

WAC 296-24-33001 Definitions. The following definitions are applicable to all sections of this chapter which include WAC 296-24-330 in the section number.

Aerosol. A material which is dispensed from its container as a mist, spray, or foam by a propellant under pressure.

Approved. Unless otherwise indicated, approved, or listed by a nationally recognized testing laboratory. Refer to federal regulation 29 C.F.R. 1910.7 for definition of nationally recognized testing laboratory.

Atmospheric tank. A storage tank which has been designed to operate at pressures from atmospheric through 0.5 p.s.i.g.

Automotive service station. That portion of property where flammable liquids used as motor fuels are stored and dispensed from fixed equipment into the fuel tanks of motor vehicles and shall include any facilities available for the sale and service of tires, batteries, and accessories, and for minor automotive maintenance work. Major automotive repairs, painting, body and fender work are excluded.

Barrel. A volume of forty-two United States gallons.

Basement. A story of a building or structure having one-half or more of its height below ground level and to which access for fire-fighting purposes is unduly restricted.

Boiling point. The boiling point of a liquid at a pressure of 14.7 pounds per square inch absolute (p.s.i.a.) (760 mm.). Where an accurate boiling point is unavailable for the material in question, or for mixtures which do not have a constant boiling point, for purposes of this section the 10% point of a distillation performed in accordance with the Standard Method of Test for Distillation of Petroleum Products, ASTM D-86-62, may be used as the boiling point of the liquid.

Boilover. The expulsion of crude oil (or certain other liquids) from a burning tank. The light fractions of the crude oil burnoff producing a heat wave in the residue, which on reaching a water strata may result in the expulsion of a portion of the contents of the tank in the form of froth.

Bulk plant. That portion of a property where flammable liquids are received by tank vessel, pipelines, tank car, or tank vehicle, and are stored or blended in bulk for the purpose of distributing such liquids by tank vessel, pipeline, tank car, tank vehicle, or container.

Chemical plant. A large integrated plant or that portion of such a plant other than a refinery or distillery where flammable liquids are produced by chemical reactions or used in chemical reactions.

Closed container. A container as herein defined, so sealed by means of a lid or other device that neither liquid nor vapor will escape from it at ordinary temperatures.

Container. Any can, barrel, or drum.

Crude petroleum. Hydrocarbon mixtures that have a flash point below 150°F and which have not been processed in a refinery.

Distillery. A plant or that portion of a plant where flammable liquids produced by fermentation are concentrated, and where the concentrated products may also be mixed, stored, or packaged.

Fire area. An area of a building separated from the remainder of the building by construction having a fire resistance of at least one hour and having all communicating openings properly protected by an assembly having a fire resistance rating of at least one hour.

Fire resistance or fire resistive construction. Construction to resist the spread of fire.

Flammable aerosol. A flammable aerosol as defined under WAC 296-901-14024, Appendix B—Physical hazard criteria. For the purposes of WAC 296-24-33009, such aerosols are considered Category 1 flammable liquids.

Flammable liquid. Any liquid having a flashpoint at or below 199.4°F (93°C). Flammable liquids are divided into four categories as follows:

(a) **Category 1** includes liquids having flashpoints below 73.4°F (23°C) and having a boiling point at or below 95°F (35°C).

(b) **Category 2** includes liquids having flashpoints below 73.4°F (23°C) and having a boiling point above 95°F (35°C).

(c) **Category 3** includes liquids having flashpoints at or above 73.4°F (23°C) and at or below 140°F (60°C). When a Category 3 liquid with a flashpoint at or above 100°F (37.8°C) is heated for use to within 30°F (16.7°C) of its flashpoint, it must be handled in accordance with the requirements for a Category 3 liquid with a flashpoint below 100°F (37.8°C).

(d) **Category 4** must include liquids having flashpoints above 140°F (60°C) and at or below 199.4°F (93°C). When a Category 4 flammable liquid is heated for use to within 30°F (16.7°C) of its flashpoint, it must be handled in accordance with the requirements for a Category 3 liquid with a flashpoint at or above 100°F (37.8°C).

(e) When liquid with a flashpoint greater than 199.4°F (93°C) is heated for use to within 30°F (16.7°C) of its flashpoint, it must be handled in accordance with the requirements for a Category 4 flammable liquid.

Flashpoint. The minimum temperature at which a liquid gives off vapor within a test vessel in sufficient concentration to form an ignitable mixture with air near the surface of the liquid, and shall be determined as follows:

(a) For a liquid which has a viscosity of less than 45 SUS at 100°F (37.8°C), does not contain suspended solids, and does not have a tendency to form a surface film while under test, the procedure specified in the Standard Method of Test for Flashpoint by Tag Closed Tester (ASTM D-56-70), WAC 296-901-14024, Appendix B—Physical hazard criteria, shall be used.

(b) For a liquid which has a viscosity of 45 SUS or more at 100°F (37.8°C), or contains suspended solids, or has a tendency to form a surface film while under test, the Standard Method of Test for Flashpoint by Pensky-Martens Closed Tester (ASTM D-93-71) or an equivalent method as defined by WAC 296-901-14024, Appendix B—Physical hazard criteria, shall be used, except that the methods specified in Note 1 to section 1.1 of ASTM D-93-71 may be used for the respective materials specified in the note.

