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Title 40 —Protection of Environment
Chapter I —Environmental Protection Agency
Subchapter C —Air Programs

Part 59 National Volatile Organic Compound Emission Standards for Consumer
and Commercial Products

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PART 59—NATIONAL VOLATILE ORGANIC COMPOUND EMISSION STANDARDS FOR CONSUMER AND COMMERCIAL PRODUCTS

Authority: 42 U.S.C. 7414 and 7511b(e).

Source: 64 FR 48815, Sept. 11, 1998, unless otherwise noted.

Subpart A—General

Source: 71 FR 58753, Oct. 5, 2006, unless otherwise noted.

§ 59.1 Final determinations under Section 183(e)(3)(C) of the CAA.

This section identifies the consumer and commercial product categories for which EPA has determined that CTGs will be substantially as effective as regulations in reducing VOC emissions in ozone nonattainment areas:

- (a) Wood furniture coatings;
- (b) Aerospace coatings;
- (c) Shipbuilding and repair coatings;
- (d) Lithographic printing materials;
- (e) Letterpress printing materials;
- (f) Flexible packaging printing materials;
- (g) Flat wood paneling coatings;
- (h) Industrial cleaning solvents;
- (i) Paper, film, and foil coatings;
- (j) Metal furniture coatings;
- (k) Large appliance coatings;
- (l) Miscellaneous metal products coatings;
- (m) Plastic parts coatings;
- (n) Auto and light-duty truck assembly coatings;
- (o) Fiberglass boat manufacturing materials; and
- (p) Miscellaneous industrial adhesives.

[73 FR 58491, Oct. 7, 2008]

Subpart B—National Volatile Organic Compound Emission Standards for Automobile Refinish Coatings

§ 59.100 Applicability and designation of regulated entity.

- (a) The provisions of this subpart apply to automobile refinish coatings and coating components manufactured on or after January 11, 1999 for sale or distribution in the United States.
- (b) Regulated entities are manufacturers and importers of automobile refinish coatings or coating components that sell or distribute these coatings or coating components in the United States.
- (c) The provisions of this subpart do not apply to automobile refinish coatings or coating components meeting the criteria in paragraphs (c)(1) through (c)(6) of this section.

- (1) Coatings or coating components that are manufactured (in or outside the United States) exclusively for sale outside the United States.
- (2) Coatings or coating components that are manufactured (in or outside the United States) before January 11, 1999.
- (3) Coatings or coating components that are manufactured (in or outside the United States) for use by original equipment manufacturers.
- (4) Coatings that are sold in nonrefillable aerosol containers.
- (5) Lacquer topcoats or their components.
- (6) Touch-up coatings.

§ 59.101 Definitions.

Adhesion promoter means a coating designed to facilitate the bonding of a primer or topcoat on surfaces such as trim moldings, door locks, and door sills, where sanding is impracticable, and on plastic parts and the edges of sanded areas.

Administrator means the Administrator of the United States Environmental Protection Agency (U.S. EPA) or an authorized representative.

Automobile means passenger cars, vans, motorcycles, trucks, and all other mobile equipment.

Automobile refinish coating component means any portion of a coating, such as a reducer or thinner, hardener, additive, etc., recommended (by its manufacturer or importer) to distributors or end-users for automobile refinishing. The raw materials used to produce the components that are mixed by the end-user to prepare a coating for application are not considered automobile refinish coating components. Any reference to automobile refinishing made by a manufacturer or importer on a container or in product literature constitutes a recommendation for automobile refinishing.

Automobile refinish coating or coating component importer, or importer, means any company, group, or individual that brings automobile refinish coatings or coating components from a location outside the United States into the United States for sale or distribution in the United States.

Automobile refinish coating or coating component manufacturer, or manufacturer, means any company, group, or individual that produces or packages automobile refinish coatings or coating components for sale or distribution in the United States, including an entity which produces or packages such coatings or coating components under a private label for another party.

Automobile refinishing means the process of coating automobiles or their parts, including partial body collision repairs, that is subsequent to the original coating applied at an automobile original equipment manufacturing plant.

Container means the individual receptacle that holds a coating or coating component for storage and distribution.

Cut-in, or jambing, clearcoat means a fast-drying, ready-to-spray clearcoat applied to surfaces such as door jambs and trunk and hood edges to allow for quick closure.

Elastomeric coating means a coating designed for application over flexible parts, such as elastomeric bumpers.

Exempt compounds means specific organic compounds that are not considered volatile organic compounds due to negligible photochemical reactivity. The exempt compounds are specified in § 51.100(s) of this chapter.

Hardener means a coating component specifically designed to promote a faster cure of an enamel finish.

Impact-resistant coating means a coating designed to resist chipping caused by road debris.

Label means any written, printed, or graphic matter affixed to or appearing upon any automobile refinish coating or coating component container or package for purposes of identifying or giving information on the product, use of the product, or contents of the container or package.

Lacquer means a thermoplastic coating which dries primarily by solvent evaporation, and which is resolvable in its original solvent.

Low-gloss coating means a coating which exhibits a gloss reading less than or equal to 25 on a 60° glossmeter.

Mixing instructions means the coating or coating component manufacturer's or importer's specification of the quantities of coating components for mixing a coating.

Mobile equipment means any equipment that is physically capable of being driven or drawn upon a highway including, but not limited to, the following types of equipment: construction vehicles (such as mobile cranes, bulldozers, concrete mixers); farming equipment (wheel tractor, plow, pesticide sprayer); hauling equipment (truck trailers, utility bodies, camper shells); and miscellaneous equipment (street cleaners, golf carts).

Multi-colored topcoat means a topcoat that exhibits more than one color, is packaged in a single container, and camouflages surface defects on areas of heavy use, such as cargo beds and other surfaces of trucks and other utility vehicles.

Pretreatment wash primer means a primer that contains a minimum of 0.5 percent acid, by weight, that is applied directly to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent coatings.

Primer means any coating applied prior to the application of a topcoat for the purpose of corrosion resistance and/or adhesion.

Primer-sealer means any coating applied prior to the application of a topcoat for the purpose of corrosion resistance, adhesion of the topcoat, and/or color uniformity and to promote the ability of an undercoat to resist penetration by the topcoat.

Primer-surfacer means any coating applied prior to the application of a topcoat for the purpose of filling surface imperfections in the substrate, corrosion resistance, and/or adhesion of the topcoat.

Reducer means any solvent used to thin enamels.

Underbody coating means a coating designed for protection and sound deadening that is typically applied to the wheel wells and underbody of an automobile.

Single-stage topcoat means a topcoat consisting of only one coating.

Specialty coatings means adhesion promoters, low-gloss coatings, bright metal trim repair coatings, jamming (cut-in) clearcoats, elastomeric coatings, impact resistant coatings, underbody coatings, uniform finish blenders, and weld-through primers.

Thinner means any solvent used to reduce the viscosity or solids content of a coating.

Three-stage topcoat means a topcoat composed of a pigmented basecoat, a midcoat, and a transparent clearcoat.

Topcoat means any coating or series of coatings applied over a primer or an existing finish for the purpose of protection or beautification.

Touch-up coating means a coating applied by brush, air-brush, or nonrefillable aerosol can to cover minor surface damage.

Two-stage topcoat means a topcoat consisting of a pigmented basecoat and a transparent clearcoat.

Uniform finish blender means a coating designed to blend a repaired topcoat into an existing topcoat.

United States means the United States of America, including the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, and Commonwealth of the Northern Mariana Islands.

Volatile organic compounds or *VOC* means any compound of carbon, other than those organic compounds that the Administrator has excluded in 40 CFR part 51, § 51.100 from this definition.

VOC content means the weight of VOC per volume of coating, calculated according to the procedures in § 59.104(a) of this subpart.

Water hold-out coating means a coating applied to the interior cavity areas of doors, quarter panels and rocker panels for the purpose of corrosion resistance to prolonged water exposure.

Weld-through primer means a primer that is applied to an area before welding is performed, and that provides corrosion resistance to the surface after welding has been performed.

§ 59.102 Standards.

- (a) Except as provided in § 59.106 of this subpart, any coating resulting from the mixing instructions of a regulated entity must meet the VOC content limit given in table 1 of this subpart. VOC content is determined according to § 59.104(a).
- (b) Different combinations or mixing ratios of coating components constitute different coatings. For example, coating components may be mixed one way to make a primer, and mixed another way to make a primer sealer. Each of these coatings must meet its corresponding VOC content limit in table 1 of this subpart. If the same combination and mixing ratio of coating components is recommended by a regulated entity for use in more than one category in table 1 of this subpart, then the most restrictive VOC content limit shall apply.

§ 59.103 Container labeling requirements.

Each regulated entity subject to this subpart must clearly display on each automobile refinish coating or coating component container or package, the day, month, and year on which the product was manufactured, or a code indicating such date.

§ 59.104 Compliance provisions.

- (a) For the purpose of determining compliance with the VOC content limits in § 59.102(a) of this subpart, each regulated entity shall determine the VOC content of a coating using the procedures described in paragraph (a)(1) or (a)(2) of this section, as appropriate.

- (1) Determine the VOC content in grams of VOC per liter of coating prepared for application according to its mixing instructions, excluding the volume of any water or exempt compounds. VOC content shall be calculated using the following equation:

$$\text{VOC} = \frac{(W_v - W_w - W_{ec})}{(V - V_w - V_{ec})}$$

Where:

VOC content = grams of VOC per liter of coating;

W_v = mass of total volatiles, in grams;

W_w = mass of water, in grams;

W_{ec} = mass of exempt compounds, in grams;

V = volume of coating, in liters;

V_w = volume of water, in liters; and

V_{ec} = volume of exempt compounds, in liters.

- (2) The VOC content of a multi-stage topcoat shall be calculated using the following equation:

$$\text{VOC}_{\text{multi}} = \frac{\text{VOC}_{bc} + \sum_{i=0}^M \text{VOC}_{mci} + 2 (\text{VOC}_{cc})}{M + 3}$$

Where:

$\text{VOC}_{\text{multi}}$ = VOC content of a multi-stage topcoat, in grams of VOC per liter of coating;

VOC_{bc} = VOC content of the basecoat, as determined in paragraph (a)(1) or (f) of this section;

VOC_{mci} = VOC content of midcoat i , as determined in paragraph (a)(1) or (f) of this section;

VOC_{cc} = VOC content of the clearcoat, as determined in paragraph (a)(1) or (f) of this section; and

M = Number of midcoats.

- (b) To determine the composition of a coating in order to perform the calculations in paragraph (a) of this section, the reference method for VOC content is Method 24 of appendix A of 40 CFR part 60, except as provided in paragraph (f) of this section. To determine the VOC content of a coating, the regulated entity may use Method 24 of appendix A of 40 CFR part 60, an alternative method as provided in paragraph (f) of this section, or any other reasonable means for predicting that the coating has been formulated as

intended (e.g., quality assurance checks, recordkeeping). However, if there are any inconsistencies between the results of a Method 24 test and any other means for determining VOC content, the Method 24 test results will govern. The Administrator may require the regulated to conduct a Method 24 analysis.

- (c) If a regulated entity recommends that its coating component(s) be combined with coating components of another regulated entity, and if the coating resulting from such a combination does not comply with the VOC content limit in § 59.102 (a) of this subpart, then the former regulated entity is out of compliance, unless the entity submits Method 24 data to the Administrator demonstrating that its recommended combination of coating components meets the VOC content limit in § 59.102(a). If the latter regulated entity does not make the recommendation of such use of the coating components, then that entity is not out of compliance for purposes of that resulting coating.
- (d) Pretreatment wash primers: Except as provided in paragraph (f) of this section, the acid weight percent of pretreatment wash primers must be determined using the American Society for Testing and Materials Test Method D 1613-96 (incorporated by reference in § 59.110). If the pigment in a pretreatment wash primer prevents the use of this test method for determining the acid weight percent of the coating, then the test method shall be used for the nonpigmented component of the coating, and the acid weight percent shall be calculated based on the acid content of the nonpigmented component and the mixing ratio of the nonpigmented component to the remaining components recommended by the regulated entity.
- (e) Low-gloss coatings: Except as provided in paragraph (f) of this section, the gloss reading of low-gloss coatings must be determined using the American Society for Testing and Materials Test Method D 523-89 (incorporated by reference in § 59.110).
- (f) The Administrator may approve, on a case-by-case basis, a regulated entity's use of an alternative method in lieu of Method 24 for determining the VOC content of coatings if the alternative method is demonstrated to the Administrator's satisfaction to provide results that are acceptable for purposes of determining compliance with this subpart.
- (g) The Administrator may determine a regulated entity's compliance with the provisions of this subpart based on information required by this subpart or any other information available to the Administrator.

[63 FR 48815, Sept. 11, 1998; 63 FR 64761, Nov. 23, 1998]

§ 59.105 Reporting requirements.

- (a) Each regulated entity must submit an initial report no later than January 11, 1999 or within 180 days of the date that the regulated entity first manufactures or imports automobile refinish coatings or coating components, whichever is later. The initial report must include the information in paragraphs (a)(1) through (a)(4) of this section.
 - (1) The name and mailing address of the regulated entity.
 - (2) An explanation of each date code, if such codes are used to represent the date of manufacture, as provided in § 59.103.
 - (3) The street address of each of the regulated entity's facilities in the United States that is producing, packaging, or importing automobile refinish coatings or coating components subject to the provisions of this subpart.

- (4) A list of the categories from table 1 of this subpart for which the regulated entity recommends the use of automobile refinish coatings or coating components.
- (b) Each regulated entity must submit an explanation of any new date codes used by the regulated entity no later than 30 days after products bearing the new date code are first introduced into commerce.

§ 59.106 Variance.

- (a) Any regulated entity that cannot comply with the requirements of this subpart because of circumstances beyond its reasonable control may apply in writing to the Administrator for a temporary variance. The variance application must include the information specified in paragraphs (a)(1) through (a)(3).
 - (1) The specific grounds upon which the variance is sought.
 - (2) The proposed date(s) by which the regulated entity will achieve compliance with the provisions of this subpart. This date must be no later than 5 years after the issuance of a variance.
 - (3) A compliance plan detailing the method(s) by which the regulated entity will achieve compliance with the provisions of this subpart.
- (b) Upon receipt of a variance application containing the information required in paragraph (a) of this section, the Administrator will publish a notice of such application in the FEDERAL REGISTER and, if requested by any party, will hold a public hearing to determine whether, under what conditions, and to what extent, a variance from the requirements of this subpart is necessary and will be granted. If requested, a hearing will be held no later than 75 days after receipt of a variance application. Notice of the time and place of the hearing will be sent to the applicant by certified mail not less than 30 days prior to the hearing. At least 30 days prior to the hearing, the variance application will be made available to the public for inspection. Information submitted to the Administrator by a variance applicant may be claimed as confidential. The Administrator may consider such confidential information in reaching a decision on a variance application. Interested members of the public will be allowed a reasonable opportunity to testify at the hearing.
- (c) The Administrator will issue a variance if the criteria specified in paragraphs (c)(1) and (c)(2) are met to the satisfaction of the Administrator.
 - (1) If complying with the provisions of this subpart would not be technologically or economically feasible, and
 - (2) The compliance plan proposed by the applicant can reasonably be implemented and will achieve compliance as expeditiously as possible.
- (d) Any variance will specify dates by which the regulated entity will achieve increments of progress towards compliance, and will specify a final compliance date by which the regulated entity will achieve compliance with this subpart.
- (e) A variance will cease to be effective upon failure of the party to whom the variance was issued to comply with any term or condition of the variance.
- (f) Upon the application of any party, the Administrator may review and, for good cause, modify or revoke a variance after holding a public hearing in accordance with the provisions of paragraph (b) of this section.

§ 59.107 Addresses of EPA Regional Offices.

All requests, reports, submittals, and other communications to the Administrator pursuant to this subpart shall be submitted to the Regional Office of the EPA which serves the State or territory in which the corporate headquarters of the regulated entity resides. These areas are indicated in the following table.

TABLE 1 TO § 59.107

| Region | Address | State |
|---------------|---|--|
| I | Director, Enforcement and Compliance Assurance Division, U.S. EPA Region I, 5 Post Office Square—Suite 100 (04-2), Boston, MA 02109-3912, Attn: Air Compliance Clerk | Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont. |
| II | Director, Division of Enforcement and Compliance Assistance, 290 Broadway, New York, NY 10007-1866 | New Jersey, New York, Puerto Rico, Virgin Islands. |
| III | Air Protection Division, 1650 Arch Street, Philadelphia, PA 19103 | Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia. |
| IV | Director, Air and Radiation Division, 61 Forsyth Street SW, Atlanta, Georgia 30303-8960 | Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee. |
| V | Director, Air and Radiation Division, 77 West Jackson Blvd., Chicago, IL 60604-3507 | Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin. |
| VI | Director, Enforcement and Compliance Assurance Division, 1201 Elm Street, Suite 500, Dallas, Texas 75270-2102 | Arkansas, Louisiana, New Mexico, Oklahoma, Texas. |
| VII | Director, Air and Waste | Iowa, Kansas, Missouri, Nebraska. |

| Region | Address | State |
|--------|--|--|
| VIII | Management Division, 11201 Renner Boulevard, Lenexa, Kansas 66219 | Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming. |
| | Director, Air and Toxics Division, 999 18th Street, 1 Denver Place, Suite 500, Denver, Colorado 80202-2405 | |
| IX | Director, Air Division, 75 Hawthorne Street, San Francisco, CA 94105 | 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. |
| X | Director, Air and Toxics Division, 1200 Sixth Avenue, Seattle, WA 98101 | Alaska, Oregon, Idaho, Washington. |

[64 FR 48815, Sept. 11, 1998, as amended at 75 FR 69349, Nov. 12, 2010; 76 FR 49672, Aug. 11, 2011; 78 FR 37976, June 25, 2013; 84 FR 34068, July 17, 2019; 84 FR 44229, Aug. 23, 2019; 89 FR 86745, Oct. 31, 2024]

§ 59.108 State Authority.

The provisions in this regulation 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 a manufacturer or importer of automobile refinish coatings or components in addition to the requirements of this subpart.
- (b) Requiring the manufacturer or importer of automobile refinish coatings or components to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of a facility for manufacturing an automobile refinish coating component.

§ 59.109 Circumvention.

Each manufacturer and importer of any automobile refinish coating or component subject to the provisions of this subpart must not alter, destroy, or falsify any record or report, to conceal what would otherwise be noncompliance with this subpart. Such concealment includes, but is not limited to, refusing to provide the Administrator access to all required records and date-coding information, altering the VOC content of a coating or component batch, or altering the results of any required tests to determine VOC content.

§ 59.110 Incorporations by Reference.

- (a) The following material is incorporated by reference in the paragraphs noted in § 59.104. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and notice of any changes in these materials will be published in the FEDERAL REGISTER.
- (1) ASTM D 1613-96, Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products, IBR approved for § 59.104(d).
- (2) ASTM D 523-89, Standard Test Method for Specular Gloss, IBR approved for § 59.104(e).
- (b) The materials are available for inspection at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M St., SW., Washington, DC; and at the EPA Library (MD-35), U.S. EPA, Research Triangle Park, North Carolina, or 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. The materials are available for purchase from the following address: American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, West Conshohocken, PA, 19428, telephone number (610) 832-9500.

[64 FR 48815, Sept. 11, 1998, as amended at 69 FR 18803, Apr. 9, 2004]

§ 59.111 Availability of information and confidentiality.

- (a) 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.
- (b) Confidentiality. All confidential business information entitled to protection under section 114(c) of the Act that must be submitted or maintained by each regulated entity pursuant to this section shall be treated in accordance with 40 CFR part 2, subpart B.

Table 1 to Subpart B of Part 59—Volatile Organic Compound (VOC) Content Limits for Automobile Refinish Coatings

| Coating category | Grams VOC per liter | Pounds VOC per gallon ^a |
|----------------------------------|---------------------|------------------------------------|
| Pretreatment wash primers | 780 | 6.5 |
| Primers/primer surfacers | 580 | 4.8 |
| Primer sealers | 550 | 4.6 |
| Single/two-stage topcoats | 600 | 5.0 |
| Topcoats of more than two stages | 630 | 5.2 |
| Multi-colored topcoats | 680 | 5.7 |
| Specialty coatings | 840 | 7.0 |

^a English units are provided for information only. Compliance will be determined based on the VOC content limit, as expressed in metric units.

Subpart C—National Volatile Organic Compound Emission Standards for Consumer Products

Source: 63 FR 48831, Sept. 11, 1998, unless otherwise noted.

§ 59.201 Applicability and designation of regulated entity.

- (a) The provisions of the subpart apply to consumer products manufactured or imported on or after December 10, 1998 for sale or distribution in the United States.
- (b) The regulated entity is: the manufacturer or importer of the product; and any distributor that is named on the product label. The manufacturer or importer of the product is a regulated entity for purposes of compliance with the volatile organic compounds (VOC) content or emission limits in § 49.203, regardless of whether the manufacturer or importer is named on the label or not. The distributor, if named on the label, is the regulated entity for purposes of compliance with all sections of this part except for § 59.203. Distributors whose names do not appear on the label are not regulated entities. If no distributor is named on the label, then the manufacturer or importer is responsible for compliance with all sections of this part.
- (c) The provisions of this subpart do not apply to consumer products that meet the criteria specified in paragraph (c)(1) through (c)(7) of this section.
 - (1) Any consumer product manufacturer in the United States for shipment and use outside of the United States.
 - (2) Insecticides and air fresheners containing at least 98-percent paradichlorobenzene or at least 98-percent naphthalene.
 - (3) Adhesives sold in containers of 0.03 liter (1 ounce) or less.
 - (4) Bait station insecticides. For the purpose of this subpart, bait station insecticides are containers enclosing an insecticidal bait that does not weigh more than 14 grams (0.5 ounce), where bait is designed to be ingested by insects and is composed of solid material feeding stimulants with less than 5-percent by weight active ingredients.
 - (5) Air fresheners whose VOC constituents, as defined in §§ 59.202 and 59.203(f), consist of 100-percent fragrance.
 - (6) Non-aerosol moth proofing products that are principally for the protection of fabric from damage by moths and other fabric pests in adult, juvenile, or larval forms.
 - (7) Flooring seam sealers used to join or fill the seam between two adjoining pieces of flexible sheet flooring.

§ 59.202 Definitions.

The terms used in this subpart are defined in the Clean Air Act (Act) or in this section as follows:

Administrator means the Administrator of the United States Environmental Protection Agency (EPA) or an authorized representative.

Aerosol cooking spray means any aerosol product designed either to reduce sticking on cooking and baking surfaces or to be directly applied on food for the purpose of reducing sticking on cooking and baking surfaces, or both.

Aerosol product means a product characterized by a pressurized spray system that dispenses product ingredients in aerosol form by means of a propellant (i.e., a liquefied or compressed gas that is used in whole or in part, such as a co-solvent, to expel a liquid or any other material from the same self-pressurized container or from a separate container) or mechanically induced force. "Aerosol product" does not include pump sprays.

Agricultural use means the use of any pesticide or method or device for the control of pests in connection with the commercial production, storage, or processing of any animal or plant crop. "Agricultural use" does not include the sale or use of pesticides in properly labeled packages or containers that are intended for:

- (1) Household use;
- (2) Use in structural pest control; or
- (3) Institutional use.

Air freshener means any consumer product including, but not limited to, sprays, wicks, powders, and crystals designed for the purpose of masking odors, or freshening, cleaning, scenting, or deodorizing the air. This does not include products that are used on the human body, products that function primarily as cleaning products, disinfectant products claiming to deodorize by killing germs on surfaces, or institutional/ industrial disinfectants when offered for sale solely through institutional and industrial channels of distribution. It does include spray disinfectants and other products that are expressly represented for use as air fresheners, except institutional and industrial disinfectants when offered for sale through institutional and industrial channels of distribution. To determine whether a product is an air freshener, all verbal and visual representations regarding product use on the label or packaging and in the product's literature and advertising may be considered. The presence of, and representations about, a product's fragrance and ability to deodorize (resulting from surface application) shall not constitute a claim of air freshening.

All other forms means all consumer product forms for which no form-specific VOC standard is specified. Unless specified otherwise by the applicable VOC standard, "all other forms" include, but are not limited to, solids, liquids, wicks, powders, crystals, and cloth or paper wipes (towelettes).

Automotive windshield washer fluid means any liquid designed for use in a motor vehicle windshield washer system either as an antifreeze or for the purpose of cleaning, washing, or wetting the windshield. "Automotive windshield washer fluid" does not include fluids placed by the manufacturer in a new vehicle.

Bathroom and tile cleaner means a product designed to clean tile or surfaces in bathrooms. "Bathroom and tile cleaner" does not include products specifically designed to clean toilet bowls or toilet tanks.

Carburetor and choke cleaner means a product designed to remove dirt and other contaminants from a carburetor or choke. "Carburetor and choke cleaner" does not include products designed to be introduced directly into the fuel lines or fuel storage tank prior to introduction into the carburetor, or solvent use regulated under 40 CFR part 63, subpart T (halogenated solvent national emission standards for hazardous air pollutants (NESHAP)).

Charcoal lighter material means any combustible material designed to be applied on, incorporated in, added to, or used with charcoal to enhance ignition. "Charcoal lighter material" does not include any of the following:

- (1) Electrical starters and probes;
- (2) Metallic cylinders using paper tinder;

(3) Natural gas; and

(4) Propane.

Construction and panel adhesive means any one-component household adhesive having gap-filling capabilities that distributes stress uniformly throughout the bonded area resulting in a reduction or elimination of mechanical fasteners.

Consumer means any person who purchases or acquires any consumer product for personal, family, household, or institutional use. Persons acquiring a consumer product for resale are not "consumers" of that product.

Consumer product means any household or institutional product (including paints, coatings, and solvents), or substance, or article (including any container or packaging) held by any person, the use, consumption, storage, disposal, destruction, or decomposition of which may result in the release of VOC. For the purposes of this subpart, consumer product means any product listed in tables 1 or 2 of this subpart.

Contact adhesive means any household adhesive that:

- (1) When applied to two substrates, forms an instantaneous, nonrepositionable bond;
- (2) When dried to touch, exhibits a minimum 30-minute bonding range; and
- (3) Bonds only to itself without the need for reactivation by solvents or heat.

Container or packaging means the part or parts of the consumer product that serve only to contain, enclose, incorporate, deliver, dispense, wrap, or store the chemically formulated substance or mixture of substances that is solely responsible for accomplishing the purposes for which the product was designed or intended. "Container or packaging" includes any article onto or into which the principal display panel is incorporated, etched, printed, or attached.

Crawling bug insecticide means any insecticide product that is designed for use against crawling arthropods including, but not limited to, ants, cockroaches, mites (but not house dust mites), silverfish, or spiders. "Crawling bug insecticide" does not include products for agricultural use or products designed to be used exclusively on humans or animals.

Distributor means any person to whom a consumer product is sold or supplied for the purposes of resale or distribution in commerce.

Double-phase aerosol air freshener means an aerosol air freshener with liquid contents in two or more distinct phases that requires the product container to be shaken before use to mix the phases, producing an emulsion.

Dusting aid means a product designed to assist in removing dust and other soils from floors and other surfaces without leaving a wax or silicone-based coating. "Dusting aid" does not include products that consist entirely of compressed gases for use in electronic or other specialty areas.

Engine degreaser means a cleaning product designed to remove grease, grime, oil, and other contaminants from the external surfaces of engines and other mechanical parts. "Engine degreaser" does not include any solvent used in parts washing equipment, or any solvent use regulated under 40 CFR part 63, subpart T (halogenated solvent NESHAP).

Fabric protectant means a product designed to be applied to fabric substrates to protect the surface from soiling from dirt and other impurities or to reduce absorption of water into the fabric's fibers. "Fabric protectant" does not include silicone-based products whose function is to provide water repellency, or products designed for use solely on fabrics that are labeled "dry clean only."

Flea and tick insecticide means any insecticide product that is designed for use against fleas, ticks, and their larvae, or their eggs. "Flea and tick insecticide" does not include products that are designed to be used exclusively on humans or animals or their bedding.

Flexible flooring material means asphalt, cork, linoleum, no-wax, rubber, seamless vinyl, and vinyl composite flooring.

Floor polish or wax means a wax, polish, or any other product designed to polish, protect, or enhance floor surfaces by leaving a protective coating that is designed to be periodically replenished. "Floor polish or wax" does not include "spray buff products," products designed solely for the purpose of cleaning floors, floor finish strippers, products designed for unfinished wood floors, and coatings subject to 40 CFR part 59, subpart D—National Volatile Organic Compound Emission Standards for Architectural Coatings.

Floor seam sealer means any low viscosity specialty adhesive used in small quantities for the sole purpose of bonding adjoining rolls of installed flexible sheet flooring or to fill any minute gaps between and adjoining rolls.

Flying bug insecticide means any insecticide product that is designed for use against flying insects including, but not limited to, flies, mosquitoes, and gnats. "Flying bug insecticide" does not include "wasp and hornet insecticide" or products that are designed to be used exclusively on humans or animals or their bedding.

Fragrance means a substance or mixture of aroma chemicals, natural essential oils, and other functional components that is added to a consumer product to impart an odor or scent, or to counteract a malodor.

Furniture maintenance product means a wax, polish, conditioner, or any other product designed for the product designed for the purpose of polishing, protecting, or enhancing finished wood surfaces other than floors. Furniture maintenance product" does not include dusting aids, products designed solely for the purpose of cleaning, and products designed to leave a permanent finish such as stains, sanding sealers, and lacquers.

Gel means a colloid in which the dispersed phase has combined with the continuous phase to produce a semisolid material, such as jelly.

General purpose adhesive means any nonaerosol household adhesive designed for use on a variety of substrates. General purpose adhesives do not include contact adhesives or construction and panel adhesives.

General purpose cleaner means a product designed for general all-purpose cleaning, in contrast to cleaning products designed to clean specific substrates in certain situations. "General purpose cleaner" includes products designed for general floor cleaning, kitchen or countertop cleaning, and cleaners designed to be used on a variety of hard surfaces.

Glass cleaner means a cleaning product designed primarily for cleaning surfaces made of glass. Glass cleaner does not include products designed solely for the purpose of cleaning optical materials used in eyeglasses, photographic equipment, scientific equipment, and photocopying machines.

Hair mousse means a hairstyling foam designed to facilitate styling of a coiffure and provide limited holding power.

Hair styling gel means a high-viscosity, often gelatinous product that contains a resin and is designed for the application to hair to aid in styling and sculpting of the hair coiffure.

Hairspray means a consumer product designed primarily for the purpose of dispensing droplets of a resin on and into a hair coiffure to impart sufficient rigidity to the coiffure to establish or retain the style for a period of time.

High-volatility organic compound or HVOC means any organic compound that exerts a vapor pressure greater than 80 millimeters of mercury when measured at 20 degrees Celsius.

Household adhesive means any household product that is used to bond one surface to another by attachment. "Household adhesive" does not include products used on humans or animals, adhesive tape, contact paper, wallpaper shelf liners, or any other product with an adhesive incorporated onto or in an inert substrate.

Household product means any consumer product that is primarily designed to be used inside or outside of living quarters or residences, including the immediate surroundings, that are occupied or intended for occupation by individuals.

Household use means use of a product in a home or its immediate environment.

Importer means any person who brings a consumer product that was manufactured, filled, or packaged at a location outside of the United States into the United States for sale or distribution in the United States.

Industrial use means use for, or in, a manufacturing, mining, or chemical process or use in the operation of factories, processing plants, and similar sites.

Insecticide means a pesticide product that is designed for use against insects or other arthropods, excluding any product that is:

- (1) For agricultural use; or
- (2) A restricted use pesticide.

Insecticide fogger means any insecticide product designed to release all or most of its content as a fog or mist into indoor areas during a single application. Foggers may target a variety of pests including (but not limited to) fleas and ticks, crawling insects, lawn and garden pests, and flying insects. Foggers are not subject to the specific VOC limitations or other categories of insecticides list in table 1 of this subpart.

Institutional product means a consumer product that is designed for use in the maintenance or operation of an establishment that manufactures, transports, or sells goods or commodities, or provides services for profit; or is engaged in the nonprofit promotion of a particular public, educational, or charitable cause. "Establishments" include, but are not limited to, government agencies, factories, schools, hospitals, sanitariums, prisons, restaurants, hotels, stores, automobile service and parts centers, health clubs, theaters, or transportation companies. "Institutional product" does not include household products and products that are incorporated into or used exclusively in the manufacture or construction of the goods or commodities that are produced by the establishment.

Institutional use means use within the confines of or on property necessary for the operation of buildings' including, but not limited to, government agencies, factories, sanitariums, prisons, restaurants, hotels, stores, automobile service and parts centers, health clubs, theaters, transportation companies, hospitals, schools, libraries, auditoriums, and office complexes.

Label means any written, printed, or graphic matter affixed to, applied to, attached to, blown into, formed, molded into, embossed on, or appearing upon any consumer product package for purposes of branding, identifying, or giving information with respect to the product or to the contents of the package.

Laundry prewash means a product that is designed for application to a fabric prior to laundering and that supplements and contributes to the effectiveness of laundry detergents and/or provides specialized performance.

Laundry starch product means a product that is designed for application to a fabric, either during or after laundering, to impart and prolong a crisp look and may also facilitate ironing of the fabric. "Laundry starch product" includes, but is not limited to, fabric finish, sizing, and starch.

Lawn and garden insecticide means an insecticide product designed primarily to be used in household lawn and garden areas to protect plants from insects or other arthropods.

Liquid means a substance or mixture of substances that flows readily, but, unlike a gas, does not expand indefinitely (i.e., a substance with constant volume but not constant shape). "Liquid" does not include powders or other materials that are composed entirely of solid particles.

Manufacturer means any person who manufactures or processes a consumer product. Manufacturers include:

- (1) Processors who blend and mix consumer products,
- (2) Contract fillers who develop formulas and package these formulas under a distributor's label;
- (3) Contract fillers who manufacture products using formulas provided by a distributor; and
- (4) Distributors who specify formulas to be used by a contract filler or processor.

Nail polish remover means a product designed to remove nail polish or coatings from fingernails or toenails.

Nonagricultural pesticide means and includes any substance or mixture of substances that is a pesticide as defined in section 2(u) of the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136-136y).

Nonresilient flooring means floor of a mineral content that is not flexible. "Nonresilient flooring" includes, but is not limited to, terrazzo, marble, slate, granite, brick, stone, ceramic tile, and concrete.

Oven cleaner means any cleaning product designed to clean and to remove dried food deposits from oven interiors.

Person means an individual corporation, partnership, association, State, any agency, department, or instrumentality of the United States, and any officer, agent, or employee thereof.

Principal display panel(s) means that part, or those parts, of a label that are so designed as to most likely be displayed, presented, shown, or examined under normal and customary conditions of display or purchase. Whenever a principal display panel appears more than once, all requirements pertaining to the "principal display panel" shall pertain to all such "principal display panels."

Product category means that applicable category which best describes the product as listed in tables 1 or 2 of this subpart and which appears on the product's principal display panel.

Product form means the form that most accurately describes the product's dispensing from including aerosols, gels, liquids, pump sprays, and solids.

Pump spray means a packaging system in which the product ingredients are expelled only while a pumping action is applied to a button, trigger, or other actuator. Pump spray product ingredients are not under pressure.

Representative consumer product means a consumer product that is subject to the same VOC limit in § 59.203 as the innovative product.

Restricted use pesticide means a pesticide that has been classified for restricted use under the provisions of section 3(d) of the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136-136y).

Shaving cream means an aerosol product that dispenses a foam lather intended to be used with a blade or cartridge razor, or other wet-shaving system in the removal of facial or other body hair.

Single-phase aerosol air freshener means an aerosol air freshener with liquid contents in a single homogeneous phase that does not require that the product container be shaken before use.

Solid means a substance or mixture of substances that does not flow or expand readily (i.e., a substance with constant volume such as the particles constituting a powder). "Solid" does not include liquids or gels.

Spray buff product means a product designed to restore a worn floor finish in conjunction with a floor buffing machine and special pad.

Structural waterproof adhesive means an adhesive whose bond lines are resistant to conditions of continuous immersion in fresh or salt water, and that conforms with Federal Specification MMM-A-181 (Type 1, Grade A), and MIL-A-4605 (Type A, Grade A and Grade C).

Underarm antiperspirant means any aerosol product that is intended by the manufacturer to be used to reduce perspiration in the human axilla by at least 20 percent in at least 50 percent of a target population.

Underarm deodorant means any aerosol product that is intended by the manufacturer to be used minimize odor in the human axilla by retarding the growth of bacteria that cause the decomposition of perspiration.

United States means the United States of America, including the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

Usage directions means the text or graphics on the consumer product's label or accompanying literature that describes to the end user how and in what quantity the product is to be used.

Volatile organic compound or VOC means any compound that meets the definition of a VOC, as defined under 40 CFR part 51, subpart F, and in subsequent amendments.

Wasp and hornet insecticide means any insecticide product that is designed for use against wasps, hornets, yellow jackets, or bees by allowing the user to spray a high-volume directed stream or burst from a safe distance at the intended pest or its hiding place.

