

Class IIIA shall include those having flash points at or above 140° F. (60° C.) and below 200° F. (93.4° C.). Class IIIB shall include those having flash points at or above 200° F. (93.4° C.).

This code does not cover class IIIB liquids (see 8.01 (1)). Where the term combustible liquids or class III liquids is used in this code, it shall mean only class IIIA liquids.

(b) *Flammable liquids* shall mean any liquid having a flash point below 140° F. and having a vapor pressure not exceeding 40 psia at 100° F. Flammable liquids shall be divided into 2 classes of liquids as follows:

1. Class I liquids shall include those having flash points below 100° F. and may be subdivided as follows:

a. Class IA shall include those having flash points below 73° F. and having a boiling point below 100° F.

b. Class IB shall include those having flash points below 73° F. and having a boiling point at or above 100° F.

c. Class IC shall include those having flash points at or above 73° F. and below 100° F.

2. Class II liquids shall include those having flash points at or above 100° F. and below 140° F.

(c) *Stable liquid*. Normally stable liquids are those having the relative capacity to resist changes in their chemical composition which would produce violent reactions or detonations despite exposure to air, water, heat, including the normal range of conditions encountered in handling, storage, or transportation.

(d) *Unstable (reactive) liquid* shall mean 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 shock, pressure or temperature.

(31) KEY OPERATED DISPENSING DEVICE is a refueling device designed for purpose of restricting its use to authorized personnel only. For purposes of this code, the device must be provided with gallonage totalizer panel and made operable by use of a special key or keys issued only to authorized personnel. Further, the keys are to be only obtainable from the manufacturer of the device. The device is not intended for sale of petroleum products unless it includes a monetary totalizer.

(32) LOW-PRESSURE TANK shall mean a storage tank which has been designed to operate at pressures above 0.5 psig but not more than 15 psig.

(33) MARINE SERVICE STATION shall mean that portion of a property where flammable or combustible liquids used as fuels are stored and dispensed from fixed equipment on shore, piers, wharves, or floating docks into the fuel tanks of self-propelled craft and shall include all facilities used in connection therewith.

(34) MERCANTILE OCCUPANCY shall mean the occupancy or use of a building or structure or any portion thereof for the displaying, selling or buying of goods, wares or merchandise.

(35) NFPA means the National Fire Protection Association.

(36) **OFFICE OCCUPANCY** shall mean 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.

(37) **OWNER** shall be as defined in chapter 101, Wis. Stats. (Also see "Place of Employment" or "Public Building.")

(38) **PLACE OF EMPLOYMENT** as referred to in definition of owner shall, for purposes of this code, include any location within the jurisdiction of this department stated in chapter 101, Wis. Stats. at which flammable and combustible liquid tanks, their products and attached pumping systems are considered to be integral and indispensable parts of the place of employment or public building.

(39) **PUBLIC BUILDING** shall be as defined in chapter 101, Wis. Stats.

(40) **PORTABLE TANKS** shall mean a closed container having a liquid capacity over 60 U. S. gallons and not intended for fixed installations.

(41) **PIPING SYSTEMS** consist of pipe, tubing, flanges, bolting, gaskets, valves, fittings, the pressure containing parts of other components such as expansion, joints and strainers, and devices which serve such purposes as mixing, separating, snubbing, distributing, metering or controlling flow.

(42) **PRESSURE VESSEL** shall mean a storage tank or vessel which has been designed to operate at pressures above 15 psig.

(43) **PROTECTION FROM EXPOSURES** shall mean fire protection for structures on property adjacent to tanks. When acceptable to the department of industry, labor and human relations such structures located 1) within the jurisdiction of any fire department or 2) within or adjacent to plants having private fire brigades shall be considered as having adequate protection for exposures.

(44) **PUBLIC WAY** shall mean public thoroughfare, dedicated alley, railroad right-of-way or waterway.

(45) **REFINERY** shall mean a plant in which flammable or combustible liquids are produced on a commercial scale from crude petroleum, natural gasoline or other hydrocarbon sources.

(46) **SAFETY CAN** shall mean an approved container, of not more than 6 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.

(47) **SELF-SERVICE STATION** shall mean that portion of property where flammable or combustible liquids used as motor fuels are stored, and where the fuel is dispensed by the general public into the fuel tanks of motor vehicles or into approved containers by use of automatic dispensing units.

Note: See section Ind 8.72 (3) for automatic dispensing units.

