approved for §§60.41b, 60.41c, 60.111(b), and 60.111a(b).
- (39) ASTM D396-89, Standard Specification for Fuel Oils, IBR approved for §§60.41b, 60.41c, 60.111(b), and 60.111a(b).
- (40) ASTM D396-90, Standard Specification for Fuel Oils, IBR approved for §§60.41b, 60.41c, 60.111(b), and 60.111a(b).
- (41) ASTM D396-92, Standard Specification for Fuel Oils, IBR approved for §§60.41b, 60.41c, 60.111(b), and 60.111a(b).
- (42) ASTM D396-98, Standard Specification for Fuel Oils, IBR approved for §§60.41b, 60.41c, 60.111(b), 60.111a(b), and 60.5580.
- (43) ASTM D975-78, Standard Specification for Diesel Fuel Oils, IBR approved for §§60.111(b) and 60.111a(b).
- (44) ASTM D975-96, Standard Specification for Diesel Fuel Oils, IBR approved for §§60.111(b) and 60.111a(b).
- (45) ASTM D975-98a, Standard Specification for Diesel Fuel Oils, IBR approved for §§60.111(b) and 60.111a(b).
- (46) ASTM D975-08a, Standard Specification for Diesel Fuel Oils, IBR approved for §§60.41b 60.41c, and 60.5580.
- (47) ASTM D1072-80, Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for §60.335(b).
- (48) ASTM D1072-90 (Reapproved 1994), Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for §60.335(b).
- (49) ASTM D1072-90 (Reapproved 1999), Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for §60.4415(a).
- (50) ASTM D1137-53, Standard Method for Analysis of Natural Gases and Related Types of Gaseous Mixtures by the Mass Spectrometer, IBR approved for §60.45(f).
- (51) ASTM D1137-75, Standard Method for Analysis of Natural Gases and Related Types of Gaseous Mixtures by the Mass Spectrometer, IBR approved for §60.45(f).
- (52) ASTM D1193-77, Standard Specification for Reagent Water, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.3; Method 5E, Section 7.2.1; Method 5F, Section 7.2.1; appendix A-4 to part 60: Method 6, Section 7.1.1; Method 7, Section 7.1.1; Method 7C, Section 7.1.1; Method 7D, Section 7.1.1; Method 10A, Section 7.1.1; appendix A-5 to part 60: Method 11, Section 7.1.3; Method 12, Section 7.1.3; Method 13A, Section 7.1.2; appendix A-8 to part 60: Method 26, Section 7.1.2; Method 26A, Section 7.1.2; and Method 29, Section 7.2.2.
- (53) ASTM D1193-91, Standard Specification for Reagent Water, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.3; Method 5E, Section 7.2.1; Method 5F, Section 7.2.1; appendix A-4 to part 60: Method 6, Section 7.1.1; Method 7, Section 7.1.1; Method 7C, Section 7.1.1; Method 7D, Section 7.1.1; Method 10A, Section 7.1.1; appendix A-5 to part 60: Method 11, Section 7.1.3; Method 12, Section 7.1.3; Method 13A, Section 7.1.2; appendix A-8 to part 60: Method 26, Section 7.1.2; Method 26A, Section 7.1.2; and Method 29, Section 7.2.2.
- (54) ASTM D1266-87, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §§60.106(j) and 60.335(b).
- (55) ASTM D1266-91, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §§60.106(j) and 60.335(b).
- (56) ASTM D1266-98, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §§60.106(j) and 60.335(b).

- (57) ASTM D1266-98 (Reapproved 2003)^e,1 Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §60.4415(a).
- (58) ASTM D1475-60 (Reapproved 1980), Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for §60.435(d), appendix A-8 to part 60: Method 24, Section 6.1; and Method 24A, Sections 6.5 and 7.1.
- (59) ASTM D1475-90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for §60.435(d), appendix A-8 to part 60: Method 24, Section 6.1; and Method 24A, §§6.5 and 7.1.
- (60) ASTM D1552-83, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §§60.106(j), 60.335(b), and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (61) ASTM D1552-95, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §§60.106(j), 60.335(b), and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (62) ASTM D1552-01, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §§60.106(j), 60.335(b), and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (63) ASTM D1552-03, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §60.4415(a).
- (64) ASTM D1826-77, Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, IBR approved for §§60.45(f), 60.46(c), 60.296(b), and appendix A-7 to part 60: Method 19, Section 12.3.2.4.
- (65) ASTM D1826-94, Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, IBR approved for §§60.45(f), 60.46(c), 60.296(b), and appendix A-7 to part 60: Method 19, Section 12.3.2.4.
- (66) ASTM D1826-94 (Reapproved 2003), Standard Test Method for Calorific (Heating) Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, (Approved May 10, 2003), IBR approved for §60.107a(d).
- (67) ASTM D1835-87, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§60.41Da, 60.41b, and 60.41c.
- (68) ASTM D1835-91, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§60.41Da, 60.41b, and 60.41c.
- (69) ASTM D1835-97, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§60.41Da, 60.41b, and 60.41c.
- (70) ASTM D1835-03a, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§60.41Da, 60.41b, and 60.41c.
- (71) ASTM D1945-64, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for §60.45(f).
- (72) ASTM D1945-76, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for §60.45(f).
- (73) ASTM D1945-91, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for §60.45(f).
- (74) ASTM D1945-96, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for §60.45(f).
- (75) ASTM D1945-03 (Reapproved 2010), Standard Method for Analysis of Natural Gas by Gas Chromatography, (Approved January 1, 2010), IBR approved for §§60.107a(d), 60.5413(d), 60.5413a(d).