Wax means an organic mixture or compound with low melting point and high molecular weight, which is solid at room temperature. Waxes are generally similar in composition to fats and oils except that they contain no glycerides. "Wax" includes, but is not limited to, substances such as carnauba wax, lanolin, and beeswax derived from the secretions of plants and animals; substances of a mineral origin such as ozocerite, montan, and paraffin; and synthetic substances such as chlorinated naphthalenes and ethylenic polymers.

Wood floor wax means wax-based products for use solely on wood floors.

[63 FR 48815, Sept. 11, 1998; 63 FR 52319, Sept. 30, 1998]

§ 59.203 Standards for consumer products.

- (a) The manufacturer or importer of any consumer product subject to this subpart shall ensure that the VOC content levels in table 1 of this subpart and HVOC content levels in table 2 of this subpart are not exceeded for any consumer product manufactured or imported on or after December 10, 1998, except as provided in paragraphs (b) and (c) of this section, or in §§ 59.204 or 59.206.
- (b) For consumer products for which the label, packaging, or accompanying literature specifically states that the product should be diluted prior to use, the VOC content limits specified in paragraph (a) of this section shall apply to the product only after the minimum recommended dilution has taken place. For purposes of this paragraph, "minimum recommended dilution" shall not include recommendations for incidental use of a concentrated product to deal with limited special applications such as hard-to-remove soils or stains.
- (c) For those consumer products that are registered under the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. section 136-136y) (FIFRA), the compliance date of the VOC standards specified in paragraph (a) of this section is December 10, 1999.
- (d) The provisions specified in paragraphs (d)(1) through (d)(4) of this section apply to charcoal lighter materials.
 - (1) No person shall manufacture or import any charcoal lighter material after December 10, 1998 that emits, on average, greater than 9 grams of VOC per start, as determined by the procedures specified in § 59.208.
 - (2) The regulated entity for a charcoal lighter material shall label the product with usage directions that specify the quantity of charcoal lighter material per pound of charcoal that was used in the testing protocol specified in § 59.208 for that product unless the provisions in either paragraph (e)(2)(i) or (e)(2)(ii) of this section apply.
 - (i) The charcoal lighter material is intended to be used in fixed amounts independent of the amount of charcoal used, such as paraffin cubes; or
 - (ii) The charcoal lighter material is already incorporated into the charcoal, such as certain "bag light," "instant light," or "match light" products.
 - (3) Records of emission testing results for all charcoal lighter materials must be made available upon request to the Administrator for enforcement purposes within 30 days of receipt of such requests.
 - (4) If a manufacturer or importer has submitted records of emission testing of a charcoal lighter material to a State or local regulatory agency, such existing records may be submitted under paragraph (d)(3) of this section in lieu of new test data, provided the product formulation is unchanged from that which was previously tested. Such previous testing must have been conducted in accordance with the test protocol described in § 59.208 or a test protocol that is approved by the Administrator as an alternate.
- (e) Fragrances incorporated into a consumer product up to a combined level of 2 weight-percent shall not be included in the weight-percent VOC calculation.
- (f) The VOC content limits in table 1 of this subpart shall not include any VOC that:
 - (1) Has a vapor pressure of less than 0.1 millimeters of mercury at 20 degrees Celsius; or
 - (2) Consists of more than 12 carbon atoms, if the vapor pressure is unknown; or

- (3) Has a melting point higher than 20 degrees Celsius and does not sublime (i.e., does not change directly from a solid into a gas without melting), if the vapor pressure is unknown.
- (g) The requirements of paragraph (a) of this Section shall not apply to those VOC in antiperspirants or deodorants that contain more than 10 carbon atoms per molecule and for which the vapor pressure is unknown, or that have a vapor pressure of 2 millimeters of mercury or less at 20 degrees Celsius.
- (h) a manufacturer or importer may use the vapor pressure information provided by the raw material supplier as long as the supplier uses a method to determine vapor pressure that is generally accepted by the scientific community.
- (i) For hydrocarbon solvents that are complex mixtures of many different compounds and that are supplied on a specification basis for use in a consumer product, the vapor pressure of the hydrocarbon blend may be used to demonstrate compliance with the VOC content limits of this section. Identification of the concentration and vapor pressure for each such component in the blend is not required for compliance with this subpart.

§ 59.204 Innovative product provisions.

- (a) Upon notification to the Administrator, a consumer product that is subject to this subpart may exceed the applicable limit in table 1 or 2 of this subpart if the regulated entity demonstrates that, due to some characteristic of the product formulation, design, delivery systems, or other factors, the use of the product will result in equal or less VOC emissions that specified in paragraph (a)(1) or (a)(2) of this section.
 - (1) The VOC emissions from a representative consumer product, as described in § 59.202, that complies with the VOC standards specified in § 59.203(a); or
 - (2) The calculated VOC emissions from a noncomplying representative product, if the product had been reformulated to comply with the VOC standards specified in § 59.203(a). The VOC emissions shall be calculated by using Equation 1.

$$E_R = E_{NC} \times \frac{VOC_{STD}}{VOC_{NC}} \quad \text{Equation 1}$$

Where

E_R = The VOC emissions from the noncomplying representative product, had it been reformulated.

E_{NC} = The VOC emissions from the noncomplying representative product in its current formulation.

VOC_{STD} = The VOC standard specified in § 59.203(a).

VOC_{NC} = The VOC content of the noncomplying product in its current formulation.

- (b) If a regulated entity demonstrates to the satisfaction of the Administrator that the equation in paragraph (a)(2) of the this section yields inaccurate results due to some characteristic of the product formulation or other factors, an alternate method that accurately calculates emissions may be used upon approval of the Administrator.

- (c) A regulated entity shall notify the Administrator in writing of its intent to enter into the market an innovative product meeting the requirements of paragraph (a) of this section. The Administrator must receive the written notification by the time the innovative product is available for sale or distribution to consumers. Notification shall include the information specified in paragraph (c)(1) and (c)(2) of this section.
- (1) Supporting documentation that demonstrates the emissions from the innovative product, including the actual physical test methods used to generate the data and, if necessary, the consumer testing undertaken to document product usage;
 - (2) Any information necessary to enable the Administrator to establish enforceable conditions for the innovative product, including the VOC content of the innovative product expressed as a weight-percentage, and test methods for determining the VOC content.
- (d) At the option of the regulated entity, the regulated entity may submit a written request for the Administrator's written concurrence that the innovative product fulfills the requirements of paragraph (a) of this section. If such a request is made, the Administrator will respond as specified in paragraphs (d)(1) through (d)(3) of this section.
- (1) The Administrator will determine within 30 days of receipt whether the documentation submitted in accordance with paragraph (d) of this section is complete.
 - (2) The Administrator will determine whether the innovative product shall be exempt from the requirements of § 59.203(a) within 90 days after an application has been deemed complete. The applicant and the Administrator may mutually agree to a longer time period for reaching a decision, and additional supporting documentation may be submitted by the applicant before a decision has been reached. The Administrator will notify the applicant of the decision in writing and specify such terms and conditions that are necessary to insure that emissions from the product will meet the emissions reductions specified in paragraph (a) of this section, and that such emissions reductions can be enforced.
 - (3) If an applicant has been granted an exemption to a State or local regulation for an innovative product by a State or local agency whose criteria for exemption meet or exceed those provided for in this section, the applicant may submit the factual basis for such an exemption as part of the documentation required under paragraph (d) of this section. In such case, the Administrator will make the determination required under this paragraph within 45 days after the applications is considered complete.
- (e) In granting an exemption for a product, the Administrator will establish conditions that are enforceable. These conditions may include the VOC content of the innovative product, dispensing rates, application rates, and any other parameters determined by the Administrator to be necessary. The Administrator will also specify the test methods for determining conformance to the conditions established, including criteria for reproducibility, accuracy, and sampling and laboratory procedures.
- (f) For any product for which an exemption has been granted pursuant to this section, the regulated entity to whom the exemption was granted shall notify the Administrator in writing within 30 days after any change in the product formulation or recommended product usage directions, and shall also notify the Administrator within 30 days after the regulated entity learns of any information that would alter the emissions estimates submitted to the Administrator in support of the exemption application.

- (g) If lower VOC content limits are promulgated for a product category through any subsequent rulemaking, all exemptions granted under this section for products in the product category shall no longer apply unless the innovative product has been demonstrated to have VOC emissions less than the applicable revised VOC content limits.
- (h) If the Administrator determines that a consumer product for which an exemption has been granted no longer meets the VOC emissions criteria specified in paragraph (a) of this section for an innovative product, the Administrator may modify or revoke the exemption as necessary to assure that the product will meet these criteria. The Administrator will not modify or revoke an exemption without first affording the applicant an opportunity for a public hearing to determine if the exemption should be modified or revoked.

[63 FR 48815, Sept. 11, 1998; 63 FR 52319, Sept. 30, 1998]

§ 59.205 Labeling.

- (a) The container or package of each consumer product that is subject to this subpart shall clearly display the day, month, and year on which the product was manufactured, or a code indicating such date. The requirements of this provision shall not apply to products that are offered to consumers free of charge for the purposes of sampling the product.
- (b) In addition, the container or package for each charcoal lighter material that is subject to this subpart shall be labeled according to the provisions of § 59.203(d)(2).

§ 59.206 Variances.

- (a) Any regulated entity who cannot comply with the requirements of this subpart because of extraordinary circumstances beyond reasonable control may apply in writing to the Administrator for a variance. The variance application shall include the information specified in paragraph (a)(1) through (a)(3) of this section.
 - (1) The specific grounds up on which the variance is sought,
 - (2) The proposed date(s) by which compliance with the provisions of this subpart will be achieved. Such date(s) shall be no later than 5 years after the issuance of a variance; and
 - (3) A compliance plan detailing the method(s) by which compliance will be achieved.
- (b) Upon receipt of a variance application containing the information required in paragraph (a) of this section, the Administrator will publish a notice of such application in the FEDERAL REGISTER and, if requested by any party, will hold a public hearing to determine whether, under what conditions, and to what extent, a variance from the requirements of this subpart is necessary and will be granted. If requested, a hearing will be held no later than 75 days after receipt of a variance application. Notice of the time and place of the hearing will be sent to the applicant by certified mail not less than 30 days prior to the hearing. At least 30 days prior to the hearing, the variance application will be made available to the public for inspection. Information submitted to the Administrator by a variance applicant may be claimed as confidential. The Administrator may consider such confidential information in reaching a decision on a variance application. Interested members of the public will be allowed a reasonable opportunity to testify at the hearing.
- (c) The Administrator will grant a variance if the criteria specified in paragraphs (c)(1) and (c)(2) of this section are met.

- (1) If there are circumstances beyond the reasonable control of the applicant so that complying with the provisions of this subpart by the compliance date would not be technologically or economically feasible, and
 - (2) The compliance plan proposed by the applicant can be implemented and will achieve compliance as expeditiously as possible.
- (d) Any variance order will specify a final compliance date by which the requirements of this subpart will be achieved and increments of progress necessary to assure timely compliance.
 - (e) A variance shall cease to be effective upon failure of the regulated entity to comply with any term or condition of the variance.
 - (f) Upon the application of any party, the Administrator may review, and for good cause, modify or revoke a variance after holding a public hearing in accordance with the procedures described in paragraph (b) of this section.

§ 59.207 Test methods.

Each manufacturer or importer subject to the provisions of § 59.203(a) shall demonstrate compliance with the requirements of this subpart through calculation of the VOC content using records of the amounts of constituents used to manufacture the product.

§ 59.208 Charcoal lighter material testing protocol.

- (a) Each manufacturer or importer of charcoal lighter material subject to this subpart shall demonstrate compliance with the applicable requirements of § 59.203(d) using the procedures specified in this section. Any lighter material that has received certification from California South Coast Air Quality Management District (SCAQMD) under their Rule 1174, Ignition Method Compliance Certification Testing Protocol, will be considered as having demonstrated compliance with the applicable requirements of this subpart using the procedures in this section.
- (b) The manufacturer or importer shall obtain from the testing laboratory conducting the testing, a report of findings, including all raw data sheets/charts and laboratory analytical data. The testing must demonstrate that VOC emissions resulting from the ignition of the barbecue charcoal are, on average, less than or equal to 9 grams per start. The manufacturer or importer shall maintain the report of findings.
- (c) When a charcoal lighter material does not fall within the testing guidelines of this protocol, the protocol may be modified following a determination by the Administrator that the modified protocol is an acceptable alternative to the method described in this section and written approval of the Administrator.
- (d) ***Meteorological and environmental criteria.***
 - (1) Testing shall be conducted under the following conditions:
 - (i) Inlet combustion air temperature is 16 to 27 degrees Celsius (60 to 80 degrees Fahrenheit) with a relative humidity of 20 to 80 percent;
 - (ii) The charcoal and lighter material are stored 72 hours before testing in a location with a relative humidity between 45 and 65 percent, and a temperature between 18 and 24 degrees Celsius (65 to 75 degrees Fahrenheit); and

(iii) The outside wind speed, including gusts, may be no more than 16 kilometers per hour (10 miles per hour) if the test stack is exhausted outdoors, or, if the test stack is exhausted indoors, indoor air must be stagnant.

(2) Temperature and relative humidity of the combustion air shall be continuously monitored during the test. Temperature and relative humidity of the place where the charcoal and lighter material are stored prior to the test shall be monitored and recorded during the 72 hours immediately prior to the test. If the stack is exhausted outdoors, the continuous outdoor wind speed monitor shall be observed or recorded continuously during testing. If the wind speed monitor is manually observed rather than electronically recorded, the maximum wind speed observed during the test shall be recorded.

(e) **Definitions.** For the purposes of this test protocol, the following definitions shall apply:

(1) **Baseline VOC emissions** (E_b) means the 3.6 grams (0.008 pounds) per start of subject VOC mass emissions (calculated as CH_2) resulting from the ignition of charcoal by electric probe.

(2) **Emission limit for VOC** means 9 grams per start of resultant VOC emissions (E_r), (expressed as CH_2).

(3) **Equivalent** means equipment that has been demonstrated to meet or exceed the performance, design, and operation specifications of the prescribed equipment. A demonstration that equipment or a test method is a suitable alternative requires written approval from the Administrator prior to compliance testing, based on an evaluation of comparative performance specifications and/or actual performance test data.

(4) **Ignition** means the ready-to-cook condition of the charcoal determined by the temperature above the charcoal, the organic vapor concentration measured by the continuous organic emission monitor, and percent ash.

(5) **Ignition VOC emissions** (e_i)—means the grams (pounds) per start of total subject VOC mass emissions (expressed as CH_2) resulting from the ignition of charcoal by the lighter material undergoing evaluation, including both charcoal and lighter material emissions.

(6) **labeled directions** means those directions affixed to the charcoal lighter material which specify:

(1) The amount of lighter material to use per kilogram (or pound) of charcoal, unless the lighter material is already impregnated or treated in the charcoal;

(2) How to use or apply the lighter material; and

(3) How and when to light the lighter material.

(7) **Percent ash** means a qualitative observation of the ratio of visible charcoal surface area ignited (grayish/white ash) to total charcoal surface area times 100.

(8) **Reference VOC emissions** (E_{ep})—means the grams (pounds) per start of subject VOC mass emissions (calculated as CH_2) resulting from the ignition of charcoal by the reference electric probe during the testing.

(9) **Resultant VOC emissions** (E_r)—means the ignition VOC emission (E_i) less the reference VOC emissions (E_{ep}) plus baseline emissions (E_b).

(10) **Start** means a 25-minute period commencing from the instant that emissions may be released from the lighter material, either by evaporation or combustion, and further characterized such that by the end of said 25-minute period, ignition is achieved.

(f) *Test structure, equipment specifications, and reference materials.*

- (1) The test structure is to be located in a building or fabricated total enclosure (i.e., with enclosed sides and top). The enclosure shall be such that there are no constant or intermittent air flows within it that cause fluctuations in the stack velocity and/or disruptions of air flow patterns within the test chamber containing the reference grill. (WARNING: If the stack is vented into the building enclosure, caution must be taken to avoid carbon monoxide poisoning and the reduction of oxygen.)
- (2) Test structure components. The following test structure components, as shown in figures 1 and 2 of Appendix A of this subpart, shall be used:
 - (i) Test chamber—Standard large, prefabricated fireplace manufactured by Marco^A,^[1] Model No. C41CF, with flue damper removed; or a fabricated structure with the same dimensions. Spacers are required at the rear of the test chamber to ensure a constant 5-centimeter (2-inch) distance between the reference grill and the rear wall of the test chamber.
 - (ii) Test stack—25-centimeter (10-inch) diameter galvanized steel ducting with velocity traverse port holes located approximately 8 diameters downstream from the stack outlet of the fireplace chamber and sampling ports located approximately 2¹/₂ diameters downstream of the velocity traverse ports.
 - (iii) Fan—25-centimeter (10-inch) diameter axial fan (duct fan) capable of maintaining an air velocity of 140 ±9 meters per minute (450 ±30 feet per minute) and located in the stack approximately 3 diameters downstream of the sampling ports.
 - (iv) Test stack insulation—The stack shall be insulated with fiberglass blanket insulation (or equivalent) with a minimum R-value of 6.4, that totally surrounds the stack from the top of the fireplace to the level of the blower which minimizes temperature gradients in the stack and prevents hydrocarbons from condensing on the stack wall.
 - (v) Stack mounts—Supports for fixing in position the stack velocity measurement device for measuring reference point velocity readings and the continuous organic emission monitor probe/meter.
 - (vi) Blower speed control—A rheostat for controlling voltage to the fan.
- (3) Test equipment and materials. The following test equipment and materials shall be used:
 - (i) Continuous recording device—A YEW^A model 4088 dot matrix, roster scanning chart recorder, Omega strip recorder with a Strawberry Tree Data Acquisition System, or equivalent, shall be used to continuously (6-second cycle) record temperatures, velocity, and continuous organic emission monitor output signals. The recording may be done manually, recording temperature using a digital potentiometer (20-second intervals), reference point velocity with a Pitot tube (20-second intervals), and continuous organic emission monitor readings with the analyzer's meter (10-second intervals).

[1] NOTE: Mention of trade names or specific products does not constitute endorsement by the EPA.

- (ii) Grill temperature probe—A type “K” thermocouple silver soldered to a 7.6 centimeter (3-inch) square brass plate 0.083-centimeter (0.033 inches) thick painted flat black using high temperature (>370 degrees Celsius [>700 degrees Fahrenheit]) paint; set on an adjustable stand to maintain 11 centimeters (4.5 inches) above the maximum height of the briquette pile and made such that it can be removed and replaced within the chamber.
- (iii) Stack temperature probe—The KurzΔ digital air velocity meter or a type “K” thermocouple shall be used.
- (iv) Stack velocity measurement device—The velocity in meters (feet) per minute for the reference point using a KurzΔ digital air velocity meter, DavisΔ DTA 4000 vane anemometer, or equivalent to method 1A of 40 CFR part 60, appendix A.
- (v) Continuous organic emissions monitor—CenturyΔ Model 128 Organic Vapor Analyzer, RatfischΔ RS55 total hydrocarbon analyzer, or equivalent, with response in parts per million (ranges 0 to 10 parts per million, 0 to 100 parts per million, 0 to 1,000 parts per million).
- (vi) Temperature and humidity monitor—A chart recorder type with humidity accuracy of ± 3 percent from 15 to 85 percent.
- (vii) Wind speed and direction monitor—A wind speed and direction device meeting a tolerance of ± 10 percent.
- (viii) Analytical balance—An electronic scale with a resolution of a ± 2 grams.
- (ix) Charcoal stacking ring—Rigid metal cylinder 21.6 centimeters (8.5 inches) in diameter with indicators to determine that the pile of briquettes does not exceed 12.7 centimeters (5 inches) in height.
- (x) Camera—To document ignition condition of charcoal at the end of each start.
- (xi) Particulate filter—NuproΔ inline filter, Catalog Number SS-4FW-2 with 0.64 centimeter ($\frac{1}{4}$ -inch) Swagelok inlet and outlet or equivalent.
- (xii) Barbecue Grill—The charcoal shall be ignited in a WeberΔ “Go Anywhere” barbecue grill (Model Number #121001), 39.4 centimeters \times 24 centimeters \times 12.7 centimeters (15.5 inch \times 9.5 inch \times 5.0 inch) with the grate 4.4 centimeters (1.75 inches) above the bottom of the grill, or another grill that meets these specifications. The grill shall be set on its bottom when placed in the test chamber and all grill air vents shall be in full open position.
- (xiii) Electric probe—A 600-watt electric probe shall be used for electric probe ignition tests.
- (xiv) Untreated charcoal—The laboratory conducting the testing shall purchase “off the shelf” untreated charcoal from a retail outlet. Charcoal shall not be provided by the manufacturer of the charcoal lighter material to be tested or by the charcoal manufacturer. The charcoal to be used is KingsfordΔ “Original Charcoal Briquets.” All untreated charcoal used in the certification testing of a single ignition source is to come from the same lot as indicated by the number printed on the bag.
- (xv) Treated or impregnated charcoal—If the charcoal lighter material to be tested is a substance used to treat or impregnate charcoal, the regulated entity shall provide to the laboratory conducting the tests a sample of impregnated charcoal. The sample shall be impregnated or

treated barbecue charcoal that is ignited either outside of package or ignited by the package. If commercially available, the independent testing laboratory conducting the test shall purchase "off the shelf" from a retail outlet.

(g) Sampling and analytical methods.

- (1)** Gas volumetric flow rate. Conduct a full velocity traverse using the stack velocity measurement device as shown in figure 3 of this Appendix A to this Subpart, or use Method 1A of 40 CFR part 60, appendix A. Continuously record a velocity reference point reading during each test run using a chart recorder or once every 20 seconds if using Method 1A. Calculate the volumetric flow rate using the gas velocity, moisture content, and the stack cross-sectional area. For the purposes of this protocol, the static pressure shall be assumed to be atmospheric, the molar density correction factor in the stack to be 1.0, and the moisture content to be 2 percent.
- (2)** Integrated VOC sample. Collect integrated VOC gas samples at the sampling port in the exhaust stack using a 40 CFR part 60, appendix A, Method 25 Total Combustion Analysis (TCA) sampling apparatus consisting of two evacuated 9-liter tanks, each equipped with flow controllers, vacuum gauges, and probes, as shown in figure 4 of Appendix A of this Subpart. Use 40 CFR part 60, appendix A, Method 25, SCAQMD Method 25.1 (incorporated by reference—§ 59.213 of this subpart), or equivalent, for analysis. Carbon monoxide, carbon dioxide, methane, and non-methane organic carbon are analyzed by the TCA and TCA/Flame Ionization Detector (FID) methods. Oxygen content is determined by gas chromatography using a thermal conductivity detector. Clean particulate filters between use by heating to 760 degrees Celsius (1400 degrees Fahrenheit) while using compressed air as a carrier for cleaning and purging.
- (3)** Continuous organic emissions monitor. A continuous organic emissions monitor which uses a continuous FID shall be used for each test run to measure the real time organic concentration of the exhaust as methane. Record the emission monitor response in parts per million continuously during the sampling period using a chart recorder or at least once every 10 seconds. The VOC analyzer shall be operated as prescribed in the manufacturer's directions unless otherwise noted in this protocol.

(h) Pretest procedure.

- (1)** Charcoal lighter material—charcoal. Before each test run, remove charcoal from a sealed bag that has been stored for at least 72 hours in a humidity and temperature controlled room which satisfies the requirements of paragraph (d)(1) of this section and weight out 0.9 kilograms (2 pounds) of charcoal briquettes, to the nearest whole briquette over 0.9 kilograms (2 pounds), of uniform shape with no broken pieces using an analytical balance. Reseal the bag. Charcoal must be ignited within 10 minutes after removal from bag. A sealed or resealed bag of charcoal cannot be stored at the test site for greater than 45 minutes. It must be returned to a humidity and temperature controlled room from 72 hours. The lighter material must be purchased, stored, weighed, and handled the same as the barbecue charcoal.
- (i)** For the reference VOC emission tests using an electric probe, place a single layer of charcoal, slightly larger than the area/circle of the electric probe heating element, onto the grate. Place the heating element on top of this first layer and cover the heating element with the remaining charcoal briquettes.

- (ii) For the ignition VOC emissions tests, arrange the briquettes on the barbecue grate in the manner specified by the ignition manufacturer's directions. If these manufacturer's directions do not specify a stacking arrangement for the briquettes, randomly stack the briquettes in a pile using the stacking ring described in paragraph (f)(3)(ix) of this section.
- (2) Charcoal lighter material—or impregnated charcoal. Store, handle, weigh, and stack barbecue charcoal that is designed to be lit without the packaging, the same as in paragraph (h)(1) of this section. For those products which require both the package and charcoal be lit, weigh the whole package—do not remove charcoal. Weigh an empty package (not the same one to be used during the test). Subtract the package weight from the overall weight of the package and charcoal. The full package and empty package must be stored, handled, and weighed the same as in paragraph (h)(1) of this section. If the difference (the charcoal weight) is between 0.7 to 1.4 kilograms (1.5 to 3.0 pounds), the test may proceed. The emissions measured (E) in Equation 5 of paragraph (k)(7) of this section must be adjusted to a 0.9 kilogram (2-pound) charge. Place packaged barbecue charcoal on the grate in the manner specified by the manufacturer's directions.
- (3) Initial meteorological and environmental criteria in paragraph (d) shall be complied with.
- (4) The stack velocity must be set before each day of testing at 140 ± 9 meters per minute (450 ± 30 feet per minute) by performing a velocity traverse as specified in paragraph (g)(1) of this section. The velocity will be attained by adjusting the axial fan speed using a rheostat.
- (5) The fireplace shall be conditioned at the start of each day before sampling tests by using a grill ignited by the electric probe. If a time period of over 60 minutes between sampling test runs occur, the condition step must be repeated.
- (6) Before each test run, leak check the continuous organic emissions monitor by blocking the flow to the probe. Allow the instrument to warm up for the duration specified by the manufacturer's directions. Select the 0 to 100 parts per million range. Check the battery level and hydrogen pressure. Zero with hydrocarbon-free air (<0.1 parts per million hydrocarbons as methane) span with 90 parts per million methane in ultra pure air. Zero and span another instrument selection range if needed for test purposes.
- (7) Before the testing program begins, establish a point of average concentration of organics in the stack by using a continuous organic emissions monitor and a grill with charcoal ignited by the electric probe 40 minutes after initial release of emissions. Record the continuous organic emissions monitor traverse data.
- (8) Prepare the integrated VOC sampling equipment and perform the required leak checks. Fit the probes with nozzles housing two micron particulate filters. Insert the probes and nozzles into the sampling port to draw a sample of the exhaust gas from the point of average organic concentration as determined from the continuous organic emissions monitor sample traverse described in paragraph (h)(4) of this section. Also, position the nozzles such that they point downstream in the stack. Obtain the samples concurrently and continuously over the test run.
- (9) Insert the continuous organic emissions monitor probe into the sampling port to draw a sample of the exhaust gas from the point of average organic concentration as determined from the continuous organic emissions monitor sample traverse described in paragraph (h)(7) of this section.
- (i) **Test procedure.** The labeled directions, as defined in paragraph (e) of this section, shall be followed throughout the course of the testing. In cases where the directions are incompatible with this protocol, circumvent the intent of this protocol, or are unclear (subject to different interpretations) and inadequate,

the Administrator must be informed in writing of the nature of the conflict, as well as the proposed resolution, prior to commencing testing. When the labeled directions for a charcoal lighter material do not fall within the testing guidelines of this protocol, the protocol may only be modified upon written approval of the Administrator.

- (1) Place the bottom of the barbecue grill on the floor of the fireplace, 5 centimeters (2 inches) from the rear wall. Ignite charcoal as specified by manufacturer's labeled directions.
- (2) For electric probe ignition, carefully remove probe without disturbing charcoal after 10 minutes of operation.
- (3) For fluid ignition, simultaneously match light fluid on charcoal and fluid that has fallen to the bottom of the grill.
- (4) Place the grill temperature probe 11 centimeters (4.5 inches) above the top of the charcoal immediately after the charcoal lighter material flame goes out, or before, if the lighter material does not flame.
- (5) Conduct at least six test runs for both the electric probe ignition and for the lighter material being evaluated. Alternate these lighter material for all 12 runs. All runs must be conducted over 3 consecutive days or less. Alternatively, baseline emissions testing (using the electric probe) may be applied to other test runs provided the test runs occur within 4 months of the baseline testing. Integrated VOC sampling and continuous organic emissions monitoring begin for each test run when the charcoal lighter material and/or materials start to generate/release organics (this will be the time of pouring for lighter fluids and the time of ignition for most other ignition sources). Option: Because the manufacturer of treated or impregnated charcoal supplies both the lighter material and barbecue charcoal, they may apply the 9 grams VOC per start emission limit as an absolute value without an adjustment for the VOC emissions from an electric probe.
- (6) Sampling ends for each test run when all the following conditions are met:
 - (i) The temperature 11 centimeters (4.5 inches) above the maximum height of the briquette pile, using the grill temperature probe described in paragraph (d)(3)(ii) of this section, is at least 93 degrees Celsius (200 degrees Fahrenheit);
 - (ii) The continuous organic emissions monitor is reading below 30 parts per million for at least 2 minutes;
 - (iii) The test sampling has continued for 25 minutes (but not more) and
 - (iv) The charcoal surface is 70 percent covered with ash (to be documented with photograph on top and 60 degrees above the horizon).
- (7) During the sampling test runs, temperatures (excluding ambient) and continuous organic emission monitor readings shall be recorded and shall comply with the requirements in paragraph (b) of this section. Humidity, wind speed, and ambient temperature readings shall be monitored and shall comply with the requirements in paragraph (b) of this section.
- (8) Collect one blank sample for VOC and one ambient air sample during one run of each day per paragraph (k) of this section.

(j) **Post-run procedure.**

- (1) Record temperatures (including ambient), humidity, wind speed, and continuous organic emissions monitor reading.
 - (2) Record the drift using zero and span gases. Leak check and span the continuous organic emissions monitor as described in paragraph (h)(6) of this section for the next run.
 - (3) Leak check and disassemble the integrated VOC sampling equipment as described in Method 25 of 40 CFR part 60, appendix A or SCAQMD Method 25.1 (incorporated by reference—see § 59.213 of this subpart), or equivalent.
 - (4) Thoroughly clean grill surfaces of all residue before conducting next ignition run.
- (k) **Calculations.** Calculations shall be carried out to at least one significant digit beyond that of the acquired data, and then rounded off after final calculation to two significant digits for each run. All rounding off of numbers should be in accordance with the American Society for Testing and Materials (ASTM) E 380-93, Standard Practice for Use of the SI International System of Units, procedures (incorporated by reference—see § 59.213 of this subpart).
- (1) Calculate the average stack reference point temperature during sampling (t_{sr}).
 - (2) Calculate the average measured velocities (in meters per minute [feet per minute]): Traverse (u_t), traverse reference point (u_{tr}), and reference point during sampling (u_{sr}).
 - (3) Calculate the corrected average sampling velocity (u_s) by applying Equation 2:

$$u_s = u_{sr} \frac{u_t}{u_{tr}} \quad \text{Equation 2}$$

- (4) Calculate the average flow rate (Q_s) in cubic meters per minute (cubic feet per minute) by applying Equation 3:

$$Q_s = u_s A \quad \text{Equation 3}$$

Where

A = Duct cross-sectional area, (square meters [square feet])

- (5) Correct the flow rate to dry standard conditions (Q_{ds}) by applying Equation 4. Assume the static pressure to be atmospheric and the molar density correction factor to be 1.0

$$Q_{ds} = \frac{T_s}{(T_s + t_{sr})} (1 - H) Q_s \quad \text{Equation 4}$$

Where

T_s = 289 K (520 R)

T_s = 273 K (460 R)

H = Percent moisture-100

= 0.02

- (6) Calculate the average total gaseous non-methane organic carbon for each duplicate sample run analyzed.
- (7) Calculate the grams (pounds) of VOC as CH₂ emitted per start (normalized to 0.9 kilograms [2 pounds] of charcoal) for each run using Equation 5:

$$E = \frac{A}{B} * \frac{C}{10^6} * D * d * \frac{N}{M} Q_{ds} \quad \text{Equation 5}$$

Where

E = Emissions of VOC per start for each test run (grams VOC/start [pounds VOC/start])

A = Hydrocarbon molecular weight

= 14.0268 grams per gram-mole (14.0268 pounds per pound-mole)

B = Carbon number

= 1

C = Average concentration for each duplicate run of total gaseous nonmethane organic compounds as CO₂ (parts per million, from lab analysis sheet)

D = Sampling duration

= 25 minutes

d = Molar density of gas at standard conditions

= 42.33 gram-mole per cubic meter (0.0026353 pound-mole per cubic foot)

N = Normalized mass (0.9 kilograms [2 pounds])

M = Mass of charge (kilograms [pounds])

- (8) Calculate the average VOC emissions for each lighter material tested. Identify and discard statistical outliers. Note a minimum of five valid results are required for a determination. This procedure for eliminating an outlier may only be performed once for each lighter material tested.
- (9) Using Equation 6, calculate the resultant VOC emissions per start (E_r) and determine if it is less than or equal to the 9 grams VOC per start emission limit.

$$E_r = e_i - e_{ep} + E_b \quad \text{Equation 6}$$

Where

e_i = Average emissions of VOC per start from the charcoal lighter material being evaluated (grams VOC/start [pounds VOC/start] expressed as CH₂)

e_{ep} = Average reference VOC emissions per start from the ignition by electric probe (grams VOC/start [pounds VOC/start] expressed as CH₂)

= 0 grams VOC/start (0 pounds VOC/start) for treated or impregnated charcoal

E_b = Standard baseline VOC emissions per start from the ignition by electric probe (expressed as CH₂)

= 0 grams VOC/start (0 pounds VOC/start) for treated or impregnated charcoal

= 3.6 grams VOC/start (0.008 pounds VOC/start) for all other charcoal lighter material

(l) **Recordkeeping.** A record of the following charcoal lighter material compliance test information shall be kept for at least 5 years:

- (1) Real time temperature and continuous organic emissions monitor readings from continuous chart recorder and/or manual reading of temperatures and the continuous organic emissions monitor output.
- (2) A description of quality assurance/quality control (QA/QC) procedures followed for all measuring equipment and calibration test data.
- (3) A description of QA/QC procedures followed for all sampling and analysis equipment and calibration test data.
- (4) Time and quantity of blanks and ambient air samples.
- (5) Chain of custody for samples.
- (6) Labeled directions.
- (7) Field notes and data sheets.
- (8) Calculation/averaging sheets/printouts.
- (9) Sample (in its normal package from the same lot) of barbecue charcoal and lighter material used for testing.
- (10) Formulation of lighter material tested (indicate if the information is to be handled confidentially).
- (11) Photographs documenting charcoal surface ash coverage.

(m) **Quality Assurance/Quality Control (QA/QC) Requirements.** The QA/QC guidelines in the EPA's Quality Assistance Handbook (EPA 600.4-77-027b) shall be followed. In addition, the following procedures shall be used:

- (1) A blank sample for VOC shall be performed once each day, during the start period of one of the lighter materials, using the integrated VOC sampling apparatus.
- (2) An ambient air sample for VOC shall be taken once each day, during the start period of one of the lighter materials, using the integrated VOC sampling apparatus with NuproΔ 2 micron filters.

- (3) Traceability certificates shall be provided for all calibration gases used for the continuous organic emissions monitor and integrated VOC analysis.
- (4) Grill temperature probe shall be calibrated using the procedures in ASTM Method E220-86 (incorporated by reference as specified in United States § 59.213).
- (5) Supply documentation for place of purchase (or origin if experimental) and chain of custody for lighter material tested. Documentation to be included for both treated and impregnated charcoal.
- (6) Supply documentation for place of purchase and chain of custody for untreated charcoal.

[63 FR 48815, Sept. 11, 1998; 63 FR 52319, Sept. 30, 1998]

§ 59.209 Recordkeeping and reporting requirements.

- (a) The distributor that is named on the product label shall maintain the records specified in paragraphs (a)(1) and (a)(2) of this section, unless the manufacturer or importer has submitted to the Administrator a written certification that the manufacturer or importer will maintain the records for the distributor in accordance with paragraph (a)(3) of this section. If no distributor is named on the label, the manufacturer or importer must maintain the specified records. The records must be retained for at least 3 years and must be in a form suitable and readily available for inspection and review.
 - (1) Records or formulations being manufactured or imported on or after December 10, 1998 for all consumer products subject to § 59.213(a), or December 10, 1999 for all consumer products subject to § 59.203(c) and
 - (2) Accurate records for each batch of production, starting on December 10, 1998 for all consumer products subject to § 59.203(a) or December 10, 1999 for all consumer products subject to § 59.203(c), of the weight-percent and chemical composition of the individual product constituents.
 - (3) By providing this written certification to the Administrator, the certifying manufacturer accepts responsibility for compliance with the recordkeeping requirements in paragraphs (a)(1) and (a)(2) of this section with respect to any products covered by the written certification. Failure to maintain the required records may result in enforcement action by the EPA against the certifying manufacturer in accordance with the enforcement provisions applicable to violations of these provisions by regulated entities. The certifying manufacturer may revoke the written certification by sending a written statement to the Administrator and the regulated entity giving at least 90 days notice that the certifying manufacturer is rescinding acceptance of responsibility for compliance with the recordkeeping requirements listed in this paragraph. Upon expiration of the notice period, the regulated entity must assume responsibility for maintaining the records specified in this paragraph. Written certifications and revocation statements, to the Administrator from the certifying manufacturer shall be signed by the responsible official of the certifying manufacturer, provide the name and address of the certifying manufacturer, and be sent to the appropriate EPA Regional Office at the addresses listed in § 59.210 of this subpart. Such written certifications are not transferable by the manufacturer.
- (b) If requested by the Administrator, product VOC content must be demonstrated to the Administrator's satisfaction to comply with the VOC content limits presented in § 59.203(a).
- (c) Each manufacturer or importer subject to the provisions of § 59.203(d) shall maintain records specified in either paragraph (c)(1) or (c)(2) of this section for each charcoal lighter material.