(48) **SERVICE STATION** shall mean that portion of property where flammable or combustible 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.

(49) **TANK FULL TRAILER.** Any vehicle with or without auxiliary motive power, equipped with a cargo tank mounted thereon or built as an integral part thereof, and used for the transportation of flammable and combustible liquids or asphalt so constructed that practically all of its weight and load rests on its own wheels.

(50) **TANK SEMITRAILER.** Any vehicle with or without auxiliary motive power, equipped with a cargo tank mounted thereon or built as an integral part thereof, and used for the transportation of flammable and combustible liquids or asphalt so constructed that when drawn by a tractor by means of a fifth wheel connection, some part of its load and weight rests upon the towing vehicle.

(51) **TANK TRUCK.** Any single self-propelled motor vehicle equipped with a cargo tank mounted thereon and used for the transportation of flammable and combustible liquids or asphalt.

(52) **TANK VEHICLE.** Any tank truck, tank full trailer, or tractor and tank semitrailer combination.

(53) **VAPOR PRESSURE** shall mean 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 Product (Reid Method) ASTM D-323.

(54) **VENTILATION** as specified in this code is for the prevention of fire and explosion.

Note: The above standards may be obtained for personal use from American Society of Testing and Materials, 1916 Race Street, Philadelphia, Pa. 19103. The standards are available for inspection in the office of the department, the secretary of state and the revisor of statutes.

History: Cr. Register, August, 1971, No. 188, eff. 9-1-71; renum. (47) through (53) to be (48) through (54) and cr. (47), Register, September, 1972, No. 201, eff. 10-1-72.

Ind 8.03 Adopted standard specifications. (1) The following list of standard specifications of American Society for Testing and Materials have been adopted as part of this code.

(a) Fire Tests of Building Construction and Materials. Part 14 ASTM designation E119-69.

(b) Specifications for Aluminum-Alloy Sheet and Plate. Part 6 ASTM designation B209-70.

(c) Specifications for Ferretic Ductile Iron Castings for Valves, Flanges, Pipe Fittings, and other Piping Components. Part 2 ASTM designation A445-66.

(d) Distillation of Petroleum Products. Part 11, 17 and 20 ASTM designation D86-67.

(e) Flash Point by Tag Closed Tester. Part 17 and 20 ASTM designation D56-70.

(f) Flash Point by Pensky-Martens Closed Tester. Part 11, 16, 17 and 20 ASTM designation D93-66.

(g) Penetration of Bituminous Materials. Part 11 ASTM designation D5-65.

(h) Vapor Pressure of Petroleum Products (Reid Method). Part 17 and 29 ASTM designation D323-58 (reapproved 1968).

Note: The above standards may be obtained for personal use from American Society of Testing and Materials, 1916 Race Street, Philadelphia, Pa. 19103. The standards are available for inspection in the office of the department, the secretary of state and the revisor of statutes.

History: Cr. Register, August, 1971, No. 188, eff. 9-1-71.

Register, September, 1972, No. 201
Flammable and Combustible Liquids

Ind 8.04 Enforcement. The regulations in this code will be enforced by the department and its authorized agents under the procedure prescribed in chapter 101, Wis. Stats., and by all local officials or bodies having jurisdiction to approve plans or specifications or issue permits for construction, alterations or installations within the purview of this code or having authority to investigate and eliminate related fire hazards.

History: Cr. Register, August, 1971, No. 188, eff. 9-1-71.

STORAGE, HANDLING AND USE OF FLAMMABLE AND COMBUSTIBLE LIQUIDS

GENERAL PROVISIONS

Ind 8.10 Application. (1) All persons, firms, corporations, copartnerships, voluntary associations and governmental agencies except federal, storing, handling or using flammable or combustible liquids are subject to the provisions of Wis. Adm. Code, chapter Ind 8.

(2) Sections Ind 8.10 through 8.93 do not apply to transportation of flammable or combustible liquids in bulk, nor to transportation in conformity with regulations of or on file with the U. S. Department of Transportation (formerly I.C.C.). (See section Ind 8.950, vehicle cargo tanks for flammable and combustible liquids.)

(a) Except to the extent specifically provided for, sections Ind 8.10 through Ind 8.93 apply to oil burning equipment. (See section Ind 8.970 for oil burning equipment regulations.)