- (76) ASTM D1946-77, Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for §§60.18(f), 60.45(f), 60.564(f), 60.614(e), 60.664(e), and 60.704(d).
- (77) ASTM D1946-90 (Reapproved 1994), Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for §§60.18(f), 60.45(f), 60.564(f), 60.614(e), 60.664(e), and 60.704(d).
- (78) ASTM D1946-90 (Reapproved 2006), Standard Method for Analysis of Reformed Gas by Gas Chromatography, (Approved June 1, 2006), IBR approved for §60.107a(d).
- (79) ASTM D2013-72, Standard Method of Preparing Coal Samples for Analysis, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (80) ASTM D2013-86, Standard Method of Preparing Coal Samples for Analysis, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (81) ASTM D2015-77 (Reapproved 1978), Standard Test Method for Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, IBR approved for §§60.45(f), 60.46(c), and appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (82) ASTM D2015-96, Standard Test Method for Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, IBR approved for §§60.45(f), 60.46(c), and appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (83) ASTM D2016-74, Standard Test Methods for Moisture Content of Wood, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.
- (84) ASTM D2016-83, Standard Test Methods for Moisture Content of Wood, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.
- (85) ASTM D2234-76, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.1.
- (86) ASTM D2234-96, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.1.
- (87) ASTM D2234-97b, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.1.
- (88) ASTM D2234-98, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.1.
- (89) ASTM D2369-81, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-8 to part 60: Method 24, Section 6.2.
- (90) ASTM D2369-87, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-8 to part 60: Method 24, Section 6.2.
- (91) ASTM D2369-90, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-8 to part 60: Method 24, Section 6.2.
- (92) ASTM D2369-92, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-8 to part 60: Method 24, Section 6.2.
- (93) ASTM D2369-93, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-8 to part 60: Method 24, Section 6.2.
- (94) ASTM D2369-95, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-8 to part 60: Method 24, Section 6.2.

- (95) ASTM D2382-76, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for §§60.18(f), 60.485(g), 60.485a(g), 60.564(f), 60.614(e), 60.664(e), and 60.704(d).
- (96) ASTM D2382-88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for §§60.18(f), 60.485(g), 60.485a(g), 60.564(f), 60.614(e), 60.664(e), and 60.704(d).
- (97) ASTM D2504-67, Noncondensable Gases in C3 and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved for §§60.485(g) and 60.485a(g).
- (98) ASTM D2504-77, Noncondensable Gases in C3 and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved for §§60.485(g) and 60.485a(g).
- (99) ASTM D2504-88 (Reapproved 1993), Noncondensable Gases in C3 and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved for §§60.485(g) and 60.485a(g).
- (100) ASTM D2584-68(Reapproved 1985), Standard Test Method for Ignition Loss of Cured Reinforced Resins, IBR approved for §60.685(c).
- (101) ASTM D2584-94, Standard Test Method for Ignition Loss of Cured Reinforced Resins, IBR approved for §60.685(c).
- (102) ASTM D2597-94 (Reapproved 1999), Standard Test Method for Analysis of Demethanized Hydrocarbon Liquid Mixtures Containing Nitrogen and Carbon Dioxide by Gas Chromatography, IBR approved for §60.335(b).
- (103) ASTM D2622-87, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §§60.106(j) and 60.335(b).
- (104) ASTM D2622-94, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §§60.106(j) and 60.335(b).
- (105) ASTM D2622-98, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §§60.106(j) and 60.335(b).
- (106) ASTM D2622-05, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §60.4415(a).
- (107) ASTM D2879-83 Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for §§60.111b(f)(3), 60.116b(e), 60.116b(f), 60.485(e), and 60.485a(e).
- (108) ASTM D2879-96, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for §§60.111b(f)(3), 60.116b(e), 60.116b(f), 60.485(e), and 60.485a(e).
- (109) ASTM D2879-97, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for §§60.111b(f)(3), 60.116b(e), 60.116b(f), 60.485(e), and 60.485a(e).
- (110) ASTM D2880-78, Standard Specification for Gas Turbine Fuel Oils, IBR approved for §§60.111(b), 60.111a(b), and 60.335(d).
- (111) ASTM D2880-96, Standard Specification for Gas Turbine Fuel Oils, IBR approved for §§60.111(b), 60.111a(b), and 60.335(d).
- (112) ASTM D2908-74, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, IBR approved for §60.564(j).
- (113) ASTM D2908-91, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, IBR approved for §60.564(j).