- (1) Test report from each certification test performed as specified in § 59.208(b) and all information and data specified in § 59.208(l); or
 - (2) Records of emission testing, which was performed by a method determined by the Administrator to be an acceptable alternative to that described in § 59.208, previously submitted to a State or local regulatory agency.
- (d) The distributor that is named on the product label, or if no distributor is named on the label, the manufacturer or importer, shall submit by the applicable compliance date, or within 30 days after becoming a regulated entity, a one-time Initial Notification Report including the information specified in paragraphs (d)(1) through (d)(5) of this section.
- (1) Company name;
 - (2) Name, title, phone number, address, and signature or certifying company official;
 - (3) A list of product categories and subcategories subject to § 59.203 for which the company is currently the regulated entity;
 - (4) A description of date coding systems, clearly explaining how the date of manufacture is marked on each sales unit of subject consumer products; and
 - (5) The name and location of the designated recordkeeping agent, if the records specified in paragraphs (a)(1) and (a)(2) are to be maintained by the manufacturer.
- (e) If a regulated entity changes the date coding system reported according to paragraph (d)(4) of this section, the regulated entity shall notify the Administrator of such changes within 30 days following the change.
- (f) If requested by the Administrator, the following information shall be made available within 30 days after receiving the request:
- (1) Location of facility(ies) manufacturing, importing, or distributing subject consumer products;
 - (2) A list of product categories and subcategories, as found in tables 1 and 2 of this subpart, that are manufactured, imported, or distributed at each facility; and
 - (3) Location where VOC content records are kept for each subject consumer product.
- (g) Each manufacturer or importer subject to the innovative product provisions in § 49.204 shall submit notifications as indicated in § 59.204(d) and (e).

§ 59.210 Addresses of EPA Regional Offices.

All requests, reports, submittals, and other communications to the Administrator pursuant to this subpart shall be submitted to the Regional Office of the EPA which serves the State or territory in which the corporate headquarters of the regulated entity resides. These areas are indicated in the following table.

TABLE 1 TO § 59.210

| Region | Address | State |
|--------|--|--|
| I | Director, Enforcement and Compliance Assurance Division, U.S. EPA Region I, 5 Post Office Square—Suite 100 (04-2), Boston, MA 02109-3912, Attn: Air Compliance Clerk | Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont. |
| II | Director, Division of Environmental Planning and Protection, 290 Broadway, New York, NY 10007 | New Jersey, New York, Puerto Rico, Virgin Islands. |
| III | Director, Air, Radiation, and Toxics Division, 841 Chestnut Building, Philadelphia, PA 19107 | Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia. |
| IV | Director, Air and Radiation Division, 61 Forsyth Street SW, Atlanta, Georgia 30303-8960 | Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee. |
| V | Director, Air and Radiation Division, 77 West Jackson Blvd., Chicago, IL 60604-3507 | Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin. |
| VI | Director, Enforcement and Compliance Assurance Division, 1201 Elm Street, Suite 500, Mail Code 6ECD, Dallas, Texas | Arkansas, Louisiana, New Mexico, Oklahoma, Texas. |

| Region | Address | State |
|--------|---|--|
| VII | 75270-2102 Director, Air and Waste Management Division, 11201 Renner Boulevard, Lenexa, Kansas 66219 | Iowa, Kansas, Missouri, Nebraska. |
| VIII | Director, Office of Pollution Prevention, State, and Tribal Assistance, 999 18th Street, Suite 500, Denver, Colorado 80202-2466 | Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming. |
| IX | Director, Air Division, 75 Hawthorne Street, San Francisco, CA 94105 | 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. |
| X | Director, Office of Air Quality, 1200 Sixth Avenue, Seattle, WA 98101 | Alaska, Oregon, Idaho, Washington. |

[63 FR 48831, Sept. 11, 1998, as amended at 75 FR 69349, Nov. 12, 2010; 76 FR 49672, Aug. 11, 2011; 78 FR 37976, June 25, 2013;
84 FR 34068, July 17, 2019; 84 FR 44229, Aug. 23, 2019; 89 FR 86745, Oct. 31, 2024]

§ 59.211 State authority.

- (a) The provisions in this regulation shall not be construed in any manner to preclude any State or political subdivision thereof from:
 - (1) Adopting and enforcing any emission standard or limitation applicable to a regulated entity.
 - (2) Requiring the regulated entity to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of a facility for manufacturing a consumer product.
- (b) [Reserved]

§ 59.212 Circumvention.

No regulated entity subject to these standards shall alter, destroy, or falsify any record or report to conceal what would otherwise be noncompliance with these standards. Such concealment includes, but is not limited to refusing to provide the Administrator access to all required records and date-coding information, altering the percent VOC content of a product batch, or altering the results of any required performance tests.

§ 59.213 Incorporations by reference.

- (a) The materials listed in this section are incorporated by reference in the paragraphs noted in § 59.207. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and notice of any changes in these materials will be published in the FEDERAL REGISTER. The materials are available for purchase at the corresponding addresses noted below, and all are available for inspection at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M St., SW., Washington, DC 20460, the EPA Library (MD-35), U.S. EPA, Research Triangle Park, NC 27711, or 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) The materials listed below are available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM), 1916 Race Street, Philadelphia, PA, 19103; SCAQMD Subscription Services, P.O. Box 4932; 21865 Copley Drive, Diamond Bar, CA 91765-0932; or University Microfilms International, 300 North Zeeb Road, Ann Arbor MI, 48106.
 - (1) ASTM Method E220-86 Standard Method for Calibration of Thermocouples by Comparisons Techniques, incorporation by reference (IBR) approved for § 59.208(m)(4).
 - (2) ASTM Method E380-82 Metric Practice, IBR approved for § 59.208(k).
 - (3) SCAQMD Method 25.1, March 1989 Determination of Total Gaseous Non-Methane Organic Emissions as Carbon (amended February 26, 1991) IBR approved for § 59.208(g)(2).

[63 FR 48831, Sept. 11, 1998, as amended at 69 FR 18803, Apr. 9, 2004]

§ 59.214 Availability of information and confidentiality.

- (a) Availability of information. Specific reports or records required by this subpart are not available to the public. The Administrator will, upon request, provide information as to the compliance status of a product or regulated entity.
- (b) Confidentiality. All confidential business information entitled to protection under section 114(c) of the CAA that must be submitted or maintained by a regulated entity pursuant to this section shall be treated in accordance with 40 CFR part 2, Subpart B.

Table 1 to Subpart C of Part 59—VOC Content Limits by Product Category

| Product category | VOC content limit (weight-percent VOC) |
|--|--|
| Air fresheners: | |
| Single-phase | 70 |
| Double-phase | 30 |
| Liquids/pump sprays | 18 |
| Solids/gels | 3 |
| Automotive windshield washer fluid | 35 |
| Bathroom and tile cleaners: | |
| Aerosols | 7 |
| All other forms | 5 |
| Carburetor and choke cleaners | 75 |
| Cooking sprays—aerosol | 18 |
| Dusting aids: | |
| Aerosols | 35 |
| All other forms | 7 |
| Engine degreasers | 75 |
| Fabric protectants | 75 |
| Floor polishes/waxes: | |
| Products for flexible flooring materials | 7 |
| Products for nonresilient flooring | 10 |
| Wood floor wax | 90 |
| Furniture maintenance products-aerosol | 25 |
| General purpose cleaners | 10 |
| Glass cleaners: | |
| Aerosols | 12 |
| All other forms | 8 |
| Hairsprays | 80 |
| Hair mousses | 16 |
| Hair Styling gels | 6 |
| Household adhesives: | |
| Aerosols | 75 |
| Contact | 80 |
| Construction and panel | 40 |
| General purpose | 10 |
| Structural waterproof | 15 |
| Insecticides: | |
| Crawling bug | 40 |
| Flea and tick | 25 |

| Product category | VOC content limit (weight-percent VOC) |
|-------------------------|--|
| Flying bug | 35 |
| Foggers | 45 |
| Lawn and Garden | 20 |
| Laundry prewash: | |
| Aerosols/solids | 22 |
| All other forms | 5 |
| Laundry starch products | 5 |
| Nail polish removers | 85 |
| Oven cleaners: | |
| Aerosols/pump | 8 |
| Liquids | 5 |
| Shaving creams | 5 |

Table 2 to Subpart C of Part 59—HVOC¹ Content Limits for Underarm Deodorants and Underarm Antiperspirants

| Product category | Percent HVOC content limit (weight-percent HVOC) |
|----------------------------------|--|
| Underarm antiperspirants—aerosol | 60 |
| Underarm deodorants—aerosol | 20 |

¹ High-volatility organic compound (HVOC) are VOC with vapor pressure greater than 80 millimeters of mercury at 20 degrees Celsius.

Appendix A to Subpart C of Part 59—Figures

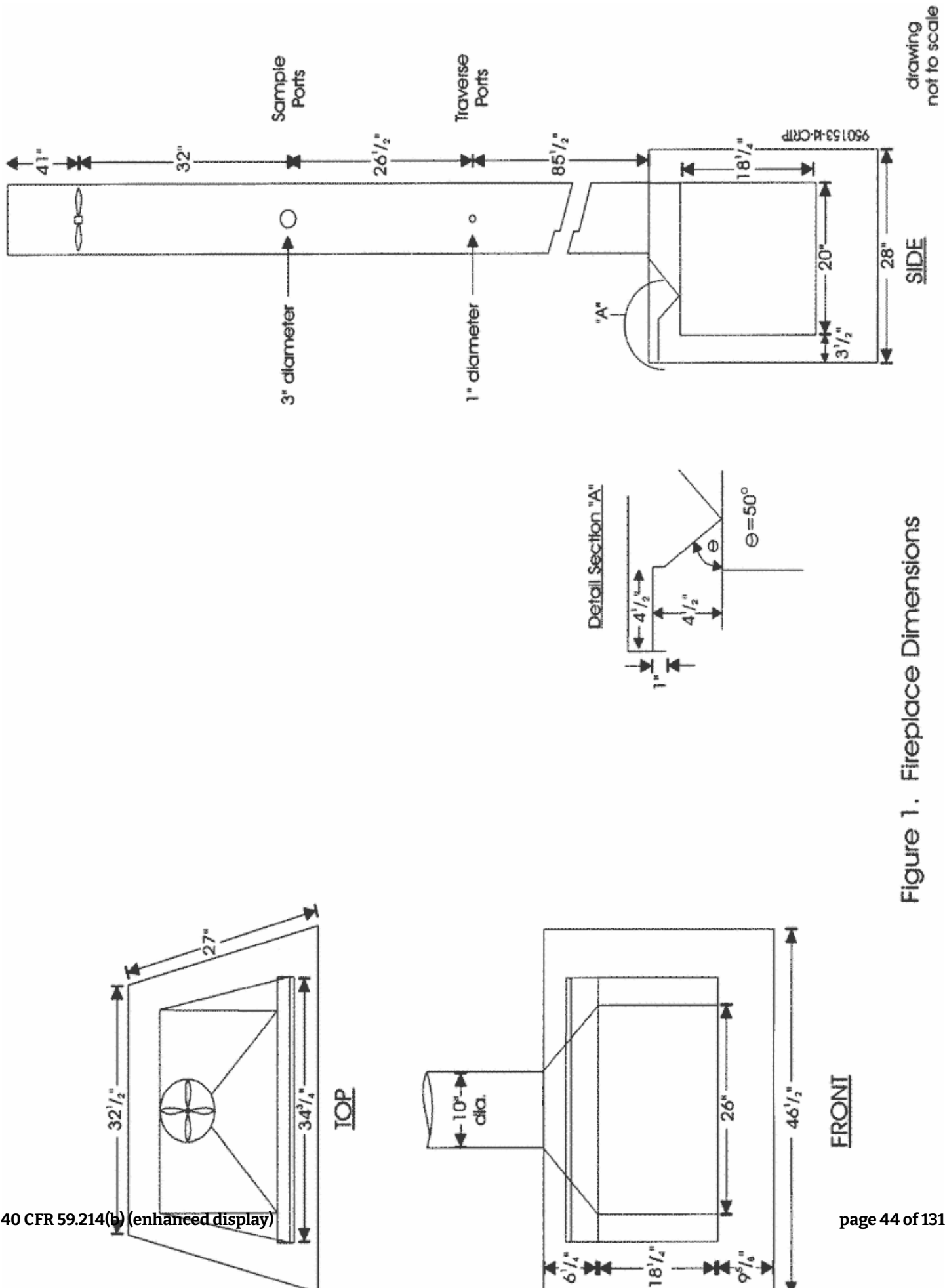


Figure 1. Fireplace Dimensions

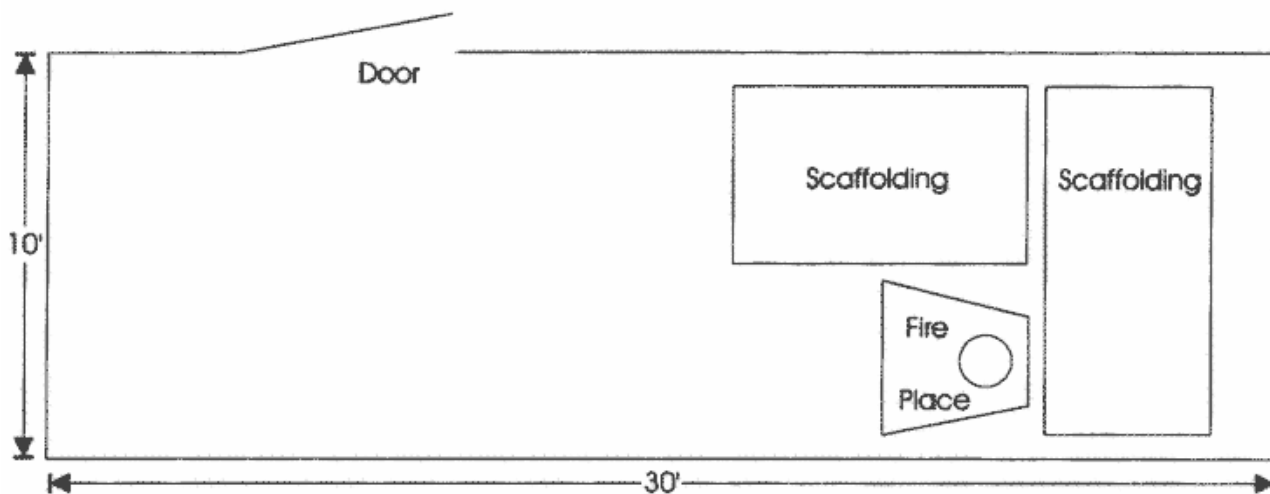
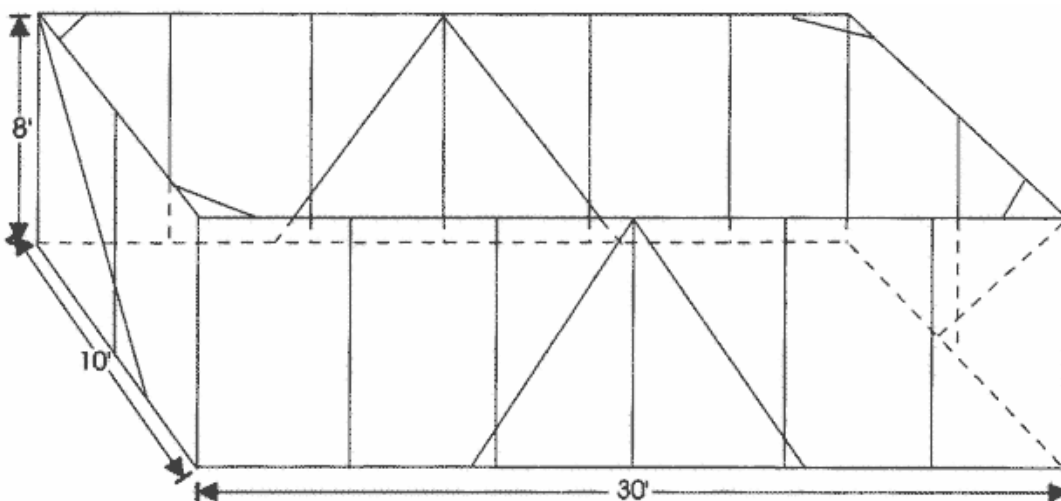


Figure 2. Suggested Enclosure Design

950154-K-CRTP

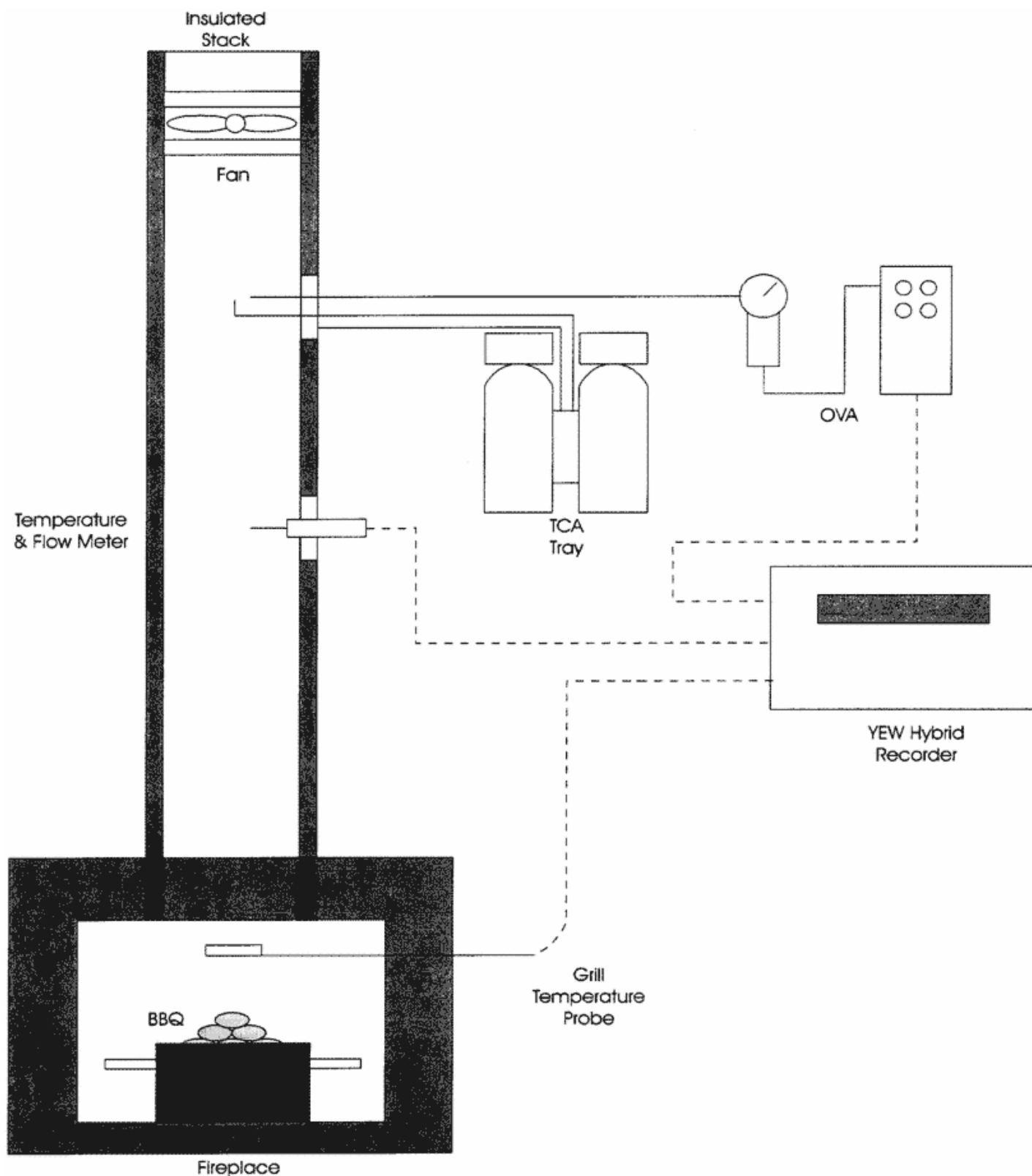
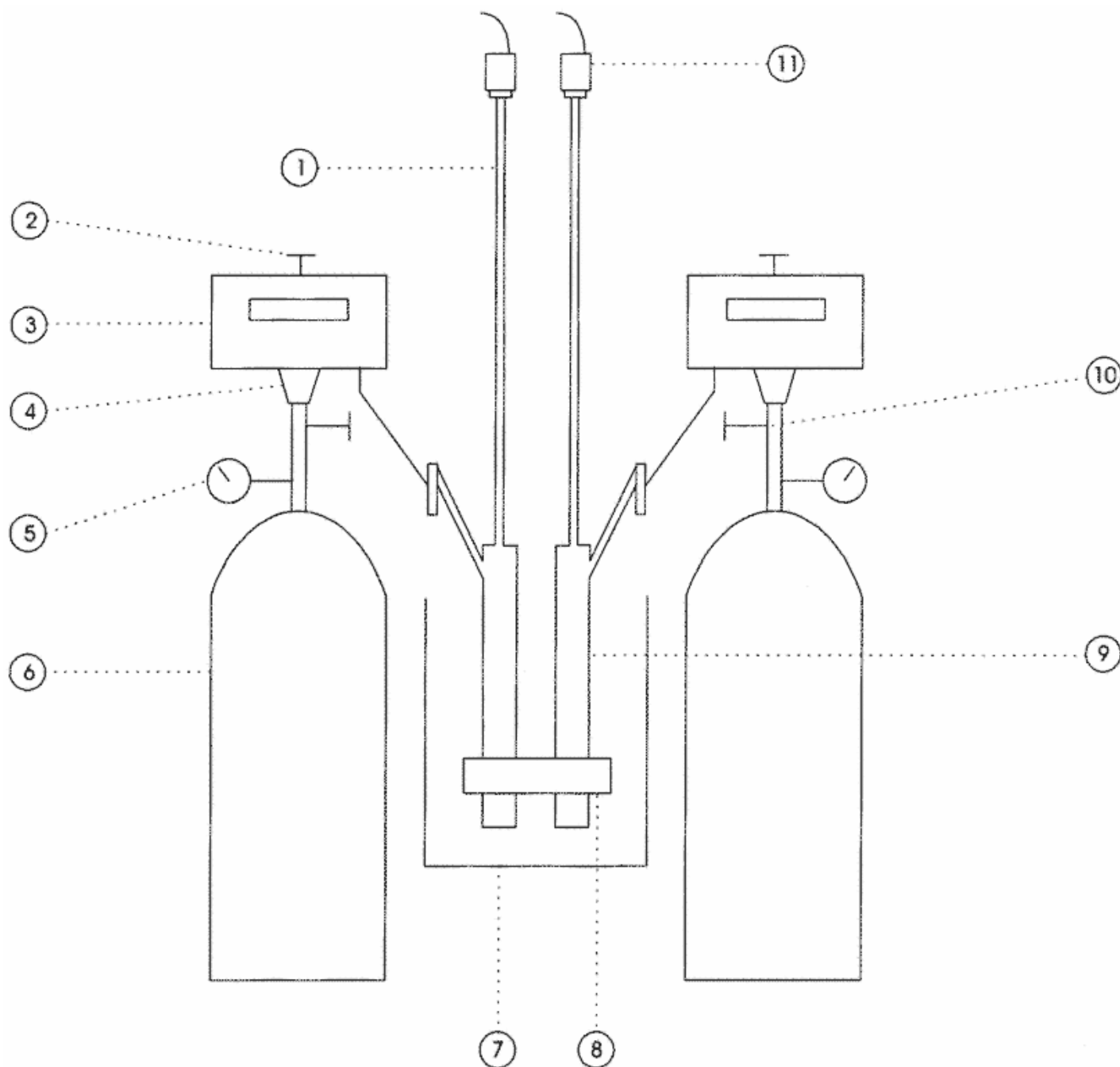


Figure 3. Sampling Apparatus Set-up with Chart Recorder



- | | |
|--|-----------------------------------|
| 1. Sampling Probe | 7. Condensate Trap Container |
| 2. Flow Rate Control Valve | 8. Heat Sink Trap |
| 3. Minihelic Differential Pressure Gauge | 9. Condensate Trap |
| 4. Vacuum Regulator | 10. Sample Flow Valve |
| 5. Vacuum Gauge | 11. Two Micron Particulate Filter |
| 6. Evacuated Tank | |

Subpart D—National Volatile Organic Compound Emission Standards for Architectural Coatings

Source: 63 FR 48877, Sept. 11, 1998, unless otherwise noted.

§ 59.400 Applicability and compliance dates.

- (a) Except as provided in paragraphs (b) and (c) of this section, the provisions of this subpart apply to each architectural coating manufactured on or after September 13, 1999 for sale or distribution in the United States.
- (b) For any architectural coating registered under the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. Section 136, *et seq.*), the provisions of this subpart apply to any such coating manufactured on or after March 13, 2000 for sale or distribution in the United States.
- (c) The provisions of this subpart do not apply to any architectural coating described in paragraphs (c)(1) through (c)(5) of this section:
 - (1) A coating that is manufactured for sale or distribution to architectural coating markets outside the United States; such a coating must not be sold or distributed within the United States as an architectural coating.
 - (2) A coating that is manufactured prior to September 13, 1999.
 - (3) A coating that is sold in a nonrefillable aerosol container.
 - (4) A coating that is collected and redistributed at a paint exchange.
 - (5) A coating that is sold in a container with a volume of one liter or less.

§ 59.401 Definitions.

Act means the Clean Air Act (42 U.S.C. 7401, *et seq.*, as amended by Pub. L. 101-549, 104 Stat. 2399).

Adhesive means any chemical substance that is applied for the purpose of bonding two surfaces together other than by mechanical means. Under this subpart, adhesives are not considered coatings.

Administrator means the Administrator of the United States Environmental Protection Agency (U.S. EPA) or an authorized representative.

Antenna coating means a coating formulated and recommended for application to equipment and associated structural appurtenances that are used to receive or transmit electromagnetic signals.

Anti-fouling coating means a coating formulated and recommended for application to submerged stationary structures and their appurtenances to prevent or reduce the attachment of marine or freshwater biological organisms, including, but not limited to, coatings registered with the EPA under the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. Section 136, *et seq.*) and nontoxic foul-release coatings.

Anti-graffiti coating means a clear or opaque high performance coating formulated and recommended for application to interior and exterior walls, doors, partitions, fences, signs, and murals to deter adhesion of graffiti and to resist repeated scrubbing and exposure to harsh solvents, cleansers, or scouring agents used to remove graffiti.

Appurtenance means any accessory to a stationary structure, whether installed or detached at the proximate site of installation, including but not limited to: bathroom and kitchen fixtures; cabinets; concrete forms; doors; elevators; fences; hand railings; heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools; lamp posts; partitions; pipes and piping systems; rain gutters and downspouts; stairways, fixed ladders, catwalks, and fire escapes; and window screens.

Architectural coating means a coating recommended for field application to stationary structures and their appurtenances, to portable buildings, to pavements, or to curbs. This definition excludes adhesives and coatings recommended by the manufacturer or importer solely for shop applications or solely for application to non-stationary structures, such as airplanes, ships, boats, and railcars.

Below-ground wood preservative means a coating that is formulated and recommended to protect below-ground wood from decay or insect attack and that is registered with the EPA under the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. Section 136, *et seq.*).

Bituminous coating and mastic means a coating or mastic formulated and recommended for roofing, pavement sealing, or waterproofing that incorporates bitumens. Bitumens are black or brown materials including, but not limited to, asphalt, tar, pitch, and asphaltite that are soluble in carbon disulfide, consist mainly of hydrocarbons, and are obtained from natural deposits of asphalt or as residues from the distillation of crude petroleum or coal.

Bond breaker means a coating formulated and recommended for application between layers of concrete to prevent a freshly poured top layer of concrete from bonding to the layer over which it is poured.

Calcimine recoater means a flat solventborne coating formulated and recommended specifically for recoating calcimine-painted ceilings and other calcimine-painted substrates.

Chalkboard resurfacer means a coating formulated and recommended for application to chalkboards to restore a suitable surface for writing with chalk.

Clear means allowing light to pass through, so that the substrate may be distinctly seen.

Coating means a material applied onto or impregnated into a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealants, inks, maskants, and temporary coatings. Protective, decorative, or functional materials that consist only of solvents, acids, bases, or any combination of these substances are not considered coatings for the purposes of this subpart.

Colorant means a concentrated pigment dispersion of water, solvent, and/or binder that is added to an architectural coating in a paint store or at the site of application to produce the desired color.

Concrete curing compound means a coating formulated and recommended for application to freshly placed concrete to retard the evaporation of water.

Concrete curing and sealing compound means a liquid membrane-forming compound marketed and sold solely for application to concrete surfaces to reduce the loss of water during the hardening process and to seal old and new concrete providing resistance against alkalis, acids, and ultraviolet light, and provide adhesion promotion qualities. The coating must meet the requirements of American Society for Testing and Materials (ASTM) C 1315-95, Standard Specification for Liquid Membrane-Forming Compounds Having Special Properties for Curing and Sealing Concrete (incorporated by reference—see § 59.412 of this subpart).

Concrete protective coating means a high-build coating, formulated and recommended, for application in a single coat over concrete, plaster, or other cementitious surfaces. These coatings are formulated to be primerless, one-coat systems that can be applied over form oils and/or uncured concrete. These coatings prevent spalling of concrete in freezing temperatures by providing long-term protection from water and chloride ion intrusion.

Concrete surface retarder means a mixture of retarding ingredients such as extender pigments, primary pigments, resin, and solvent that interact chemically with the cement to prevent hardening on the surface where the retarder is applied, allowing the retarded mix of cement and sand at the surface to be washed away to create an exposed aggregate finish.

Container means the individual receptacle that holds the coating for storage and/or sale or distribution.

Conversion varnish means a clear acid curing coating with an alkyd or other resin blended with amino resins and supplied as a single component or two-component product. Conversion varnishes produce a hard, durable, clear finish designed for professional application to wood flooring. The film formation is the result of an acid-catalyzed condensation reaction, affecting a transesterification at the reactive ethers of the amino resins.

Dry fog coating means a coating formulated and recommended only for spray application such that overspray droplets dry before subsequent contact with incidental surfaces in the vicinity of the surface coating activity.

Exempt compounds means specific organic compounds that are not considered volatile organic compounds (VOC) due to negligible photochemical reactivity. The exempt compounds are specified in 40 CFR 51.100.

Exterior coating means an architectural coating formulated and recommended for use in conditions exposed to the weather.

Extreme high durability coating means an air dry coating, including a fluoropolymer-based coating, that is formulated and recommended for touchup of precoated architectural aluminum extrusions and panels and to ensure the protection of architectural subsections, and that meets the weathering requirements of American Architectural Manufacturer's Association (AAMA) specification 605-98, Voluntary Specification Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels, Section 7.9 (incorporated by reference—see § 59.412 of this subpart).

Faux-finishing/glazing means a coating used for wet-in-wet techniques, such as faux woodgrain, faux marble, and simulated aging, which require the finish to remain wet for an extended period of time.

Fire-retardant/resistive coating means a coating formulated and recommended to retard ignition and flame spread, or to delay melting or structural weakening due to high heat, that has been fire tested and rated by a certified laboratory for use in bringing buildings and construction materials into compliance with Federal, State, and local building code requirements.

Flat coating means a coating that is not defined under any other definition in this section and that registers gloss less than 15 on an 85-degree meter or less than 5 on a 60-degree meter according to ASTM Method D 523-89, Standard Test Method for Specular Gloss (incorporated by reference—see § 59.412 of this subpart).

Floor coating means an opaque coating with a high degree of abrasion resistance that is formulated and recommended for application to flooring including, but not limited to, decks, porches, and steps in a residential setting.

Flow coating means a coating that is used by electric power companies or their subcontractors to maintain the protective coating systems present on utility transformer units.

Form release compound means a coating formulated and recommended for application to a concrete form to prevent the freshly placed concrete from bonding to the form. The form may consist of wood, metal, or some material other than concrete.

Graphic arts coating or sign paint means a coating formulated and recommended for hand-application by artists using brush or roller techniques to indoor or outdoor signs (excluding structural components) and murals including lettering enamels, poster colors, copy blockers, and bulletin enamels.

Heat reactive coating means a high performance phenolic-based coating requiring a minimum temperature of 191 °C (375 °F) to 204 °C (400 °F) to obtain complete polymerization or cure. These coatings are formulated and recommended for commercial and industrial use to protect substrates from degradation and maintain product purity in which one or more of the following extreme conditions exist:

- (1) Continuous or repeated immersion exposure of 90 to 98 percent sulfuric acid, or oleum;
- (2) Continuous or repeated immersion exposure to strong organic solvents;
- (3) Continuous or repeated immersion exposure to petroleum processing at high temperatures and pressures; and
- (4) Continuous or repeated immersion exposure to food or pharmaceutical products which may or may not require high temperature sterilization.

High temperature coating means a high performance coating formulated and recommended for application to substrates exposed continuously or intermittently to temperatures above 202 °C (400 °F).

Impacted immersion coating means a high performance maintenance coating formulated and recommended for application to steel structures subject to immersion in turbulent, debris-laden water. These coatings are specifically resistant to high-energy impact damage caused by floating ice or debris.

Imported means that a coating manufactured outside the United States has been brought into the United States for sale or distribution.

Importer means a person that brings architectural coatings into the United States for sale or distribution within the United States. This definition does not include any person that brings a coating into the United States and repackages the coating by transferring it from one container to another, provided the coating VOC content is not altered and the coating is not sold or distributed to another party. For purposes of applying this definition, divisions of a company, subsidiaries, and parent companies are considered to be a single importer.

Industrial maintenance coating means a high performance architectural coating, including primers, sealers, undercoaters, intermediate coats, and topcoats formulated and recommended for application to substrates exposed to one or more of the following extreme environmental conditions in an industrial, commercial, or institutional setting:

- (1) Immersion in water, wastewater, or chemical solutions (aqueous and nonaqueous solutions), or chronic exposure of interior surfaces to moisture condensation;
- (2) Acute or chronic exposure to corrosive, caustic, or acidic agents, or to chemicals, chemical fumes, or chemical mixtures or solutions;
- (3) Repeated exposure to temperatures above 120 °C (250 °F);

- (4) Repeated (frequent) heavy abrasion, including mechanical wear and repeated (frequent) scrubbing with industrial solvents, cleansers, or scouring agents; or
- (5) Exterior exposure of metal structures and structural components.

Interior clear wood sealer means a low viscosity coating formulated and recommended for sealing and preparing porous wood by penetrating the wood and creating a uniform smooth substrate for a finish coat of paint or varnish.

Interior coating means an architectural coating formulated and recommended for use in conditions not exposed to natural weathering.

Label means any written, printed, or graphic matter affixed to, applied to, attached to, blown into, formed, molded into, embossed on, or appearing upon any architectural coating container for purposes of branding, identifying, or giving information with respect to the product, use of the product, or contents of the container.

Lacquer means a clear or pigmented wood finish, including clear lacquer sanding sealers, formulated with cellulosic or synthetic resins to dry by evaporation without chemical reaction and to provide a solid, protective film. Lacquer stains are considered stains, not lacquers.

Low solids means containing 0.12 kilogram or less of solids per liter (1 pound or less of solids per gallon) of coating material and for which at least half of the volatile component is water.

Magnesite cement coating means a coating formulated and recommended for application to magnesite cement decking to protect the magnesite cement substrate from erosion by water.

Manufactured means that coating ingredients have been combined and put into containers that have been labeled and made available for sale or distribution.

Manufacturer means a person that produces, packages, or repackages architectural coatings for sale or distribution in the United States. A person that repackages architectural coatings as part of a paint exchange, and does not produce, package, or repackage any other architectural coatings for sale or distribution in the United States, is excluded from this definition. A person that repackages a coating by transferring it from one container to another is excluded from this definition, provided the coating VOC content is not altered and the coating is not sold or distributed to another party. For purposes of applying this definition, divisions of a company, subsidiaries, and parent companies are considered to be a single manufacturer.

Mastic texture coating means a coating formulated and recommended to cover holes and minor cracks and to conceal surface irregularities, and is applied in a single coat of at least 10 mils (0.010 inch) dry film thickness.