(3) Ind 8.10 through Ind 8.93 does not apply to:

(a) Liquids without flash points that may be flammable under some conditions, such as certain halogenated hydrocarbons and mixtures containing halogenated hydrocarbons.

(b) Mists, sprays or foams except flammable aerosols in containers are included in section Ind 8.40.

(4) Insofar as sections Ind 8.10 through Ind 8.957 cover operational practice or use of containers, they shall apply and be enforced as to all plants, stations, establishments and facilities, wherein or whereon flammable or combustible liquids are stored, handled or used, whether existing and in service prior to the effective date of this code or subsequently established or placed in service. Rules covering physical installations shall apply to all plants, stations, establishments and facilities erected or installed or first devoted to flammable or combustible liquid storage, handling, or use on or after the effective date of these rules and, to the extent specifically provided for or to the extent necessary to eliminate any distinct hazard to life or adjoining property, shall apply to establishments and facilities existing and devoted to storage, handling or use of flammable or combustible liquid prior to the effective date of these rules. For purposes of section Ind 8.10, nonconformity with the rules existing as of the effective date thereof.

(a) With respect to vents or pressure relief devices on tanks, control valves on tanks or in piping systems, ventilation or sources of ignition shall be deemed distinctly hazardous and shall be corrected or eliminated provided however that vents or pressure relief devices on tanks prior to effective date of this code and meeting the size requirements of the February 1962, Wisconsin flammable and combustible liquids code may be allowed to continue.

Register, September, 1972, No. 201
Flammable and Combustible Liquids

(5) At any plant, station or establishment existing and devoted to flammable or combustible liquid use as of the effective date of these rules, existing nonconformity and continuance of which is allowed under subsections Ind 8.10 (1), (2) and (3) shall not prevent the installation of additional or replacement facilities which in and of themselves are in conformity with these rules.

(6) Where, under sections Ind 8.10 to Ind 8.957, the application of a requirement to an establishment or facility is conditioned upon a determination of whether the continuance of a nonconformity existing as of the effective date of these rules will or will not constitute a distinct hazard, then before any determination is made or order issued on the premises, the owner of the establishment or facility to be affected shall be given an opportunity to be heard with at least 10 days written notice of time and place. In the evaluation, due consideration shall be given to all existing protection and fire safety devices and the extent to which they eliminate or modify the need or hazard.

(7) Where required correction or elimination of existing nonconformity necessitates the obtaining and installation of additional devices or structural protection or the emptying or temporary nonuse of one or more facilities a reasonable time, considering the amount of work to be done, the availability of materials, and the need for continued operation of the facility, shall be allowed therefor. Provided that when work involving reconstruction or modernization of storage facilities is undertaken at a location then any required elimination or correction of nonconformity thereat shall be made in the course of such work. Provided, further, however, that where practical difficulties are encountered in accomplishing required elimination of nonconformity at any location, an extension or further extension beyond the time specified in any order therefor may be obtained upon written application to the department setting forth supporting facts.

History: Cr. Register, August, 1971, No. 188, eff. 9-1-71.

Ind 8.12 Approval of proposed construction, installation or operation. (1) Except as otherwise provided in subsection (1) (c), before any construction of new or additional installation or change in operation of a previously approved installation for the storage, handling or use of flammable or combustible liquids is undertaken, written approval and/or approved plans shall be obtained from the department.

(a) If the installation to be undertaken is one in which one or more tanks for storage, handling, or use of flammable or combustible liquid will have individual capacity of 8,000 gallons or larger; full information in writing, with plans consisting of prints of drawings made to scale, shall be submitted at least in triplicate and the approval of the department obtained.

(b) If the installation to be undertaken is one in which all tanks for storage, handling, or use of flammable or combustible liquid will have an individual capacity of less than 8,000 gallons, the approval in writing of the chief of the local fire department shall be obtained except that if by local ordinance another official is empowered to issue permits or approve plans for the proposed flammable or combustible liquid installations, his approval shall be obtained. If the installation is not within a governmental subdivision having an organized fire

department or an official designated by local ordinance as aforesaid, the approval of the department shall be obtained.

1. Exception. Permits for oil burning installations are excluded for one and 2 family residences. Also, aboveground tanks of 300 gallon capacity or less located on farms are excluded from these requirements.

(c) The local official having approval jurisdiction under section Ind 8.12 shall require an application form SB-9 and that the proposed installation comply with the applicable requirements of these regulations as written or as modified by the department, and if the information submitted with the application shows compliance, he shall issue approval in writing. In the event of a dispute as to whether the information submitted shows compliance as aforesaid, it shall be submitted to the department and the decision of the department shall control.

