

by the department for that specific type of application in accordance with s. ILHR 10.125.

4. Prefabricated basins shall have floors and walls constructed of steel or rigid synthetic materials which are resistant to corrosion, puncture and cracking. Materials used in the basin shall be chemically compatible with the stored product. A written confirmation of the compatibility from the basin manufacturer shall be retained at the storage facility or at the nearest local office from which the storage facility is administered. If multiple basins are connected to provide the capacity required under par. (b), the basins shall be connected in a manner which assures unrestricted transfer of product between basins.

(2) EXISTING TANKS. Aboveground outside storage tanks which exceed 5,000 gallons capacity and which were installed prior to May 1, 1991 shall be brought into compliance with either par. (a), (b), (c) or (d) within 10 years of May 1, 1991.

(a) The tanks shall be provided with a dike system that complies with section 2-2.3.3 of NFPA Standard 30 and s. ILHR 10.345 (1) (c) to (e) and either 25% extra capacity or provisions for the removal of rainwater as specified in sub. (1) (a) or (b).

(b) The tanks shall be provided with an automatic release detection system designed and installed in accordance with s. ILHR 10.61 capable of detecting releases in the soil underneath and adjacent to the tanks.

(c) The tanks shall be lined and inspected periodically in accordance with s. ILHR 10.52 (2) (a). The lining shall be applied to the bottom of the tank and up the tank sides from the bottom to at least 2 feet above exterior grade level.

(d) The tanks shall be provided with secondary containment in the form of a second bottom.

1. A second bottom constructed for a storage container shall be made of steel. The department may also approve a second bottom made of other materials if the materials, considering the substances held in the storage container, provide protection for the waters of the state that is substantially similar to the protection provided by a liner described in sub. (1). Any request for departmental approval shall be supported by a plan, certified by a registered engineer, showing that the proposed use of other materials will provide this protection.

2. The original bottom of the storage container shall be tested for leaks before the sand layer or second bottom are installed. A record of the test shall be kept on file at the storage facility.

3. The newly constructed bottom shall be tested for leaks before any product is stored on the newly constructed bottom. A record of the test shall be kept on file at the storage facility, or at the nearest local office from which the storage facility is administered.

4. The interstitial space between the primary and secondary containment shall be provided with an automatic release detection system or with means for visual inspection.

ILHR 10

ILHR 10.35 Aboveground tank labels. Aboveground tanks for Class I liquids, other than at refineries, or marine, pipeline or transport terminals or waste oil storage facilities shall have painted conspicuously thereon in letters of a contrasting color at least 5 inches high with a minimum stroke width of one inch, the wording "FLAMMABLE - KEEP FIRE AWAY".

History: Cr. Register, April, 1991, No. 424, eff. 5-1-91.

ILHR 10.355 Aboveground tank design. Tanks that are used for aboveground storage shall be listed for aboveground use. Tanks designed and built for underground use shall not be installed for aboveground use.

History: Cr. Register, April, 1991, No. 424, eff. 5-1-91.

ILHR 10.36 Closure of aboveground tanks. (1) **TEMPORARY CLOSURE.** (a) When an aboveground storage tank system is temporarily closed, owners and operators shall continue operation and maintenance of any corrosion protection or release detection systems. Parts 5 and 6 of subch. VI shall be complied with if a release is suspected or confirmed. However, the operation and maintenance of a release detection system is not required as long as the aboveground tank system is empty. The tank system is empty when all materials have been removed using commonly employed practices so that no more than one inch of residue, or 0.3% by weight of the total capacity of the tank system, whichever is less, remains in the system.

(b) When an aboveground tank system is temporarily closed for 3 months or more, owners and operators shall also comply with the following requirements:

1. Leave vent lines open and functioning; and
2. Cap and secure all other lines, pumps, manways, and ancillary equipment.

(c) When an aboveground storage tank system is temporarily closed for more than 12 months, owners and operators shall permanently close the system in accordance with sub. (3) unless the department provides an extension of the 12-month temporary closure period in writing.

(2) **SELDOM USED TANKS.** Except for oil tanks used for emergency and backup fuel or overflow tanks, tank systems shall be considered to be abandoned and therefore subject to closure in accordance with sub. (1) or (3) unless product transfers are made to or from the system periodically.

(a) Transfers shall be made to and from motor fuel tanks at least once in any 180-day period to be considered in use.

(b) Transfers shall be made to and from heating oil tanks at least once in any one-year period to be considered in use.

(c) Inventory records, manifests, or paid receipts for product received will be acceptable to the department as proof that transfers are being made.

(d) Tank system owners and operators may make written requests to the department for approval for less frequent use if it is justified as a part of the tank's purpose.

(3) **PERMANENT CLOSURE AND CHANGES-IN-SERVICE.** At least 30 days before beginning either permanent closure or a change-in-service or within another reasonable time period determined by the department, owners and operators shall notify the authorized agent of their intent to permanently close or make the change-in-service, unless such action is in response to corrective action.