Megagram means one million grams or 1.102 tons.

Metallic pigmented coating means a nonbituminous coating containing at least 0.048 kilogram of metallic pigment per liter of coating (0.4 pound per gallon) including, but not limited to, zinc pigment.

Multi-colored coating means a coating that is packaged in a single container and exhibits more than one color when applied.

Nonferrous ornamental metal lacquers and surface protectant means a clear coating formulated and recommended for application to ornamental architectural metal substrates (bronze, stainless steel, copper, brass, and anodized aluminum) to prevent oxidation, corrosion, and surface degradation.

Nonflat coating means a coating that is not defined under any other definition in this section and that registers a gloss of 15 or greater on an 85-degree meter or 5 or greater on a 60-degree meter according to ASTM Method D 523-89, Standard Test Method for Specular Gloss (incorporated by reference—see § 59.412 of this subpart).

Nuclear coating means a protective coating formulated and recommended to seal porous surfaces such as steel (or concrete) that otherwise would be subject to intrusion by radioactive materials. These coatings must be resistant to long-term (service life) cumulative radiation exposure (ASTM Method D 4082-89, Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants (incorporated by reference—see § 59.412 of this subpart)), relatively easy to decontaminate, and resistant to various chemicals to which the coatings are likely to be exposed (ASTM Method D 3912-80 (Reapproved 1989), Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants (incorporated by reference—see § 59.412 of this subpart)).

Opaque means not allowing light to pass through, so that the substrate is concealed from view.

Paint exchange means a program in which consumers, excluding architectural coating manufacturers and importers, may drop off and pick up usable post-consumer architectural coatings in order to reduce hazardous waste.

Person means an individual, corporation, partnership, association, State municipality, political subdivision of a State, and any agency, department, or instrumentality of the United States and any officer, agent, or employee thereof.

Pigmented means containing finely ground insoluble powder used to provide one or more of the following properties: color; corrosion inhibition; conductivity; fouling resistance; opacity; or improved mechanical properties.

Post-consumer coating means an architectural coating that has previously been purchased by a consumer or distributed to a consumer but not applied, and reenters the marketplace to be purchased by or distributed to a consumer. Post-consumer coatings include, but are not limited to, coatings collected during hazardous waste collection programs for repackaging or blending with virgin coating materials.

Pretreatment wash primer means a primer that contains a minimum of 0.5 percent acid, by weight, that is formulated and recommended for application directly to bare metal surfaces in thin films to provide corrosion resistance and to promote adhesion of subsequent topcoats.

Primer means a coating formulated and recommended for application to a substrate to provide a firm bond between the substrate and subsequent coatings.

Quick-dry enamel means a nonflat coating that has the following characteristics:

- (1) Is capable of being applied directly from the container under normal conditions with ambient temperatures between 16 and 27 °C (60 and 80 °F);
- (2) When tested in accordance with ASTM Method D 1640-83 (Reapproved 1989), Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature (incorporated by reference—see § 59.412), sets to touch in 2 hours or less, is tack free in 4 hours or less, and dries hard in 8 hours or less by the mechanical test method; and
- (3) Has a dried film gloss of 70 or above on a 60 degree meter.

Quick-dry primer, sealer, and undercoater means a primer, sealer, or undercoater that is dry to the touch in a $1/2$ hour and can be recoated in 2 hours when tested in accordance with ASTM Method D 1640-83 (Reapproved 1989), Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature (incorporated by reference—see § 59.412 of this subpart).

Recycled coating means an architectural coating that contains some portion of post-consumer coating. Recycled architectural coatings include, but are not limited to, post-consumer coatings that have been repackaged or blended with virgin coating materials.

Repackage means to transfer an architectural coating from one container to another.

Repair and maintenance thermoplastic coating means an industrial maintenance coating that has vinyl or chlorinated rubber as a primary resin and is recommended solely for the repair of existing vinyl or chlorinated rubber coatings without the full removal of the existing coating system.

Roof coating means a coating formulated and recommended for application to exterior roofs for the primary purpose of preventing penetration of the substrate by water or reflecting heat and reflecting ultraviolet radiation. This does not include thermoplastic rubber coatings.

Rust preventative coating means a coating formulated and recommended for use in preventing the corrosion of ferrous metal surfaces in residential situations.

Sanding sealer means a clear wood coating formulated and recommended for application to bare wood to seal the wood and to provide a coat that can be sanded to create a smooth surface. A sanding sealer that also meets the definition of a lacquer is not included in this category, but is included in the lacquer category.

Sealer means a coating formulated and recommended for application to a substrate for one or more of the following purposes: to prevent subsequent coatings from being absorbed by the substrate; to prevent harm to subsequent coatings by materials in the substrate; to block stains, odors, or efflorescence; to seal fire, smoke, or water damage; or to condition chalky surfaces.

Semitransparent means not completely concealing the surface of a substrate or its natural texture or grain pattern.

Shellac means a clear or pigmented coating formulated with natural resins (except nitrocellulose resins) soluble in alcohol (including, but not limited to, the resinous secretions of the lac beetle, *Lacifer lacca*). Shellacs dry by evaporation without chemical reaction and provide a quick-drying, solid protective film that may be used for blocking stains.

Shop application means that a coating is applied to a product or a component of a product in a factory, shop, or other structure as part of a manufacturing, production, or repairing process (e.g., original equipment manufacturing coatings).

Stain means a coating that produces a dry film with minimal coloring. This includes lacquer stains.

Stain controller means a conditioner or pretreatment coating formulated and recommended for application to wood prior to the application of a stain in order to prevent uneven penetration of the stain.

Swimming pool coating means a coating formulated and recommended to coat the interior of swimming pools and to resist swimming pool chemicals.

Thermoplastic rubber coating and mastic means a coating or mastic formulated and recommended for application to roofing or other structural surfaces and that incorporates no less than 40 percent by weight of thermoplastic rubbers in the total resin solids and may also contain other ingredients including, but not limited to, fillers, pigments, and modifying resins.

Tint base means a coating to which colorant is added in a paint store or at the site of application to produce a desired color.

Traffic marking coating means a coating formulated and recommended for marking and striping streets, highways, or other traffic surfaces including, but not limited to, curbs, berms, driveways, parking lots, sidewalks, and airport runways.

Undercoater means a coating formulated and recommended to provide a smooth surface for subsequent coatings.

United States means the United States of America, including the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

Varnish means a clear or semi-transparent coating, excluding lacquers and shellacs, formulated and recommended to provide a durable, solid, protective film. Varnishes may contain small amounts of pigment to color a surface, or to control the final sheen or gloss of the finish.

Volatile organic compound or VOC means any organic compound that participates in atmospheric photochemical reactions, that is, any organic compound other than those which the Administrator designates as having negligible photochemical reactivity. For a list of compounds that the Administrator has designated as having negligible photochemical reactivity, also referred to as exempt compounds, refer to 40 CFR 51.100(s).

VOC content means the weight of VOC per volume of coating, calculated according to the procedures in § 59.406(a) of this subpart.

Waterproofing sealer and treatment means a coating formulated and recommended for application to a porous substrate for the primary purpose of preventing the penetration of water.

Wood preservative means a coating formulated and recommended to protect exposed wood from decay or insect attack, registered with the EPA under the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. Section 136, et seq.).

Zone marking coating means a coating formulated and recommended for marking and striping driveways, parking lots, sidewalks, curbs, or airport runways, and sold or distributed in a container with a volume of 19 liters (5 gallons) or less.

[63 FR 48877, Sept. 11, 1998; 64 FR 35001, June 30, 1999]

§ 59.402 VOC content limits.

- (a) Each manufacturer and importer of any architectural coating subject to this subpart shall ensure that the VOC content of the coating does not exceed the applicable limit in table 1 of this subpart, except as provided in §§ 59.403 and 59.404 of this subpart. Compliance with the VOC content limits will be determined based on the VOC content, as expressed in metric units.

- (b) Except as provided in paragraph (c) of this section, if anywhere on the container of any architectural coating, or any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a manufacturer or importer or anyone acting on their behalf, any representation is made that indicates that the coating meets the definition of more than one of the coating categories listed in table 1 of this subpart, then the most restrictive VOC content limit shall apply.
- (c) The provision in paragraph (b) of this section does not apply to the coatings described in paragraphs (c)(1) through (c)(15) of this section.
- (1) High temperature coatings that also meet the definition for metallic pigmented coatings are subject only to the VOC content limit in table 1 of this subpart for high temperature coatings.
 - (2) Lacquer coatings (including lacquer sanding sealers) that are also recommended for use in other architectural coating applications to wood, except as stains, are subject only to the VOC content limit in table 1 of this subpart for lacquers.
 - (3) Metallic pigmented coatings that also meet the definition for roof coatings, industrial maintenance coatings, or primers are subject only to the VOC content limit in table 1 of this subpart for metallic pigmented coatings.
 - (4) Shellacs that also meet the definition for any other architectural coating are subject only to the VOC content limit in table 1 of this subpart for shellacs.
 - (5) Fire-retardant/resistive coatings that also meet the definition for any other architectural coating are subject only to the VOC content limit in table 1 of this subpart for fire-retardant/resistive coatings.
 - (6) Pretreatment wash primers that also meet the definition for primers or that meet the definition for industrial maintenance coatings are subject only to the VOC content limit in table 1 of this subpart for pretreatment wash primers.
 - (7) Industrial maintenance coatings that also meet the definition for primers, sealers, undercoaters, or mastic texture coatings are subject only to the VOC content limit in table 1 of this subpart for industrial maintenance coatings.
 - (8) Varnishes and conversion varnishes that also meet the definition for floor coatings are subject only to the VOC content limit in table 1 of this subpart for varnishes and conversion varnishes, respectively.
 - (9) Anti-graffiti coatings, high temperature coatings, impacted immersion coatings, thermoplastic rubber coatings and mastics, repair and maintenance thermoplastic coatings, and flow coatings that also meet the definition for industrial maintenance coatings are subject only to the VOC content limit in table 1 of this subpart for their respective categories (i.e., they are not subject to the industrial maintenance coatings VOC content limit in table 1 of this subpart).
 - (10) Waterproofing sealers and treatments that also meet the definition for quick-dry sealers are subject only to the VOC content limit in table 1 of this subpart for waterproofing sealers and treatments.
 - (11) Sanding sealers that also meet the definition for quick-dry sealers are subject only to the VOC content limit in table 1 of this subpart for sanding sealers.
 - (12) Nonferrous ornamental metal lacquers and surface protectants that also meet the definition for lacquers are subject only to the VOC content limit in table 1 of this subpart for nonferrous ornamental metal lacquers and surface protectants.

- (13) Quick-dry primers, sealers, and undercoaters that also meet the definition for primers, sealers, or undercoaters are subject only to the VOC content limit in table 1 of this subpart for quick-dry primers, sealers, and undercoaters.
- (14) Antenna coatings that also meet the definition for industrial maintenance coatings or primers are subject only to the VOC content limit in table 1 of this subpart for antenna coatings.
- (15) Bituminous coatings and mastics that also meet the definition for any other architectural coatings are subject only to the VOC content limit in table 1 of this subpart for bituminous coatings and mastics.
- (16) Zone marking coatings that also meet the definition for traffic marking coatings are subject only to the VOC content limit in table 1 of this subpart for zone marking coatings.
- (17) Rust preventative coatings that also meet the definition for primers or undercoaters are subject only to the VOC content limit in table 1 of this subpart for rust preventative coatings.

[63 FR 48877, Sept. 11, 1998; 64 FR 35001, June 30, 1999]

§ 59.403 Exceedance fees.

- (a) Except as provided in § 59.404 of this subpart, each manufacturer and importer of any architectural coating subject to the provisions of this subpart may exceed the applicable VOC content limit in table 1 of this subpart for the coating if the manufacturer or importer pays an annual exceedance fee. The exceedance fee must be calculated using the procedures in paragraphs (b) and (c) of this section.
- (b) The exceedance fee paid by a manufacturer or importer, which is equal to the sum of the applicable exceedance fees for all coatings, must be calculated using equation 1 as follows:

$$\text{Annual Exceedance Fee} = \sum_{c=1}^n \text{Coating Fee}_c \quad (1)$$

Where:

Annual Exceedance Fee = The total annual exceedance fee for a manufacturer or importer, in dollars.

Coating Fee_c = The annual exceedance fee for each coating (c), for which a fee applies, in dollars.

n = number of coatings to which a fee applies.

- (c) The exceedance fee to be paid for each coating must be determined using equation 2 as follows:

$$\text{Coating Fee}_c = \text{Fee Rate} \times \text{Excess VOC} \times \text{Volume Manufactured or Imported} \quad (2)$$

Where:

Fee Rate = The rate of \$0.0028 per gram of excess VOC.

Excess VOC = The VOC content of the coating, or adjusted VOC content of a recycled coating (if applicable), in grams of VOC per liter of coating, minus the applicable VOC content limit from table 1 of this subpart (that is, VOC content of the coating minus VOC content limit).

Volume Manufactured or Imported = The volume of the coating manufactured or imported per year, in liters, including the volume of any water and exempt compounds and excluding the volume of any colorant added to tint bases. Any volume for which a tonnage exemption is claimed under § 59.404 of this subpart is also excluded.

- (d) The exceedance fee shall be submitted to EPA by March 1 following the calendar year in which the coatings are manufactured or imported and shall be sent to the address provided in § 59.409(b).

[63 FR 48877, Sept. 11, 1998; 64 FR 35001, June 30, 1999, as amended at 65 FR 7737, Feb. 16, 2000]

§ 59.404 Tonnage exemption.

- (a) Each manufacturer and importer of any architectural coating subject to the provisions of this subpart may designate a limited quantity of coatings to be exempt from the VOC content limits in table 1 of this subpart and the exceedance fee provisions of § 59.403 of this subpart, provided all of the requirements in paragraphs (a)(1) through (a)(4) of this section are met.
- (1) The total amount of VOC contained in all the coatings selected for exemption must be equal to or less than 23 megagrams (25 tons) for the period of time from September 13, 1999 through December 31, 2000; 18 megagrams (20 tons) in the year 2001; and 9 megagrams (10 tons) per year in the year 2002 and each subsequent year. The amount of VOC contained in each coating shall be calculated using the procedure in paragraph (b) of this section. Compliance with the tonnage exemption will be determined based on the amount of VOC, as expressed in metric units.
 - (2) The container labeling requirements of § 59.405 of this subpart.
 - (3) The recordkeeping requirements of § 59.407(c) of this subpart.
 - (4) The reporting requirements of § 59.408(b) and (e) of this subpart.
- (b) Each manufacturer and importer choosing to use the exemption described in paragraph (a) of this section must use equations 3 and 4 to calculate the total amount of VOC for each time period the exemption is elected. The VOC amount shall be determined without colorant that is added after the tint base is manufactured or imported.

$$\text{Total VOC} = \sum_{c=1}^n \text{VOC}_c \quad (3)$$

Where:

Total VOC = Total megagrams of VOC contained in all coatings being claimed under the exemption.

VOC_c = Megagrams of VOC, for each coating (c) claimed under the exemption, as computed by equation 4.

n = Number of coatings for which exemption is claimed.

$$\text{VOC}_c = (\text{Volume Manufactured or Imported}) * (\text{VOC Amount}) / 1 \times 10^6 \quad (4)$$

Where:

Volume Manufactured or Imported = Volume of the coating manufactured or imported, in liters, including the volume of any water and exempt compounds and excluding the volume of any colorant added to tint bases, for the time period the exemption is claimed.

VOC Amount = Grams of VOC per liter of coating thinned to the manufacturer's maximum recommendation, including the volume of any water and exempt compounds.

[63 FR 48877, Sept. 11, 1998; 64 FR 35001, June 30, 1999]

§ 59.405 Container labeling requirements.

- (a) Each manufacturer and importer of any architectural coating subject to the provisions of this subpart shall provide the information listed in paragraphs (a)(1) through (a)(3) of this section on the coating container in which the coating is sold or distributed.
 - (1) The date the coating was manufactured, or a date code representing the date shall be indicated on the label, lid, or bottom of the container.
 - (2) A statement of the manufacturer's recommendation regarding thinning of the coating shall be indicated on the label or lid of the container. This requirement does not apply to the thinning of architectural coatings with water. If thinning of the coating prior to use is not necessary, the recommendation must specify that the coating is to be applied without thinning.
 - (3) The VOC content of the coating as described in paragraph (a)(3)(i) or (a)(3)(ii) of this section shall be indicated on the label or lid of the container.
 - (i) The VOC content of the coating, displayed in units of grams of VOC per liter of coating or in units of pounds of VOC per gallon of coating; or
 - (ii) The VOC content limit in table 1 of this subpart with which the coating is required to comply and does comply, displayed in units of grams of VOC per liter of coating or in units of pounds of VOC per gallon of coating.
- (b) In addition to the information specified in paragraph (a) of this section, each manufacturer and importer of any industrial maintenance coating subject to the provisions of this subpart shall display on the label or lid of the container in which the coating is sold or distributed one or more of the descriptions listed in paragraphs (b)(1) through (b)(4) of this section.
 - (1) "For industrial use only."
 - (2) "For professional use only."
 - (3) "Not for residential use" or "Not intended for residential use."
 - (4) "This coating is intended for use under the following condition(s):" (Include each condition in paragraphs (b)(4)(i) through (b)(4)(v) of this section that applies to the coating.)
 - (i) Immersion in water, wastewater, or chemical solutions (aqueous and nonaqueous solutions), or chronic exposure of interior surfaces to moisture condensation;
 - (ii) Acute or chronic exposure to corrosive, caustic, or acidic agents, or to chemicals, chemical fumes, or chemical mixtures or solutions;
 - (iii) Repeated exposure to temperatures above 120 °C (250 °F);

- (iv) Repeated (frequent) heavy abrasion, including mechanical wear and repeated (frequent) scrubbing with industrial solvents, cleansers, or scouring agents; or
- (v) Exterior exposure of metal structures and structural components.
- (c) In addition to the information specified in paragraph (a) of this section, each manufacturer and importer of any recycled coating who calculates the VOC content using equations 7 and 8 in § 59.406(a)(3) of this subpart shall include the following statement indicating the post-consumer coating content on the label or lid of the container in which the coating is sold or distributed: "CONTAINS NOT LESS THAN X PERCENT BY VOLUME POST-CONSUMER COATING," where "X" is replaced by the percent by volume of post-consumer architectural coating.

[63 FR 48877, Sept. 11, 1998; 64 FR 35001, June 30, 1999]

§ 59.406 Compliance provisions.

- (a) For the purpose of determining compliance with the VOC content limits in table 1 of this subpart, each manufacturer and importer shall determine the VOC content of a coating using the procedures described in paragraph (a)(1), (a)(2), or (a)(3) of this section, as appropriate. The VOC content of a tint base shall be determined without colorant that is added after the tint base is manufactured or imported.
 - (1) With the exception of low solids stains and low solids wood preservatives, determine the VOC content in grams of VOC per liter of coating thinned to the manufacturer's maximum recommendation, excluding the volume of any water and exempt compounds. Calculate the VOC content using equation 5 as follows:

$$\text{VOC Content} = \frac{(W_s - W_w - W_{ec})}{(V_m - V_w - V_{ec})} \quad (5)$$

Where:

VOC content = grams of VOC per liter of coating

W_s = weight of volatiles, in grams

W_w = weight of water, in grams

W_{ec} = weight of exempt compounds, in grams

V_m = volume of coating, in liters

V_w = volume of water, in liters

V_{ec} = volume of exempt compounds, in liters

- (2) For low solids stains and low solids wood preservatives, determine the VOC content in units of grams of VOC per liter of coating thinned to the manufacturer's maximum recommendation, including the volume of any water and exempt compounds. Calculate the VOC content using equation 6 as follows:

$$\text{VOC Content}_{\text{ls}} = \frac{(W_s - W_w - W_{\text{ec}})}{(V_m)} \quad (6)$$

Where:

VOC content_{ls} = the VOC content of a low solids coating in grams of VOC per liter of coating

W_s = weight of volatiles, in grams

W_w = weight of water, in grams

W_{ec} = weight of exempt compounds, in grams

V_m = volume of coating, in liters

- (3) For recycled coatings, the manufacturer or importer has the option of calculating an adjusted VOC content to account for the post-consumer coating content. If this option is used, the manufacturer or importer shall determine the adjusted VOC content using equations 7 and 8 as follows:

$$\text{Adjusted VOC Content} = \text{Actual VOC Content} - \left(\text{Actual VOC Content} \left(\frac{\text{Percent Post-consumer Coating}}{100} \right) \right) \quad (7)$$

Where:

Adjusted VOC content = The VOC content assigned to the recycled coating for purposes of complying with the VOC content limits in table 1 of this subpart.

Actual VOC content = The VOC content of the coating as determined using equation 5 in paragraph (a)(1) of this section.

Percent Post-consumer Coating = The volume percent of a recycled coating that is post-consumer coating materials (as determined in equation 8)

$$\text{Percent Post-consumer Coating} = \frac{\text{Volume of Post-consumer Coating}}{(\text{Volume of Post-consumer Coating} + \text{Volume of Virgin Materials})} \times 100 \text{ Percent} \quad (8)$$

Where:

Percent Post-consumer Coating = The volume percent of a recycled coating that is post-consumer coating materials.

Volume of Post-consumer Coating = The volume, in liters, of post-consumer coating materials used in the production of a recycled coating.

Volume of Virgin Materials = The volume, in liters, of virgin coating materials used in the production of a recycled coating.

- (b) To determine the composition of a coating in order to perform the calculations in paragraph (a) of this section, the reference method for VOC content is Method 24 of appendix A of 40 CFR part 60, except as provided in paragraphs (c) and (d) of this section. To determine the VOC content of a coating, the manufacturer or importer may use Method 24 of appendix A of 40 CFR part 60, an alternative method as provided in paragraph (c) of this section, formulation data, or any other reasonable means for predicting that the coating has been formulated as intended (e.g., quality assurance checks, recordkeeping). However, if there are any inconsistencies between the results of a Method 24 test and any other means for determining VOC content, the Method 24 test results will govern, except as provided in paragraph (c) of this section. The Administrator may require the manufacturer or importer to conduct a Method 24 analysis.
- (c) The Administrator may approve, on a case-by-case basis, a manufacturer's or importer's use of an alternative method in lieu of Method 24 for determining the VOC content of coatings if the alternative method is demonstrated to the Administrator's satisfaction to provide results that are acceptable for purposes of determining compliance with this subpart.
- (d) Analysis of methacrylate multicomponent coatings used as traffic marking coatings shall be conducted according to the procedures specified in appendix A to this subpart. Appendix A to this subpart is a modification of Method 24 of appendix A of 40 CFR part 60. The modification of Method 24 provided in appendix A to this subpart has not been approved for methacrylate multicomponent coatings used for other purposes than as traffic marking coatings or for other classes of multicomponent coatings.
- (e) The Administrator may determine a manufacturer's or importer's compliance with the provisions of this subpart based on information required by this subpart (including the records and reports required by §§ 59.407 and 59.408 of this subpart) or any other information available to the Administrator.

§ 59.407 Recordkeeping requirements.

- (a) Each manufacturer and importer using the provisions of § 59.406(a)(3) of this subpart to determine the VOC content of a recycled coating shall maintain in written or electronic form records of the information specified in paragraphs (a)(1) through (a)(6) of this section for a period of 3 years.
 - (1) The minimum volume percent post-consumer coating content for each recycled coating.
 - (2) The volume of post-consumer coating received for recycling.
 - (3) The volume of post-consumer coating received that was unusable.
 - (4) The volume of virgin materials.
 - (5) The volume of the final recycled coating manufactured or imported.
 - (6) Calculations of the adjusted VOC content as determined using equation 7 in § 59.406(a)(3) of this subpart for each recycled coating.
- (b) Each manufacturer and importer using the exceedance fee provisions in § 59.403 of this subpart, as an alternative to achieving the VOC content limits in table 1 of this subpart, shall maintain in written or electronic form the records specified in paragraphs (b)(1) through (b)(7) of this section for a period of 3 years.
 - (1) A list of the coatings and the associated coating categories in table 1 of this subpart for which the exceedance fee is used.

- (2) Calculations of the annual fee for each coating and the total annual fee for all coatings using the procedure in § 59.403 (b) and (c) of this subpart.
 - (3) The VOC content of each coating in grams of VOC per liter of coating.
 - (4) The excess VOC content of each coating in grams of VOC per liter of coating.
 - (5) The total volume of each coating manufactured or imported per calendar year, in liters, including the volume of any water and exempt compounds and excluding the volume of any colorant added to tint bases.
 - (6) The annual fee for each coating.
 - (7) The total annual fee for all coatings.
- (c) Each manufacturer and importer claiming the tonnage exemption in § 59.404 of this subpart shall maintain in written or electronic form the records specified in paragraphs (c)(1) through (c)(4) of this section for a period of 3 years.
- (1) A list of all coatings and associated coating categories in table 1 of this subpart for which the exemption is claimed.
 - (2) The VOC amount as used in equation 4.
 - (3) The volume manufactured or imported, in liters, for each coating for which the exemption is claimed for the time period the exemption is claimed.
 - (4) The total megagrams of VOC contained in each coating for which the exemption is claimed, and for all coatings combined for which the exemption is claimed, for the time period the exemption is claimed, as calculated in § 59.404(b) of this subpart.

[63 FR 48877, Sept. 11, 1998; 64 FR 35001, June 30, 1999]

§ 59.408 Reporting requirements.

- (a) Each manufacturer and importer of any architectural coating subject to the provisions of this subpart shall submit reports and exceedance fees specified in this section to the appropriate address as listed in § 59.409 of this subpart.
- (b) Each manufacturer and importer of any architectural coating subject to the provisions of this subpart shall submit an initial notification report no later than the applicable compliance date specified in § 59.400, or within 180 days after the date that the first architectural coating is manufactured or imported, whichever is later. The initial report must include the information in paragraphs (b)(1) through (b)(3) of this section.
- (1) The name and mailing address of the manufacturer or importer.
 - (2) The street address of each one of the manufacturer's or importer's facilities in the United States that is producing, packaging, or repackaging any architectural coating subject to the provisions of this subpart.
 - (3) A list of the categories from table 1 of this subpart for which the manufacturer's or importer's coatings meet the definitions in § 59.401 of this subpart.

- (4) If a date code is used on a coating container to represent the date a coating was manufactured, as allowed in § 59.405(a)(1) of this subpart, the manufacturer or importer of the coating shall include an explanation of each date code in the initial notification report and shall submit an explanation of any new date code no later than 30 days after the new date code is first used on the container for a coating.
- (c) Each manufacturer and importer of a recycled coating that chooses to determine the adjusted VOC content according to the provisions of § 59.406(a)(3) to demonstrate compliance with the applicable VOC content limit in table 1 of this subpart shall submit a report containing the information in paragraphs (c)(1) through (c)(5) of this section. The report must be submitted for each coating for which the adjusted VOC content is used to demonstrate compliance. This report must be submitted by March 1 of the year following any calendar year in which the adjusted VOC content provision is used.
 - (1) The minimum volume percent post-consumer coating content for each recycled coating.
 - (2) The volume of post-consumer coating received for recycling.
 - (3) The volume of post-consumer coating received that was unusable.
 - (4) The volume of virgin materials used.
 - (5) The volume of the final recycled coating manufactured or imported.
- (d) Each manufacturer and importer that uses the exceedance fee provisions of § 59.403 of this subpart shall report the information in paragraphs (d)(1) through (d)(7) of this section for each coating for which the exceedance fee provisions are used. This report and the exceedance fee payment must be submitted by March 1 following the calendar year in which the coating is manufactured or imported.
 - (1) Manufacturer's or importer's name and mailing address.
 - (2) A list of all coatings and the associated coating categories in table 1 of this subpart for which the exceedance fee provision is being used.
 - (3) The VOC content of each coating that exceeds the applicable VOC content limit in table 1 of this subpart.
 - (4) The excess VOC content of each coating in grams of VOC per liter of coating.
 - (5) The total volume of each coating manufactured or imported per calendar year, in liters, including the volume of any water and exempt compounds and excluding the volume of any colorant added to tint bases.
 - (6) The annual fee for each coating.
 - (7) The total annual fee for all coatings.
- (e) Each manufacturer and importer of architectural coatings for which a tonnage exemption under § 59.404 of this subpart is claimed shall submit a report no later than March 1 of the year following the calendar year in which the exemption was claimed. The report must include the information in paragraphs (f)(1) through (f)(4) of this section.
 - (1) A list of all coatings and the associated coating categories in table 1 of this subpart for which the exemption was claimed.
 - (2) The VOC amount as used in equation 4.

- (3) The volume manufactured or imported, in liters, for each coating for which the exemption is claimed for the time period the exemption is claimed.
- (4) The total megagrams of VOC contained in all coatings for which the exemption was claimed for the time period the exemption was claimed, as calculated in § 59.404(b) of this subpart.

[63 FR 48877, Sept. 11, 1998; 64 FR 35001, June 30, 1999]

§ 59.409 Addresses of EPA Offices.

- (a) Except for exceedance fee payments, each manufacturer and importer of any architectural coating subject to the provisions of this subpart shall submit all requests, reports, submittals, and other communications to the Administrator pursuant to this subpart to the Regional Office of the U.S. Environmental Protection Agency that serves the State or Territory in which the corporate headquarters of the manufacturer or importer resides. These areas are indicated in the following table.

TABLE 1 TO PARAGRAPH (a)

| Region | Address | State |
|--------|--|--|
| I | Director, Enforcement and Compliance Assurance Division, U.S. EPA Region I, 5 Post Office Square—Suite 100 (04-2), Boston, MA 02109-3912, Attn: Air Compliance Clerk | Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont. |
| II | Director, Division of Enforcement and Compliance Assistance, 290 Broadway, New York, NY 10007-1866 | New Jersey, New York, Puerto Rico, Virgin Islands. |
| III | Director, Air Protection Division, 1650 Arch Street, Philadelphia, PA 19103 | Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia. |
| IV | Director, Air and Radiation Division, 61 Forsyth Street SW, Atlanta, Georgia 30303-8960 | Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee. |
| V | Director, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, IL 60604-3507 | Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin. |
| VI | Director, Enforcement and Compliance Assurance Division, 1201 Elm Street, Suite 500, Mail Code 6ECD, Dallas, Texas 75270-21022 | Arkansas, Louisiana, New Mexico, Oklahoma, Texas. |
| VII | Director, Air and Waste Management Division, 11201 Renner Boulevard, Lenexa, Kansas 66219 | Iowa, Kansas, Missouri, Nebraska. |
| VIII | Director, Office of Partnerships and Regulatory Assistance, 999 18th Street, Suite 500, Denver, Colorado 80202-2466 | Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming. |
| IX | Director, Air Division, 75 Hawthorne Street, San Francisco, CA 94105 | American Samoa, Arizona, California, Guam, Hawaii, |

| Region | Address | State |
|--------|---|--|
| X | Director, Office of Air Quality, 1200 Sixth Avenue, Seattle, WA 98101 | Nevada. Alaska, Oregon, Idaho, Washington. |

- (b) Each manufacturer and importer who uses the exceedance fee provisions of § 59.403 shall submit the exceedance fee payment required by § 59.408(d) to the following address: Environmental Protection Agency, AIM Exceedance Fees, Post Office Box 371293M, Pittsburgh, PA 15251. This address is for the fee payment only; the exceedance fee report required by § 59.408(d) is to be submitted to the appropriate EPA Regional Office listed in paragraph (a) of this section. The exceedance fee payment in the form of a check or money order must be made payable to "U.S. Environmental Protection Agency" or "US EPA."

[63 FR 48877, Sept. 11, 1998; 64 FR 35001, June 30, 1999, as amended at 65 FR 7737, Feb. 16, 2000; 76 FR 49672, Aug. 11, 2011; 78 FR 37976, June 25, 2013; 84 FR 34068, July 17, 2019; 84 FR 44229, Aug. 23, 2019; 89 FR 86746, Oct. 31, 2024]

§ 59.410 State authority.

The provisions of this subpart must not be construed in any manner to preclude any State or political subdivision thereof from:

- (a) Adopting and enforcing any emissions standard or limitation applicable to a manufacturer or importer of architectural coatings; or
- (b) Requiring the manufacturer or importer of architectural coatings to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of a facility for manufacturing an architectural coating.

§ 59.411 Circumvention.

Each manufacturer and importer of any architectural coating subject to the provisions of this subpart must not alter, destroy, or falsify any record or report, to conceal what would otherwise be noncompliance with this subpart. Such concealment includes, but is not limited to, refusing to provide the Administrator access to all required records and date-coding information, altering the VOC content of a coating batch, or altering the results of any required tests to determine VOC content.

§ 59.412 Incorporations by reference.

- (a) The materials listed in this section are incorporated by reference in the paragraphs noted in § 59.401. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and notice of any changes in these materials will be published in the FEDERAL REGISTER. The materials are available for purchase at the corresponding addresses noted below, and all are available for inspection at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M St., SW., Washington, DC 20460; at the EPA Library (MD-35), U.S. EPA, Research Triangle Park, North Carolina; or 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) The materials listed below are available for purchase at the following address: American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.
 - (1) ASTM Method C 1315-95, Standard Specification for Liquid Membrane-Forming Compounds Having Special Properties for Curing and Sealing Concrete, incorporation by reference approved for § 59.401, *Concrete curing and sealing compound*.
 - (2) ASTM Method D 523-89, Standard Test Method for Specular Gloss, incorporation by reference approved for § 59.401, *Flat coating and Nonflat coating*.
 - (3) ASTM Method D 1640-83 (Reapproved 1989), Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature, incorporation by reference approved for § 59.401, *Quick-dry enamel and Quick-dry primer, sealer, and undercoater*.
 - (4) ASTM Method D 3912-80 (Reapproved 1989), Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants, incorporation by reference approved for § 59.401, *Nuclear coating*.
 - (5) ASTM Method D 4082-89, Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants, incorporation by reference approved for § 59.401, *Nuclear coating*.
- (c) The following material is available from the AAMA, 1827 Walden Office Square, Suite 104, Schaumburg, IL 60173.
 - (1) AAMA 605-98, Voluntary Specification Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels, incorporation by reference approved for § 59.401, *Extreme high durability coating*.
 - (2) [Reserved]

[63 FR 48877, Sept. 11, 1998, as amended at 69 FR 18803, Apr. 9, 2004]

§ 59.413 Availability of information and confidentiality.

- (a) **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.
- (b) **Confidentiality.** All confidential business information entitled to protection under section 114(c) of the Act that must be submitted or maintained by each manufacturer or importer of architectural coatings pursuant to this section shall be treated in accordance with 40 CFR part 2, subpart B.

Appendix A to Subpart D of Part 59—Determination of Volatile Matter Content of Methacrylate Multicomponent Coatings Used as Traffic Marking Coatings

1.0 Principle and Applicability

- 1.1 Applicability. This modification to Method 24 of appendix A of 40 CFR part 60 applies to the determination of volatile matter content of methacrylate multicomponent coatings used as traffic marking coatings.
- 1.2 Principle. A known amount of methacrylate multicomponent coating is dispersed in a weighing dish using a stirring device before the volatile matter is removed by heating in an oven.

2.0 Procedure

- 2.1 Prepare about 100 milliliters (mL) of sample by mixing the components in a storage container, such as a glass jar with a screw top or a metal can with a cap. The storage container should be just large enough to hold the mixture. Combine the components (by weight or volume) in the ratio recommended by the manufacturer. Tightly close the container between additions and during mixing to prevent loss of volatile materials. Most manufacturers' mixing instructions are by volume. Because of possible error caused by expansion of the liquid when measuring the volume, it is recommended that the components be combined by weight. When weight is used to combine the components and the manufacturer's recommended ratio is by volume, the density must be determined by section 3.5 of Method 24 of appendix A of 40 CFR part 60.
- 2.2 Immediately after mixing, take aliquots from this 100 mL sample for determination of the total volatile content, water content, and density. To determine water content, follow section 3.4 of Method 24 of appendix A of 40 CFR part 60. To determine density, follow section 3.5 of Method 24. To determine total volatile content, use the apparatus and reagents described in section 3.8.2 of Method 24 and the following procedures:
 - 2.2.1 Weigh and record the weight of an aluminum foil weighing dish and a metal paper clip. Using a syringe as specified in section 3.8.2.1 of Method 24, weigh to 1 milligrams (mg), by difference, a sample of coating into the weighing dish. For methacrylate multicomponent coatings used for traffic marking use 3.0 ± 0.1 g.
 - 2.2.2 Add the specimen and use the metal paper clip to disperse the specimen over the surface of the weighing dish. If the material forms a lump that cannot be dispersed, discard the specimen and prepare a new one. Similarly, prepare a duplicate. The sample shall stand for a minimum of 1 hour, but no more than 24 hours before being oven dried at 110 ± 5 degrees Celsius for 1 hour.
 - 2.2.3 Heat the aluminum foil dishes containing the dispersed specimens in the forced draft oven for 60 minutes at 110 ± 5 degrees Celsius. Caution—provide adequate ventilation, consistent with accepted laboratory practice, to prevent solvent vapors from accumulating to a dangerous level.
 - 2.2.4 Remove the dishes from the oven, place immediately in a desiccator, cool to ambient temperature, and weigh to within 1 mg. After weighing, break up the film of the coating using the metal paper clip. Weigh dish to within 1 mg. Return to forced draft oven for an additional 60 minutes at 110 ± 5 degrees Celsius.
 - 2.2.5 Remove the dishes from the oven, place immediately in a desiccator, cool to ambient temperature, and weigh to within 1 mg.