- (114) ASTM D2986-71, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.1; appendix A-5 to part 60: Method 12, Section 7.1.1; and Method 13A, Section 7.1.1.2.
- (115) ASTM D2986-78, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.1; appendix A-5 to part 60: Method 12, Section 7.1.1; and Method 13A, Section 7.1.1.2.
- (116) ASTM D2986-95a, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.1; appendix A-5 to part 60: Method 12, Section 7.1.1; and Method 13A, Section 7.1.1.2.
- (117) ASTM D3173-73, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (118) ASTM D3173-87, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (119) ASTM D3176-74, Standard Method for Ultimate Analysis of Coal and Coke, IBR approved for §60.45(f)(5)(i) and appendix A-7 to part 60: Method 19, Section 12.3.2.3.
- (120) ASTM D3176-89, Standard Method for Ultimate Analysis of Coal and Coke, IBR approved for §60.45(f)(5)(i) and appendix A-7 to part 60: Method 19, Section 12.3.2.3.
- (121) ASTM D3177-75, Standard Test Method for Total Sulfur in the Analysis Sample of Coal and Coke, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (122) ASTM D3177-89, Standard Test Method for Total Sulfur in the Analysis Sample of Coal and Coke, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (123) ASTM D3178-73 (Reapproved 1979), Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke, IBR approved for §60.45(f).
- (124) ASTM D3178-89, Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke, IBR approved for §60.45(f).
- (125) ASTM D3246-81, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for §60.335(b).
- (126) ASTM D3246-92, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for §60.335(b).
- (127) ASTM D3246-96, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for §60.335(b).
- (128) ASTM D3246-05, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for §60.4415(a)(1).
- (129) ASTM D3270-73T, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for appendix A-5 to part 60: Method 13A, Section 16.1.
- (130) ASTM D3270-80, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for appendix A-5 to part 60: Method 13A, Section 16.1.
- (131) ASTM D3270-91, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for appendix A-5 to part 60: Method 13A, Section 16.1.
- (132) ASTM D3270-95, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for appendix A-5 to part 60: Method 13A, Section 16.1.

- (133) ASTM D3286-85, Standard Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (134) ASTM D3286-96, Standard Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (135) ASTM D3370-76, Standard Practices for Sampling Water, IBR approved for §60.564(j).
- (136) ASTM D3370-95a, Standard Practices for Sampling Water, IBR approved for §60.564(j).
- (137) ASTM D3588-98 (Reapproved 2003), Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels, (Approved May 10, 2003), IBR approved for §§60.107a(d), 60.5413(d), and 60.5413a(d).
- (138) ASTM D3699-08, Standard Specification for Kerosine, including Appendix X1, (Approved September 1, 2008), IBR approved for §§60.41b, 60.41c, and 60.5580.
- (139) ASTM D3792-79, Standard Test Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for appendix A-7 to part 60: Method 24, Section 6.3.
- (140) ASTM D3792-91, Standard Test Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for appendix A-7 to part 60: Method 24, Section 6.3.
- (141) ASTM D4017-81, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A-7 to part 60: Method 24, Section 6.4.
- (142) ASTM D4017-90, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A-7 to part 60: Method 24, Section 6.4.
- (143) ASTM D4017-96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A-7 to part 60: Method 24, Section 6.4.
- (144) ASTM D4057-81, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (145) ASTM D4057-95, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (146) ASTM D4057-95 (Reapproved 2000), Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for §60.4415(a).
- (147) ASTM D4084-82, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for §60.334(h).
- (148) ASTM D4084-94, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for §60.334(h).
- (149) ASTM D4084-05, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for §§60.4360 and 60.4415(a).
- (150) ASTM D4177-95, Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.1.
- (151) ASTM D4177-95 (Reapproved 2000), Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, IBR approved for §60.4415(a).
- (152) ASTM D4239-85, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.

- (153) ASTM D4239-94, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (154) ASTM D4239-97, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (155) ASTM D4294-02, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §60.335(b).
- (156) ASTM D4294-03, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §60.4415(a).
- (157) ASTM D4442-84, Standard Test Methods for Direct Moisture Content Measurement in Wood and Wood-base Materials, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.
- (158) ASTM D4442-92, Standard Test Methods for Direct Moisture Content Measurement in Wood and Wood-base Materials, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.
- (159) ASTM D4444-92, Standard Test Methods for Use and Calibration of Hand-Held Moisture Meters, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.
- (160) ASTM D4457-85 (Reapproved 1991), Test Method for Determination of Dichloromethane and 1,1,1-Trichloroethane in Paints and Coatings by Direct Injection into a Gas Chromatograph, IBR approved for appendix A-7 to part 60: Method 24, Section 6.5.
- (161) ASTM D4468-85 (Reapproved 2000), Standard Test Method for Total Sulfur in Gaseous Fuels by Hydrogenolysis and Rateometric Colorimetry, IBR approved for §§60.335(b) and 60.4415(a).
- (162) ASTM D4468-85 (Reapproved 2006), Standard Test Method for Total Sulfur in Gaseous Fuels by Hydrogenolysis and Rateometric Colorimetry, (Approved June 1, 2006), IBR approved for §60.107a(e).
- (163) ASTM D4629-02, Standard Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons by Syringe/Inlet Oxidative Combustion and Chemiluminescence Detection, IBR approved for §§60.49b(e) and 60.335(b).
- (164) ASTM D4809-95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for §§60.18(f), 60.485(g), 60.485a(g), 60.564(f), 60.614(d), 60.664(e), and 60.704(d).
- (165) ASTM D4809-06, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), (Approved December 1, 2006), IBR approved for §60.107a(d).
- (166) ASTM D4810-88 (Reapproved 1999), Standard Test Method for Hydrogen Sulfide in Natural Gas Using Length of Stain Detector Tubes, IBR approved for §§60.4360 and 60.4415(a).
- (167) ASTM D4891-89 (Reapproved 2006) Standard Test Method for Heating Value of Gases in Natural Gas Range by Stoichiometric Combustion, (Approved June 1, 2006), IBR approved for §§60.107a(d), 60.5413(d), and 60.5413a(d).
- (168) ASTM D5287-97 (Reapproved 2002), Standard Practice for Automatic Sampling of Gaseous Fuels, IBR approved for §60.4415(a).
- (169) ASTM D5403-93, Standard Test Methods for Volatile Content of Radiation Curable Materials, IBR approved for appendix A-7 to part 60: Method 24, Section 6.6.