(a) To permanently close an aboveground storage tank system, owners and operators shall empty and clean it by removing all liquids and accumulated sludges in accordance with the procedures specified in API Publication 2015—Cleaning Petroleum Storage Tanks. Tanks shall be inerted so that the composition of the atmosphere inside the tank is 10% of the lower explosive limit for the stored product prior to performing any other work on the tank. Cleaning of the tank shall be performed by a certified cleaner. If removed, removal of tanks and other portions of storage tank systems shall be performed by a certified remover.

(b) Continued use of an aboveground storage tank system to store a nonregulated substance is considered a change-in-service. Before a change-in-service, owners and operators shall empty and clean the tank by removing all liquid and accumulated sludge in accordance with the procedures specified in API Publication 2015—Cleaning Petroleum Storage Tanks. Cleaning of tanks shall be performed by persons certified by the department to do such work.

(c) Parts 5 and 6 of subch. VI shall be complied with if a release is suspected or confirmed.

History: Cr. Register, April, 1991, No. 424, eff. 5-1-91.

Part 3 - Bulk Plants and Terminals

ILHR 10.37 Lesser clearances at existing bulk plants permitted. (1) **GENERAL.** Existing bulk plant facilities with clearances less than those specified in s. 5-3 of NFPA Standard 30 may be renovated or updated, but no additional storage capacity shall be permitted in violation of those specified clearances.

(2) **CONNECTIONS TO TANKS INSIDE BUILDINGS.** (a) Each connection to a tank inside of buildings through which liquid can normally flow shall be provided with an internal or an external valve located as close as practical to the shell of the tank.

(b) External valves and their connections to the tank shall be of steel except when the chemical characteristics of the liquid stored are incompatible with steel.

(c) When materials other than steel are necessary, they shall be suitable for the pressures, structural stresses and temperatures involved, including fire exposures.

(3) **HEAT-ACTIVATED VALVES.** (a) Except as provided in par. (b), flammable or combustible liquid tanks located inside of buildings shall be provided with an automatic closing heat-actuated valve on each withdrawal connection below the liquid level to prevent continued flow in the event of fire in the vicinity of the tank.

(b) 1. Connections for emergency disposal need not comply with par. (a).

2. Flammable or combustible liquid tanks in one-story buildings designed and protected for flammable or combustible liquid storage need not comply with par. (a).

(4) INCORPORATION OF VALVES. Valves specified in sub. (3) shall be incorporated in the valves required by sub. (2), or shall be located adjacent to the valves required by sub. (2).

(5) MANUAL OPENINGS. Manual openings, if independent of the fill pipe, shall be provided with a vapor-tight cap or cover. Each opening shall be protected against liquid overflow and possible vapor release by means of a spring-loaded check valve or other approved device.

(6) FILL PIPES FOR CLASS IB AND CLASS IC LIQUIDS. For Class IB and Class IC liquids other than crude oils and asphalts, the fill pipe shall be so designed and installed as to minimize the possibility of generating static electricity by terminating within 6 inches of the bottom of the tank.

(7) FILL PIPE VIBRATION. The fill pipe inside of the tank shall be installed to avoid excessive vibration of the pipe.

(8) FILL PIPE INLETS. The inlet of the fill pipe shall be located outside of buildings at a location free from any source of ignition and not less than 5 feet away from any building opening. The inlet of the fill pipe shall be closed and liquid-tight when not in use. The fill connection shall be properly identified. The fill pipe shall be removed when the tank is disconnected or removed.

(9) OVERFLOW DEVICES FOR TANKS INSIDE BUILDINGS. Tanks inside buildings shall be equipped with a device, or other means shall be provided, to prevent overflow into the building.

(10) INSIDE STORAGE TANKS FOR CLASS III LIQUIDS. Inside storage tanks for Class III combustible liquids shall be provided with draw-off or drain openings. Tanks shall be installed so that the bottom pitches to the draw-off or drain openings at a slope of not less than $\frac{1}{4}$ inch per foot of length. The draw-off or drain opening shall be provided with suitable connection to provide a sump from which water or sediment can be readily drained.

History: Cr. Register, April, 1991, No. 424, eff. 5-1-91.

ILHR 10.38 Bulk plant product color coding. (1) STANDARD COLOR CODE. All piping at bulk plants shall be identified by the following standard color coding:

(a) *Leaded gasoline:*

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| 1. Highest Octane | Red circle with the word "Gas" |
| 2. Mid-grade Octane | Blue circle with the word "Gas" |
| 3. Lowest Octane | White circle with the word "Gas" |

(b) *Unleaded gasoline:*

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| 1. Highest Octane | Red circle with white cross and the word "Gas" |
| 2. Mid-grade Octane | Blue circle with white cross and the word "Gas" |
| 3. Lowest Octane | White circle with black cross and the word "Gas" |