2.2.6 Run analyses in pairs (duplicate sets for each coating mixture until the criterion in section 4.3 of Method 24 of appendix A of 40 CFR part 60 is met. Calculate the weight of volatile matter for each heating period following Equation 24-2 of Method 24 and record the arithmetic average. Add the arithmetic average for the two heating periods to obtain the weight fraction of the volatile matter.

3.0 Data Validation Procedure

- 3.1 Follow the procedures in Section 4 of Method 24 of appendix A to 40 CFR part 60.
- 3.2 If more than 10 percent of the sample is lost when the sample is being broken up in 2.2.4, the sample is invalid.

4.0 Calculations

Follow the calculation procedures in Section 5 of Method 24 of appendix A of 40 CFR part 60.

Table 1 to Subpart D of Part 59—Volatile Organic Compound (VOC), Content Limits for Architectural Coatings

[UNLESS OTHERWISE SPECIFIED, LIMITS ARE EXPRESSED IN GRAMS OF VOC PER LITER OF COATING THINNED TO THE MANUFACTURER'S MAXIMUM RECOMMENDATION EXCLUDING THE VOLUME OF ANY WATER, EXEMPT COMPOUNDS, OR COLORANT ADDED TO TINT BASES.]

| Coating category | Grams VOC per liter | Pounds VOC per gallon ^a |
|---------------------------------------|---------------------|------------------------------------|
| Antenna coatings | 530 | 4.4 |
| Anti-fouling coatings | 450 | 3.8 |
| Anti-graffiti coatings | 600 | 5.0 |
| Bituminous coatings and mastics | 500 | 4.2 |
| Bond breakers | 600 | 5.0 |
| Calcimine recoater | 475 | 4.0 |
| Chalkboard resurfacers | 450 | 3.8 |
| Concrete curing compounds | 350 | 2.9 |
| Concrete curing and sealing compounds | 700 | 5.8 |
| Concrete protective coatings | 400 | 3.3 |
| Concrete surface retarders | 780 | 6.5 |

^a English units are provided for information only. Compliance will be determined based on the VOC content limit, as expressed in metric units.

^b Units are grams of VOC per liter (pounds of VOC per gallon) of coating, including water and exempt compounds, thinned to the maximum thinning recommended by the manufacturer.

| Coating category | Grams VOC per liter | Pounds VOC per gallon ^a |
|--|---------------------|------------------------------------|
| Conversion varnish | 725 | 6.0 |
| Dry fog coatings | 400 | 3.3 |
| Extreme high durability coatings | 800 | 6.7 |
| Faux finishing/glazing | 700 | 5.8 |
| Fire-retardant/resistive coatings: | | |
| Clear | 850 | 7.1 |
| Opaque | 450 | 3.8 |
| Flat coatings: | | |
| Exterior coatings | 250 | 2.1 |
| Interior coatings | 250 | 2.1 |
| Floor coatings | 400 | 3.3 |
| Flow coatings | 650 | 5.4 |
| Form release compounds | 450 | 3.8 |
| Graphic arts coatings (sign paints) | 500 | 4.2 |
| Heat reactive coatings | 420 | 3.5 |
| High temperature coatings | 650 | 5.4 |
| Impacted immersion coatings | 780 | 6.5 |
| Industrial maintenance coatings | 450 | 3.8 |
| Lacquers (including lacquer sanding sealers) | 680 | 5.7 |
| Magnesite cement coatings | 600 | 5.0 |
| Mastic texture coatings | 300 | 2.5 |
| Metallic pigmented coatings | 500 | 4.2 |
| Multi-colored coatings | 580 | 4.8 |
| Nonferrous ornamental metal lacquers and surface protectants | 870 | 7.3 |
| Nonflat coatings: | | |
| Exterior coatings | 380 | 3.2 |
| Interior coatings | 380 | 3.2 |
| Nuclear coatings | 450 | 3.8 |
| Pretreatment wash primers | 780 | 6.5 |
| Primers and undercoaters | 350 | 2.9 |
| Quick-dry coatings: | | |
| Enamels | 450 | 3.8 |
| Primers, sealers, and undercoaters | 450 | 3.8 |
| Repair and maintenance thermoplastic coatings | 650 | 5.4 |

^a English units are provided for information only. Compliance will be determined based on the VOC content limit, as expressed in metric units.

^b Units are grams of VOC per liter (pounds of VOC per gallon) of coating, including water and exempt compounds, thinned to the maximum thinning recommended by the manufacturer.

| Coating category | Grams VOC per liter | Pounds VOC per gallon ^a |
|--|---------------------|------------------------------------|
| Roof coatings | 250 | 2.1 |
| Rust preventative coatings | 400 | 3.3 |
| Sanding sealers (other than lacquer sanding sealers) | 550 | 4.6 |
| Sealers (including interior clear wood sealers) | 400 | 3.3 |
| Shellacs: | | |
| Clear | 730 | 6.1 |
| Opaque | 550 | 4.6 |
| Stains: | | |
| Clear and semitransparent | 550 | 4.6 |
| Opaque | 350 | 2.9 |
| Low solids | ^b 120 | ^b 1.0 |
| Stain controllers | 720 | 6.0 |
| Swimming pool coatings | 600 | 5.0 |
| Thermoplastic rubber coatings and mastics | 550 | 4.6 |
| Traffic marking coatings | 150 | 1.3 |
| Varnishes | 450 | 3.8 |
| Waterproofing sealers and treatments | 600 | 5.0 |
| Wood preservatives: | | |
| Below ground wood preservatives | 550 | 4.6 |
| Clear and semitransparent | 550 | 4.6 |
| Opaque | 350 | 2.9 |
| Low solids | ^b 120 | ^b 1.0 |
| Zone marking coatings | 450 | 3.8 |

^a English units are provided for information only. Compliance will be determined based on the VOC content limit, as expressed in metric units.

^b Units are grams of VOC per liter (pounds of VOC per gallon) of coating, including water and exempt compounds, thinned to the maximum thinning recommended by the manufacturer.

[63 FR 48877, Sept. 11, 1998; 63 FR 55175, Oct. 14, 1998; 63 FR 32103, June 15, 1999; 64 FR 35002, June 30, 1999]

Subpart E—National Volatile Organic Compound Emission Standards for Aerosol Coatings

Source: 73 FR 15621, Mar. 24, 2008, unless otherwise noted.

§ 59.500 What is the purpose of this subpart?

This subpart establishes the product-weighted reactivity (PWR) limits regulated entities must meet in order to comply with the national rule for volatile organic compounds (VOC) emitted from aerosol coatings. This subpart also establishes labeling, recordkeeping, and reporting requirements for regulated entities.

§ 59.501 Am I subject to this subpart?

- (a) The regulated entities for an aerosol coating product are the manufacturer or importer of an aerosol coating product and a distributor of an aerosol coating product if it is named on the label or if it specifies the formulation of the product. Distributors include retailers who fall within the definition of “distributor” in § 59.503.
- (b) Except as provided in paragraph (e) of this section, the responsibilities of each regulated entity are detailed in paragraphs (b)(1) through (b)(4) of this section.
 - (1) If you are a manufacturer or importer, you are a regulated entity responsible for ensuring that all aerosol coatings manufactured or imported by you meet the PWR limits presented in § 59.504, even if your name is not on the label.
 - (2) If you are a distributor named on the label, you are a regulated entity responsible for compliance with all sections of this subpart except for the limits presented in § 59.504. If you are a distributor that has specified formulations to be used by a manufacturer, then you are a regulated entity responsible for compliance with all sections of this subpart.
 - (3) If there is no distributor named on the label, then the manufacturer or importer is a regulated entity responsible for compliance with all sections of this subpart.
 - (4) If you are a manufacturer, importer, or distributor, you can choose to certify that you will provide any or all of the recordkeeping and reporting requirements of §§ 59.510 and 59.511 by following the procedures of § 59.511(g) and (h).
- (c) Except as provided in paragraph (e) of this section, the provisions of this subpart apply to aerosol coatings manufactured on or after July 1, 2009, for sale or distribution in the United States. Aerosol coatings that are registered under the Federal Insecticide, Fungicide and Rodenticide Act (7 U.S.C. 136-136y) (FIFRA). For FIFRA registered aerosol coatings, the provisions of this subpart apply to aerosol coatings manufactured on or after January 1, 2010, for sale or distribution in the United States.
- (d) You are not a regulated entity under this subpart for the aerosol coatings products that you manufacture (in or outside of the United States) that are exclusively for sale outside the United States.
- (e) If you meet the definition of small quantity manufacturer for a given year, the products you manufacture in that year are not subject to the PWR limits presented in § 59.504 or the labeling requirements of § 59.507. To qualify for this exemption, small aerosol coating manufacturers must comply with the applicable recordkeeping and reporting requirements in §§ 59.510 and 59.511.
- (f) If you are a person who manufactures or processes aerosol coatings outside of the United States, you may qualify for the small quantity manufacturer exemption in paragraph (e) of this section if you meet the requirements of paragraphs (f)(1) through (f)(3) of this section.
 - (1) The total VOC by mass included in all aerosol coatings you manufacture, at all facilities, in a given calendar year, in the aggregate, is less than 7,500 kilograms.
 - (2) You comply with the recordkeeping and reporting requirements in §§ 59.510 and 59.511.
 - (3) You commit to and comply with the requirements of paragraphs (f)(3)(i) through (f)(3)(vii) of this section.

- (i) You must submit an initial notification no later than July 31, 2009, or on or before the date that you start manufacturing aerosol coating products that are sold in the United States, whichever is later. This initial notification must state that you are a foreign manufacturer that is intending to qualify for the small quantity manufacturer exemption in paragraph (e) of this section, provide all of the information specified in § 59.511(b), and provide all the information in paragraphs (f)(3)(i)(A) and (f)(3)(i)(B) of this section.
 - (A) The name, address, telephone number, and e-mail address of an agent located in the United States who will serve as your point of contact for communications with EPA.
 - (B) The address of each of your facilities that is manufacturing aerosol coatings for sale in the United States.
- (ii) You must notify the Administrator of any changes in the information provided in your initial notification within 30 days following the change.
- (iii) The agent identified above must maintain a copy of the compliance records specified in § 59.510(b). Those records must be kept by the agent such that the agent will be able to provide the written report which must be submitted upon 60 days notice under § 59.511(d) and able to make those records available for inspection and review under § 59.511(e).
- (iv) You must give any EPA inspector or auditor full, complete, and immediate access to your facilities and records to conduct inspections and audits of your manufacturing facilities.
- (v) You must agree that United States substantive and procedural law shall apply to any civil or criminal enforcement action against you under this subpart, and that the forum for any civil or criminal enforcement action under this subpart shall be governed by the CAA, including the EPA administrative forum where allowed under the CAA.
- (vi) Any person certifying any notification, report, or other communication from you to EPA must state in the certification that United States substantive and procedural law shall apply to any civil or criminal enforcement action against him or her under this subpart, and that the forum for any civil or criminal enforcement action under this section shall be governed by the CAA, including the EPA administrative forum where allowed under the CAA.
- (vii) All reports and other communications with EPA must be in English. To the extent that you provide any documents as part of any report or other communication with EPA, an English language translation of that document must be provided with the report or communication.

[73 FR 15621, Mar. 24, 2008, as amended at 73 FR 15425, Mar. 24, 2008; 73 FR 78996, Dec. 24, 2008; 74 FR 29603, June 23, 2009]

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

- (a) Except as provided in § 59.509 and paragraphs (b) and (c) of this section, you must be in compliance with all provisions of this subpart by July 17, 2025.
- (b) The Administrator will consider issuance of a special compliance extension that extends the date of compliance until January 1, 2011, to regulated entities that have never manufactured, imported, or distributed aerosol coatings for sale or distribution in California that are in compliance with California's Regulation for Reducing Ozone Formed From Aerosol Coating Product Emissions, Title 17, California Code of Regulations, sections 94520-94528. In order to be considered for an extension of the compliance date, you must submit a special compliance extension application to the EPA Administrator no later than

90 days before the compliance date or within 90 days before the date that you first manufacture aerosol coatings, whichever is later. This application must contain the information in paragraphs (b)(1) through (b)(5) of this section. If a regulated entity remains unable to comply with the limits of this rule by January 1, 2011, the regulated entity may seek a variance in accordance with § 59.509.

- (1) Company name;
 - (2) A signed certification by a responsible company official that the regulated entity has not at any time manufactured, imported, or distributed for sale or distribution in California any product in any category listed in Table 1 of this subpart that complies with California's Regulation for Reducing Ozone Formed From Aerosol Coating Product Emissions, Title 17, California Code of Regulations, sections 94520-94528;
 - (3) A statement that the regulated entity will, to the extent possible within its reasonable control, take appropriate action to achieve compliance with this subpart by January 1, 2011;
 - (4) A list of the product categories in Table 1 of this subpart that the regulated entity manufactures, imports, or distributes; and,
 - (5) Name, title, address, telephone, e-mail address, and signature of the certifying company official.
- (c) Except as provided in paragraph (b) of this section, the compliance date for aerosol coatings that are registered under the Federal Insecticide, Fungicide and Rodenticide Act (7 U.S.C 136-136y) (FIFRA) is January 1, 2010.
- (d) Until July 17, 2025 appendix A—table 1, appendix A—table 2A, appendix A—table 2B, appendix A—table 2C and the test methods listed in appendix A table 3 to subpart E of part 59 are applicable to this subpart. Prior to July 17, 2025 regulated entities may elect to use tables 1, 2A, 2B, and 2C. If a regulated entity elects to do so, it shall use the test methods specified in § 59.508 of this subpart. After July 17, 2025 tables 1, 2A, 2B, and 2C, and the test methods specified in § 59.508 of this subpart are applicable.

[73 FR 15621, Mar. 24, 2008, as amended at 73 FR 78997, Dec. 24, 2008; 90 FR 5704, Jan. 17, 2025]

§ 59.503 What definitions apply to this subpart?

The following terms are defined for the purposes of this subpart only.

Administrator means the Administrator of the United States Environmental Protection Agency (EPA) or an authorized representative.

Aerosol coating product means a pressurized coating product containing pigments or resins that is dispensed by means of a propellant and is packaged in a disposable container for hand-held application, or for use in specialized equipment for ground traffic/marketing applications. For this regulation, applicable aerosol coatings categories are listed in table 1 of this subpart.

Art fixative or sealant means a clear coating, including art varnish, workable art fixative and ceramic coating, which is designed and labeled exclusively for application to paintings, pencil, chalk, or pastel drawings, ceramic art pieces or other closely related art uses, in order to provide a final protective coating or to fix preliminary stages of artwork while providing a workable surface for subsequent revisions.

ASTM means ASTM International.

Autobody primer means an automotive primer or primer surfacer coating designed and labeled exclusively to be applied to a vehicle body substrate for the purposes of corrosion resistance, increased intercoat adhesion, or building a repair area to a condition in which, after drying, it can be sanded to a smooth surface.

Automotive bumper and trim product means a product, including adhesion promoters and chip sealants, designed, and labeled exclusively to repair and refinish automotive bumpers and plastic trim parts.

Aviation or marine primer means a coating designed and labeled exclusively to meet federal specification TT-P-1757.

Aviation propeller coating means a coating designed and labeled exclusively to provide abrasion resistance and corrosion protection for aircraft propellers.

Clear coating means a coating which is colorless or transparent, containing resins but no pigments except flattening agents, and is designed and labeled to form a transparent or translucent solid film.

Coating means a material applied onto or impregnated into a substrate for protective, decorative, or functional purposes.

Coating solids means the nonvolatile portion of an aerosol coating product, consisting of the film-forming ingredients, including pigments and resins.

Commercial application means the use of aerosol coating products in the production of goods, or the providing of services for profit, including touch-up and repair.

Corrosion resistant brass, bronze, or copper coating means a clear coating designed and labeled exclusively to prevent tarnish and corrosion of uncoated brass, bronze, or copper metal surfaces.

Distributor means any person who purchases or is supplied aerosol coating product for the purposes of resale or distribution in commerce. Retailers who fall within this definition are distributors. Importers are not distributors.

Electrical/electronic/conformal coating means a coating designed and labeled exclusively to coat electrical or electronic components or devices.

Enamel means a coating which cures by chemical cross-linking of its base resin and is not resolvable in its original solvent.

Engine paint means a coating designed and labeled exclusively to coat engines and their components.

Exact match finish, automotive means a topcoat which meets all of the following criteria:

- (1) The product is designed and labeled exclusively to exactly match the color of an original, factory-applied automotive coating during the touch-up of automobile finishes;
- (2) The product is labeled with the manufacturer's name for which it is formulated; and
- (3) The product is labeled with one of the following:
 - (i) The original equipment manufacturer's (O.E.M.) color code number;
 - (ii) The color name; or
 - (iii) Other designation identifying the specific O.E.M. color to the purchaser.

Notwithstanding the foregoing, automotive clear coatings designed and labeled exclusively for use over automotive exact match finishes to replicate the original factory-applied finish shall be considered to be automotive exact match finishes.

Exact match finish, engine enamel coating means an enamel coating which meets all of the following criteria:

- (1) The product is designed and labeled exclusively to exactly match the color of an original, factory-applied engine paint;
- (2) The product is labeled with the manufacturer's name for which it is formulated; and
- (3) The product is labeled with one of the following:
 - (i) The O.E.M. color code number;
 - (ii) The color name; or
 - (iii) Other designation identifying the specific O.E.M. color to the purchaser.

Exact match finish, industrial means a coating which meets all of the following criteria:

- (1) The product is designed and labeled exclusively to exactly match the color of an original, factory-applied industrial coating during the touch-up of manufactured products;
- (2) The product is labeled with the manufacturer's name for which it is formulated;
and
- (3) The product is labeled with one of the following:
 - (i) O.E.M. color code number;
 - (ii) The color name; or
 - (iii) Other designation identifying the specific O.E.M. color to the purchaser.

Extender means an ingredient added to an "Aerosol Coating Product" to increase coating solids.

Flat coating means a coating which, when fully dry, registers specular gloss less than or equal to 15 on an 85° gloss meter, or less than or equal to 5 on a 60° gloss meter, or which is labeled as a flat coating.

Flatting agent means a compound added to a coating to reduce the gloss of the coating without adding color to the coating.

Flexible coating means a coating including, but not limited to, rubberized, mastic, or asphaltic products designed and labeled exclusively to protect surfaces.

Floral spray means a coating designed and labeled exclusively for use on fresh flowers, dried flowers, or other items in a floral arrangement for the purpose of coloring, preserving, or protecting their appearance.

Fluorescent coating means a coating labeled as such, which converts absorbed incident light energy into emitted light of a different hue.

Formulation data, unless otherwise specified, means the recipe used to formulate or manufacture a coating product in terms of the weight fraction (g compound/g product) of each individual VOC in the product.

General coating means the following aerosol coating products: "Clear Coating," "Flat Coating," "Fluorescent Coating," "Metallic Coating," "Non-flat Coating," or "Primer."

Glass coating means a coating designed and labeled exclusively for use on glass or other transparent material to create a soft, translucent light effect, or to create a tinted or darkened color while retaining transparency.

Ground traffic/marketing coating means a coating designed and labeled exclusively to be applied to dirt, gravel, grass, concrete, asphalt, warehouse floors, or parking lots. Such coatings must be in a container equipped with a valve and spray head designed to direct the spray toward the surface when the can is held in an inverted vertical position.

High temperature coating means a coating, excluding engine coating, which is designed and labeled exclusively for use on substrates which will, in normal use, be subjected to temperatures in excess of 400 °F.

Hobby/model/craft coating means a coating which is designed and labeled exclusively for hobby applications and is sold in aerosol containers of 6 ounces by weight or less.

Importer means any person who brings an aerosol coating product that was manufactured, filled, or packaged at a location outside of the United States into the United States for sale or distribution in the United States.

Impurity means an individual chemical compound present in a raw material which is incorporated in the final aerosol coatings formulation, if the compound is present in amounts below the following in the raw material:

- (1) For individual compounds that are carcinogens, each compound must be present in an amount less than 0.1 percent by weight;
- (2) For all other compounds present in a raw material, a compound must be present in an amount less than 1 percent by weight.

Ingredient means a component of an aerosol coating product.

Label means any written, printed, or graphic matter affixed to, applied to, attached to, blown into, formed, molded into, embossed on, or appearing upon any consumer product or consumer product package, for purposes of branding, identifying, or giving information with respect to the product or to the contents of the package.

Manufacturer means any person who manufactures or processes an aerosol coating product for sale or distribution within the United States. Manufacturers include:

- (1) Processors who blend and mix aerosol coatings;
- (2) Contract fillers who develop formulas and package these formulations under a distributor's name; and
- (3) Contract fillers who manufacture products using formulations provided by a distributor.

Marine spar varnish means a coating designed and labeled exclusively to provide a protective sealant for marine wood products.

Metallic coating means a topcoat which contains at least 0.5 percent by weight metallic pigment in the formulation, including propellant, and is labeled as "metallic," or with the name of a specific metallic finish such as "gold," "silver," or "bronze."

Mold release coating means a coating designed and labeled exclusively to be applied to molds to prevent products from sticking to the surfaces of the mold.

Multi-component kit means an aerosol spray paint system that requires the application of more than one component, e.g., foundation coat and topcoat, where both components are sold together in one package.

Non-flat coating means a coating that, when fully dry, registers a specular gloss greater than 15 on an 85° gloss meter or greater than five on a 60° gloss meter.

Ozone means a colorless gas with a pungent odor, having the molecular form O₃.

Person means an individual, corporation, partnership, association, State, any agency, department, or instrumentality of the United States, and any officer, agent, or employee thereof.

Photographic coating means a coating designed and labeled exclusively to be applied to finished photographs to allow corrective retouching, protection of the image, changes in gloss level, or to cover fingerprints.

Pigment means either a natural or synthetic insoluble material added to a coating to provide color, opacity, or corrosion inhibition to a coating film.

Plasticizer means an ingredient added to an aerosol coating product to aid in flexibility.

Pleasure craft means privately owned vessels used for noncommercial purposes.

Pleasure craft finish primer/surfacer/undercoater means a coating designed and labeled exclusively to be applied prior to the application of a pleasure craft topcoat for the purpose of corrosion resistance and adhesion of the topcoat, and which promotes a uniform surface by filling in surface imperfections.

Pleasure craft topcoat means a coating designed and labeled exclusively to be applied to a pleasure craft as a final coat above the waterline, and below the waterline when stored out of water. This category does not include clear coatings.

Polyolefin adhesion promoter means a coating designed and labeled exclusively to be applied to a polyolefin or polyolefin copolymer surface of vehicular body parts, bumpers, or trim parts to provide a bond between the surface and subsequent coats.

Primer means a coating labeled as such, which is designed to be applied to a surface to provide a bond between that surface and subsequent coats.

Product-Weighted Reactivity (PWR) Limit means the maximum allowed "product-weighted reactivity," as calculated in § 59.505, of an aerosol coating product that is subject to the limits specified in § 59.504 for a specific category, expressed as grams of ozone per gram of product (g O₃/g product).

Propellant means a liquefied or compressed gas that is used in whole or in part to expel a liquid or any other material from the same self-pressurized container or from a separate container.

Reactivity Factor (RF) is a measure of the change in mass of ozone formed by adding a gram of a VOC to the ambient atmosphere, expressed to hundredths of a gram of ozone per gram of VOC (g O₃/g VOC). The RF values for individual compounds and hydrocarbon solvent mixtures are specified in tables 2A, 2B, and 2C to this subpart.

Resin means a substance that comprises the film-forming ingredients in an aerosol coating product. Examples of resin ingredients include acrylic, alkyd, enamel, epoxy, lacquer, polyurethane, polyvinyl chloride, shellac, silicone, and polystyrene.

Retailer means any person who sells, supplies, or offers aerosol coating products for sale directly to consumers. Retailers who fall within the definition of "distributor" in this section are distributors.

Retail outlet means any establishment where consumer products are sold, supplied, or offered for sale, directly to consumers.

Rust converter means a coating designed and labeled exclusively to convert rust to an inert material and which contains a minimum acid content of 1.0 percent by weight, and a maximum coating solids content of 6.0 percent by weight.

Shellac sealer means a clear or pigmented coating formulated solely with the resinous secretion of the lac beetle (*Laccifer lacca*), thinned with alcohol, and formulated to dry by evaporation without a chemical reaction.

Slip-resistant coating means a coating designed and labeled exclusively as such, which is formulated with grit and used as a safety coating.

Small quantity manufacturer means a manufacturer whose total VOC by mass included in all aerosol coatings manufactured at all facilities in a given calendar year, in the aggregate, is less than 7,500 kilograms.

Spatter coating/multicolor coating/stucco coating means a coating labeled exclusively as such, wherein spots, globules, or spatters of contrasting colors appear on or within the surface of a contrasting or similar background.

Specialty coating means any aerosol coating product that is not a "General Coating" unless specifically exempted. An aerosol coating that does not meet all the criteria for a specific "Specialty Coating" or an aerosol coating that is not defined in this section is a "General Coating."

Stain means a coating which is designed and labeled to change the color of a surface but not conceal the surface.

Two-component coating means a coating packaged in an aerosol container with a separate integrated chamber for a hardener or activator.

Uniform finish coating means a coating designed and labeled exclusively for application to the area adjacent to a spot repair for the purpose of blending the spot repair's color or clear coating to match the appearance of an adjacent area's existing coating. For the purpose of this rule, "spot repair" means repair of an area of less than 1 square foot (929 square centimeters).

United States means the United States of America, including the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

Vinyl/fabric/leather/polycarbonate coating means a coating designed and labeled exclusively to coat vinyl, fabric, leather, or plastic substrates or to coat flexible substrates including rubber or thermoplastic substrates.

Volatile Organic Compound (VOC) means any organic compound as defined in § 51.100(s) of this chapter. As provided in 40 CFR 51.100(s)(7), exemptions from the definition of VOC in 40 CFR 51.100(s) for certain compounds that are used in aerosol coatings are inapplicable for purposes of this subpart.

Webbing/veiling coating means a coating designed and labeled exclusively to provide a stranded or spider webbed appearance when applied.

Weight fraction means the weight of an ingredient divided by the total net weight of the product, expressed to thousandths of a gram of ingredient per gram of product (excluding container and packaging).

Weld-through primer means a coating designed and labeled exclusively to provide a bridging or conducting effect for corrosion protection following welding.

Wood stain means a coating which is designed and labeled exclusively as a wood stain and is used to change the color of a wood surface but not conceal the grain pattern or texture.

Wood touch-up/repair/restoration means a coating designed and labeled exclusively to provide an exact color or sheen match on finished wood products.

Working day means any day from Monday through Friday, inclusive, except for days that are Federal holidays.

[90 FR 5704, Jan. 17, 2025]

§ 59.504 What limits must I meet?

- (a) Except as provided in § 59.509, each aerosol coating product you manufacture, distribute or import for sale or use in the United States must meet the PWR limits presented in Table 1 of this subpart. These limits apply to the final aerosol coating, including the propellant. The PWR limits specified in Table 1 of this subpart are also applicable to any aerosol coating product that is assembled by adding bulk coating to aerosol containers of propellant.
- (b) If a product can be included in both a general coating category and a specialty coating category and the product meets all of the criteria of the specialty coating category, then the specialty coating limit will apply instead of the general coating limit, unless the product is a high temperature coating. High-temperature coatings that contain at least 0.5 percent by weight of an elemental metallic pigment in the formulation, including propellant, are subject to the limit specified for metallic coatings.
- (c) Except as provided in paragraph (b) of this section, if anywhere on the container of any aerosol coating product subject to the limits in Table 1 of this subpart, or on any sticker or label affixed to such product, or in any sales or advertising literature, the manufacturer, importer or distributor of the product makes any representation that the product may be used as, or is suitable for use as a product for which a lower limit is specified, then the lowest applicable limit will apply.

§ 59.505 How do I demonstrate compliance with the reactivity limits?

- (a) To demonstrate compliance with the PWR limits presented in Table 1 of this subpart, you must calculate the PWR for each coating as described in paragraphs (a)(1) through (2) of this section:
 - (1) Calculate the weighted reactivity factor (WRF) for each propellant and coating component using Equation 1:

$$WRF_i = RF_i \times WF_i \quad \text{Equation 1}$$

Where:

WRF_i = weighted reactivity factor of component i, g O_3 /g component i.

RF_i = reactivity factor of component i, g O_3 /g component i, from Table 2A, 2B, or 2C.

WF_i = weight fraction of component i in the product,

- (2) Calculate the PWR of each product using Equation 2:

$$PWR_p = [WRF]_1 + [WRF]_2 + \dots + [WRF]_n \quad \text{Equation 2}$$

Where:

PWR_p = PWR for product P, g O_3 /g product.

WRF_1 = weighted reactivity factor for component 1, g O_3 /g component.

WRF_2 = weighted reactivity factor for component 2, g O_3 /g component.

WRF_n = weighted reactivity factor for component n, g O_3 /g component.

- (b) In calculating the PWR, you must follow the guidelines in paragraphs (b)(1) through (b)(4) of this section.
- (1) Any ingredient which does not contain carbon is assigned a RF value of 0.
 - (2) Any aerosol coating solid, including but not limited to resins, pigments, fillers, plasticizers, and extenders is assigned a RF of 0. These items do not have to be identified individually in the calculation.
 - (3) All individual compounds present in the coating in an amount equal to or exceeding 0.1 percent will be considered ingredients regardless of whether or not the ingredient is reported to the manufacturer.
 - (4) All individual compounds present in the coating in an amount less than 0.1 percent will be assigned an RF value of 0.
 - (5) Any component that is a VOC but is not listed in Table 2A, 2B, or 2C of this subpart is assigned an RF value as detailed in paragraph (e) of this section.
- (c) You may use either formulation data (including information for both the liquid and propellant phases), CARB Method 310 (2018) (incorporated by reference, see § 59.515), or EPA's Method 311 (40 CFR part 63, appendix A), to calculate the PWR. However, if there are inconsistencies between the formulation data and the CARB Method 310 (2018) or EPA Method 311 results, the CARB Method 310 (2018) or EPA Method 311 results will govern.
- (d) If you manufacture a coating containing either an aromatic or aliphatic hydrocarbon solvent mixture, you must use the appropriate RF for that mixture provided in table 2B or 2C to this subpart when calculating the PWR using formulation data. However, when calculating the PWR for a coating containing these mixtures using data from CARB Method 310 (2018) (incorporated by reference, see § 59.515), or EPA Method 311—(40 CFR part 63, appendix A), you must identify the individual compounds that are present in the solvent mixture and use the weight fraction of those individual compounds and their RF from table 2A to this subpart in the calculation.
- (e) The Reactivity Factor (RF) is assigned according to paragraphs (e)(1) through (4):
- (1) If a VOC is used in a product and listed in table 2A, 2B, or 2C to this subpart, then the assigned RF shall be used;
 - (2) If a product contains a mixture and/or multiple isomers of a VOC, the highest RF of the mixture or multiple isomers from table 2A to this subpart shall be used;
 - (3) If a VOC is used in a product but not listed in table 2A to this subpart, but more than one isomer or mixtures of isomers of the VOC is listed in table 2A to this subpart, then the highest RF associated with the listed isomers or isomer mixtures shall be used; and

- (4) If a VOC is used in a product but not listed in table 2A to this subpart, the assigned default RF of 18.50 g O₃ /g VOC shall be used.
- (f) In calculating the PWR value for a coating containing an aromatic hydrocarbon solvent with a boiling range different from the ranges specified in Table 2C of this subpart, you must assign an RF as described in paragraphs (f)(1) and (f)(2) of this section:
 - (1) If the solvent boiling point is lower than or equal to 420 degrees F, then you must use the RF in Table 2C of this subpart specified for bin 23;
 - (2) If the solvent boiling point is higher than 420 degrees F, then you must use the RF specified in Table 2C of this subpart for bin 24.
- (g) For purposes of compliance with the PWR limits, all compounds listed in Tables 2A, 2B, or 2C that are used in the aerosol coating products must be included in the calculation. This includes compounds that may otherwise be exempted from the definition of VOC in § 59.100(s).
- (h) Until July 17, 2025 the test methods listed in table 3 of appendix A to subpart E of part 59 are applicable to this subpart.

[73 FR 15621, Mar. 24, 2008, as amended at 90 FR 5707, Jan. 17, 2025]

§ 59.506 How do I demonstrate compliance if I manufacture multi-component kits?

- (a) If you manufacture multi-component kits as defined in § 59.503, then the Kit PWR must not exceed the Total Reactivity Limit.
- (b) You must calculate the Kit PWR and the Total Reactivity Limit as follows:
 - (1) $\text{KIT PWR} = (\text{PWR}_{(1)} \times W_1) + (\text{PWR}_{(2)} \times W_2) + \dots + (\text{PWR}_{(n)} \times W_n)$
 - (2) $\text{Total Reactivity Limit} = (\text{RL}_1 \times W_1) + (\text{RL}_2 \times W_2) + \dots + (\text{RL}_n \times W_n)$.
 - (3) $\text{Kit PWR} \leq \text{Total Reactivity Limit}$.

Where:

W = the weight of the product contents (excluding container).

RL = the PWR Limit specified in Table 1 of this subpart.

Subscript 1 denotes the first component product in the kit.

Subscript 2 denotes the second component product in the kit.

Subscript n denotes any additional component product.

§ 59.507 What are the labeling requirements for aerosol coatings?

- (a) The labels of all aerosol products manufactured on and after the applicable compliance date listed in § 59.502 must contain the information listed in paragraphs (a)(1) through (4) of this section.

- (1) The aerosol coating category code for the coating, based on the category definitions in § 59.503. This code can be the default category code shown in Table 1 of this subpart or a company-specific code, if that code is explained as required by § 59.511(a);
 - (2) The applicable PWR limit for the product specified in Table 1 of this subpart;
 - (3) The day, month, and year on which the product was manufactured, or a code indicating such date;
 - (4) The name and a contact address for the manufacturer, distributor, or importer that is the regulated entity under this subpart.
- (b) The label on the product must be displayed in such a manner that it is readily observable without removing or disassembling any portion of the product container or packaging. The information may be displayed on the bottom of the container as long as it is clearly legible without removing any product packaging.

§ 59.508 What test methods must I use?

- (a) Except as provided in § 59.505(c), you must use the procedures in CARB Method 310 (2018) (incorporated by reference, see § 59.515) or EPA's Method 311 (40 CFR part 63, appendix A) to determine the speciated ingredients and weight percentage of each ingredient of each aerosol coating product. EPA Method 311 (40 CFR part 63, appendix A) must be used in conjunction with ASTM Method D3063-94 or D3074-94 for analysis of the propellant portion of the coating. Those choosing to use CARB Method 310 (2018) must follow the procedures specified in section 5.0 of that method with the exception of section 5.3.1, which requires the analysis of the VOC content of the coating. For the purposes of this subpart, you are not required to determine the VOC content of the aerosol coating. For both CARB Method 310 (2018) and EPA Method 311 (40 CFR part 63, appendix A), you must have a listing of the VOC ingredients in the coating before conducting the analysis.
- (b) To determine the metal content of metallic aerosol coating products, you must use SCAQMD Method 318-95 (incorporated by reference, see § 59.515).
- (c) To determine the specular gloss of flat and non-flat coatings, you must use ASTM Method D523-08 (incorporated by reference, see § 59.515).

[90 FR 5707, Jan. 17, 2025]

§ 59.509 Can I get a variance?

- (a) Any regulated entity that cannot comply with the requirements of this subpart because of circumstances beyond its reasonable control may apply in writing to the Administrator for a temporary variance. The variance application must include the information specified in paragraphs (a)(1) through (6) of this section.
- (1) The specific products for which the variance is sought.
 - (2) The specific provisions of the subpart for which the variance is sought.
 - (3) The specific grounds upon which the variance is sought.
 - (4) The proposed date(s) by which the regulated entity will achieve compliance with the provisions of this subpart. This date must be no later than 3 years after the issuance of a variance.