(d) Form SB-9—Application for Installation Bulk Storage Flammable or Combustible Liquid Tanks is furnished by the Department of Industry, Labor and Human Relations; Division of Industrial Safety and Buildings, P. O. Box 2209, Madison, Wisconsin 53701.

(e) Change of operation from that of a general service station to that of a self-service station, in part or in total, shall be approved by the department before commencing such operation.

Note: Also see requirements of sections Ind 8.12 (2) (c) and Ind 8.72 (3).

(2) The submitted information or plans shall show the following:

(a) The name of the person, firm or corporation proposing the construction or installation, the location thereof and the adjacent streets and highways.

(b) For bulk plants, the plans shall show, in addition to any applicable features required under subsections (2) (d) and (e), the plot of ground to be utilized and its immediate surroundings and property lines on all sides, layout of buildings, tanks, loading and unloading docks, type of construction of each building and the type and location of ventilation in pump houses.

(c) Plans for general service stations and self-service stations shall be submitted to the department or its authorized representative as required by chapters Ind 50-59—Building and Heating, Ventilating and Air Conditioning.

1. General service stations being converted to self-service operation, in part or in total, shall require approval before such change in operation.

Note #1: For installation of new equipment at existing stations—see subsection (3).

Note #2: Buildings converted for use as a service station—see subsection (1) and Wis. Adm. Code, chapters 50-59, Building and Heating, Ventilating and Air Conditioning.

Note #3: Plans for service stations involving use of automatic dispensing units should indicate location of emergency controls—see subsection Ind 8.72 (3).

(d) For aboveground storage, the information or plans shall show the location, size and capacity of each tank, the class of liquid to be stored in each tank, the type of tank supports, the clearances as covered in subsections Ind 8.21 (1) and (2), the type of venting and pressure relief relied upon and the combined capacity of all venting

and pressure relief valves on each tank, as covered in subsections Ind 8.21 (3) and (5), and the location of any stream or body of water within 150 feet of the tanks.

(e) For underground storage, the information or plans shall show the location and capacity of each tank, class of liquid to be stored therein, together with the clearances, location of fill, gauge and vent pipes, and openings, as covered in section Ind 8.22.

(f) For installation of storage, handling or use of flammable or combustible liquids within buildings or enclosures at an establishment or occupancy covered in sections Ind 8.10 through Ind 8.957, the information and plans shall be in such detail as will show whether applicable requirements are to be met.

(g) For oil burning equipment and incidental storage, covered in sections Ind 8.970 through Ind 8.986, the information and plans shall show the relative location of burners, tanks, pumps, piping and control valves as well as the elevations of buildings and their lowest floors or pits in relation to the proposed installation.

(3) Exceptions. Approval of plans shall not be required for installation of the following:

(a) Replacement with approved equipment at approved existing facilities other than storage tanks.

Note: See Subsections Ind 8.12 (1) (e) and (2) (c) for exceptions.

(b) Class II and class III flammable or combustible liquid tanks of a capacity not exceeding 275 gallons, each appurtenant to the heating of any building.

(c) Container of a capacity not in excess of 60 gallons each.

(d) Fuel supply tanks of a motor vehicle, aircraft, watercraft, mobile power plant or mobile heating plant.

(4) Approval of plans as to compliance with the requirements of this section covers only the uniform statewide fire safety and technical controls of storage, handling and use of flammable or combustible liquids and is subject to compliance by applicant with other requirements in applicable building codes, local zoning, and similar ordinances.

History: Cr. Register, August, 1971, No. 188, eff. 9-1-71; r. and recr. (1) (Intro. par.); cr. (1) (e), r. and recr. (2) (c), Register, September 1972, No. 201, eff. 10-1-72.

Ind 8.13 Inspection before covering installations. (1) Before an installation, for which approval of plans is required, is covered from sight, the installer shall notify in writing the official having authority under this code or local ordinance to approve plans or issue permits for flammable or combustible liquid installations. The local official shall within 48 hours after receipt of the notice inspect the installation and give his written approval or disapproval. If he fails to make this inspection within the time specified, the installation may be covered.

History: Cr. Register, August, 1971, No. 188, eff. 9-1-71.

