

WAC 296-155-270 Flammable liquids. (1) General requirements.

(a) You must use only approved containers and portable tanks for storage and handling of flammable liquids. You must use approved metal safety cans, or department of transportation approved containers for the handling and use of flammable liquids in quantities 5 gallons or less, except that this does not apply to those flammable liquid materials which are highly viscid (extremely hard to pour), which may be used and handled in original shipping containers. For quantities of one gallon or less, only the original container may be used for storage, use, and handling of flammable liquids.

(b) You must not store flammable liquids in areas used for exits, stairways, or normally used for the safe passage of people.

(c) You must legibly mark flammable liquid containers to indicate their contents. Each storage container for flammable liquids, with a capacity of 50 gallons or more, must have the contents of the container identified by a sign of clearly visible contrasting colors with letters at least 3 inches high, painted on the container at the discharge valve and at the fill point.

(d) You must not use gasoline as a solvent or a cleaning agent.

(2) Indoor storage of flammable liquids.

(a) You must not store more than 25 gallons of flammable liquids in a room outside of an approved storage cabinet. For storage of liquid petroleum gas, see WAC 296-155-275.

(b) You must store quantities of flammable liquid in excess of 25 gallons in an acceptable or approved cabinet meeting the following requirements:

(i) Acceptable wooden storage cabinets must be constructed in the following manner, or equivalent: The bottom, sides, and top must be constructed of an exterior grade of plywood at least 1 inch in thickness, which must not break down or delaminate under standard fire test conditions. All joints must be rabbeted and must be fastened in two directions with flathead wood screws, when more than one door is used, there must be a rabbeted overlap of not less than 1 inch. Steel hinges must be mounted in such a manner as to not lose their holding capacity due to loosening or burning out of the screws when subjected to fire. Such cabinets shall be painted inside and out with fire retardant paint.

(ii) Approved metal storage cabinets will be acceptable.

(iii) Cabinets must be labeled in conspicuous lettering, "Flammable—Keep Away from Open Flames."

(c) You must not store more than 60 gallons of Category 1, 2, or 3 flammable liquids or 120 gallons of Category 4 flammable liquids in any one storage cabinet. Not more than 3 such cabinets may be located in a single storage area. You must store quantities in excess of this in an inside storage room.

(d)(i) Inside storage rooms must be constructed to meet the required fire-resistive rating for their use. Such construction must comply with the test specifications set forth in Standard Methods of Fire Test of Building Construction and Material, NFPA 251-1972.

(ii) Where an automatic extinguishing system is provided, the system must be designed and installed in an approved manner. Openings to other rooms or buildings must be provided with noncombustible liquid-tight raised sills or ramps at least 4 inches in height, or the floor in the storage area must be at least 4 inches below the surrounding floor. Openings must be provided with approved self-closing fire doors. The room must be liquid-tight where the walls join the

floor. A permissible alternate to the sill or ramp is an open-grated trench, inside of the room, which drains to a safe location. Where other portions of the building or other buildings are exposed, windows must be protected as set forth in the Standard for Fire Doors and Windows, NFPA No. 80-1983, for Class E or F openings. Wood of at least one-inch nominal thickness may be used for shelving, racks, dunnage, scuffboards, floor overlay and similar installations.

(iii) You must not store materials which will react with water and create a fire hazard in the same room with flammable liquids.

(iv) Storage in inside storage rooms must comply with Table D-2 following:

TABLE D-2

Fire protection provided	Fire resistance	Maximum size	Total allowable quantities gals./sq. ft./floor area
Yes	2 hrs.	500 sq. ft.	10
No	2 hrs.	500 sq. ft.	4
Yes	1 hr.	150 sq. ft.	5
No	1 hr.	150 sq. ft.	2

Note: Fire protection system must be sprinkler, water spray, carbon dioxide or other system approved by a nationally recognized testing laboratory for this purpose.

(v) Electrical wiring and equipment located in inside storage rooms must be approved for Class 1, Division 1, hazardous locations. For definition of Class 1, Division 1, hazardous locations, see WAC 296-155-456.

(vi) You must provide every inside storage room with either a gravity or a mechanical exhausting system. Such system must commence not more than 12 inches above the floor and be designed to provide for a complete change of air within the room at least 6 times per hour. If a mechanical exhausting system is used, it must be controlled by a switch located outside of the door. The ventilating equipment and any lighting fixtures must be operated by the same switch. An electric pilot light must be installed adjacent to the switch if Category 1, 2, or 3 flammable liquids are dispensed within the room. Where gravity ventilation is provided, the fresh air intake, as well as the exhausting outlet from the room, must be on the exterior of the building in which the room is located.

(vii) In every inside storage room you must maintain one clear aisle at least 3 feet wide. You must not stack containers over 30 gallons capacity one upon the other.

(viii) You must store flammable liquids in excess of that permitted in inside storage rooms outside of buildings in accordance with subsection (3) of this section.

(3) Storage outside buildings.

(a) Storage of containers (not more than 60 gallons each) must not exceed 1,100 gallons in any one pile or area. You must separate piles or groups of containers by a 5-foot clearance. Piles or groups of containers must not be nearer than 20 feet to a building.

(b) Within 200 feet of each pile of containers, there must be a 12-foot-wide access way to permit approach of fire control apparatus.

(c) The storage area must be graded in a manner to divert possible spills away from buildings or other exposures, or must be surrounded by a curb or earth dike at least 12 inches high. When curbs or dikes are used, you must make provisions for draining off accumulations of ground or rain water, or spills of flammable liquids. Drains

must terminate at a safe location and must be accessible to operation under fire conditions.