(c) For a liquid that is a mixture of compounds that have different volatilities and flashpoints, its flashpoint shall be determined by using the procedure specified in (a) or (b) of this subsection on the liquid in the form it is shipped.

(d) Organic peroxides, which undergo autoaccelerating thermal decomposition, are excluded from any of the flashpoint determination methods specified in this section.

Hotel. Buildings or groups of buildings under the same management in which there are sleeping accommodations for hire primarily used by transients who are lodged with or without meals including but not limited to inns, clubs, motels, and apartment hotels.

Institutional occupancy. The occupancy or use of a building or structure or any portion thereof by persons harbored or detained to receive medical, charitable or other care or treatment, or by persons involuntarily detained.

Liquid. For the purpose of these standards, any material which has a fluidity greater than that of 300 penetration asphalt when tested in accordance with ASTM Test for Penetration for Bituminous Materials, D-5-65. When not otherwise identified, the term liquid shall include both flammable liquids.

Listed. See "Approved."

Low-pressure tank. A storage tank which has been designed to operate at pressures above 0.5 p.s.i.g. but not more than 15 p.s.i.g.

Marine service station. That portion of a property where flammable liquids used as fuels are stored and dispensed from fixed equipment on shore, piers, wharves, or floating docks into the fuel tanks or self-propelled craft, and shall include all facilities used in connection therewith.

Mercantile occupancy. The occupancy or use of a building or structure or any portion thereof for the displaying, selling, or buying of goods, wares, or merchandise.

Office occupancy. The occupancy or use of a building or structure or any portion thereof for the transaction of business, or the rendering or receiving of professional services.

Portable tank. A closed container having a liquid capacity over sixty United States gallons and not intended for fixed installation.

Pressure vessel. A storage tank or vessel which has been designed to operate at pressures above 15 p.s.i.g.

Protection for exposure. Adequate fire protection for structures on property adjacent to tanks, where there are employees of the establishment.

Refinery. A plant in which flammable liquids are produced on a commercial scale from crude petroleum, natural gasoline, or other hydrocarbon sources.

Safety can. An approved container, of not more than five gallons capacity, having a spring-closing lid and spout cover and so designed that it will safely relieve internal pressure when subjected to fire exposure.

Storage. Flammable liquids must be stored in a tank or in a container that complies with WAC 296-24-33009(2).

SUS. Saybolt Universal Seconds as determined by the Standard Method of Test for Saybolt Viscosity (ASTM D-88-56), and may be determined by use of the SUS conversion tables specified in ASTM Method D2161-66 following determination of viscosity in accordance with the procedures specified in the Standard Method of Test for Viscosity of Transparent and Opaque Liquids (ASTM D445-65).

Unstable (reactive) liquid. A liquid which in the pure state or as commercially produced or transported will vigorously polymerize, decompose, condense, or will become self-reactive under conditions of shocks, pressure, or temperature.

Vapor pressure. The pressure, measured in pounds per square inch (absolute) exerted by a volatile liquid as determined by the "Standard Method of Test for Vapor Pressure of Petroleum Products (Reid Method)," American Society for Testing and Materials ASTM D323-68.

Ventilation. As specified in these standards is for the prevention of fire and explosion. It is considered adequate if it is sufficient to prevent accumulation of significant quantities of vapor-air

mixtures in concentration over one-fourth of the lower flammable limit.

Viscous. A viscosity of 45 SUS or more.

Note: The volatility of liquids is increased when artificially heated to temperatures equal to or higher than their flashpoints. When so heated Category 3 and 4 liquids must be subject to the applicable requirements for Category 1 and 2 liquids. These standards may also be applied to high flashpoint liquids when so heated even though these same liquids when not heated are outside of its scope.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-02-066, § 296-24-33001, filed 1/3/17, effective 2/3/17; WSR 15-24-100, § 296-24-33001, filed 12/1/15, effective 1/5/16. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060 and 29 C.F.R. 1910 Subpart Z. WSR 14-07-086, § 296-24-33001, filed 3/18/14, effective 5/1/14. Statutory Authority: Chapter 49.17 RCW. WSR 88-23-054 (Order 88-25), § 296-24-33001, filed 11/14/88. Statutory Authority: RCW 49.17.040 and 49.17.050. WSR 82-08-026 (Order 82-10), § 296-24-33001, filed 3/30/82. Statutory Authority: RCW 49.17.040, 49.17.050, 49.17.240, chapters 43.22 and 42.30 RCW. WSR 80-17-015 (Order 80-21), § 296-24-33001, filed 11/13/80; Order 76-29, § 296-24-33001, filed 9/30/76; Order 76-6, § 296-24-33001, filed 3/1/76; Order 74-27, § 296-24-33001, filed 5/7/74; Order 73-5, § 296-24-33001, filed 5/9/73 and Order 73-4, § 296-24-33001, filed 5/7/73.]