- (170) ASTM D5453-00, Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence, IBR approved for §60.335(b).
- (171) ASTM D5453-05, Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence, IBR approved for §60.4415(a).
- (172) ASTM D5504-01, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence, IBR approved for §§60.334(h) and 60.4360.
- (173) ASTM D5504-08, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence, (Approved June 15, 2008), IBR approved for §§60.107a(e) and 60.5413(d).
- (174) ASTM D5762-02, Standard Test Method for Nitrogen in Petroleum and Petroleum Products by Boat-Inlet Chemiluminescence, IBR approved for §60.335(b).
- (175) ASTM D5865-98, Standard Test Method for Gross Calorific Value of Coal and Coke, IBR approved for §§60.45(f) and 60.46(c), and appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (176) ASTM D5865-10, Standard Test Method for Gross Calorific Value of Coal and Coke, (Approved January 1, 2010), IBR approved for §§60.45(f), 60.46(c), and appendix A-7 to part 60: Method 19, section 12.5.2.1.3.
- (177) ASTM D6216-12, Standard Practice for Opacity Monitor Manufacturers to Certify Conformance with Design and Performance Specifications, approved October 1, 2012; IBR approved for appendix B to part 60.
- (178) ASTM D6228-98, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Flame Photometric Detection, IBR approved for §60.334(h).
- (179) ASTM D6228-98 (Reapproved 2003), Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Flame Photometric Detection, IBR approved for §§60.4360 and 60.4415.
- (180) ASTM D6348-03, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, (Approved October 1, 2003), IBR approved for §60.73a(b), table 7 to subpart IIII, table 2 to subpart JJJ, and §60.4245(d).
- (181) ASTM D6366-99, Standard Test Method for Total Trace Nitrogen and Its Derivatives in Liquid Aromatic Hydrocarbons by Oxidative Combustion and Electrochemical Detection, IBR approved for §60.335(b)(9).
- (182) ASTM D6420-99 (Reapproved 2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, (Approved October 1, 2004), IBR approved for §60.107a(d) and table 2 to subpart JJJ.
- (183) ASTM D6522-00, 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 §60.335(a).
- (184) ASTM D6522-00 (Reapproved 2005), 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, (Approved October 1, 2005), IBR approved for table 2 to subpart JJJ, §§60.5413(b) and (d), and 60.5413a(b).
- (185) ASTM D6522-11 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 (Approved December 1, 2011), IBR approved for §60.37f(a), 60.766(a).

- (186) ASTM D6667-01, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence, IBR approved for §60.335(b).
- (187) ASTM D6667-04, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence, IBR approved for §60.4415(a).
- (188) ASTM D6751-11b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels, including Appendices X1 through X3, (Approved July 15, 2011), IBR approved for §§60.41b, 60.41c, and 60.5580.
- (189) ASTM D6784-02, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), IBR approved for §60.56c(b) and appendix B to part 60: Performance Specification 12A, Section 8.6.2.
- (190) ASTM D6784-02 (Reapproved 2008) Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), (Approved April 1, 2008), IBR approved for §§60.2165(j) and 60.2730(j), tables 5, 6 and 8 to subpart CCCC, and tables 2, 6, 7, and 9 to subpart DDDD, §§60.4900(b), 60.5220(b), tables 1 and 2 to subpart LLLL, and tables 2 and 3 to subpart MMMM.
- (191) ASTM D6911-15, Standard Guide for Packaging and Shipping Environmental Samples for Laboratory Analysis, approved January 15, 2015, IBR approved for appendix A-8: Method 30B.
- (192) ASTM D7467-10, Standard Specification for Diesel Fuel Oil, Biodiesel Blend (B6 to B20), including Appendices X1 through X3, (Approved August 1, 2010), IBR approved for §§60.41b, 60.41c, and 60.5580.
- (193) ASTM E168-67, General Techniques of Infrared Quantitative Analysis, IBR approved for §§60.485a(d), 60.593(b), 60.593a(b), and 60.632(f).
- (194) ASTM E168-77, General Techniques of Infrared Quantitative Analysis, IBR approved for §§60.485a(d), 60.593(b), 60.593a(b), and 60.632(f).
- (195) ASTM E168-92, General Techniques of Infrared Quantitative Analysis, IBR approved for §§60.485a(d), 60.593(b), 60.593a(b), 60.632(f), 60.5400, 60.5400a(f).
- (196) ASTM E169-63, General Techniques of Ultraviolet Quantitative Analysis, IBR approved for §§60.485a(d), 60.593(b), 60.593a(b), and 60.632(f) .
- (197) ASTM E169-77, General Techniques of Ultraviolet Quantitative Analysis, IBR approved for §§60.485a(d), 60.593(b), and 60.593a(b), 60.632(f).
- (198) ASTM E169-93, General Techniques of Ultraviolet Quantitative Analysis, (Approved May 15, 1993), IBR approved for §§60.485a(d), 60.593(b), 60.593a(b), 60.632(f), 60.5400(f), and 60.5400a(f).
- (199) ASTM E260-73, General Gas Chromatography Procedures, IBR approved for §§60.485a(d), 60.593(b), 60.593a(b), and 60.632(f).
- (200) ASTM E260-91, General Gas Chromatography Procedures, (IBR approved for §§60.485a(d), 60.593(b), 60.593a(b), and 60.632(f).
- (201) ASTM E260-96, General Gas Chromatography Procedures, (Approved April 10, 1996), IBR approved for §§60.485a(d), 60.593(b), 60.593a(b), 60.632(f), 60.5400(f), 60.5400a(f) 60.5406(b), and 60.5406a(b)(3).
- (202) ASTM E617-13, Standard Specification for Laboratory Weights and Precision Mass Standards, approved May 1, 2013, IBR approved for appendix A-3: Methods 4, 5, 5H, 5I, and appendix A-8: Method 29.
- (203) ASTM E871-82 (Reapproved 2013), Standard Test Method for Moisture Analysis of Particulate Wood Fuels, (Approved August 15, 2013), IBR approved for appendix A-8: method 28R.