Ind 8.14 General provisions for sale, purchase, dispensing or use of flammable liquids. (1) Labeling. No sale or purchase of any class I, II or III liquids shall be made in containers unless such containers are clearly marked with the name of the product contained therein.

Note: Also see subsection Ind 8.40 (2).

Register, September, 1972, No. 201
Flammable and Combustible Liquids

(2) A class I flammable liquid when used in starting an engine or as fuel for a small heating appliance, lighting appliance, power tool or gasoline engine shall be dispensed only from an approved, properly identified safety can or screwed cover spout can approved for that specific use.

(a) Except as permitted under specific regulations, a class I flammable liquid shall not be dispensed into the fuel supply tank of any type internal combustion engine while the engine is running.

(b) Repair and maintenance work involving a possible source of ignition shall not be performed in a room or area containing or likely to contain an ignitable mixture of hydrocarbon vapors and air.

(c) A class I flammable liquid shall not be used for degreasing or cleaning any engine, machine, equipment or part thereof, or for cleaning a floor, pit, or any part of a building or premises. See section Ind 8.52, 8.54 and 8.70 (1) (e).

1. Industrial processes requiring use of class I flammable liquids for degreasing or cleaning any engine, machine or part thereof shall be designed to incorporate a ventilation system to reduce vapor concentration below safe fire and explosive limits.

(d) Clothing saturated with a class I or II flammable liquid shall not be worn longer than the time required for removal and shall not be worn or taken into a building where a source of ignition exists.

(e) Except as permitted under specific regulations, class I flammable liquids shall not be dispensed from a tank vehicle into the fuel supply tank of any type of internal combustion engine.

(3) No dispensing of any liquids having a flash point of less than 110° F. shall be made into portable containers or portable tanks unless that such container or tank is substantially a bright red color, bears a U. L. label or is constructed of metal having a tight closure with screwed or spring cover, and is fitted with a spout or so designed that the contents can be poured without spilling.

(a) No kerosene, fuel oil or similar liquids having a flash point of 110° F. or more shall be filled into any portable container or portable tank colored red.

Note: Also see section 168.11, Wis. Stats.

History: Cr. Register, August, 1971, No. 188, eff. 9-1-71.

Ind 8.15 Race track fueling stations. (1) Tanks of racing vehicles shall be filled from safety cans, or pumps, or approved systems or approved containers as provided by subsections Ind 8.72 (3) (c) through (e). During a race in which a vehicle is competing it may be refueled while its engine is running. Signs prohibiting smoking in fueling areas shall be posted and an approved fire extinguisher of at least 8B classification shall be provided at each fueling location.

History: Cr. Register, August, 1971, No. 188, eff. 9-1-71.

Ind 8.16 Motor vehicle exhibition. (1) Vehicles with internal combustion engines may be exhibited in buildings classified under Wis. Adm. Code, chapters 50-59, Building and Heating, Ventilating and Air Conditioning providing the following requirements are satisfied: These requirements are not applicable to places where such vehicles are normally sold and/or serviced.

(a) A specific area shall be designated for display of such vehicles.

(b) The vehicles shall not be displayed in any required passageway, corridor or exit way leading to an exit.

(c) The vehicle engine shall not be started or run while the building is occupied by the general public.

1. Vehicle may be driven in and out of the building under its own power but only when the building is not occupied by the general public.

(d) The fuel supply in tanks shall be limited to not more than one gallon of fuel per vehicle when entering the building.

1. When it is necessary to drain the excess fuel from the tank, the operation shall take place outside of the building.

(e) The gas fill cap shall be of a lock type or the cap shall be securely taped with a material that is not soluble in a petroleum fuel.

(f) The fuel line between fuel tank and fuel pump shall be disconnected and the engine operated until the carburetor is emptied of fuel.

1. The fuel line shall then be reconnected.

vided that any heating equipment complies with section Ind 8.75. See also section Ind 8.77 (1) for other possible sources of ignition.

(c) Class II and class III liquids may be stored and dispensed inside service station buildings from tanks of not more than 120 gallons capacity each.

(4) LABELING. For labeling requirements see section Ind 8.14.

(5) DISPENSING INTO PORTABLE CONTAINERS. (a) Class I or II liquids shall not be dispensed into or from any tank vehicle not meeting the requirements of sections Ind 8.951 through Ind 8.957 or Ind 8.991.

Note: Also see section Ind 8.14.

History: Cr. Register, August, 1971, No. 188, eff. 9-1-71.

