

30-88

FLAMMABLE AND COMBUSTIBLE LIQUIDS CODE

116-7

6-7 Drainage and Waste Disposal.

6-7.1 Provision shall be made to prevent liquids which can be spilled at loading or unloading points from entering public sewers and drainage systems, or natural waterways. Connection to such sewers, drains, or waterways by which liquids might enter shall be provided with separator boxes or other approved means whereby such entry is precluded. Crankcase drainings and liquids shall not be dumped into sewers, but shall be stored in tanks or tight drums outside of any building until removed from the premises.

6-8 Fire Control.

6-8.1 Listed portable fire extinguishers of appropriate size, type and number shall be provided. NFPA 10, *Standard for Portable Fire Extinguishers*, provides information on this subject. At least one extinguisher with a minimum classification of 20-B shall be provided at each loading or unloading facility. Where piped water is available, ready-connected hose in size appropriate for the water supply shall be provided at locations where fires are likely to occur.

6-8.2 All plant fire protection facilities shall be adequately maintained and periodically inspected and tested to make sure they are always in satisfactory operating condition, and they will serve their purpose in time of emergency.

6-8.3 Bulk plants and terminals shall have a written emergency procedure plan. The plan shall be designed to minimize the hazard to the public and to plant employees in the event of a fire or other emergency conditions. The plan shall be posted, or located in a strategic and accessible location. Plant personnel assigned to emergency duties shall be trained in these duties.

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SERVICE STATIONS

30-89

Chapter 7 Service Stations

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7-1 Scope.

7-1.1 This chapter applies to automotive and marine service stations and to service stations located inside buildings. Reference shall also be made to NFPA 302, *Fire Protection Standard for Motor Craft*, for safety precautions while fueling at marine service stations, and to NFPA 303, *Fire Protection Standard for Marinas and Boatyards*, for additional requirements applicable to marine service stations.

7-2 Storage.**7-2.1 General Provisions.**

7-2.1.1 Liquids shall be stored in approved closed containers not exceeding 60 gal (227.1 L) capacity, in tanks in special enclosures as described in 7-2.2, in aboveground tanks as provided for in 7-2.1.5, or in tanks located underground as in Section 2-3. Vent pipes on tanks storing gasoline shall be in accordance with 2-3.5.1, 2-3.5.2 and 2-3.5.6, as applicable, and shall discharge only upward in order to disperse vapors. (Also see 7-8.3.4 and 7-8.3.5.)

7-2.1.2 Aboveground tanks, located at a bulk plant, shall not be connected by piping to service station underground tanks. Apparatus dispensing Class I liquids into the fuel tanks of motor vehicles of the public shall not be located at a bulk plant unless separated by a fence or similar barrier from the area in which bulk operations are conducted.

7-2.1.3 Class I liquids shall not be stored or handled within a building having a basement or pit into which flammable vapors can travel, unless such area is provided with ventilation which will prevent the accumulation of flammable vapors therein.

7-2.1.4 Accurate daily inventory records shall be maintained and reconciled on all Class I liquid and diesel fuel storage tanks for indication of possible leakage from tanks or piping. The records shall be kept at the premises, available for inspection by the enforcing authority, and shall include, as a minimum, records showing by product, daily reconciliation between sales, use, receipts, and inventory on hand. If there is more than one system consisting of a tank(s) serving separate pump(s) or dispenser(s) for any product, the reconciliation shall be maintained separately for each tank system. API Publication 1621, *Recommended Practice for Bulk Liquid Stock Control at Retail Outlets*, provides information on this subject.*

*Available from American Petroleum Institute, 2101 L St. N.W., Washington, DC 20037.

Chapter 8 Processing Plants

8-1 Scope.

8-1.1 This chapter shall apply to those plants or buildings which contain chemical operations such as oxidation, reduction, halogenation, hydrogenation, alkylation, polymerization, and other chemical processes but shall not apply to chemical plants, refineries or distilleries as defined and covered in Chapter 9, Refineries, Chemical Plants and Distilleries.

8-2 Location.

8-2.1 The location of each processing vessel shall be based upon its liquid capacity. Processing vessels shall be located, with respect to distances to lines of adjoining property which can be built upon, in accordance with Table 8-2.1, except when the processing plant is designed in accordance with 8-2.1.1.

Table 8-2.1

Location of Processing Vessels from Property Lines

Processing Vessels with Emergency Relief Venting to Permit Pressure	Stable Liquids	Unstable Liquids
Not in excess of 2.5 psig (17.2 kPa)	Table 2-6*	2½ times Table 2-6*
Over 2.5 psig (17.2 kPa)	1½ times Table 2-6*	4 times Table 2-6*

*Double distances where protection of exposure is not provided.

8-2.1.1 The distances required in 8-2.1 may be waived when the vessels are housed within a building and the exterior wall facing the line of adjoining property which can be built upon is a blank wall having a fire resistance rating of not less than four hours. When Class IA or unstable liquids are handled, the blank wall shall have explosion resistance in accordance with good engineering practice (see 8-3.4).

8-3 Processing Buildings.

8-3.1 Construction.

8-3.1.1 Processing buildings shall be of fire-resistive or noncombustible construction, except heavy timber construction with load-bearing walls may be permitted for plants utilizing only stable Class II or Class III liquids. Except as provided in 8-2.1.1 or in the case of explosion resistant walls used in conjunction with explosion relieving facilities (see 8-3.4), load-bearing walls shall be prohibited. Buildings handling Class I or Class II liquids shall be without basements or covered pits. Processing buildings are normally limited in height and area, depending upon the type of construction and private fire protection provided, to minimize the possibility of fire of such extent as to jeopardize public safety. Processing buildings with numerous accessible exterior openings offer favorable features for fire fighting. Provision for smoke and heat venting may be desirable to assist access for fire fighting. NFPA 204, *Guide for Smoke and Heat Venting*, provides information on this subject.

8-3.1.2 Areas shall have adequate exit facilities arranged to prevent occupants from being trapped in the event of fire. Exits shall not be exposed by the drainage facilities described in 8-3.2. NFPA 101, *Life Safety Code*, provides information on this subject.

8-3.2 Drainage.

8-3.2.1 Emergency drainage systems shall be provided to direct flammable or combustible liquid leakage and fire protection water to a safe location. This may require curbs, scuppers, or special drainage systems to control the spread of fire (see 2-2.3.1). Appendix A of NFPA 15, *Standard for Water Spray Fixed Systems for Fire Protection*, provides information on this subject.

8-3.2.2 Emergency drainage systems, if connected to public sewers or discharged into public waterways, shall be equipped with traps or separators.

8-3.2.3 The processing plant shall be designed and operated to prevent the normal discharge of flammable or combustible liquids to public waterways, public sewers, or adjoining property.

8-3.3 Ventilation.

8-3.3.1 Enclosed processing buildings handling Class I or Class II liquids shall be ventilated at a rate of not less than 1 cu ft (0.02832 m³) per minute per sq ft (0.0929 m²) of solid floor area. This shall be