(204) ASTM E1584-11, Standard Test Method for Assay of Nitric Acid, (Approved August 1, 2011), IBR approved for §60.73a(c).

(205) ASTM E2515-11, Standard Test Method for Determination of Particulate Matter Emissions Collected by a Dilution Tunnel, (Approved November 1, 2011), IBR approved for §60.534 and §60.5476.

(206) ASTM E2618-13 Standard Test Method for Measurement of Particulate Matter Emissions and Heating Efficiency of Outdoor Solid Fuel-Fired Hydronic Heating Appliances, (Approved September 1, 2013), IBR approved for §60.5476.

(207) ASTM E2779-10, Standard Test Method for Determining Particulate Matter Emissions from Pellet Heaters, (Approved October 1, 2010), IBR approved for §60.534.

(208) ASTM E2780-10, Standard Test Method for Determining Particulate Matter Emissions from Wood Heaters, (Approved October 1, 2010), IBR approved for appendix A: method 28R.

(209) ASTM UOP539-97, Refinery Gas Analysis by Gas Chromatography, (Copyright 1997), IBR approved for §60.107a(d).

(i) Association of Official Analytical Chemists, 1111 North 19th Street, Suite 210, Arlington, VA 22209.

(1) AOAC Method 9, Official Methods of Analysis of the Association of Official Analytical Chemists (AOAC), 11th edition, 1970, pp. 11-12, IBR approved for §§60.204(b), 60.214(b), 60.224(b), and 60.234(b).

(2) [Reserved]

(j) U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue NW., Washington, DC 20460, (202) 272-0167, <http://www.epa.gov>.

(1) EPA-454/R-98-015, Office of Air Quality Planning and Standards (OAQPS) Fabric Filter Bag Leak Detection Guidance, September 1997, IBR approved for §§60.2145(r), 60.2710(r), 60.4905(b), and 60.5225(b).

(2) EPA-600/R-12/531, EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards, May 2012, IBR approved for §§60.5413(d) and 60.5413a(d).

(k) The Gas Processors Association, 6526 East 60th Street, Tulsa, OK 74145; also available through Information Handling Services, 15 Inverness Way East, PO Box 1154, Englewood, CO 80150-1154. You may inspect a copy at the EPA's Air and Radiation Docket and Information Center, Room 3334, 1301 Constitution Ave. NW., Washington, DC 20460.

(1) Gas Processors Association Standard 2172-09, Calculation of Gross Heating Value, Relative Density, Compressibility and Theoretical Hydrocarbon Liquid Content for Natural Gas Mixtures for Custody Transfer (2009), IBR approved for §60.107a(d).

(2) Gas Processors Association Standard 2261-00, Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography (2000), IBR approved for §60.107a(d).

(3) Gas Processors Association Standard 2377-86, Test for Hydrogen Sulfide and Carbon Dioxide in Natural Gas Using Length of Stain Tubes, 1986 Revision, IBR approved for §§60.105(b), 60.107a(b), 60.334(h), 60.4360, and 60.4415(a).

(l) International Organization for Standardization (ISO) available through IHS Inc., 15 Inverness Way East, Englewood, CO 80112.

(1) ISO 8178-4: 1996(E), Reciprocating Internal Combustion Engines—Exhaust Emission Measurement—part 4: Test Cycles for Different Engine Applications, IBR approved for §60.4241(b).

(2) [Reserved]

(m) International Organization for Standardization (ISO), 1, ch. de la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland, + 41 22 749 01 11, <http://www.iso.org/iso/home.htm>.

(1) ISO 2314:2009(E), Gas turbines-Acceptance tests, Third edition (December 15, 2009), IBR approved for §60.5580.

(2) ISO 8316: Measurement of Liquid Flow in Closed Conduits—Method by Collection of the Liquid in a Volumetric Tank (1987-10-01)—First Edition, IBR approved for §60.107a(d).

(n) This material is available for purchase from the National Technical Information Services (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. You may inspect a copy at the EPA's Air and Radiation Docket and Information Center (Docket A-91-61, Item IV-J-125), Room M-1500, 1200 Pennsylvania Ave. NW., Washington, DC 20460.

(1) OMB Bulletin No. 93-17: Revised Statistical Definitions for Metropolitan Areas. Office of Management and Budget, June 30, 1993. NTIS No. PB 93-192-664. IBR approved for §60.31e.

(2) [Reserved]

(o) North American Electric Reliability Corporation, 1325 G Street NW., Suite 600, Washington, DC 20005-3801, <http://www.nerc.com>.

(1) North American Electric Reliability Corporation Reliability Standard EOP-002-3, Capacity and Energy Emergencies, updated November 19, 2012, IBR approved for §§60.4211(f) and 60.4243(d). Also available online: http://www.nerc.com/files/EOP-002-3_1.pdf.

(2) [Reserved]

(p) The following material is available for purchase from the Technical Association of the Pulp and Paper Industry (TAPPI), 15 Technology Parkway South, Suite 115, Peachtree Corners, GA 30092, Telephone (800) 332-8686, and is also available at the following Web site: <http://www.tappi.org>.