Ind 8.71 Attendance or supervision of dispensing. (1) Each service station open to the public shall have an attendant or supervisor on duty whenever the station is open for business. The attendant shall supervise individual dispensing devices except as provided in section Ind 8.62 (8) (a) and (b).

(a) The attendant's duties at self-service stations shall be as required in section Ind 8.72 (3).

(2) Service stations not accessible to or open to the public do not require an attendant or supervisor. Such stations shall be used only by commercial, industrial, governmental or manufacturing establishments; however, this does not include fraternal clubs and association memberships.

History: Cr. Register, August, 1971, No. 188, eff. 9-1-71; cr. (1) (a), Register, September, 1972, No. 201, eff. 10-1-72.

Ind 8.72 Dispensing systems. (1) LOCATION. Dispensing devices at service stations and/or self-service stations shall be so located that all parts of the vehicle being served will be on the premises of the station.

(a) *Inside location.* Approved dispensing units may be located inside of buildings upon specific approval of the department providing:

1. The dispensing area is separated from other areas in a manner approved by the department.

2. The dispensing unit and its piping is mounted either on a concrete island or protected against collision damage by suitable means and is located in a position where it cannot be struck by a vehicle descending a ramp or other slope out of control.

3. The dispensing area is provided with an approved mechanical ventilation system.

a. The ventilation system shall be electrically interlocked with gasoline dispensing units so that the dispensing units cannot be operated unless the ventilating fan motors are energized.

b. The intake to the exhaust duct shall be located within 25 feet of the dispensing unit and within 18 inches of the floor.

4. When dispensing units are located below grade the entire dispensing area shall be protected by an approved automatic sprinkler system.

(2) EMERGENCY POWER CUTOFF. A clearly identified and easily accessible switch(es) or a circuit breaker(s) shall be provided at a location remote from dispensing devices, including remote pumping

systems, to shut off the power to all dispensing devices in the event of an emergency.

(a) For inside located dispensing systems, the required switch or circuit breaker shall be located within 25 feet from the dispensing unit.

(3) DISPENSING UNITS. (a) Automatic dispensing units shall be Underwriters' Laboratories approved special devices such as, but not limited to, money operated, card operated, and remote preset types located at service stations, provided that dispensing of class I liquids is under the observation of an authorized attendant at all times and provided that emergency controls are clearly identified, easily accessible and located within 15 feet of the attendant's control station. Instruction for operation of dispensing devices shall be conspicuously posted.

1. The observation and control of the special dispensing device shall be the sole function of the attendant. The attendant shall be regularly instructed in all appropriate regulations pertaining to dispensing, use of approved containers, and smoking restrictions.

2. A reliable two-way communication system shall be installed between the attendant's observation station and each set of pumps or island.

(b) Key operated dispensing units shall be Underwriters' Laboratories approved and shall be permitted for fueling vehicles operated for commercial, industrial or manufacturing establishments provided dispensing of fuel is only by authorized personnel of these establishments.

1. Key operated dispensing units used by the general public shall only be permitted where installations meet those requirements covered under subsection (3) (a) or regular service station requirements.

(c) Class I liquids shall be transferred from tanks by means of fixed pumps so designed and equipped as to allow control of the flow and to prevent leakage or accidental discharge.

(d) Dispensing devices for class I liquids shall be of approved type.

(e) Class I liquids shall not be dispensed by pressure from drums, barrels, and similar containers. Approved pumps taking suction through the top of the container shall be used.

(f) The dispensing units, except those attached to containers, shall be mounted either on a concrete island or protected against collision damage by suitable means.

(4) REMOTE PUMPING SYSTEMS. (a) This section shall apply to systems for dispensing class I liquids where such liquids are transferred from storage to individual or multiple dispensing units by pumps located elsewhere than at the dispensing units.

(b) Pumps shall be designed or equipped so that no part of the system will be subjected to pressures above its allowable working pressure. Pumps installed above grade, outside of buildings, shall be located not less than 10 feet from lines of adjoining property which may be built upon, and not less than 5 feet from any building opening. When an outside pump location is impractical, pumps may be installed inside of buildings as provided for dispensers in subsection (7) (a) 1., or in pits as provided in (c). Pumps shall be substantially anchored and protected against physical damage by vehicles.

(c) Pits for subsurface pumps or piping manifolds of submersible pumps shall withstand the external forces to which they may be subjected without damage to the pump, tank or piping. The pit shall be no larger than necessary for inspection and maintenance and shall be provided with a fitted cover.