(d) Outdoor portable tank storage.

(i) Portable tanks must not be nearer than 20 feet from any building. Two or more portable tanks, grouped together, having a combined capacity in excess of 2,200 gallons, must be separated by a 5-foot-clear area. Individual portable tanks exceeding 1,100 gallons must be separated by a 5-foot-clear area.

(ii) Within 200 feet of each portable tank, there must be a 12-foot-wide access way to permit approach of fire control apparatus.

(e) You must keep storage areas free of weeds, debris, and other combustible material not necessary to the storage.

(f) You must provide portable tanks, not exceeding 660 gallons, with emergency venting and other devices, as required by chapters III and IV of NFPA 30-1972, The Flammable and Combustible Liquids Code.

(g) Portable tanks, in excess of 660 gallons, must have emergency venting and other devices, as required by chapters II and III of the Flammable and Combustible Liquids Code, NFPA 30-1972.

(4) Fire control for flammable liquid storage.

(a) You must locate at least one portable fire extinguisher, having a rating of not less than 20-B units, outside of, but not more than 10 feet from, the door opening into any room used for storage of more than 60 gallons of flammable liquids.

(b) You must locate at least one portable fire extinguisher having a rating of not less than 20-B units not less than 25 feet, nor more than 75 feet, from any flammable liquid storage area located outside.

(c) When sprinklers are provided, they must be installed in accordance with the Standard for the Installation of Sprinkler Systems, NFPA 13-1972.

(d) You must provide at least one portable fire extinguisher having a rating of not less than 20-B:C units on all tank trucks or other vehicles used for transporting and/or dispensing flammable liquids.

Note: For additional requirements relating to portable fire extinguishers see WAC 296-800-300.

(5) Dispensing liquids.

(a) You must separate areas in which flammable liquids are transferred at the same time, in quantities greater than 5 gallons from one tank or container to another tank or container, from other operations by 25-foot distance or by construction having a fire-resistance of at least one hour. You must provide drainage or other means to control spills. You must provide adequate natural or mechanical ventilation to maintain the concentration of flammable vapor at or below 10 percent of the lower flammable limit.

(b) You must transfer Category 1, 2, or 3 flammable liquids from one container to another only when containers are electrically interconnected (bonded).

(c) You must draw from or transfer flammable liquids into vessels, containers, or tanks within a building or outside only through a closed piping system, from safety cans, by means of a device drawing through the top, or from a container, or portable tanks, by gravity or pump, through an approved self-closing valve. You must not transfer by means of air pressure on the container or portable tank.

(d) You must protect the dispensing units against collision damage.

(e) Dispensing devices and nozzles for Category 1, 2, or 3 flammable liquids must be of an approved type, as required by WAC 296-24-33015.

(6) Handling liquids at point of final use.

(a) You must keep Category 1, 2, or 3 flammable liquids in closed containers when not actually in use.

(b) You must dispose of leakage or spillage of flammable liquids promptly and safely.

(c) You must only use Category 1, 2, or 3 flammable liquids where there are no open flames or other sources of ignition within 50 feet of the operation, unless conditions warrant greater clearance.

(7) Service and refueling areas.

(a) You must store flammable liquids in approved closed containers, in tanks located underground, or in aboveground portable tanks.

(b) The tank trucks must comply with the requirements covered in the Standard for Tank Vehicles for Flammable and Combustible Liquids, NFPA No. 385-1977.

(c) The dispensing hose must be an approved type.

(d) The dispensing nozzle must be an approved automatic-closing type.

(e) You must not abandon underground tanks.

(f) You must provide clearly identified and easily accessible switch(es) at a location remote from dispensing devices to shut off the power to all dispensing devices in the event of an emergency.

(g)(i) Heating equipment of an approved type may be installed in the lubrication or service area where there is no dispensing or transferring of Category 1, 2, or 3 flammable liquids, provided the bottom of the heating unit is at least 18 inches above the floor and is protected from physical damage.

(ii) Heating equipment installed in lubrication or service areas, where Category 1, 2, or 3 flammable liquids are dispensed, must be of an approved type for garages, and must be installed at least 8 feet above the floor.

(h) You must ensure that there is no smoking or open flames in the areas used for fueling, servicing fuel systems for internal combustion engines, receiving or dispensing of flammable liquids.

(i) You must post conspicuous and legible signs prohibiting smoking.

(j) You must shut off the motor of any equipment being fueled during the fueling operation.

(k) You must provide each service or fueling area with at least one fire extinguisher having a rating of not less than 20BC located so that an extinguisher will be within 75 feet of each pump, dispenser, underground fill pipe opening, and lubrication or service area.

Note: For additional requirements relating to portable fire extinguishers see WAC 296-800-300.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 16-09-085, § 296-155-270, filed 4/19/16, effective 5/20/16. 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, § 296-155-270, filed 3/18/14, effective 5/1/14. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 01-17-033, § 296-155-270, filed 8/8/01, effective 9/1/01; WSR 99-17-094, § 296-155-270, filed 8/17/99, effective 12/1/99. Statutory Authority: Chapter 49.17 RCW. WSR 88-23-054 (Order 88-25), § 296-155-270, filed 11/14/88. Statutory Authority: RCW 49.17.040 and 49.17.050. WSR 86-03-074 (Order 86-14), § 296-155-270,

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