(1) TAPPI Method T 624 cm-11, (Copyright 2011), IBR approved, for §§60.285(d) and 60.285a(d).

(2) [Reserved]

(q) Underwriter's Laboratories, Inc. (UL), 333 Pfingsten Road, Northbrook, IL 60062.

(1) UL 103, Sixth Edition revised as of September 3, 1986, Standard for Chimneys, Factory-built, Residential Type and Building Heating Appliance, IBR approved for appendix A-8 to part 60.

(2) [Reserved]

(r) Water Pollution Control Federation (WPCF), 2626 Pennsylvania Avenue NW., Washington, DC 20037.

(1) Method 209A, Total Residue Dried at 103-105 °C, in Standard Methods for the Examination of Water and Wastewater, 15th Edition, 1980, IBR approved for §60.683(b).

(2) [Reserved]

(s) West Coast Lumber Inspection Bureau, 6980 SW. Barnes Road, Portland, OR 97223.

(1) West Coast Lumber Standard Grading Rules No. 16, pages 5-21, 90 and 91, September 3, 1970, revised 1984, IBR approved for appendix A-8 to part 60.

(2) [Reserved]

(t) This material is available for purchase from the Canadian Standards Association (CSA), 5060 Spectrum Way, Suite 100, Mississauga, Ontario, Canada L4W 5N6, Telephone: 800-463-6727.

(1) CSA B415.1-10, Performance Testing of Solid-fuel-burning Heating Appliances, (March 2010), IBR approved for §60.534 and §60.5476. (The standard is also available at <http://shop.csa.ca/en/canada/fuel-burning-equipment/b4151-10/invnt/27013322010>)

(2) [Reserved]

(u) This European National (EN) standards material is available for purchase at European Committee for Standardization, Management Centre, Avenue Marnix 17, B-1000 Brussels, Belgium, Telephone: + 32 2 550 08 11.

(1) DIN EN 303-5:2012E (EN 303-5), Heating boilers—Part 5: Heating boilers for solid fuels, manually and automatically stoked, nominal heat output of up to 500 kW—Terminology, requirements, testing and marking, (October 2012), IBR approved for §60.5476. (The standard is also available at http://www.en-standard.eu/csn-en-303-5-heating-boilers-part-5-heating-boilers-for-solid-fuels-manually-and-automatically-stoked-nominal-heat-output-of-up-to-500-kw-terminology-requirements-testing-and-marking/?gclid=CJXI2P_97MMCFdcccQodan8ATA)

(2) [Reserved]

§60.18 General control device and work practice requirements.

(a) *Introduction.*

(1) This section contains requirements for control devices used to comply with applicable subparts of 40 CFR parts 60 and 61. The requirements are placed here for administrative convenience and apply only to facilities covered by subparts referring to this section.

(2) This section also contains requirements for an alternative work practice used to identify leaking equipment. This alternative work practice is placed here for administrative convenience and is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(b) *Flares.* Paragraphs (c) through (f) apply to flares.

(c)(1) Flares shall be designed for and operated with no visible emissions as determined by the methods specified in paragraph (f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

(2) Flares shall be operated with a flame present at all times, as determined by the methods specified in paragraph (f).

(3) An owner/operator has the choice of adhering to either the heat content specifications in paragraph (c)(3)(ii) of this section and the maximum tip velocity specifications in paragraph (c)(4) of this section, or adhering to the requirements in paragraph (c)(3)(i) of this section.

(i)(A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume), or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity, V_{\max} , as determined by the following equation:

$$V_{\max} = (X_{H_2} - K_1) * K_2$$

Where:

V_{\max} = Maximum permitted velocity, m/sec.

K_1 = Constant, 6.0 volume-percent hydrogen.

K_2 = Constant, 3.9(m/sec)/volume-percent hydrogen.

X_{H_2} = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in §60.17).

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (f)(4) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in paragraph (f)(3) of this section.

(4)(i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4) of this section, less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (c)(4) (ii) and (iii) of this section.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), less than the velocity, V_{max} , as determined by the method specified in paragraph (f)(5), and less than 122 m/sec (400 ft/sec) are allowed.

(5) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, V_{max} , as determined by the method specified in paragraph (f)(6).

(6) Flares used to comply with this section shall be steam-assisted, air-assisted, or nonassisted.

(d) Owners or operators of flares used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.

(e) Flares used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

(f)(1) Method 22 of appendix A to this part shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.

(2) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(3) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C;

$$K = \text{Constant, } 1.740 \times 10^{-7} \left(\frac{1}{\text{ppm}} \right) \left(\frac{\text{g mole}}{\text{scm}} \right) \left(\frac{\text{MJ}}{\text{kcal}} \right)$$

where the standard temperature for $\left(\frac{\text{g mole}}{\text{scm}} \right)$ is 20°C;

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 or 90 (Reapproved 1994) (Incorporated by reference as specified in §60.17); and

H_i = Net heat of combustion of sample component i , kcal/g mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in §60.17) if published values are not available or cannot be calculated.

(4) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

(5) The maximum permitted velocity, V_{max} , for flares complying with paragraph (c)(4)(iii) shall be determined by the following equation.

$$\text{Log}_{10} (V_{max}) = (H_T + 28.8)/31.7$$

V_{max} = Maximum permitted velocity, M/sec

28.8 = Constant

31.7 = Constant

H_T = The net heating value as determined in paragraph (f)(3).