- (5) A compliance plan detailing the method(s) by which the regulated entity will achieve compliance with the provisions of this subpart.
- (6) All identification information included in § 59.511(b)(1) and (2).
- (b) Within 30 days of receipt of the original application and within 30 days of receipt of any supplementary information that is submitted, the Administrator will send a regulated entity written notification of whether the application contains sufficient information to make a determination. If an application is incomplete, the Administrator will specify the information needed to complete the application, and provide the opportunity for the regulated entity to submit written supplementary information or arguments to the Administrator to enable further action on the application. The regulated entity must submit this information to the Administrator within 30 days of being notified that its application is incomplete.
- (c) Within 60 days of receipt of sufficient information to evaluate the application, the Administrator will send a regulated entity written notification of approval or disapproval of a variance application. This 60-day period will begin after the regulated entity has been sent written notification that its application is complete.
- (d) The Administrator will issue a variance if the criteria specified in paragraphs (d)(1) and (d)(2) of this section are met to the satisfaction of the Administrator.
 - (1) Complying with the provisions of this subpart would not be technologically or economically feasible.
 - (2) The compliance plan proposed by the applicant can reasonably be implemented and will achieve compliance as expeditiously as possible.
- (e) A variance must specify dates by which the regulated entity will achieve increments of progress towards compliance, and will specify a final compliance date by which the regulated entity will achieve compliance with this subpart.
- (f) A variance will cease to be effective upon failure of the party to whom the variance was issued to comply with any term or condition of the variance.
- (g) Beginning on July 17, 2025, or once the notification/report template for this subpart has been available on the CEDRI website for six months, whichever date is later, submit the request for a variance with the information in paragraphs (a)(1) through (6) following the procedure specified in § 59.511(1).

[73 FR 15621, Mar. 24, 2008, as amended at 90 FR 5707, Jan. 17, 2025]

§ 59.510 What records am I required to maintain?

- (a) If you are the regulated entity identified in § 59.501(a) as being responsible for recordkeeping for a product, and no other person has certified that they will fulfill your recordkeeping responsibilities as provided in § 59.511(g), you must comply with paragraphs (a)(1) through (a)(5) of this section:
 - (1) All records must be maintained on and after the applicable compliance date listed in § 59.502.
 - (2) You are required to maintain records of the following at the location specified in § 59.511(b)(4) for each product subject to the PWR limits in Table 1 of this subpart: The product category, all product calculations, the PWR, and the weight fraction of all ingredients including: Water, total solids, each VOC, and any other compounds assigned a RF of zero as specified in § 59.505. Solids do not have to be listed individually in these records. If an individual VOC is present in an amount less than 0.1 percent by weight, then it does not need to be reported as an ingredient. An impurity that meets the

definition provided in § 59.503 does not have to be reported as an ingredient. For each batch of each product subject to the PWR limits, you must maintain records of the date the batch was manufactured, the volume of the batch, the recipe used for formulating the batch, and the number of cans manufactured in each batch and each formulation.

- (3) You must maintain a copy of each notification and report that you submit to comply with this subpart, the documentation supporting each notification, and a copy of the label for each product.
 - (4) If you claim the exemption under § 59.501(e), you must maintain a copy of the initial report and each annual report that you submit to EPA, and the documentation supporting such report.
 - (5) You must maintain all records required by this subpart for a minimum of 5 years. The records must be in a form suitable and readily available for inspection and review.
- (b) By providing the written certification to the Administrator in accordance with § 59.511(g), the certifying entity accepts responsibility for compliance with the recordkeeping requirements of this section with respect to any products covered by the written certification, as detailed in the written certification. Failure to maintain the required records may result in enforcement action by EPA against the certifying entity in accordance with the enforcement provisions applicable to violation of these provisions by regulated entities. If the certifying entity revokes its certification, as allowed by § 59.511(h), the regulated entity must assume responsibility for maintaining all records required by this section.

[73 FR 15621, Mar. 24, 2008, as amended at 74 FR 29603, June 23, 2009]

§ 59.511 What notifications and reports must I submit?

- (a) If you are the regulated entity identified in § 59.501(a) and (b) as being responsible for notifications and reporting for a product, and no other person has certified that they will fulfill your notification and reporting responsibilities as provided in paragraph (g) of this section, you are responsible for all notifications and reports included in this section. If no distributor is named on the label, the manufacturer or importer of the aerosol coating is responsible for all requirements of this section, even if not listed on the label.
- (b) You must submit an initial notification no later than July 31, 2009, or on or before the date that you first manufacture, distribute, or import aerosol coatings, whichever is later. The initial notification must include the information in paragraphs (b)(1) through (b)(11) of this section.
 - (1) Company name;
 - (2) Name, title, address, telephone number, e-mail address and signature of certifying company official;
 - (3) A list of the product categories from Table 1 of this subpart that you manufacture, import, or distribute;
 - (4) The street address of each of your facilities in the United States that is manufacturing, packaging, or importing aerosol coatings that are subject to the provisions of this subpart, and the street address where compliance records are maintained for each site, if different;
 - (5) A description of date coding systems, clearly explaining how the date of manufacture is marked on each sales unit;
 - (6) An explanation of the product category codes that will be used on all required labels, or a statement that the default category codes in Table 1 of this subpart will be used;

- (7) For each product category, an explanation of how the manufacturer, distributor, or importer will define a batch for the purpose of the recordkeeping requirements;
 - (8) [Reserved]
 - (9) For each product category, VOC formulation data for each formulation that you anticipate manufacturing, importing, or distributing for calendar year 2009 or for the first year that includes your compliance date, if different than 2009. If a regulated entity can certify that the reporting is being completed by another regulated entity for any product, no second report is required. The formulation data must include the weight fraction (g compound/g product) for each VOC ingredient used in the product in an amount greater than or equal to 0.1 percent. For each VOC ingredient reported, the formulation data must also include the information in either paragraph (b)(9)(i), (ii), or (iii) of this section.
 - (i) For compounds listed in table 2A to this subpart, the chemical name, CAS number, and the applicable reactivity factor;
 - (ii) For the hydrocarbon solvent mixtures listed in either table 2B or 2C to this subpart, the trade name, solvent mixture manufacturer, bin number, and the applicable reactivity factor; or
 - (iii) For compounds not listed in table 2A to this subpart, the chemical name, CAS number, and the default RF in § 59.505(e).
 - (10) For each product formulation, a list of the unique product codes by Universal Product Code (UPC), or other unique identifier; and
 - (11) A statement certifying that all products manufactured by the company that are subject to the limits in Table 1 of this subpart will be in compliance with those limits.
- (c) If you change any information included in the initial notification required by paragraph (b) of this section, including the list of aerosol categories, contact information, records location, the category or date coding system, you must notify the Administrator of such changes within 30 days following the change. You are not required to notify the Administrator within 30 days of changes to the information provided as required by paragraph (b)(9) of this section. Changes in formulation are to be reported in the triennial reporting required by paragraph (i) of this section.
- (d) Upon 60 days written notice, you must submit to the Administrator a written report with all the information in paragraphs (d)(1) through (6) of this section for each product you manufacture, distribute, or import under your name or another company's name.
- (1) The brand name of the product;
 - (2) A copy of the product label;
 - (3) The owner of the trademark or brand names;
 - (4) The product category as defined in § 59.503;
 - (5) For each product, formulation data for each formulation that manufactured, imported, or distributed in the requested time period. The formulation data must include the weight fraction (g compound/g product) for each VOC ingredient used in the product in an amount greater than or equal to 0.1 percent, plus the weight fraction of all other ingredients, including: Water, total solids, and any other compounds assigned an RF of zero. The formulation data must also include the information in either paragraph (d)(5)(i), (ii), or (iii) of this section.

- (i) For compounds listed in table 2A to this subpart, the chemical name, CAS number, and the applicable reactivity factor;
 - (ii) For the hydrocarbon solvent mixtures listed in either table 2B or 2C to this subpart, the trade name, solvent mixture manufacturer, bin number, and the applicable reactivity factor; or
 - (iii) For compounds not listed in table 2A to this subpart, the chemical name, CAS number, and the default RF in § 59.505(e).
- (6) All identification information included in paragraphs (b)(1) and (2) of this section.
- (e) If you claim the exemption under § 59.501(e), you must submit an initial notification no later than July 31, 2009, or on or before the date that you first manufacture aerosol coatings, whichever is later. The initial notification must include the information in paragraphs (e)(1) through (e)(6) of this section.
 - (1) Company name;
 - (2) Name, title, number, address, telephone number, e-mail address, and signature of certifying company official;
 - (3) A list of the product categories from Table 1 of this subpart that you manufacture;
 - (4) The total amount of product you manufacture in each category and the total VOC mass content of such products for the preceding calendar year;
 - (5) The street address of each of your facilities in the United States that is manufacturing aerosol coatings that are subject to the provisions of this subpart and the street address where compliance records are maintained for each site, if different; and
 - (6) A list of the States in which you sell or otherwise distribute the products you manufacture.
- (f) If you claim the exemption under § 59.501(e), you must file an annual report for each year in which you claim an exemption from the limits of this subpart. Such annual report must be filed by March 1 of the year following the year in which you manufactured the products. The annual report shall include the same information required in paragraphs (e)(1) through (e)(6) of this section.
- (g) If you are a manufacturer, importer, or distributor who chooses to certify that you will maintain records for a regulated entity for all or part of the purposes of § 59.510 and this section, you must submit a notice to the appropriate EPA Regional Office listed in § 59.512. At the same time that this notice is sent to the appropriate EPA Regional Office, a copy of the notice must be sent to the regulated entity for which you are accepting responsibility for recordkeeping and reporting requirements. After the certifying entity submits this notice to the appropriate EPA Regional Office, both the certifying entity and the regulated entity are liable for any failure to keep records or submit records and for any inaccurate records or reports covered by the notice, and one or both may be subject to an enforcement action in accordance with the enforcement provisions applicable to violation of these provisions. This notice must include the information contained in paragraphs (g)(1) through (g)(5) of this section.
 - (1) Name and address of certifying entity;
 - (2) Name and address(es) of the regulated entity for which you are accepting responsibility;
 - (3) Description of specific requirements in § 59.510 and this section for which you are assuming responsibility and explanation of how all required information under this subpart will be maintained and submitted, as required, by you or the regulated entity; including identification of the products covered by the notice and the location or locations where the records will be maintained;

- (4) A statement that the certifying entity understands that the failure to fulfill the responsibilities that it is assuming may result in an enforcement action against it in accordance with the enforcement provisions applicable to violation of these provisions by regulated entities; and
- (5) The signature of the responsible official for the certifying entity.
- (h) An entity that has provided certification under paragraph (g) of this section (the "certifying entity") may revoke the written certification by sending a written statement to the appropriate Regional Office listed in § 59.512 and to the regulated entity for which the certifying had accepted responsibility, giving a minimum of 90 days notice that the certifying entity is rescinding acceptance of responsibility for compliance with the requirements outlined in the certification letter. Upon expiration of the notice period, the regulated entity must assume responsibility for all applicable requirements.
- (i) As a regulated entity in accordance with paragraph (a) of this section, you must provide the information requested in paragraphs (i)(1) through (i)(4) of this section every three years beginning in 2011 for reporting year 2010. The report shall be submitted by March 31 of the year following the reporting year to the appropriate Regional Office listed in § 59.512. The first report is due March 31, 2011, for calendar year 2010.
 - (1) All identification information included in paragraphs (b)(1), (b)(2), and (b)(4) of this section;
 - (2) For each product category, VOC formulation data for each formulation that was manufactured, imported, or distributed in the reporting year. If a regulated entity can certify that the reporting is being completed by another regulated entity for any product, no second report is required. The formulation data must include the weight fraction (g compound/g product) for each VOC ingredient used in the product in an amount greater than or equal to 0.1 percent. For each VOC ingredient reported, the formulation data must include the information in paragraph (i)(2)(i), (ii), or (iii) of this section.
 - (i) For compounds listed in table 2A to this subpart, the chemical name, CAS number, and the applicable reactivity factor;
 - (ii) For the hydrocarbon solvent mixtures listed in either table 2B or 2C to this subpart, the trade name, solvent mixture manufacturer, bin number, and the applicable reactivity factor; or
 - (iii) For compounds not listed in table 2A to this subpart, the chemical name, CAS number, and the default RF in § 59.505(e).
 - (3) For each formulation, the total mass of each individual VOC species present in an amount greater than or equal to 0.1 percent of the formulation, that was manufactured, imported, or distributed in the reporting year; and
 - (4) For each formulation, a list of the individual product codes by UPC or other unique identifier.
- (j) If a regulated entity identifies a VOC that is needed for an aerosol formulation that is not listed in table 2A to this subpart, it is assigned a default RF of 18.50 g O₃/g VOC. Regulated entities may petition the Administrator to add a compound to table 2A, 2B, or 2C to this subpart. Petitions must include the chemical name, CAS number, a statement certifying the intent to use the compound in an aerosol coatings product, and adequate information for the Administrator to evaluate the reactivity of the compound and assign an RF consistent with the values for the other compounds listed in table 2A to this subpart. Any requests submitted to EPA on or before June 1, 2008, will be considered and, if appropriate, incorporated into table 2A, 2B, or 2C to this subpart on or before January 1, 2009.

- (k) Beginning on July 17, 2025, or once the notification/report template for this subpart has been available on the CEDRI website for six months, whichever date is later, regulated entities shall submit all notifications, reports, and other information required in § 59.511 (b) through (j) following the procedure specified in paragraph (l) of this section.
- (l) If you are required to submit notifications or reports following the procedure specified in this paragraph (l), you must submit reports to the EPA via CEDRI, which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as confidential business information (CBI). Anything submitted using CEDRI cannot later be claimed CBI. You must use the appropriate electronic report template on the CEDRI website (www.epa.gov/electronic-reporting-air-emissions/cedri) for this subpart. The date in which the report template becomes available will be listed on the CEDRI website. Unless the Administrator or delegated State agency or other authority has approved a different schedule for submission of reports, the report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted. Although we do not expect persons to assert a claim of CBI, if you wish to assert a CBI claim, submit a complete report, including information claimed to be CBI, to the EPA. The report must be generated using the appropriate template on the CEDRI website. The preferred method for CBI submittal is for it to be transmitted electronically using email attachments, File Transfer Protocol (FTP), or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address: oaqpscbi@epa.gov and should include clear CBI markings and be flagged to the attention of the Group Leader, Measurement Policy Group. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email oaqpscbi@epa.gov to request a file transfer link. If you cannot transmit the file electronically, you may mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Aerosol Coatings Sector Lead, (C404-02), Research Triangle Park, North Carolina 27711. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph (l). All CBI claims must be asserted at the time of submission. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available.
- (m) If you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of EPA system outage for failure to timely comply with that reporting requirement. To assert a claim of EPA system outage, you must meet the requirements outlined in paragraphs (m)(1) through (7) of this section.
- (1) You must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems.
 - (2) The outage must have occurred within the period of time beginning five business days prior to the date that the submission is due.
 - (3) The outage may be planned or unplanned.
 - (4) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.
 - (5) You must provide to the Administrator a written description identifying:
 - (i) The date(s) and time(s) when CDX or CEDRI was accessed, and the system was unavailable;

- (ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;
 - (iii) A description of measures taken or to be taken to minimize the delay in reporting; and
 - (iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.
- (6) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.
- (7) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved.
- (n) If you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of force majeure for failure to timely comply with that reporting requirement. To assert a claim of force majeure, you must meet the requirements outlined in paragraphs (n)(1) through (5) of this section.
 - (1) You may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning five business days prior to the date the submission is due. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the regulated entity, its contractors, or any entity controlled by the regulated entity that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (e.g., hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the regulated entity (e.g., large scale power outage).
 - (2) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.
 - (3) You must provide to the Administrator:
 - (i) A written description of the force majeure event;
 - (ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;
 - (iii) A description of measures taken or to be taken to minimize the delay in reporting; and
 - (iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.
 - (4) The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.
 - (5) In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs.

[73 FR 15621, Mar. 24, 2008, as amended at 73 FR 78997, Dec. 24, 2008; 74 FR 29604, June 23, 2009; 90 FR 5707, Jan. 17, 2025]

§ 59.512 Addresses of EPA regional offices.

- (a) All requests (including variance requests), reports, submittals, and other communications to the Administrator pursuant to this regulation shall be submitted to the Regional Office of the EPA through CEDRI which serves the State or territory for the address that is listed on the aerosol coating product in question. These areas are indicated in the following list of EPA Regional Offices:
- (1) EPA Region I (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont) Director, Enforcement and Compliance Assurance Division, U.S. EPA Region I, 5 Post Office Square—Suite 100 (04-2), Boston, MA 02109-3912, Attn: Air Compliance Clerk.
 - (2) EPA Region II (New Jersey, New York, Puerto Rico, Virgin Islands), Director, Division of Enforcement and Compliance Assistance, 290 Broadway, New York, NY 10007-1866.
 - (3) EPA Region III (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia), Chief, Air Section, Enforcement & Compliance Assurance Division, Air, RCRA and Toxics Branch, U.S. EPA Region 3, 1650 Arch Street—3ED21, Philadelphia, PA 19103.
 - (4) EPA Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee), Director, Air and Radiation Division, 61 Forsyth Street SW, Atlanta, GA 30303-3104.
 - (5) EPA Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air and Radiation Division, 77 West Jackson Blvd., Chicago, IL 60604-3507.
 - (6) EPA Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas), Chief, Air Enforcement Branch, Enforcement and Compliance Assurance Division, Mail Code ECDA, 1201 Elm Street, Suite 500, Dallas, Texas 75270-2102.
 - (7) EPA Region VII (Iowa, Kansas, Missouri, Nebraska), Director, Air and Waste Management Division, 11201 Renner Boulevard, Lenexa, Kansas 66219.
 - (8) EPA Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming), Chief, Air and Toxics Enforcement Branch, 1595 Wynkoop Street, Denver, CO 80202-1129.
 - (9) EPA Region IX (American Samoa, Arizona, California, Guam, Hawaii, Nevada), Chief, Air Division, 75 Hawthorne Street, San Francisco, CA 94105.
 - (10) EPA Region X (Alaska, Oregon, Idaho, Washington), Chief, Air Permits and Toxics Branch, Air and Radiation Division, 1200 Sixth Avenue, Suite 155, Seattle, WA 98101.
- (b) Beginning on July 17, 2025, or once the notification/report template for this subpart has been available on the CEDRI website for six months, whichever date is later, regulated entities shall submit all notifications, reports, and other information required in § 59.511(b) through (j) following the procedure specified in § 59.511(l).

[90 FR 5709, Jan. 17, 2025]

§ 59.513 State authority.

The provisions in this regulation will 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 a manufacturer, distributor or importer of aerosol coatings or components in addition to the requirements of this subpart.

- (b) Requiring the manufacturer, distributor or importer of aerosol coatings or components to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of a facility for manufacturing an aerosol coating or component.

§ 59.514 Circumvention.

Each manufacturer, distributor, and importer of an aerosol coating or component subject to the provisions of this subpart must not alter, destroy, or falsify any record or report, to conceal what would otherwise be noncompliance with this subpart. Such concealment includes, but is not limited to, refusing to provide the Administrator access to all required records and date-coding information, misstating the PWR content of a coating or component batch, or altering the results of any required tests to determine the PWR.

§ 59.515 Incorporations by reference.

Certain material is incorporated by reference into this subpart with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. All approved incorporation by reference (IBR) material is available for inspection at the U.S. Environmental Protection Agency (EPA) and at the National Archives and Records Administration (NARA). Contact the EPA at: EPA Docket Center, Public Reading Room, EPA WJC West, Room 3334, 1301 Constitution Ave. NW, Washington, DC; phone: (202) 566-1744. For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations or email fr.inspection@nara.gov. The material may be obtained from the following sources:

- (a) ASTM, International (ASTM), 100 Barr Harbor Drive, P.O. Box CB700, West Conshohocken, Pennsylvania 19428-2959; phone: (800) 262-1373; website: www.astm.org.
 - (1) ASTM Method D523-08, Standard Test Method for Specular Gloss (June 1, 2008), IBR approved for § 59.508(c).
 - (2) ASTM Method D523-89 (Reapproved 1999), Standard Test Method for Specular Gloss (May 10, 1999), IBR approved for table 3 of appendix A to subpart E of part 59.
- (b) California Air Resources Board (CARB), 1001 I Street, P.O. Box 2815, Sacramento, CA 95812-2815, Telephone (916) 327-0900, www.arb.ca.gov.
 - (1) California Air Resources Board Method 310—Determination of Volatile Organic Compounds (VOC) in Consumer Products and Reactive Organic Compounds in Aerosol Coating Products (May 25, 2018) (CARB Method 310 (2018)), IBR approved for §§ 59.505(c) and 59.508(a).
 - (2) California Air Resources Board Method 310—Determination of Volatile Organic Compounds (VOC) in Consumer Products and Reactive Organic Compounds in Aerosol Coating Products (May 5, 2005) (CARB Method 310 (2005)), IBR approved for table 3 of appendix A to subpart E of part 59.
- (c) South Coast Air Quality Management District (SCAQMD), 21865 Copley Dr, Diamond Bar, CA 91765, Telephone (909-396-2000), www.aqmd.gov.
 - (1) South Coast Air Quality Management District Test Method 318-95, Determination of Weight Percent Elemental Metal in Coatings by X-ray Diffraction, (July, 1996) (SCAQMD Test Method 318-95), IBR approved for § 59.508(b) and table 3 of appendix A to subpart E of part 59.
 - (2) [Reserved]

[90 FR 5709, Jan. 17, 2025]

§ 59.516 Availability of information and confidentiality.

- (a) 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.
- (b) Confidentiality. All confidential business information entitled to protection under section 114(c) of the Clean Air Act (CAA) that must be submitted or maintained by each regulated entity pursuant to this subpart shall be treated in accordance with 40 CFR part 2, subpart B.
- (c) Reports and Applications. The content of all reports and applications required to be submitted to the Agency under § 59.511, § 59.509, or § 59.502 are not entitled to protection under Section 114(c) of the CAA.

Table 1 to Subpart E of Part 59—Product-Weighted Reactivity Limits by Coating Category

| Coating category | Category code ^a | Reactivity limit (g O ₃ /g product) |
|---|----------------------------|---|
| Art Fixatives or Sealants | AFS | 1.75 |
| Auto Body Primers | ABP | 0.95 |
| Automotive Bumper and Trim Products | ABT | 1.70 |
| Aviation or Marine Primers | AMP | 1.25 |
| Aviation Propeller Coatings | APC | 1.40 |
| Clear Coatings | CCP | 0.85 |
| Corrosion Resistant Brass, Bronze, or Copper Coatings | CRB | 1.80 |
| Electrical/Electronic/Conformal Coatings | ECC | 2.00 |
| Exact Match Finish—Automotive | EFA | 0.95 |
| Exact Match Finish—Engine Enamel | EEE | 0.95 |
| Exact Match Finish—Industrial | EFI | 1.20 |
| Flat Coatings | FCP | 0.80 |
| Flexible Coatings | FCC | 1.60 |
| Floral Sprays | FSP | 0.85 |
| Fluorescent Coatings | FLP | 1.30 |
| Glass Coatings | GCP | 1.35 |
| Ground Traffic/Marking | GTM | 0.85 |
| High Temperature Coatings | HTC | 1.85 |
| Hobby/Model/Craft Coatings | HMC | 1.60 |
| Marine Spar Varnishes | MSV | 0.90 |
| Metallic Coatings | MCP | 1.25 |
| Mold Release Coating | MRC | 1.10 |
| Non-Flat Coatings | NFP | 0.95 |
| Photograph Coatings | PHC | 0.75 |

^a Regulated entities may use these category codes or define their own in accordance with § 59.511(b)(6).

| Coating category | Category code ^a | Reactivity limit (g O ₃ /g product) |
|---|----------------------------|---|
| Pleasure Craft Primers, Surfacers or Undercoaters | PCS | 0.90 |
| Pleasure Craft Topcoats | PCT | 0.60 |
| Polyolefin Adhesion Promoters | PAP | 2.50 |
| Primers | PCP | 0.70 |
| Rust Converter Coating | RCC | 1.10 |
| Shellac Sealers | SSC | 1.00 |
| Slip-Resistant Coatings | SRC | 2.10 |
| Spatter/Multicolor Coatings | SMC | 1.05 |
| Two Component Coating | TWC | 1.20 |
| Uniform Finish Coating | UFC | 1.30 |
| Vinyl/Fabric/Leather/Polycarbonate Coatings | VFL | 1.45 |
| Webbing/Veiling Coatings | WFC | 0.75 |
| Weld-Through Primers | WTP | 1.00 |
| Wood Stains | WSP | 0.90 |
| Wood Touch-up/Repair or Restoration Coatings | WTR | 1.45 |

^a Regulated entities may use these category codes or define their own in accordance with § 59.511(b)(6).

[77 FR 14283, Mar. 9, 2012, as amended at 90 FR 5710, Jan. 17, 2025]

Table 2A to Subpart E of Part 59—Reactivity Factors

| Compound | CAS No. | Reactivity factor (g O ₃ /g VOC) |
|--------------------------------|---------|--|
| Formaldehyde | 50-00-0 | 9.46 |
| Glycerol (1,2,3-Propanetriol) | 56-81-5 | 3.15 |
| Propylene Glycol | 57-55-6 | 2.58 |
| Ethanol | 64-17-5 | 1.53 |
| Formic Acid | 64-18-6 | 0.06 |
| Acetic Acid | 64-19-7 | 0.68 |
| Methanol | 67-56-1 | 0.67 |
| Isopropyl Alcohol (2-Propanol) | 67-63-0 | 0.61 |
| Acetone (Propanone) | 67-64-1 | 0.36 |
| n-Propanol (n-Propyl Alcohol) | 71-23-8 | 2.50 |
| n-Butyl Alcohol (Butanol) | 71-36-3 | 2.88 |

| Compound | CAS No. | Reactivity factor (g O ₃ /g VOC) |
|---|---------|--|
| n-Pentanol (Amyl Alcohol) | 71-41-0 | 2.83 |
| Benzene | 71-43-2 | 0.72 |
| 1,1,1-Trichloroethane | 71-55-6 | 0.01 |
| Propane | 74-98-6 | 0.49 |
| Vinyl Chloride | 75-01-4 | 2.83 |
| Acetaldehyde | 75-07-0 | 6.54 |
| Methylene Chloride (Dichloromethane) | 75-09-2 | 0.04 |
| Ethylene Oxide | 75-21-8 | 0.03 |
| Isobutane | 75-28-5 | 1.23 |
| HFC-152A (1,1-Difluoroethane) | 75-37-6 | 0.02 |
| Propylene Oxide | 75-56-9 | 0.29 |
| t-Butyl Alcohol | 75-65-0 | 0.41 |
| Methyl t-Butyl Ketone | 75-97-8 | 0.65 |
| Isophorone (3,5,5-Trimethyl-2-Cyclohexenone) | 78-59-1 | 4.63 |
| Isopentane | 78-78-4 | 1.45 |
| Isobutanol | 78-83-1 | 2.51 |
| 2-Butanol (s-butyl alcohol) | 78-92-2 | 1.36 |
| Methyl Ethyl Ketone (2-Butanone) | 78-93-3 | 1.48 |
| Monoisopropanol Amine (1-Amino-2-Propanol) | 78-96-6 | 5.42 |
| Trichloroethylene | 79-01-6 | 0.64 |
| Propionic Acid | 79-09-4 | 1.22 |
| Acrylic Acid | 79-10-7 | 11.38 |
| Methyl Acetate | 79-20-9 | 0.07 |
| Nitroethane | 79-24-3 | 0.06 |
| Methacrylic Acid | 79-41-4 | 18.50 |
| 2-Nitropropane | 79-46-9 | 0.11 |
| α-Pinene (Pine Oil) | 80-56-8 | 4.51 |
| Methyl Methacrylate | 80-62-6 | 15.61 |
| Diethyl Phthalate | 84-66-2 | 1.62 |
| Dibutyl Phthalate | 84-74-2 | 1.25 |
| Naphthalene | 91-20-3 | 3.34 |
| 2-Ethyl-1,3-hexanediol | 94-96-2 | 2.05 |
| Xylene, ortho- | 95-47-6 | 7.64 |
| o-Cresol | 95-48-7 | 2.40 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 8.87 |
| 3-Pentanone | 96-22-0 | 1.24 |
| Methyl Ethyl Ketoxime (Ethyl Methyl Ketone Oxime) | 96-29-7 | 1.58 |
| gamma-Butyrolactone | 96-48-0 | 0.96 |

| Compound | CAS No. | Reactivity factor (g O ₃ /g VOC) |
|--|----------|--|
| Ethyl Lactate | 97-64-3 | 2.48 |
| Isobutyl Isobutyrate | 97-85-8 | 0.60 |
| Isobutyl Methacrylate | 97-86-9 | 8.62 |
| Butyl Methacrylate | 97-88-1 | 8.70 |
| Tert-butyl benzene | 98-06-6 | 1.95 |
| Benzotrifluoride | 98-08-8 | 0.29 |
| PCBTf (p-Trifluoromethyl-Cl-Benzene) | 98-56-6 | 0.13 |
| Cumene (Isopropyl Benzene) | 98-82-8 | 2.52 |
| a-Methyl Styrene | 98-83-9 | 1.53 |
| Ethyl Benzene | 100-41-4 | 3.04 |
| Styrene | 100-42-5 | 1.73 |
| Benzyl Alcohol | 100-51-6 | 5.11 |
| Benzaldehyde | 100-52-7 | 0.00 |
| Triethanolamine | 102-71-6 | 4.21 |
| 2-Ethyl-Hexyl Acetate | 103-09-3 | 0.66 |
| 2-Ethyl-Hexyl Acrylate | 103-11-7 | 2.52 |
| 2-Ethyl-1-Hexanol (Ethyl Hexyl Alcohol) | 104-76-7 | 2.00 |
| Ethyl Propionate | 105-37-3 | 0.77 |
| s-Butyl Acetate | 105-46-4 | 1.32 |
| Diethyl Carbonate | 105-58-8 | 0.71 |
| n-Propyl Propionate | 106-36-5 | 0.84 |
| Xylene, para- | 106-42-3 | 5.84 |
| p-Dichlorobenzene | 106-46-7 | 0.18 |
| Dimethyl Succinate | 106-65-0 | 0.23 |
| 1,2-Epoxybutane (Ethyl Oxirane) | 106-88-7 | 0.91 |
| n-Propyl Bromide | 106-94-5 | 0.42 |
| Butane | 106-97-8 | 1.15 |
| 1,3-Butadiene | 106-99-0 | 12.61 |
| Ethylene Glycol | 107-21-1 | 3.13 |
| 2-Methyl-2,4-Pentanediol | 107-41-5 | 1.45 |
| Hexamethyldisiloxane | 107-46-0 | 0.00 |
| Isohexane Isomers | 107-83-5 | 1.50 |
| Methyl n-Propyl Ketone (2-Pentanone) | 107-87-9 | 2.81 |
| Propylene Glycol Monomethyl Ether (1-Methoxy-2-Propanol) | 107-98-2 | 2.44 |
| n,n-Dimethylethanolamine | 108-01-0 | 5.62 |
| 1-Nitropropane | 108-03-2 | 0.22 |
| Vinyl Acetate | 108-05-4 | 3.20 |
| Methyl Isobutyl Ketone | 108-10-1 | 3.88 |

| Compound | CAS No. | Reactivity factor (g O ₃ /g VOC) |
|--|----------|--|
| Isopropyl Acetate | 108-21-4 | 1.07 |
| Propylene Carbonate (4-Methyl-1,3-Dioxolan-2-one) | 108-32-7 | 0.28 |
| Xylene, meta- | 108-38-3 | 9.75 |
| Propylene Glycol Monomethyl Ether Acetate (1-Methoxy-2-Propyl Acetate) | 108-65-6 | 1.70 |
| 1,3,5-Trimethyl Benzene | 108-67-8 | 11.76 |
| Di-Isobutyl Ketone (2,6-Dimethyl-4-Heptanone) | 108-83-8 | 2.68 |
| Methylcyclohexane | 108-87-2 | 1.70 |
| Toluene | 108-88-3 | 4.00 |
| Monochlorobenzene | 108-90-7 | 0.32 |
| Cyclohexanol | 108-93-0 | 1.95 |
| Cyclohexanone | 108-94-1 | 1.35 |
| n-Butyl Butyrate | 109-21-7 | 1.08 |
| Propyl Acetate | 109-60-4 | 0.78 |
| Pentane | 109-66-0 | 1.31 |
| Ethylene Glycol Monomethyl Ether (2-Methoxyethanol) | 109-86-4 | 2.93 |
| Dimethoxy Methane | 109-87-5 | 0.94 |
| Tetrahydrofuran | 109-99-9 | 4.31 |
| Methyl Isoamyl Ketone (5-Methyl-2-Hexanone) | 110-12-3 | 2.41 |
| Isobutyl Acetate | 110-19-0 | 0.62 |
| Methyl Amyl Ketone | 110-43-0 | 2.36 |
| Hexane | 110-54-3 | 1.24 |
| n-Propyl Formate | 110-74-7 | 0.78 |
| 2-Ethoxyethanol | 110-80-5 | 3.71 |
| Cyclohexane | 110-82-7 | 1.25 |
| Morpholine | 110-91-8 | 1.98 |
| Dipropylene Glycol | 110-98-5 | 2.31 |
| Ethylene Glycol Monoethyl Ether Acetate (2-Ethoxyethyl Acetate) | 111-15-9 | 1.84 |
| Diethylenetriamine | 111-40-0 | 15.53 |
| Diethanolamine | 111-42-2 | 2.47 |
| Diethylene Glycol | 111-46-6 | 3.35 |
| n-Octane | 111-65-9 | 0.90 |
| 2-Butoxy-1-Ethanol (Ethylene Glycol Monobutyl Ether) | 111-76-2 | 2.90 |
| Diethylene Glycol Methyl Ether (2-(2-Methoxyethoxy) Ethanol) | 111-77-3 | 2.66 |
| n-Nonane | 111-84-2 | 0.78 |
| 2-(2-Ethoxyethoxy) Ethanol | 111-90-0 | 3.26 |
| Ethylene Glycol Monobutyl Ether Acetate (2-Butoxyethyl Acetate) | 112-07-2 | 1.62 |
| 2-(2-Ethoxyethoxy) Ethyl Acetate | 112-15-2 | 1.48 |

| Compound | CAS No. | Reactivity factor (g O ₃ /g VOC) |
|---|----------|--|
| 2-(2-Butoxyethoxy)-Ethanol | 112-34-5 | 2.39 |
| Dimethyl Ether | 115-10-6 | 0.81 |
| Triethylamine | 121-44-8 | 3.84 |
| 2-Phenoxyethanol; Ethylene Glycol Phenyl Ether | 122-99-6 | 4.49 |
| Diacetone Alcohol | 123-42-2 | 0.60 |
| 2,4-Pentanedione | 123-54-6 | 1.01 |
| Butanal | 123-72-8 | 5.97 |
| Butyl Acetate, n | 123-86-4 | 0.83 |
| 3-Methyl-Butyl Acetate | 123-92-2 | 1.09 |
| 2-(2-Butoxyethoxy) Ethyl Acetate | 124-17-4 | 1.38 |
| 2-Amino-2-Methyl-1-Propanol | 124-68-5 | 0.25 |
| Perchloroethylene | 127-18-4 | 0.03 |
| Ethanolamine | 141-43-5 | 6.81 |
| Ethyl acetate | 141-78-6 | 0.63 |
| Heptane | 142-82-5 | 1.07 |
| n-Hexyl Acetate (Hexyl Acetate) | 142-92-7 | 0.69 |
| 2-Ethyl Hexanoic Acid | 149-57-5 | 3.32 |
| trans-1,2-Dichloroethene | 156-60-5 | 1.70 |
| 1,2,3-Trimethyl Benzene | 526-73-8 | 11.97 |
| t-Butyl Acetate | 540-88-5 | 0.18 |
| Methyl Isobutyrate | 547-63-7 | 0.61 |
| Methyl Lactate | 547-64-8 | 2.67 |
| Methyl Propionate | 554-12-1 | 0.66 |
| 1,2-Butanediol | 584-03-2 | 2.52 |
| n-Butyl Propionate | 590-01-2 | 0.84 |
| Methyl n-Butyl Ketone (2-Hexanone) | 591-78-6 | 3.14 |
| Dimethyl carbonate | 616-38-6 | 0.06 |
| 2-Methyl-1-Butyl Acetate | 624-41-9 | 1.08 |
| n-Pentyl Propionate | 624-54-4 | 0.71 |
| Ethyl Isopropyl Ether | 625-54-7 | 3.74 |
| Dimethyl Adipate | 627-93-0 | 1.80 |
| Methyl n-Butyl Ether | 628-28-4 | 3.15 |
| Amyl Acetate (Pentyl Ethanoate, Pentyl Acetate) | 628-63-7 | 0.84 |
| Ethyl n-Butyl Ether | 628-81-9 | 3.48 |
| Ethyl t-Butyl Ether | 637-92-3 | 2.01 |
| 1,3-Dioxolane | 646-06-0 | 4.96 |
| Ethyl-3-Ethoxypropionate | 763-69-9 | 3.58 |
| Methyl Pyrrolidone (n-Methyl-2-Pyrrolidone) | 872-50-4 | 2.41 |

| Compound | CAS No. | Reactivity factor (g O ₃ /g VOC) |
|--|-------------|--|
| Dimethyl Gluterate | 1119-40-0 | 0.42 |
| C8 Disubstituted Benzenes | 1330-20-7 | 7.76 |
| Ethylene Glycol 2-Ethylhexyl Ether [2-(2-Ethylhexyloxy) Ethanol] | 1559-35-9 | 1.55 |
| Propylene Glycol Monopropyl Ether (1-Propoxy-2-Propanol) | 1569-01-3 | 2.68 |
| Propylene Glycol Monoethyl Ether (1-Ethoxy-2-Propanol) | 1569-02-4 | 3.09 |
| 2-Methoxy-1-Propanol | 1589-47-5 | 3.01 |
| Methyl t-Butyl Ether | 1634-04-4 | 0.73 |
| trans-1,3,3,3-tetrafluoropropene (HFO-1234ze) | 1645-83-6 | 0.10 |
| Ethylcyclohexane | 1678-91-7 | 1.47 |
| Isoamyl Isobutyrate | 2050-01-3 | 0.82 |
| 2-Propoxy-ethanol (Ethylene Glycol Monopropyl Ether) | 2807-30-9 | 3.30 |
| n-Butoxy-2-Propanol | 5131-66-8 | 2.72 |
| d-Limonene (Dipentene or Orange Terpene) | 5989-27-5 | 4.55 |
| 2,2,4-trimethyl-1,3-pentanediol diisobutyrate | 6846-50-0 | 0.38 |
| Dipropylene Glycol Methyl Ether Isomer (2-[2Methoxypropoxy]-1-Propanol) | 13588-28-8 | 2.58 |
| C9 Styrenes | 25013-15-4 | 1.53 |
| Texanol (1,3 Pentanediol, 2,2,4-Trimethyl, 1-Isobutyrate) | 25265-77-4 | 0.81 |
| Isodecyl Alcohol (8-Methyl-1-Nonanol) | 25339-17-7 | 1.06 |
| Tripropylene Glycol Monomethyl Ether | 25498-49-1 | 1.92 |
| Glycol Ether DPNB (1-(2-Butoxy-1-Methylethoxy) 2-Propanol) | 29911-28-2 | 1.83 |
| Dipropylene Glycol Monomethyl Ether (mixture of isomers) | 34590-94-8 | 2.58 |
| Propylene Glycol t-Butyl Ether (1-tert-Butoxy-2-Propanol) | 57018-52-7 | 1.61 |
| 2-Methoxy-1-Propyl Acetate | 70657-70-4 | 1.12 |
| Dipropylene Glycol Methyl Ether Acetate Isomers | 88917-22-0 | 1.45 |
| Oxo-Heptyl Acetate | 90438-79-2 | 0.83 |
| 2-tert-Butoxy-1-Propanol | 94023-15-1 | 1.81 |
| trans-1-chloro-3,3,3-trifluoropropene (HFO-1233zdE) | 102687-65-0 | 0.04 |
| Oxo-Octyl Acetate | 108419-32-5 | 0.81 |