(d) A control shall be provided that will permit the pump to operate only when a dispensing nozzle is removed from its bracket on the dispensing unit and the switch on this dispensing unit is manually actuated. This control shall also stop the pump when all nozzles have been returned to their brackets.

(e) An approved impact valve, incorporating a fusible link, designed to close automatically in event of severe impact or fire exposure shall be properly installed in the dispensing supply line at the base of each individual dispensing device.

(f) There shall be a means, visible from any operating area, such as lube room, office and pump island, to indicate when the pump motor is running.

(5) TESTING. That section of the pressure piping system between the pump discharge and the connection for the dispensing facility shall be tested for at least 30 minutes at the maximum operating pressure of the system. Such tests shall be conducted as follows:

- (a) After completion of the installation but before backfilling.
- (b) Upon completion of all paving.
- (c) At 3 year intervals thereafter.

(6) DELIVERY NOZZLES. (a) Hose nozzle valves of either the manual or automatic closing type for dispensing class I liquids into a fuel tank or into a container shall be manually held open during the dispensing operation except as provided in subsection (6) (b).

(b) On any service station dispenser accessible to the public a listed automatic closing type nozzle with hold open device is permitted only when all dispensing of class I liquids is to be done by the service station attendant.

(c) If the dispensing of class I liquids at a service station available and open to the public is to be done by a person other than the service station attendant, the nozzle shall be a listed automatic closing type without a hold open device.

History: Cr. Register, August, 1971, No. 188, eff. 9-1-71; r. and rec. (1) (intro. par.), Register, September, 1972, No. 201, eff. 10-1-72.

Ind 8.73 Marine service stations. (1) The dispensing area shall be located from other structures so as to provide room for safe ingress and egress of craft to be fueled. Dispensing units shall in all cases be at least 20 feet from any activity involving fixed sources of ignition.

(a) Dispensing shall be by approved dispensing units with or without integral pumps and may be located on open piers, wharves or floating docks or on shore or on piers of the solid fill type.

(b) Dispensing nozzles shall be automatic closing without a hold open device.

(2) Tanks and pumps not integral with the dispensing unit, shall

be on shore or on a pier of the solid fill type, except as provided in subsection (2) (a) and (2) (b).

(a) Where shore location would require excessively long supply lines to dispensers, the department may authorize the installation of tanks on a pier provided that applicable portions of sections Ind 8.20 and 8.21 relative to spacing, diking and piping are complied with and the quantity so stored does not exceed 1,100 gallons aggregate capacity.

(b) Shore tanks supplying marine service stations may be located aboveground where rock ledges or high water table make underground tanks impractical, and such tanks shall be installed according to section Ind 8.21.

(c) Where tanks are at an elevation which would produce gravity head on the dispensing unit, the tank outlet shall be equipped with a pressure control valve positioned adjacent to and outside the tank block valve specified in section Ind 8.21 (9) (b) 1., so adjusted that liquid cannot flow by gravity from the tank in case of piping or hose failure.

(3) Piping between shore tanks and dispensing units shall be as specified in section Ind 8.30, except that, where dispensing is from a floating structure, suitable lengths of oil resistant flexible hose may be employed between the shore piping and the piping on the floating structure as made necessary by change in water level or shoreline.

(a) A readily accessible valve to shut off the supply from shore shall be provided in each pipeline at or near the approach to the pier and at the shore end of each pipeline adjacent to the point where flexible hose is attached.

(b) Piping shall be located so as to be protected from physical damage.

(c) Piping handling class I liquids shall be grounded to control stray currents.

History: Cr. Register, August, 1971, No. 188, eff. 9-1-71.

Ind 8.74 Electrical equipment. (1) **EQUIPMENT.** All electrical wiring and equipment shall be installed in accordance with Wis. Adm. Code, Vol. 2. Electrical.

(2) So far as it applies, table 15 shall be used to delineate and classify hazardous areas for the purpose of installation of electrical equipment under normal circumstances. In the following, a classified area shall not extend beyond an unpierced wall, roof or other solid partition.

(3) The area classifications listed in subsection (2) shall be based on the premise that the installation meets the applicable requirements of this code in all respects. Should this not be the case, the department shall have the authority to classify the extent of the hazardous area.

Register, September, 1972, No. 201
Flammable and Combustible Liquids