(6) The maximum permitted velocity, V_{max} , for air-assisted flares shall be determined by the following equation.

$$V_{max} = 8.706 + 0.7084 (H_T)$$

V_{max} = Maximum permitted velocity, m/sec

8.706 = Constant

0.7084 = Constant

H_T = The net heating value as determined in paragraph (f)(3).

(g) *Alternative work practice for monitoring equipment for leaks.* Paragraphs (g), (h), and (i) of this section apply to all equipment for which the applicable subpart requires monitoring with a 40 CFR part 60, appendix A-7, Method 21 monitor, except for closed vent systems, equipment designated as leakless, and equipment identified in the applicable subpart as having no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background. An owner or operator may use an optical gas imaging instrument instead of a 40 CFR part 60, appendix A-7, Method 21 monitor. Requirements in the existing subparts that are specific to the Method 21 instrument do not apply under this section. All other requirements in the applicable subpart that are not addressed in paragraphs (g), (h), and (i) of this section apply to this standard. For example, equipment specification requirements, and non-Method 21 instrument recordkeeping and reporting requirements in the applicable subpart continue to apply. The terms defined in paragraphs (g)(1) through (5) of this section have meanings that are specific to the alternative work practice standard in paragraphs (g), (h), and (i) of this section.

(1) *Applicable subpart* means the subpart in 40 CFR parts 60, 61, 63, or 65 that requires monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(2) *Equipment* means pumps, valves, pressure relief valves, compressors, open-ended lines, flanges, connectors, and other equipment covered by the applicable subpart that require monitoring with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(3) *Imaging* means making visible emissions that may otherwise be invisible to the naked eye.

(4) *Optical gas imaging instrument* means an instrument that makes visible emissions that may otherwise be invisible to the naked eye.

(5) *Repair* means that equipment is adjusted, or otherwise altered, in order to eliminate a leak.

(6) *Leak* means:

(i) Any emissions imaged by the optical gas instrument;

(ii) Indications of liquids dripping;

(iii) Indications by a sensor that a seal or barrier fluid system has failed; or

(iv) Screening results using a 40 CFR part 60, appendix A-7, Method 21 monitor that exceed the leak definition in the applicable subpart to which the equipment is subject.

(h) The alternative work practice standard for monitoring equipment for leaks is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(1) An owner or operator of an affected source subject to CFR parts 60, 61, 63, or 65 can choose to comply with the alternative work practice requirements in paragraph (i) of this section instead of using the 40 CFR part 60, appendix A-7, Method 21 monitor to identify leaking equipment. The owner or operator must document the equipment, process units, and facilities for which the alternative work practice will be used to identify leaks.

(2) Any leak detected when following the leak survey procedure in paragraph (i)(3) of this section must be identified for repair as required in the applicable subpart.

(3) If the alternative work practice is used to identify leaks, re-screening after an attempted repair of leaking equipment must be conducted using either the alternative work practice or the 40 CFR part 60, appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart to which the equipment is subject.

(4) The schedule for repair is as required in the applicable subpart.

(5) When this alternative work practice is used for detecting leaking equipment, choose one of the monitoring frequencies listed in Table 1 to subpart A of this part in lieu of the monitoring frequency specified for regulated equipment in the applicable subpart. Reduced monitoring frequencies for good performance are not applicable when using the alternative work practice.

(6) When this alternative work practice is used for detecting leaking equipment the following are not applicable for the equipment being monitored:

(i) Skip period leak detection and repair;

(ii) Quality improvement plans; or

(iii) Complying with standards for allowable percentage of valves and pumps to leak.

(7) When the alternative work practice is used to detect leaking equipment, the regulated equipment in paragraph (h)(1)(i) of this section must also be monitored annually using a 40 CFR part 60, appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart. The owner or operator may choose the specific monitoring period (for example, first quarter) to conduct the annual monitoring. Subsequent monitoring must be conducted every 12 months from the initial period. Owners or operators must keep records of the annual Method 21 screening results, as specified in paragraph (i)(4)(vii) of this section.

(i) An owner or operator of an affected source who chooses to use the alternative work practice must comply with the requirements of paragraphs (i)(1) through (i)(5) of this section.

(1) Instrument Specifications. The optical gas imaging instrument must comply with the requirements in (i)(1)(i) and (i)(1)(ii) of this section.

(i) Provide the operator with an image of the potential leak points for each piece of equipment at both the detection sensitivity level and within the distance used in the daily instrument check described in paragraph (i)(2) of this section. The detection sensitivity level depends upon the frequency at which leak monitoring is to be performed.

(ii) Provide a date and time stamp for video records of every monitoring event.

(2) Daily Instrument Check. On a daily basis, and prior to beginning any leak monitoring work, test the optical gas imaging instrument at the mass flow rate determined in paragraph (i)(2)(i) of this section in accordance with the procedure specified in paragraphs (i)(2)(ii) through (i)(2)(iv) of this section for each camera configuration used during monitoring (for example, different lenses used), unless an alternative method to demonstrate daily instrument checks has been approved in accordance with paragraph (i)(2)(v) of this section.

(i) Calculate the mass flow rate to be used in the daily instrument check by following the procedures in paragraphs (i)(2)(i)(A) and (i)(2)(i)(B) of this section.

(A) For a specified population of equipment to be imaged by the instrument, determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, within the distance to be used in paragraph (i)(2)(iv)(B) of this section, at or below the standard detection sensitivity level.