[77 FR 14284, Mar. 9, 2012, as amended at 90 FR 5710, Jan. 17, 2025]

Table 2B to Subpart E of Part 59—Reactivity Factors for Aliphatic Hydrocarbon Solvent Mixtures

| Bin | Average boiling point * (degrees F) | Criteria | Reactivity factor (g O ₃ /g VOC) |
|-----|--|---|--|
| 1 | 80-205 | Alkanes (<2% Aromatics) | 1.42 |
| 2 | 80-205 | N- & Iso-Alkanes (≥90% and <2% Aromatics) | 1.31 |
| 3 | 80-205 | Cyclo-Alkanes (≥90% and <2% Aromatics) | 1.63 |
| 4 | 80-205 | Alkanes (2 to <8% Aromatics) | 1.47 |
| 5 | 80-205 | Alkanes (8 to 22% Aromatics) | 1.56 |
| 6 | >205-340 | Alkanes (<2% Aromatics) | 1.17 |
| 7 | >205-340 | N- & Iso-Alkanes (≥90% and <2% Aromatics) | 1.03 |
| 8 | >205-340 | Cyclo-Alkanes (≥90% and <2% Aromatics) | 1.44 |
| 9 | >205-340 | Alkanes (2 to <8% Aromatics) | 1.44 |
| 10 | >205-340 | Alkanes (8 to 22% Aromatics) | 1.98 |
| 11 | >340-460 | Alkanes (<2% Aromatics) | 0.70 |
| 12 | >340-460 | N- & Iso-Alkanes (≥90% and <2% Aromatics) | 0.62 |
| 13 | >340-460 | Cyclo-Alkanes (≥90% and <2% Aromatics) | 0.86 |
| 14 | >340-460 | Alkanes (2 to <8% Aromatics) | 0.99 |
| 15 | >340-460 | Alkanes (8 to 22% Aromatics) | 1.57 |
| 16 | >460-580 | Alkanes (<2% Aromatics) | 0.52 |
| 17 | >460-580 | N- & Iso-Alkanes (≥90% and <2% Aromatics) | 0.48 |
| 18 | >460-580 | Cyclo-Alkanes (≥90% and <2% Aromatics) | 0.60 |
| 19 | >460-580 | Alkanes (2 to <8% Aromatics) | 0.66 |
| 20 | >460-580 | Alkanes (8 to 22% Aromatics) | 0.95 |

[77 FR 14286, Mar. 9, 2012, as amended at 90 FR 5710, Jan. 17, 2025]

Table 2C to Subpart E of Part 59—Reactivity Factors for Aromatic Hydrocarbon Solvent Mixtures

| Bin | Boiling range (degrees F) | Criteria | Reactivity factor (g O ₃ /g VOC) |
|-----|------------------------------|-------------------------|--|
| 21 | 280-290 | Aromatic Content (≥98%) | 7.64 |
| 22 | 320-350 | Aromatic Content (≥98%) | 7.60 |
| 23 | 355-420 | Aromatic Content (≥98%) | 6.85 |

| Bin | Boiling range (degrees F) | Criteria | Reactivity factor (g O ₃ /g VOC) |
|-----|---------------------------|-------------------------|---|
| 24 | 450-535 | Aromatic Content (≥98%) | 3.82 |

[77 FR 14286, Mar. 9, 2012, as amended at 90 FR 5710, Jan. 17, 2025]

Appendix A to Subpart E of Part 59—In compliance with 40 CFR Part 59, Subpart E, the following standards will remain applicable prior to July 17, 2025.

I. Appendix A—Table 1 Under 40 CFR Part 59, Subpart E

APPENDIX A—TABLE 1 TO SUBPART E OF PART 59—PRODUCT-WEIGHTED REACTIVITY LIMITS BY COATING CATEGORY—APPLICABLE PRIOR TO JULY 17, 2025

| Coating category | Category code ^a | Reactivity limit (g O ₃ /g product) |
|---|----------------------------|--|
| Clear Coatings | CCP | 1.50 |
| Flat Coatings | FCP | 1.20 |
| Fluorescent Coatings | FLP | 1.75 |
| Metallic Coatings | MCP | 1.90 |
| Non-Flat Coatings | NFP | 1.40 |
| Primers | PCP | 1.20 |
| Ground Traffic/Marking | GTM | 1.20 |
| Art Fixatives or Sealants | AFS | 1.80 |
| Auto Body Primers | ABP | 1.55 |
| Automotive Bumper and Trim Products | ABT | 1.75 |
| Aviation or Marine Primers | AMP | 2.00 |
| Aviation Propellor Coatings | APC | 2.50 |
| Corrosion Resistant Brass, Bronze, or Copper Coatings | CRB | 1.80 |
| Exact Match Finish—Engine Enamel | EEE | 1.70 |
| Exact Match Finish—Automotive | EFA | 1.50 |
| Exact Match Finish—Industrial | EFI | 2.05 |
| Floral Sprays | FSP | 1.70 |
| Glass Coatings | GCP | 1.40 |

^a Regulated entities may use these category codes or define their own in accordance with § 59.511(b)(6).

| Coating category | Category code ^a | Reactivity limit (g O ₃ /g product) |
|--|----------------------------|--|
| High Temperature Coatings | HTC | 1.85 |
| Hobby/Model/Craft Coatings, Enamel | HME | 1.45 |
| Hobby/Model/Craft Coatings, Lacquer | HML | 2.70 |
| Hobby/Model/Craft Coatings, Clear or Metallic | HMC | 1.60 |
| Marine Spar Varnishes | MSV | 0.90 |
| Photograph Coatings | PHC | 1.00 |
| Pleasure Craft Primers, Surfacer or Undercoaters | PCS | 1.05 |
| Pleasure Craft Topcoats | PCT | 0.60 |
| Polyolefin Adhesion Promoters | PAP | 2.50 |
| Shellac Sealers, Clear | SSC | 1.00 |
| Shellac Sealers, Pigmented | SSP | 0.95 |
| Slip-Resistant Coatings | SRC | 2.45 |
| Spatter/Multicolor Coatings | SMC | 1.05 |
| Vinyl/Fabric/Leather/Polycarbonate Coatings | VFL | 1.55 |
| Webbing/Veiling Coatings | WFC | 0.85 |
| Weld-Through Primers | WTP | 1.00 |
| Wood Stains | WSP | 1.40 |
| Wood Touch-up/Repair or Restoration Coatings | WTR | 1.50 |

^a Regulated entities may use these category codes or define their own in accordance with § 59.511(b)(6).

II. Appendix A—Table 2A Under 40 CFR Part 59, Subpart E

APPENDIX A—TABLE 2A TO SUBPART E OF PART 59—REACTIVITY FACTORS—APPLICABLE PRIOR TO JULY 17, 2025

| Compound | CAS No. | Reactivity factor (g O ₃ /g VOC) |
|-------------------------------|---------|---|
| Formaldehyde | 50-00-0 | 8.97 |
| Glycerol (1,2,3-Propanetriol) | 56-81-5 | 3.27 |
| Propylene Glycol | 57-55-6 | 2.75 |
| Ethanol | 64-17-5 | 1.69 |
| Formic Acid | 64-18-6 | 0.08 |
| Acetic Acid | 64-19-7 | 0.71 |

| Compound | CAS No. | Reactivity factor (g O ₃ /g VOC) |
|---|---------|--|
| Methanol | 67-56-1 | 0.71 |
| Isopropyl Alcohol (2-Propanol) | 67-63-0 | 0.71 |
| Acetone (Propanone) | 67-64-1 | 0.43 |
| n-Propanol (n-Propyl Alcohol) | 71-23-8 | 2.74 |
| n-Butyl Alcohol (Butanol) | 71-36-3 | 3.34 |
| n-Pentanol (Amyl Alcohol) | 71-41-0 | 3.35 |
| Benzene | 71-43-2 | 0.81 |
| 1,1,1-Trichloroethane | 71-55-6 | 0.00 |
| Propane | 74-98-6 | 0.56 |
| Vinyl Chloride | 75-01-4 | 2.92 |
| Acetaldehyde | 75-07-0 | 6.84 |
| Methylene Chloride (Dichloromethane) | 75-09-2 | 0.07 |
| Ethylene Oxide | 75-21-8 | 0.05 |
| Isobutane | 75-28-5 | 1.35 |
| HFC-152A (1,1-Difluoroethane) | 75-37-6 | 0.00 |
| Propylene Oxide | 75-56-9 | 0.32 |
| t-Butyl Alcohol | 75-65-0 | 0.45 |
| Methyl t-Butyl Ketone | 75-97-8 | 0.78 |
| Isophorone (3,5,5-Trimethyl-2-Cyclohexenone) | 78-59-1 | 10.58 |
| Isopentane | 78-78-4 | 1.68 |
| Isobutanol | 78-83-1 | 2.24 |
| 2-Butanol (s-Butyl Alcohol) | 78-92-2 | 1.60 |
| Methyl Ethyl Ketone (2-Butanone) | 78-93-3 | 1.49 |
| Monoisopropanol Amine (1-Amino-2-Propanol) | 78-96-6 | 13.42 |
| Trichloroethylene | 79-01-6 | 0.60 |
| Propionic Acid | 79-09-4 | 1.16 |
| Acrylic Acid | 79-10-7 | 11.66 |
| Methyl Acetate | 79-20-9 | 0.07 |
| Nitroethane | 79-24-3 | 12.79 |
| Methacrylic Acid | 79-41-4 | 18.78 |
| α-Pinene (Pine Oil) | 80-56-8 | 4.29 |
| Methyl Methacrylate | 80-62-6 | 15.84 |
| Naphthalene | 91-20-3 | 3.26 |
| Xylene, ortho- | 95-47-6 | 7.49 |
| o-Cresol | 95-48-7 | 2.34 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 7.18 |
| 3-Pentanone | 96-22-0 | 1.45 |
| Methyl Ethyl Ketoxime (Ethyl Methyl Ketone Oxime) | 96-29-7 | 22.04 |

| Compound | CAS No. | Reactivity factor (g O ₃ /g VOC) |
|---|----------|--|
| gamma-Butyrolactone | 96-48-0 | 1.15 |
| Ethyl Lactate | 97-64-3 | 2.71 |
| Isobutyl Isobutyrate | 97-85-8 | 0.61 |
| Isobutyl Methacrylate | 97-86-9 | 8.99 |
| Butyl Methacrylate | 97-88-1 | 9.09 |
| Benzotrifluoride | 98-08-8 | 0.26 |
| PCBTF (p-Trifluoromethyl-Cl-Benzene) | 98-56-6 | 0.11 |
| Cumene (Isopropyl Benzene) | 98-82-8 | 2.32 |
| a-Methyl Styrene | 98-83-9 | 1.72 |
| Ethyl Benzene | 100-41-4 | 2.79 |
| Styrene | 100-42-5 | 1.95 |
| Benzaldehyde | 100-52-7 | 0.00 |
| Triethanolamine | 102-71-6 | 2.76 |
| 2-Ethyl-Hexyl Acetate | 103-09-3 | 0.79 |
| 2-Ethyl-Hexyl Acrylate | 103-11-7 | 2.42 |
| 2-Ethyl-1-Hexanol (Ethyl Hexyl Alcohol) | 104-76-7 | 2.20 |
| Ethyl Propionate | 105-37-3 | 0.79 |
| s-Butyl Acetate | 105-46-4 | 1.43 |
| n-Propyl Propionate | 106-36-5 | 0.93 |
| Xylene, para- | 106-42-3 | 4.25 |
| p-Dichlorobenzene | 106-46-7 | 0.20 |
| Dimethyl Succinate | 106-65-0 | 0.23 |
| 1,2-Epoxybutane (Ethyl Oxirane) | 106-88-7 | 1.02 |
| n-Propyl Bromide | 106-94-5 | 0.35 |
| Butane | 106-97-8 | 1.33 |
| 1,3-Butadiene | 106-99-0 | 13.58 |
| Ethylene Glycol | 107-21-1 | 3.36 |
| 2-Methyl-2,4-Pentanediol | 107-41-5 | 1.04 |
| Hexamethyldisiloxane | 107-46-0 | 0.00 |
| Isohexane Isomers | 107-83-5 | 1.80 |
| Methyl n-Propyl Ketone (2-Pentanone) | 107-87-9 | 3.07 |
| Propylene Glycol Monmethyl Ether (1-Methoxy-2-Propanol) | 107-98-2 | 2.62 |
| n,n-Dimethylethanolamine | 108-01-0 | 4.76 |
| 1-Nitropropane | 108-03-2 | 16.16 |
| Vinyl Acetate | 108-05-4 | 3.26 |
| Methyl Isobutyl Ketone | 108-10-1 | 4.31 |
| Isopropyl Acetate | 108-21-4 | 1.12 |
| Propylene Carbonate | 107-46-0 | 0.00 |

| Compound | CAS No. | Reactivity factor (g O ₃ /g VOC) |
|--|----------|--|
| (4-Methyl-1,3-Dioxolan-2-one) | 108-32-7 | 0.25 |
| Xylene, meta- | 108-38-3 | 10.61 |
| Propylene Glycol Monomethyl Ether Acetate (1-Methoxy-2-Propyl Acetate) | 108-65-6 | 1.71 |
| 1,3,5-Trimethyl Benzene | 108-67-8 | 11.22 |
| Di-Isobutyl Ketone (2,6-Dimethyl-4-Heptanone) | 108-83-8 | 2.94 |
| Methylcyclohexane | 108-87-2 | 1.99 |
| Toluene | 108-88-3 | 3.97 |
| Monochlorobenzene | 108-90-7 | 0.36 |
| Cyclohexanol | 108-93-0 | 2.25 |
| Cyclohexanone | 108-94-1 | 1.61 |
| n-Butyl Butyrate | 109-21-7 | 1.12 |
| Propyl Acetate | 109-60-4 | 0.87 |
| Pentane | 109-66-0 | 1.54 |
| Ethylene Glycol Monomethyl Ether (2-Methoxyethanol) | 109-86-4 | 2.98 |
| Tetrahydrofuran | 109-99-9 | 4.95 |
| Methyl Isoamyl Ketone (5-Methyl-2-Hexanone) | 110-12-3 | 2.10 |
| Isobutyl Acetate | 110-19-0 | 0.67 |
| Methyl Amyl Ketone | 110-43-0 | 2.80 |
| Hexane | 110-54-3 | 1.45 |
| n-Propyl Formate | 110-74-7 | 0.93 |
| 2-Ethoxyethanol | 110-80-5 | 3.78 |
| Cyclohexane | 110-82-7 | 1.46 |
| Morpholine | 110-91-8 | 15.43 |
| Dipropylene Glycol | 110-98-5 | 2.48 |
| Ethylene Glycol Monoethyl Ether Acetate (2-Ethoxyethyl Acetate) | 111-15-9 | 1.90 |
| Diethylenetriamine | 111-40-0 | 13.03 |
| Diethanolamine | 111-42-2 | 4.05 |
| Diethylene Glycol | 111-46-6 | 3.55 |
| n-Octane | 111-65-9 | 1.11 |
| 2-Butoxy-1-Ethanol (Ethylene Glycol Monobutyl Ether) | 111-76-2 | 2.90 |
| Diethylene Glycol Methyl Ether (2-(2-Methoxyethoxy) Ethanol) | 111-77-3 | 2.90 |
| n-Nonane | 111-84-2 | 0.95 |
| 2-(2-Ethoxyethoxy) Ethanol | 111-90-0 | 3.19 |
| Ethylene Glycol Monobutyl Ether Acetate (2-Butoxyethyl Acetate) | 112-07-2 | 1.67 |
| 2-(2-Ethoxyethoxy) Ethyl Acetate | 112-15-2 | 1.50 |
| 2-(2-Butoxyethoxy)-Ethanol | 112-34-5 | 2.70 |
| Dimethyl Ether | 115-10-6 | 0.93 |

| Compound | CAS No. | Reactivity factor (g O ₃ /g VOC) |
|--|-----------|--|
| Triethylamine | 121-44-8 | 16.60 |
| 2-Phenoxyethanol; Ethylene Glycol Phenyl Ether | 122-99-6 | 3.61 |
| Diacetone Alcohol | 123-42-2 | 0.68 |
| 2,4-Pentanedione | 123-54-6 | 1.02 |
| Butanal | 123-72-8 | 6.74 |
| Butyl Acetate, n | 123-86-4 | 0.89 |
| 2-(2-Butoxyethoxy) Ethyl Acetate | 124-17-4 | 1.38 |
| 2-Amino-2-Methyl-1-Propanol | 124-68-5 | 15.08 |
| Perchloroethylene | 127-18-4 | 0.04 |
| Ethanolamine | 141-43-5 | 5.97 |
| Ethyl acetate | 141-78-6 | 0.64 |
| Heptane | 142-82-5 | 1.28 |
| n-Hexyl Acetate (Hexyl Acetate) | 142-92-7 | 0.87 |
| 2-Ethyl Hexanoic Acid | 149-57-5 | 4.41 |
| 1,2,3-Trimethyl Benzene | 526-73-8 | 11.26 |
| t-Butyl Acetate | 540-88-5 | 0.20 |
| Methyl Isobutyrate | 547-63-7 | 0.70 |
| Methyl Lactate | 547-64-8 | 2.75 |
| Methyl Propionate | 554-12-1 | 0.71 |
| 1,2 Butanediol | 584-03-2 | 2.21 |
| n-Butyl Propionate | 590-01-2 | 0.89 |
| Methyl n-Butyl Ketone (2-Hexanone) | 591-78-6 | 3.55 |
| Dimethyl carbonate | 616-38-6 | 0.06 |
| Ethyl Isopropyl Ether | 625-54-7 | 3.86 |
| Dimethyl Adipate | 627-93-0 | 1.95 |
| Methy n-Butyl Ether | 628-28-4 | 3.66 |
| Amyl Acetate (Pentyl Ethanoate, Pentyl Acetate) | 628-63-7 | 0.96 |
| Ethyl n-Butyl Ether | 628-81-9 | 3.86 |
| Ethyl t-Butyl Ether | 637-92-3 | 2.11 |
| 1,3-Dioxolane | 646-06-0 | 5.47 |
| Ethyl-3-Ethoxypropionate | 763-69-9 | 3.61 |
| Methyl Pyrrolidone (n-Methyl-2-Pyrrolidone) | 872-50-4 | 2.56 |
| Dimethyl Gluterate | 1119-40-0 | 0.51 |
| Ethylene Glycol 2-Ethylhexyl Ether [2-(2-Ethylhexyloxy) Ethanol] | 1559-35-9 | 1.71 |
| Propylene Glycol Monopropyl Ether (1-Propoxy-2-Propanol) | 1569-01-3 | 2.86 |
| Propylene Glycol Monoethyl Ether (1-Ethoxy-2-Propanol) | 1569-02-4 | 3.25 |
| 2-Methoxy-1-Propanol | 1589-47-5 | 3.01 |
| Methyl t-Butyl Ether | 1634-04-4 | 0.78 |

| Compound | CAS No. | Reactivity factor (g O ₃ /g VOC) |
|--|-------------|--|
| Ethylcyclohexane | 1678-91-7 | 1.75 |
| Isoamyl Isobutyrate | 2050-01-3 | 0.89 |
| 2-Propoxyethanol (Ethylene Glycol Monopropyl Ether) | 2807-30-9 | 3.52 |
| n-Butoxy-2-Propanol | 5131-66-8 | 2.70 |
| d-Limonene (Dipentene or Orange Terpene) | 5989-27-5 | 3.99 |
| Dipropylene Glycol Methyl Ether Isomer (2-[2Methoxypropoxy]-1-Propanol) | 13588-28-8 | 3.02 |
| Texanol (1,3 Pentanediol, 2,2,4-Trimethyl, 1-Isobutyrate) | 25265-77-4 | 0.89 |
| Isodecyl Alcohol (8-Methyl-1-Nonanol) | 25339-17-7 | 1.23 |
| Tripropylene Glycol Monomethyl Ether | 25498-49-1 | 1.90 |
| Glycol Ether DPNB (1-(2-Butoxy-1-Methylethoxy) 2-Propanol) | 29911-28-2 | 1.96 |
| Propylene Glycol t-Butyl Ether (1-tert-Butoxy-2-Propanol) | 57018-52-7 | 1.71 |
| 2-Methoxy-1-Propyl Acetate | 70657-70-4 | 1.12 |
| Oxo-Heptyl Acetate | 90438-79-2 | 0.97 |
| 2-tert-Butoxy-1-Propanol | 94023-15-1 | 1.81 |
| Oxo-Octyl Acetate | 108419-32-5 | 0.96 |
| C8 Disubstituted Benzenes | na | 7.48 |
| C9 Styrenes | na | 1.72 |

III. Appendix A—Table 2B Under 40 CFR Part 59, Subpart E

APPENDIX A—TABLE 2B TO SUBPART E OF PART 59—REACTIVITY FACTORS FOR ALIPHATIC HYDROCARBON SOLVENT MIXTURES—APPLICABLE PRIOR TO JULY 17, 2025

| Bin | Average boiling point * (degrees F) | Criteria | Reactivity factor (g O ₃ /g VOC) |
|-----|--|---|--|
| 1 | 80-205 | Alkanes (<2% Aromatics) | 2.08 |
| 2 | 80-205 | N- & Iso-Alkanes (≥90% and <2% Aromatics) | 1.59 |
| 3 | 80-205 | Cyclo-Alkanes (≥90% and <2% Aromatics) | 2.52 |
| 4 | 80-205 | Alkanes (2 to <8% Aromatics) | 2.24 |

* Average Boiling Point = (Initial Boiling Point + Dry Point)/2(b) Aromatic Hydrocarbon Solvents.

| Bin | Average boiling point * (degrees F) | Criteria | Reactivity factor (g O ₃ /g VOC) |
|-----|--|---|--|
| 5 | 80-205 | Alkanes (8 to 22% Aromatics) | 2.56 |
| 6 | >205-340 | Alkanes (<2% Aromatics) | 1.41 |
| 7 | >205-340 | N- & Iso-Alkanes (≥90% and <2% Aromatics) | 1.17 |
| 8 | >205-340 | Cyclo-Alkanes (≥90% and <2% Aromatics) | 1.65 |
| 9 | >205-340 | Alkanes (2 to <8% Aromatics) | 1.62 |
| 10 | >205-340 | Alkanes (8 to 22% Aromatics) | 2.03 |
| 11 | >340-460 | Alkanes (<2% Aromatics) | 0.91 |
| 12 | >340-460 | N- & Iso-Alkanes (≥90% and <2% Aromatics) | 0.81 |
| 13 | >340-460 | Cyclo-Alkanes (≥90% and <2% Aromatics) | 1.01 |
| 14 | >340-460 | Alkanes (2 to <8% Aromatics) | 1.21 |
| 15 | >340-460 | Alkanes (8 to 22% Aromatics) | 1.82 |
| 16 | >460-580 | Alkanes (<2% Aromatics) | 0.57 |
| 17 | >460-580 | N- & Iso-Alkanes (≥90% and <2% Aromatics) | 0.51 |
| 18 | >460-580 | Cyclo-Alkanes (≥90% and <2% Aromatics) | 0.63 |
| 19 | >460-580 | Alkanes (2 to <8% Aromatics) | 0.88 |
| 20 | >460-580 | Alkanes (8 to 22% Aromatics) | 1.49 |

* Average Boiling Point = (Initial Boiling Point + Dry Point)/2(b) Aromatic Hydrocarbon Solvents.

IV. Appendix A—Table 2C Under 40 CFR Part 59, Subpart E

APPENDIX A—TABLE 2C TO SUBPART E OF PART 59—REACTIVITY FACTORS FOR AROMATIC HYDROCARBON SOLVENT MIXTURES—APPLICABLE PRIOR TO JULY 17, 2025

| Bin | Boiling range (degrees F) | Criteria | Reactivity factor (g O ₃ /g VOC) |
|-----|------------------------------|-------------------------|--|
| 21 | 280-290 | Aromatic Content (≥98%) | 7.37 |
| 22 | 320-350 | Aromatic Content (≥98%) | 7.51 |
| 23 | 355-420 | Aromatic Content (≥98%) | 8.07 |

| Bin | Boiling range (degrees F) | Criteria | Reactivity factor (g O ₃ /g VOC) |
|-----|------------------------------|-------------------------|---|
| 24 | 450-535 | Aromatic Content (≥98%) | 5.00 |

V. Appendix A—Table 3 Under 40 CFR Part 59, Subpart E

APPENDIX A—TABLE 3 TO SUBPART E OF PART 59—METHODS—APPLICABLE PRIOR TO JULY 17, 2025

| Method name | Description |
|--|---|
| CARB 310 (2005) or Method EPA 311 | Determination of Volatile Organic Compounds (VOC) in Consumer Products and Reactive Organic Compounds in Aerosol Coating Products (May 5, 2005), (incorporated by reference, see § 59.515) or Analysis of Hazardous Air Pollutant Compounds in Paints and Coatings by Direct Injection into a Gas Chromatograph; |
| SCAQMD Method 318-95 | Determination of Weight Percent Elemental Metal in Coatings by X-ray Diffraction, July, 1996, (incorporated by reference, see § 59.515). |
| ASTM Method D523-89 (Reapproved 1999) | Standard Test Method for Specular Gloss, (incorporated by reference, see § 59.515). |

[90 FR 5714, Jan. 17, 2025]

Subpart F—Control of Evaporative Emissions From New and In-Use Portable Fuel Containers

Source: 72 FR 8533, Feb. 26, 2007, unless otherwise noted.

OVERVIEW AND APPLICABILITY

§ 59.600 Does this subpart apply for my products?

- (a) Except as provided in § 59.605 and paragraph (b) of this section, the regulations in this subpart F apply for all portable fuel containers (defined in § 59.680) that are manufactured on or after January 1, 2009.
- (b) See § 59.602 (a) and (b) to determine how to apply the provisions of this subpart for containers that were manufactured before January 1, 2009.

§ 59.601 Do the requirements of this subpart apply to me?

- (a) Unless specified otherwise in this subpart, the requirements and prohibitions of this subpart apply to all manufacturers and importers of portable fuel containers. Certain prohibitions in § 59.602 apply to all other persons.
- (b) New portable fuel containers that are subject to the emissions standards of this part must be covered by a certificate of conformity that is issued to the manufacturer of the container. If more than one person meets the definition of manufacturer for a portable fuel container, see § 59.621 to determine if you are the manufacturer who may apply for and receive a certificate of conformity.
- (c) Unless specifically noted otherwise, the term “you” means manufacturers, as defined in § 59.680.

§ 59.602 What are the general prohibitions and requirements of this subpart?

- (a) **General prohibition for manufacturers and importers.** No manufacturer or importer may sell, offer for sale, introduce or deliver for introduction into commerce in the United States, or import any new portable fuel container that is subject to the emissions standards of this subpart and is manufactured after December 31, 2008 unless it is covered by a valid certificate of conformity, it is labeled as required, and it complies with all of the applicable requirements of this subpart, including compliance with the emissions standards for its useful life. After June 30, 2009, no manufacturer or importer may sell, offer for sale, introduce or deliver into commerce in the United States, or import any new portable fuel container that was manufactured prior to January 1, 2009 unless it meets the requirements of this subpart.
- (b) **General prohibition for wholesale distributors.** No wholesale distributor may sell, offer for sale, or distribute any portable fuel container in the United States that is subject to the emissions standards of this subpart and is manufactured after December 31, 2008 unless it is covered by a valid certificate of conformity and is labeled as required. After December 31, 2009, no wholesale distributor may sell, offer for sale, or distribute in the United States any portable fuel container that was manufactured prior to January 1, 2009 unless it meets the requirements of this subpart. After December 31, 2009, all new portable fuel containers shall be deemed to be manufactured after December 31, 2008 unless they are in retail inventory.
- (c) **Reporting and recordkeeping.**
 - (1) You must keep the records and submit the reports specified in § 59.628. Records must be retained for at least 5 years from the date of manufacture or importation and must be supplied to EPA upon request.
 - (2) No person may alter, destroy, or falsify any record or report required by this subpart.
- (d) **Testing and access to facilities.** You may not keep us from entering your facility to observe tests or inspect facilities if we are authorized to do so. Also, you must perform the tests we require (or have the tests done for you). Failure to perform this testing is prohibited.
- (e) **Warranty.** You may not fail to offer, provide notice of, or honor the emissions warranty required under this subpart.
- (f) **Replacement components.** No person may sell, offer for sale, introduce or deliver for introduction into commerce in the United States, import, or install any replacement component for portable fuel containers subject to the standards of this subpart where the component has the effect of disabling, bypassing, or rendering inoperative the emissions controls of the containers.

- (g) **Violations.** If a person violates any prohibition or requirement of this subpart or the Act concerning portable fuel containers, it shall be considered a separate violation for each portable fuel container.
- (h) **Assessment of penalties and injunctions.** We may assess administrative penalties, bring a civil action to assess and recover civil penalties, bring a civil action to enjoin and restrain violations, or bring criminal action as provided by the Clean Air Act.

§ 59.603 How must manufacturers apply good engineering judgment?

- (a) In addition to other requirements and prohibitions set forth in this subpart, you must use good engineering judgment for decisions related to any requirements under this subpart. This includes your applications for certification, any testing you do to show that your portable fuel containers comply with requirements that apply to them, and how you select, categorize, determine, and apply these requirements.
- (b) Upon request, you must provide EPA a written description of the engineering judgment in question. Such information must be provided within 15 working days unless EPA specifies a different period of time to respond.
- (c) We may reject your decision if it is not based on good engineering judgment or is otherwise inconsistent with the requirements that apply, and we may—
 - (1) Suspend, revoke, or void a certificate of conformity if we determine you used incorrect or incomplete information or failed to consider relevant information, or that your decision was not based on good engineering judgment; or
 - (2) Notify you that we believe any aspect of your application or other information submission may be incorrect or invalid due to lack of good engineering judgment or other cause. Unless a different period is specified, you will have 30 days to respond to our notice and specifically address our concerns. After considering your information, we will notify you regarding our finding, which may include the actions provided in paragraph (c)(1) of this section.
- (d) If you disagree with our conclusions under paragraph (c) of this section, you may file a request for a hearing with the Designated Compliance Officer as described in § 59.699. In your request, you must specifically state your objections, and include relevant data or supporting analysis. The request must be signed by your authorized representative. If we agree that your request raises a substantial factual issue, we will hold the hearing according to § 59.699.

§ 59.605 What portable fuel containers are excluded from this subpart's requirements?

This section describes exclusions that apply to certain portable fuel containers. The prohibitions and requirements of this subpart do not apply for containers excluded under this section. Exclusions under this section are based on inherent characteristics of the containers. See § 59.660 for exemptions that apply based on special circumstances.

- (a) Containers approved as safety cans consistent with the requirements of 29 CFR 1926.150 through 1926.152 are excluded. Such cans generally have a flash-arresting screens, spring-closing lids and spout covers and have been approved by a nationally recognized testing laboratory such as Factory Mutual Engineering Corp. or Underwriters Laboratories, Inc., or Federal agencies such as Bureau of Mines, or U.S. Coast Guard.
- (b) Containers with a nominal capacity of less than 0.25 gallons or more than 10.0 gallons are excluded.

- (c) Containers designed and marketed solely to deliver fuel directly to nonroad engines during engine operation, such as containers with a connection for a fuel line and a reserve fuel area, are considered to be nonroad fuel tanks, and are thus excluded.

§ 59.607 Submission of information.

- (a) You are responsible for all statements you make to us related to this subpart F, including information not required during certification. You are required to provide truthful and complete information. This subpart describes the consequences of failing to meet this obligation. The consequences also may include prosecution under 18 U.S.C. 1001 and 42 U.S.C. 7431(c)(2).
- (b) We may require an officer or authorized representative of your company with knowledge of the information contained in the submittal to approve and sign any submission of information to us, and to certify that all the information submitted is accurate and complete.

EMISSION STANDARDS AND RELATED REQUIREMENTS

§ 59.611 What evaporative emission requirements apply under this subpart?

- (a) Hydrocarbon emissions from portable fuel containers may not exceed 0.3 grams per gallon per day when measured with the test procedures in §§ 59.650 through 59.653. This procedure measures diurnal venting emissions and permeation emissions.
- (b) For the purpose of this section, portable fuel containers include spouts, caps, gaskets, and other parts provided with the container.
- (c) The following general requirements also apply for all portable fuel containers subject to the standards of this subpart:
 - (1) **Prohibited controls.** The following controls are prohibited:
 - (i) For anyone to design, manufacture, or install emission control systems so they cause or contribute to an unreasonable risk to public health, welfare, or safety while operating.
 - (ii) For anyone to design, manufacture, or install emission control systems with features that disable, deactivate, reduce effectiveness, or bypass the emission controls, either actively or passively. However, you may include a vent that the operator can open to bypass emission controls if that vent closes automatically (*i.e.*, without operator involvement). You may include such design features if they operate during emission tests described in subpart F of this part. For example, you may include an integrated or external manually activated device in the portable fuel container's design to temporarily relieve pressure, provided that the device is in place during emission testing and closes automatically when not in use.
 - (2) **Leaks.** You must design and manufacture your containers to be free of leaks. This requirement applies when your container is upright, partially inverted, or completely inverted.
 - (3) **Refueling.** You are required to design your portable fuel containers to minimize spillage during refueling to the extent practical. This requires that you use good engineering judgment to avoid designs that will make it difficult to refuel typical vehicle and equipment designs without spillage.
- (d) Portable fuel containers must meet the standards and requirements specified in this subpart throughout the useful life of the container. The useful life of the container is five years beginning on the date of sale to the ultimate purchaser.

[72 FR 8533, Feb. 26, 2007, as amended at 80 FR 9089, Feb. 19, 2015]

§ 59.612 What emission-related warranty requirements apply to me?

- (a) **General requirements.** You must warrant to the ultimate purchaser that the new portable fuel container, including all parts of its evaporative emission-control system, is:
 - (1) Designed, built, and equipped so it conforms at the time of sale to the ultimate purchaser with the requirements of this subpart.
 - (2) Is free from defects in materials and workmanship that may keep it from meeting these requirements.
- (b) **Warranty notice and period.** Your emission-related warranty must be valid for a minimum of one year from the date of sale to the ultimate purchaser.
- (c) **Notice.** You must provide a warranty notice with each container.

§ 59.613 What operation and maintenance instructions must I give to buyers?

You must provide the ultimate purchaser of the new portable fuel container written instructions for properly maintaining and using the emission-control system.

§ 59.615 How must I label and identify the portable fuel containers I produce?

This section describes how you must label your portable fuel containers.

- (a) At the time of manufacture, indelibly mark the month and year of manufacture on each container.
- (b) Mold into or affix a legible label identifying each portable fuel container. The label must be:
 - (1) Attached so it is not easily removable.
 - (2) Secured to a part of the container that can be easily viewed when the can is in use, not on the bottom of the container.
 - (3) Written in English.
- (c) The label must include:
 - (1) The heading "EMISSION CONTROL INFORMATION".
 - (2) Your full corporate name, trademark and warranty contact information.
 - (3) A standardized identifier such as EPA's standardized designation for the emission families, the model number, or the part number.
 - (4) This statement: "THIS CONTAINER COMPLIES WITH U.S. EPA EMISSION REGULATIONS FOR PORTABLE FUEL CONTAINERS (40 CFR Part 59)".
 - (5) This statement: "THE EMISSIONS WARRANTY IS VALID FOR A MINIMUM OF ONE YEAR FROM DATE OF PURCHASE".
- (d) You may add information to the emission control information label to identify other emission standards that the container meets or does not meet (such as California standards). You may also add other information to ensure that the portable fuel container will be properly maintained and used.

- (e) You may request that we approve modified labeling requirements in this subpart F if you show that it is necessary or appropriate. We will approve your request if your alternate label is consistent with the requirements of this subpart.
- (f) You may identify the name and trademark of another company instead of their own on your emission control information label, subject to the following provisions:
 - (1) You must have a contractual agreement with the other company that obligates that company to take the following steps:
 - (i) Meet the emission warranty requirements that apply under § 59.612. This may involve a separate agreement involving reimbursement of warranty-related expenses.
 - (ii) Report all warranty-related information to the certificate holder.
 - (2) In your application for certification, identify the company whose trademark you will use and describe the arrangements you have made to meet your requirements under this section.
 - (3) You remain responsible for meeting all the requirements of this subpart.

CERTIFYING EMISSION FAMILIES

§ 59.621 Who may apply for a certificate of conformity?

A certificate of conformity may be issued only to the manufacturer that completes the construction of the portable fuel container. In unusual circumstances, upon a petition by a manufacturer, we may allow another manufacturer of the container to hold the certificate of conformity. However, in order to hold the certificate, the manufacturer must demonstrate day-to-day ability to ensure that containers produced under the certificate will comply with the requirements of this subpart.

§ 59.622 What are the general requirements for obtaining a certificate of conformity and producing portable fuel containers under it?

- (a) You must send us a separate application for a certificate of conformity for each emission family. A certificate of conformity for containers is valid from the indicated effective date until the end of the production period for which it is issued. We may require new certification prior to the end of the production period if we find that containers are not meeting the standards in use during their useful life.
- (b) The application must be written in English and contain all the information required by this subpart and must not include false or incomplete statements or information (see §§ 59.607 and 59.629).
- (c) We may ask you to include less information than we specify in this subpart, as long as you maintain all the information required by § 59.628.
- (d) You must use good engineering judgment for all decisions related to your application (see § 59.603).
- (e) An authorized representative of your company must approve and sign the application.
- (f) See § 59.629 for provisions describing how we will process your application.
- (g) If we approve your application, we will issue a certificate that will allow you to produce the containers that you described in your application for a specified production period. Certificates do not allow you to produce containers that were not described in your application, unless we approve the additional containers under § 59.624.

§ 59.623 What must I include in my application?

This section specifies the information that must be in your application, unless we ask you to include less information under § 59.622(c). We may require you to provide additional information to evaluate your application.

- (a) Describe the emission family's specifications and other basic parameters of the emission controls. List each distinguishable configuration in the emission family. Include descriptions and part numbers for all detachable components such as spouts and caps and describe any devices designed for venting pressure, if applicable.
- (b) Describe and explain the method of emission control.
- (c) Describe the products you selected for testing and the reasons for selecting them.
- (d) Describe the test equipment and procedures that you used, including any special or alternate test procedures you used (see § 59.650).
- (e) List the specifications of the test fuel to show that it falls within the required ranges specified in § 59.650.
- (f) Include the maintenance and use instructions and warranty information you will give to the ultimate purchaser of each new portable fuel container (see § 59.613).
- (g) Describe your emission control information label (see § 59.615).
- (h) State that your product was tested as described in the application (including the test procedures, test parameters, and test fuels) to show you meet the requirements of this subpart.
- (i) Present emission data to show your products meet the applicable emission standards. Where applicable, §§ 59.626 and 59.627 may allow you to submit an application in certain cases without new emission data.
- (j) Report all test results, including those from invalid tests or from any other tests, whether or not they were conducted according to the test procedures of §§ 59.650 through 59.653. We may ask you to send other information to confirm that your tests were valid under the requirements of this subpart.
- (k) Unconditionally certify that all the products in the emission family comply with the requirements of this subpart, other referenced parts of the CFR, and the Clean Air Act.
- (l) Include estimates of U.S.-directed production volumes.
- (m) Include the information required by other sections of this subpart.
- (n) Include other relevant information, including any additional information requested by EPA.
- (o) Name an agent for service located in the United States. Service on this agent constitutes service on you or any of your officers or employees for any action by EPA or otherwise by the United States related to the requirements of this subpart.

[72 FR 8533, Feb. 26, 2007, as amended at 80 FR 9089, Feb. 19, 2015]

§ 59.624 How do I amend my application for certification?

Before we issue you a certificate of conformity, you may amend your application to include new or modified configurations, subject to the provisions of this section. After we have issued your certificate of conformity, you may send us an amended application requesting that we include new or modified configurations within the scope of the certificate, subject to the provisions of this section. You must amend your application if any changes occur with respect to any information included in your application.

- (a) You must amend your application before you take either of the following actions:
 - (1) Add a configuration to an emission family. In this case, the configuration added must be consistent with other configurations in the emission family with respect to the criteria listed in § 59.625.
 - (2) Change a configuration already included in an emission family in a way that may affect emissions, or change any of the components you described in your application for certification. This includes production and design changes that may affect emissions any time during the portable fuel containers' lifetime.
- (b) To amend your application for certification, send the Designated Compliance Officer the following information:
 - (1) Describe in detail the addition or change in the configuration you intend to make.
 - (2) Include engineering evaluations or data showing that the amended emission family complies with all applicable requirements. You may do this by showing that the original emission data are still appropriate with respect to showing compliance of the amended family with all applicable requirements.
 - (3) If the original emission data for the emission family are not appropriate to show compliance for the new or modified configuration, include new test data showing that the new or modified configuration meets the requirements of this subpart.
- (c) We may ask for more test data or engineering evaluations. You must give us these within 30 days after we request them.
- (d) For emission families already covered by a certificate of conformity, we will determine whether the existing certificate of conformity covers your new or modified configuration. You may ask for a hearing if we deny your request (see § 59.699).
- (e) For emission families already covered by a certificate of conformity and you send us a request to amend your application, you may sell and distribute the new or modified configuration before we make a decision under paragraph (d) of this section, subject to the provisions of this paragraph. If we determine that the affected configurations do not meet applicable requirements, we will notify you to cease production of the configurations and any containers from the new or modified configuration will not be considered covered by the certificate. In addition, we may require you to recall any affected containers that you have already distributed, including those sold to the ultimate purchasers. Choosing to produce containers under this paragraph (e) is deemed to be consent to recall all containers that we determine do not meet applicable emission standards or other requirements and to remedy the nonconformity at no expense to the owner. If you do not provide information required under paragraph (c) of this section within 30 days, you must stop producing the new or modified containers.

§ 59.625 How do I select emission families?

- (a) Divide your product line into families of portable fuel containers that are expected to have similar emission characteristics throughout the useful life.
- (b) Group containers in the same emission family if they are the same in all the following aspects:
 - (1) Type of material (including pigments, plasticizers, UV inhibitors, or other additives that may affect control of emissions).
 - (2) Production method.
 - (3) Spout and cap design.
 - (4) Gasket material and design.
 - (5) Emission control strategy.
 - (6) Strategy for venting pressure.
- (c) You may subdivide a group of containers that is identical under paragraph (b) of this section into different emission families if you show the expected emission characteristics are different.
- (d) You may group containers that are not identical with respect to the things listed in paragraph (b) of this section in the same emission family if you show that their emission characteristics will be similar throughout their useful life.

[72 FR 8533, Feb. 26, 2007, as amended at 80 FR 9089, Feb. 19, 2015]

§ 59.626 What emission testing must I perform for my application for a certificate of conformity?

This section describes the emission testing you must perform to show compliance with the emission standards in § 59.611.

- (a) Test your products using the procedures and equipment specified in §§ 59.650 through 59.653.
- (b) Select an emission-data unit from each emission family for testing. You must test a production sample or a preproduction product that will represent actual production. Select the configuration that is most likely to exceed (or have emissions nearest to) the applicable emission standard. For example, for a family of multilayer portable fuel containers, test the container with the thinnest barrier layer. Test three identical containers.
- (c) We may measure emissions from any of your products from the emission family. You must supply your products to us if we choose to perform confirmatory testing.
- (d) You may ask to use emission data from a previous production period (carryover) instead of doing new tests, but only if the emission-data from the previous production period remains the appropriate emission-data unit under paragraph (b) of this section. For example, you may not carryover emission data for your family of containers if you have added a thinner-walled container than was tested previously.
- (e) We may require you to test units of the same or different configuration in addition to the units tested under paragraph (b) of this section.

- (f) If you use an alternate test procedure under § 59.652 and later testing shows that such testing does not produce results that are equivalent to the procedures specified in this subpart, we may reject data you generated using the alternate procedure and base our compliance determination on the later testing.

[72 FR 8533, Feb. 26, 2007, as amended at 86 FR 34357, June 29, 2021]

§ 59.627 How do I demonstrate that my emission family complies with evaporative emission standards?

- (a) For purposes of certification, your emission family is considered in compliance with an evaporative emission standard in § 59.611(a) if the test results from all portable fuel containers in the family that have been tested show measured emissions levels that are at or below the applicable standard.
- (b) Your emissions family is deemed not to comply if any container representing that family has test results showing an official emission level above the standard.
- (c) Round the measured emission level to the same number of decimal places as the emission standard. Compare the rounded emission levels to the emission standard.

§ 59.628 What records must I keep and what reports must I send to EPA?

- (a) Organize and maintain the following records:
 - (1) A copy of all applications and any other information you send us.
 - (2) Any of the information we specify in § 59.623 that you were not required to include in your application.
 - (3) A detailed history of each emission-data unit. For each emission-data unit, include all of the following:
 - (i) The emission-data unit's construction, including its origin and buildup, steps you took to ensure that it represents production containers, any components you built specially for it, and all the components you include in your application for certification.
 - (ii) All your emission tests, including documentation on routine and standard tests, as specified in §§ 59.650 through 59.653, and the date and purpose of each test.
 - (iii) All tests to diagnose emission-control performance, giving the date and time of each and the reasons for the test.
 - (iv) Any other relevant events or information.
 - (4) Production figures for each emission family divided by assembly plant.
 - (5) If you identify your portable fuel containers by lot number or other identification numbers, keep a record of these numbers for all the containers you produce under each certificate of conformity.
- (b) Keep required data from emission tests and all other information specified in this subpart for five years after we issue the associated certificate of conformity. If you use the same emission data or other information for a later production period, the five-year period restarts with each new production period if you continue to rely on the information.

- (c) Store these records in any format and on any media, as long as you can promptly send us organized, written records in English if we ask for them. You must keep these records readily available. We may review them at any time.
- (d) Send us copies of any maintenance instructions or explanations if we ask for them.
- (e) Send us an annual warranty report summarizing successful warranty claims by emission family under § 59.612, including the reason for the claim. You must submit the report by July 1 for the preceding calendar year.

[72 FR 8533, Feb. 26, 2007, as amended at 86 FR 34357, June 29, 2021]

§ 59.629 What decisions may EPA make regarding my certificate of conformity?

- (a) If we determine your application is complete and shows that the emission family meets all the requirements of this subpart and the Act, we will issue a certificate of conformity for your emission family for the specified production period. We may make the approval subject to additional conditions.
- (b) We may deny your application for certification if we determine that your emission family fails to comply with emission standards or other requirements of this subpart or the Act. Our decision may be based on a review of all information available to us. If we deny your application, we will explain why in writing.
- (c) In addition, we may deny your application or suspend, revoke, or void your certificate if you do any of the following:
 - (1) Refuse to comply with any testing or reporting requirements.
 - (2) Submit false or incomplete information.
 - (3) Render inaccurate any test data.
 - (4) Deny us from completing authorized activities (see § 59.698). This includes a failure to provide reasonable assistance.
 - (5) Produce portable fuel containers for importation into the United States at a location where local law prohibits us from carrying out authorized activities.
 - (6) Fail to supply requested information or amend your application to include all portable fuel containers being produced.
 - (7) Take any action that otherwise circumvents the intent of the Act or this subpart.
- (d) If we deny your application or suspend, revoke, or void your certificate, you may ask for a hearing (see § 59.699).

§ 59.630 EPA testing.

We may test any portable fuel container subject to the standards of this subpart.

- (a) **Certification and production sample testing.** Upon our request, a manufacturer must supply a prototype container or a reasonable number of production samples to us for verification testing. These samples will generally be tested using the full test procedure of § 59.653.
- (b) **In-use testing.** We may test in-use containers using the test procedure of § 59.653 without preconditioning.

§ 59.650 General testing provisions.

- (a) The test procedures of this subpart are addressed to you as a manufacturer, but they apply equally to anyone who does testing for you.
- (b) Unless we specify otherwise, the terms “procedures” and “test procedures” in this subpart include all aspects of testing, including the equipment specifications, calibrations, calculations, and other protocols and procedural specifications needed to measure emissions.
- (c) The specification for gasoline to be used for testing is given in 40 CFR 1065.710(c). Use the grade of gasoline specified for general testing. Blend this grade of gasoline with reagent grade ethanol in a volumetric ratio of 90.0 percent gasoline to 10.0 percent ethanol to achieve a blended fuel that has 10.0 ±1.0 percent ethanol by volume. You may use ethanol that is less pure if you can demonstrate that it will not affect your ability to demonstrate compliance with the applicable emission standards.
- (d) Accuracy and precision of all temperature measurements must be ±2.2 °C or better.
- (e) Accuracy and precision of mass balances must be sufficient to ensure accuracy and precision of two percent or better for emission measurements for products at the maximum level allowed by the standard. The readability of the display may not be coarser than half of the required accuracy and precision.

[72 FR 8533, Feb. 26, 2007, as amended at 86 FR 34357, June 29, 2021]

§ 59.652 Other procedures.

- (a) **Your testing.** The procedures in this subpart apply for all testing you do to show compliance with emission standards, with certain exceptions listed in this section.
- (b) **Our testing.** These procedures generally apply for testing that we do to determine if your portable fuel containers complies with applicable emission standards. We may perform other testing as allowed by the Act.
- (c) **Exceptions.** We may allow or require you to use procedures other than those specified in this subpart as follows:
 - (1) You may request to use special procedures if your portable fuel containers cannot be tested using the specified procedures. We will approve your request if we determine that it would produce emission measurements that represent in-use operation and we determine that it can be used to show compliance with the requirements of § 59.611.
 - (2) You may ask to use emission data collected using other procedures, such as those of the California Air Resources Board. We will approve this only if you show us that using these other procedures do not affect your ability to show compliance with the applicable emission standards. This generally requires emission levels to be far enough below the applicable emission standards so that any test differences do not affect your ability to state unconditionally that your containers will meet all applicable emission standards when tested using the specified test procedures.
 - (3) You may request to use alternate procedures that are equivalent to allowed procedures, or more accurate or more precise than allowed procedures.
 - (4) You may not use other procedures under this paragraph (c) until we approve your request.

§ 59.653 How do I test portable fuel containers?

You must test the portable fuel container as described in your application, with the applicable spout attached except as otherwise noted. Tighten fittings in a manner representative of how they would be tightened by a typical user.

- (a) **Preconditioning for durability.** Complete the following steps before an emissions test, in any order, unless we determine that omission of one or more of these durability steps will not affect the emissions from your container.
 - (1) **Pressure cycling.** Perform a pressure test by sealing the container and cycling it between +13.8 and -3.4 kPa (+2.0 and -0.5 psig) for 10,000 cycles at a rate of 60 seconds per cycle. For this test, the spout may be removed, and the pressure applied through the opening where the spout attaches. The purpose of this test is to represent environmental wall stresses caused by pressure changes and other factors (such as vibration or thermal expansion). If your container cannot be tested using the pressure cycles specified by this paragraph (a)(1), you may ask to use special test procedures under § 59.652(c).
 - (2) **UV exposure.** Perform a sunlight-exposure test by exposing the container to an ultraviolet light of at least 24 W/m² (0.40 W-hr/m²/min) on the container surface for at least 450 hours. Alternatively, the container may be exposed to direct natural sunlight for an equivalent period of time, as long as you ensure that the container is exposed to at least 450 daylight hours.
 - (3) **Slosh testing.** Perform a slosh test by filling the portable fuel container to 40 percent of its capacity with the fuel specified in paragraph (e) of this section and rocking it at a rate of 15 cycles per minute until you reach one million total cycles. Use an angle deviation of +15° to -15° from level. Take steps to ensure that the fuel remains at 40 percent of its capacity throughout the test run.
 - (4) **Spout actuation.** Perform the following spout actuation and inversion steps at the end on the slosh testing, and at the end of the preconditioning soak.
 - (i) Perform one complete actuation/inversion cycle per day for ten days.
 - (ii) One actuation/inversion cycle consists of the following steps:
 - (A) Remove and replace the spout to simulate filling the container.
 - (B) Slowly invert the container and keep it inverted for at least 5 seconds to ensure that the spout and mechanisms become saturated with fuel. Any fuel leaking from any part of the container will denote a leak and must be reported as part of certification. Once completed, place the container on a flat surface in the upright position.
 - (C) Actuate the spout by fully opening and closing without dispensing fuel. The spout must return to the closed position without the aid of the operator (e.g., pushing or pulling the spout closed). Repeat for a total of 10 actuations. If at any point the spout fails to return to the closed position, the container fails the diurnal test.
 - (D) Repeat the step contained in paragraph (a)(4)(ii)(B) of this section (i.e., the inversion step).
 - (E) Repeat the steps contained in paragraph (a)(4)(ii)(C) of this section (i.e., ten actuations).
- (b) **Preconditioning fuel soak.** Complete the following steps before a diurnal emission test:

- (1) Fill the portable fuel container with the specified fuel to its nominal capacity, seal it using the spout, and allow it to soak at 28 ± 5 °C for 20 weeks. Alternatively, the container may be soaked for 10 weeks at 43 ± 5 °C. You may count the time of the preconditioning steps in paragraph (a) of this section as part of the preconditioning fuel soak, as long as the ambient temperature remains within the specified temperature range and the fuel tank is at least 40 percent full; you may add or replace fuel as needed to conduct the specified durability procedures.
 - (2) Pour the fuel out of the container and immediately refill to 50 percent of nominal capacity. Be careful to not spill any fuel on the container. Wipe the outside of the container as needed to remove any liquid fuel that may have spilled on it.
 - (3) Install the spout assembly that will be used in the production containers. The spout and other openings (such as vents) on the container must be tested in their open condition unless they close automatically and are unlikely to be left open by the user during typical storage. All manual closures such as caps must be left off the container and spout during testing.
- (c) **Reference container.** A reference container is required to correct for buoyancy effects that may occur during testing. Prepare the reference tank as follows:
- (1) Obtain a second container of the same model as the test tank. You may not use a container that has previously contained fuel or any other contents that might affect the stability of its mass.
 - (2) Fill the reference container with enough dry sand (or other inert material) so that the mass of the reference container is approximately the same as the test container when filled with fuel. Use good engineering judgment to determine how similar the mass of the reference container needs to be to the mass of the test container considering the performance characteristics of your balance.
 - (3) Ensure that the sand (or other inert material) is dry. This may require heating the container or applying a vacuum to it.
 - (4) Seal the container.
- (d) **Diurnal test run.** To run the test, take the following steps for a portable fuel container that was preconditioned as specified in paragraph (a) of this section.
- (1) Stabilize the fuel temperature within the portable fuel container at 22.2 °C. Vent the container at this point to relieve any positive or negative pressure that may have developed during stabilization.
 - (2) Weigh the sealed reference container and record the weight. Place the reference on the balance and tare it so that it reads zero. Place the sealed test container on the balance and record the difference between the test container and the reference container. This value is M_{initial} . Take this measurement within 8 hours of filling the test container with fuel as specified in paragraph (b)(2) of this section.
 - (3) Immediately place the portable fuel container within a well ventilated, temperature-controlled room or enclosure. Do not spill or add any fuel.
 - (4) Close the room or enclosure.

- (5) Follow the temperature profile in the following table for all portable fuel containers. Use good engineering judgment to follow this profile as closely as possible. You may use linearly interpolated temperatures or a spline fit for temperatures between the hourly setpoints.

TABLE 1 OF § 59.653—DIURNAL TEMPERATURE PROFILE FOR PORTABLE FUEL CONTAINERS

| Time (hours) | Ambient Temperature (°C) Profile |
|-----------------|--|
| 0 | 22.2 |
| 1 | 22.5 |
| 2 | 24.2 |
| 3 | 26.8 |
| 4 | 29.6 |
| 5 | 31.9 |
| 6 | 33.9 |
| 7 | 35.1 |
| 8 | 35.4 |
| 9 | 35.6 |
| 10 | 35.3 |
| 11 | 34.5 |
| 12 | 33.2 |
| 13 | 31.4 |
| 14 | 29.7 |
| 15 | 28.2 |
| 16 | 27.2 |
| 17 | 26.1 |
| 18 | 25.1 |
| 19 | 24.3 |
| 20 | 23.7 |
| 21 | 23.3 |
| 22 | 22.9 |
| 23 | 22.6 |
| 24 | 22.2 |

- (6) At the end of the diurnal period, retare the balance using the reference container and weigh the portable fuel container. Record the difference in mass between the reference container and the test. This value is M_{final} .

- (7) Subtract M_{final} from M_{initial} and divide the difference by the nominal capacity of the container (using at least three significant figures) to calculate the g/gallon/day emission rate as follows:
$$\text{Emission rate} = (M_{\text{initial}} - M_{\text{final}}) / (\text{nominal capacity}) / (\text{one day})$$
 - (8) Round your result to the same number of decimal places as the emission standard.
 - (9) Instead of determining emissions by weighing the container before and after the diurnal temperature cycle, you may place the container in a SHED meeting the specifications of 40 CFR 86.107-96(a)(1) and measure emissions directly. Immediately following the stabilization in paragraph (d)(1) of this section, purge the SHED and follow the temperature profile from paragraph (d)(4) of this section. Start measuring emissions when you start the temperature profile and stop measuring emissions when the temperature profile concludes.
- (e) For metal containers, you may demonstrate for certification that your portable fuel containers comply with the evaporative emission standards without performing the pre-soak or container durability cycles (i.e., the pressure cycling, UV exposure, and slosh testing) specified in this section. For other containers, you may demonstrate compliance without performing the durability cycles specified in this section only if we approve it after you have presented data clearly demonstrating that the cycle or cycles do not negatively impact the permeation rate of the materials used in the containers.

[72 FR 8533, Feb. 26, 2007, as amended at 86 FR 34357, June 29, 2021]

SPECIAL COMPLIANCE PROVISIONS

§ 59.660 Exemption from the standards.

In certain circumstances, we may exempt portable fuel containers from the evaporative emission standards and requirements of § 59.611 and the prohibitions and requirements of § 59.602. You do not need an exemption for any containers that you own but do not sell, offer for sale, introduce or deliver for introduction into U.S. commerce, or import into the United States. Submit your request for an exemption to the Designated Compliance Officer.

- (a) Portable fuel containers that are intended for export only and are in fact exported are exempt provided they are clearly labeled as being for export only. Keep records for five years of all portable fuel containers that you manufacture for export. Any introduction into U.S. commerce of such portable fuel containers for any purpose other than export is considered to be a violation of § 59.602 by the manufacturer. You do not need to request this exemption.
- (b) Manufacturers and other persons subject to the prohibitions in § 59.602 may ask us to exempt portable fuel containers to purchase, sell, or distribute them for the sole purpose of testing them.
- (c) You may ask us to exempt portable fuel containers for the purpose of national security, as long as your request is endorsed by an agency of the federal government responsible for national defense. In your request, explain why you need the exemption.
- (d) You may ask us to exempt containers that are designed and marketed solely for rapidly refueling racing applications which are designed to create a leak proof seal with the target tank or are designed to connect with a receiver installed on the target tank. This exemption is generally intended for containers used to rapidly refuel a race car during a pit stop and similar containers. In your request, explain how why these containers are unlikely to be used for nonracing applications. We may limit these exemptions to those applications that are allowed to use gasoline exempted under 40 CFR 80.200(a).

- (e) EPA may impose reasonable conditions on any exemption, including a limit on the number of containers that are covered by an exemption.

[72 FR 8533, Feb. 26, 2007, as amended at 86 FR 34357, June 29, 2021]

§ 59.662 What temporary provisions address hardship due to unusual circumstances?

- (a) After considering the circumstances, we may exempt you from the evaporative emission standards and requirements of § 59.611 of this subpart and the prohibitions and requirements of § 59.602 for specified portable fuel containers that do not comply with emission standards if all the following conditions apply:
 - (1) Unusual circumstances that are clearly outside your control and that could not have been avoided with reasonable discretion prevent you from meeting requirements from this subpart.
 - (2) You exercised prudent planning and were not able to avoid the violation; you have taken all reasonable steps to minimize the extent of the nonconformity.
 - (3) Not having the exemption will jeopardize the solvency of your company.
 - (4) No other allowances are available under the regulations in this chapter to avoid the impending violation, including the provisions of § 59.663.
- (b) To apply for an exemption, you must send the Designated Compliance Officer a written request as soon as possible before you are in violation. In your request, show that you meet all the conditions and requirements in paragraph (a) of this section.
- (c) Include in your request a plan showing how you will meet all the applicable requirements as quickly as possible.
- (d) You must give us other relevant information if we ask for it.
- (e) We may include reasonable additional conditions on an approval granted under this section, including provisions to recover or otherwise address the lost environmental benefit or paying fees to offset any economic gain resulting from the exemption.
- (f) We may approve renewable extensions of up to one year. We may review and revise an extension as reasonable under the circumstances.
- (g) Add a legible label, written in English, to a readily visible part of each container exempted under this section. This label must prominently include at least the following items:
 - (1) Your corporate name and trademark.
 - (2) The statement "EXEMPT UNDER 40 CFR 59.662."

§ 59.663 What are the provisions for extending compliance deadlines for manufacturers under hardship?

- (a) After considering the circumstances, we may extend the compliance deadline for you to meet new emission standards, as long as you meet all the conditions and requirements in this section.
- (b) To apply for an extension, you must send the Designated Compliance Officer a written request. In your request, show that all the following conditions and requirements apply:
 - (1) You have taken all possible business, technical, and economic steps to comply.

- (2) Show that the burden of compliance costs prevents you from meeting the requirements of this subpart by the required compliance date.
 - (3) Not having the exemption will jeopardize the solvency of your company.
 - (4) No other allowances are available under the regulations in this subpart to avoid the impending violation.
- (c) In describing the steps you have taken to comply under paragraph (b)(1) of this section, include at least the following information:
- (1) Describe your business plan, showing the range of projects active or under consideration.
 - (2) Describe your current and projected financial standing, with and without the burden of complying in full with the applicable regulations in this subpart by the required compliance date.
 - (3) Describe your efforts to raise capital to comply with regulations in this subpart.
 - (4) Identify the engineering and technical steps you have taken or plan to take to comply with regulations in this subpart.
 - (5) Identify the level of compliance you can achieve. For example, you may be able to produce containers that meet a somewhat less stringent emission standard than the regulations in this subpart require.
- (d) Include in your request a plan showing how you will meet all the applicable requirements as quickly as possible.
- (e) You must give us other relevant information if we ask for it.
- (f) An authorized representative of your company must sign the request and include the statement: "All the information in this request is true and accurate, to the best of my knowledge."
- (g) Send your request for this extension at least nine months before the relevant deadline.
- (h) We may include reasonable requirements on an approval granted under this section, including provisions to recover or otherwise address the lost environmental benefit. For example, we may require that you meet a less stringent emission standard.
- (i) We may approve renewable extensions of up to one year. We may review and revise an extension as reasonable under the circumstances.
- (j) Add a permanent, legible label, written in English, to a readily visible part of each container exempted under this section. This label must prominently include at least the following items:
- (1) Your corporate name and trademark.
 - (2) The statement "EXEMPT UNDER 40 CFR 59.663."

§ 59.664 What are the requirements for importing portable fuel containers into the United States?

As specified in this section, we may require you to post a bond if you import into the United States containers that are subject to the standards of this subpart. See paragraph (f) of this section for the requirements related to importing containers that have been certified by someone else.

- (a) Prior to importing containers into the U.S., we may require you to post a bond to cover any potential compliance or enforcement actions under the Clean Air Act if you cannot demonstrate to us that you have assets of an appropriate liquidity readily available in the United States with a value equal to the retail value of the containers that you will import during the calendar year.
- (b) We may set the value of the bond up to five dollars per container.
- (c) You may meet the bond requirements of this section by obtaining a bond from a third-party surety that is cited in the U.S. Department of Treasury Circular 570, "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" (<https://www.fiscal.treasury.gov/surety-bonds/circular-570.html>).
- (d) If you forfeit some or all of your bond in an enforcement action, you must post any appropriate bond for continuing importation within 90 days after you forfeit the bond amount.
- (e) You will forfeit the proceeds of the bond posted under this section if you need to satisfy any United States administrative final order or judicial judgment against you arising from your conduct in violation of this subpart.
- (f) This paragraph (f) applies if you import for resale containers that have been certified by someone else. You and the certificate holder are each responsible for compliance with the requirements of this subpart and the Clean Air Act. No bond is required under this section if either you or the certificate holder meet the conditions in paragraph (a) of this section. Otherwise, the importer must comply with the bond requirements of this section.

[72 FR 8533, Feb. 26, 2007, as amended at 86 FR 34357, June 29, 2021]

DEFINITIONS AND OTHER REFERENCE INFORMATION

§ 59.680 What definitions apply to this subpart?

The following definitions apply to this subpart. The definitions apply to all subparts unless we note otherwise. All undefined terms have the meaning the Act gives to them. The definitions follow:

Act means the Clean Air Act, as amended, 42 U.S.C. 7401-7671q.

Adjustable parameter means any device, system, or element of design that someone can adjust and that, if adjusted, may affect emissions. You may ask us to exclude a parameter if you show us that it will not be adjusted in use in a way that affects emissions.

Certification means relating to the process of obtaining a certificate of conformity for an emission family that complies with the emission standards and requirements in this subpart.

Configuration means a unique combination of hardware (material, geometry, and size) and calibration within an emission family. Units within a single configuration differ only with respect to normal production variability.

Container means portable fuel container.

Designated Compliance Officer means the Manager, Engine Programs Group (6403-J), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460.

Designated Enforcement Officer means the Director, Air Enforcement Division (2242A), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460.

Emission-control system means any device, system, or element of design that controls or reduces the regulated evaporative emissions from.

Emission-data unit means a portable fuel container that is tested for certification. This includes components tested by EPA.

Emission-related maintenance means maintenance that substantially affects emissions or is likely to substantially affect emission deterioration.

Emission family has the meaning given in § 59.625.

Evaporative means relating to fuel emissions that result from permeation of fuel through the portable fuel container materials and from ventilation of the container.

Good engineering judgment means judgments made consistent with generally accepted scientific and engineering principles and all available relevant information. See § 59.603 for the administrative process we use to evaluate good engineering judgment.

Hydrocarbon (HC) means total hydrocarbon (THC).

Manufacture means the physical and engineering process of designing and/or constructing a portable fuel container.

Manufacturer means any person who manufactures a portable fuel container for sale in the United States.

Nominal capacity means the expected volumetric working capacity of a container.

Official emission result means the measured emission rate for an emission-data unit.

Portable fuel container means a reusable container of any color that is designed and marketed or otherwise intended for use by consumers for receiving, transporting, storing, and dispensing gasoline, diesel fuel, or kerosene. For the purposes of this subpart, all utility jugs that are red, yellow, or blue in color are deemed to be portable fuel containers, regardless of how they are labeled or marketed.

Production period means the period in which a portable fuel container will be produced under a certificate of conformity. The maximum production period is five years.

Revoke means to terminate the certificate or an exemption for an emission family. If we revoke a certificate or exemption, you must apply for a new certificate or exemption before continuing to introduce the affected containers into commerce. This does not apply to containers you no longer possess.

Round has the meaning given in 40 CFR 1065.1001.

Suspend means to temporarily discontinue the certificate or an exemption for an emission family. If we suspend a certificate, you may not introduce into commerce portable fuel containers from that emission family unless we reinstate the certificate or approve a new one. If we suspend an exemption, you may not introduce into commerce containers that were previously covered by the exemption unless we reinstate the exemption.

Total hydrocarbon means the combined mass of organic compounds measured by the specified procedure for measuring total hydrocarbon, expressed as a hydrocarbon with a hydrogen-to-carbon mass ratio of 1.85:1.

Ultimate purchaser means, with respect to any portable fuel container, the first person who in good faith purchases such a container for purposes other than resale.

Ultraviolet light means electromagnetic radiation with a wavelength between 300 and 400 nanometers.

United States means the States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, Guam, American Samoa, and the U.S. Virgin Islands.

U.S.-directed production volume means the amount of portable fuel containers, subject to the requirements of this subpart, produced by a manufacturer for which the manufacturer has a reasonable assurance that sale was or will be made to ultimate purchasers in the United States.

Useful life means the period during which a portable fuel container is required to comply with all applicable emission standards. See § 59.611.

Void means to invalidate a certificate or an exemption *ab initio* (i.e. retroactively). Portable fuel containers introduced into U.S. commerce under the voided certificate or exemption is a violation of this subpart, whether or not they were introduced before the certificate or exemption was voided.

We (us, our) means the Administrator of the Environmental Protection Agency and any authorized representatives.

[72 FR 8533, Feb. 26, 2007, as amended at 86 FR 34357, June 29, 2021]

§ 59.685 What symbols, acronyms, and abbreviations does this subpart use?

The following symbols, acronyms, and abbreviations apply to this subpart:

CFR Code of Federal Regulations

EPA Environmental Protection Agency

HC hydrocarbon

NIST National Institute of Standards and Technology

THC total hydrocarbon

U.S.C. United States Code

§ 59.695 What provisions apply to confidential information?

The provisions of 40 CFR 1068.10 and 1068.11 apply for information you submit under this part.

[88 FR 4471, Jan. 24, 2023]

§ 59.697 State actions.

The provisions in this subpart do not preclude any State or any political subdivision of a State from:

- (a) Adopting and enforcing any emission standard or limitation applicable to anyone subject to the provisions of this part; or
- (b) Requiring the regulated entity to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of a facility for manufacturing a consumer product.

§ 59.698 May EPA enter my facilities for inspections?

- (a) We may inspect your portable fuel containers, testing, manufacturing processes, storage facilities (including port facilities for imported containers or other relevant facilities), or records, as authorized by the Act, to enforce the provisions of this subpart. Inspectors will have authorizing credentials and will limit inspections to reasonable times—usually, normal operating hours.
- (b) If we come to inspect, we may or may not have a warrant or court order.
 - (1) If we do not have a warrant or court order, you may deny us entry.
 - (2) If we have a warrant or court order, you must allow us to enter the facility and carry out the activities it describes.
- (c) We may seek a warrant or court order authorizing an inspection described in this section, whether or not we first tried to get your permission to inspect.
- (d) We may select any facility to do any of the following:
 - (1) Inspect and monitor any aspect of portable fuel container manufacturing, assembly, storage, or other procedures, and any facilities where you do them.
 - (2) Inspect and monitor any aspect of test procedures or test-related activities, including test container selection, preparation, durability cycles, and maintenance and verification of your test equipment's calibration.
 - (3) Inspect and copy records or documents related to assembling, storing, selecting, and testing a container.
 - (4) Inspect and photograph any part or aspect of containers or components use for assembly.
- (e) You must give us reasonable help without charge during an inspection authorized by the Act. For example, you may need to help us arrange an inspection with the facility's managers, including clerical support, copying, and translation. You may also need to show us how the facility operates and answer other questions. If we ask in writing to see a particular employee at the inspection, you must ensure that he or she is present (legal counsel may accompany the employee).
- (f) If you have facilities in other countries, we expect you to locate them in places where local law does not keep us from inspecting as described in this section. We will not try to inspect if we learn that local law prohibits it, but we may suspend your certificate if we are not allowed to inspect.

§ 59.699 How do I request a hearing?

- (a) You may request a hearing under certain circumstances, as described elsewhere in this subpart. To do this, you must file a written request with the Designated Compliance Officer, including a description of your objection and any supporting data, within 30 days after we make a decision.
- (b) For a hearing you request under the provisions of this subpart, we will approve your request if we find that your request raises a substantial factual issue.

(c) If we agree to hold a hearing, we will use the procedures specified in 40 CFR part 1068, subpart G.