(B) Multiply the standard detection sensitivity level, corresponding to the selected monitoring frequency in Table 1 of subpart A of this part, by the mass fraction of detectable chemicals from the stream identified in paragraph (i)(2)(i)(A) of this section to determine the mass flow rate to be used in the daily instrument check, using the following equation.

$$E_{dic} = (E_{sds}) \sum_{i=1}^k x_i$$

Where:

E_{dic} = Mass flow rate for the daily instrument check, grams per hour

x_i = Mass fraction of detectable chemical(s) i seen by the optical gas imaging instrument, within the distance to be used in paragraph (i)(2)(iv)(B) of this section, at or below the standard detection sensitivity level, E_{sds} .

E_{sds} = Standard detection sensitivity level from Table 1 to subpart A, grams per hour

k = Total number of detectable chemicals emitted from the leaking equipment and seen by the optical gas imaging instrument.

(ii) Start the optical gas imaging instrument according to the manufacturer's instructions, ensuring that all appropriate settings conform to the manufacturer's instructions.

(iii) Use any gas chosen by the user that can be viewed by the optical gas imaging instrument and that has a purity of no less than 98 percent.

(iv) Establish a mass flow rate by using the following procedures:

(A) Provide a source of gas where it will be in the field of view of the optical gas imaging instrument.

(B) Set up the optical gas imaging instrument at a recorded distance from the outlet or leak orifice of the flow meter that will not be exceeded in the actual performance of the leak survey. Do not exceed the operating parameters of the flow meter.

(C) Open the valve on the flow meter to set a flow rate that will create a mass emission rate equal to the mass rate specified in paragraph (i)(2)(i) of this section while observing the gas flow through the optical gas imaging instrument viewfinder. When an image of the gas emission is seen through the viewfinder at the required emission rate, make a record of the reading on the flow meter.

(v) Repeat the procedures specified in paragraphs (i)(2)(ii) through (i)(2)(iv) of this section for each configuration of the optical gas imaging instrument used during the leak survey.

(vi) To use an alternative method to demonstrate daily instrument checks, apply to the Administrator for approval of the alternative under §60.13(i).

(3) Leak Survey Procedure. Operate the optical gas imaging instrument to image every regulated piece of equipment selected for this work practice in accordance with the instrument manufacturer's operating parameters. All emissions imaged by the optical gas imaging instrument are considered to be leaks and are subject to repair. All emissions visible to the naked eye are also considered to be leaks and are subject to repair.

(4) Recordkeeping. You must keep the records described in paragraphs (i)(4)(i) through (i)(4)(vii) of this section:

(i) The equipment, processes, and facilities for which the owner or operator chooses to use the alternative work practice.

(ii) The detection sensitivity level selected from Table 1 to subpart A of this part for the optical gas imaging instrument.

(iii) The analysis to determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, as specified in paragraph (i)(2)(i)(A) of this section.

(iv) The technical basis for the mass fraction of detectable chemicals used in the equation in paragraph (i)(2)(i)(B) of this section.

(v) The daily instrument check. Record the distance, per paragraph (i)(2)(iv)(B) of this section, and the flow meter reading, per paragraph (i)(2)(iv)(C) of this section, at which the leak was imaged. Keep a video record of the daily instrument check for each configuration of the optical gas imaging instrument used during the leak survey (for example, the daily instrument check must be conducted for each lens used). The video record must include a time and date stamp for each daily instrument check. The video record must be kept for 5 years.

(vi) Recordkeeping requirements in the applicable subpart. A video record must be used to document the leak survey results. The video record must include a time and date stamp for each monitoring event. A video record can be used to meet the recordkeeping requirements of the applicable subparts if each piece of regulated equipment selected for this work practice can be identified in the video record. The video record must be kept for 5 years.

(vii) The results of the annual Method 21 screening required in paragraph (h)(7) of this section. Records must be kept for all regulated equipment specified in paragraph (h)(1) of this section. Records must identify the equipment screened, the screening value measured by Method 21, the time and date of the screening, and calibration information required in the existing applicable subpart.

(5) Reporting. Submit the reports required in the applicable subpart. Submit the records of the annual Method 21 screening required in paragraph (h)(7) of this section to the Administrator via e-mail to CCG-AWP@EPA.GOV.

§60.19 General notification and reporting requirements.

- (a) 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.
- (b) 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, 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 delivered or 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, including the use of electronic media, agreed to by the permitting authority, is acceptable.
- (c) 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 paragraph (f) of this section.
- (d) If an owner or operator of an affected facility 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 facility 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. The allowance in the previous sentence applies in each State beginning 1 year after the affected facility is required to be in compliance with the applicable subpart in this part. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.
- (e) If an owner or operator supervises one or more stationary sources affected by standards set under this part and standards set under part 61, part 63, 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 with an approved permit program) a common schedule on which periodic reports required by each 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 applicable subpart in this part, or 1 year after the stationary source is required to be in compliance with the applicable 40 CFR part 61 or part 63 of this chapter standard, whichever is latest. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.
- (f)(1)(i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (f)(2) and (f)(3) of this section, the owner or operator of an affected facility remains strictly subject to the requirements of this part.
- (ii) An owner or operator shall request the adjustment provided for in paragraphs (f)(2) and (f)(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.

Table 1 to Subpart A of Part 60—Detection sensitivity levels (grams per hour)

Monitoring frequency per subpart ^a	Detection sensitivity level
Bi-Monthly	60
Semi-Quarterly	85
Monthly	100

^aWhen this alternative work practice is used to identify leaking equipment, the owner or operator must choose one of the monitoring frequencies listed in this table in lieu of the monitoring frequency specified in the applicable subpart. Bi-monthly means every other month. Semi-quarterly means twice per quarter. Monthly means once per month.