

RULES CERTIFICATE

STATE OF WISCONSIN)
) SS
DEPT. OF INDUSTRY,)
LABOR & HUMAN RELATIONS)

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TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Carol Skornicka, Secretary of the Department of Industry,
Labor and Human Relations, and custodian of the official records of said department, do hereby certify that
the annexed rule(s) relating to Certification, Farms and Construction Projects
(Subject)

were duly approved and adopted by this department on December 10, 1992
(Date)

I further certify that said copy has been compared by me with the original on file in the department
and that the same is a true copy thereof, and of the whole of such original.

IN TESTIMONY WHEREOF, I have hereunto set
my hand and affixed the official seal of the
department at 1:30 p.m.
in the city of Madison, this 10th
day of December A.D. 19 92

Carol Skornicka
Secretary

ORDER OF ADOPTION

Pursuant to authority vested in the Department of Industry, Labor and Human Relations by section(s)

SS. 101.02(1), 101.02(15)(h)to(j), 101.09(3) and 101.14(1)(a), Stats.

Stats., the Department of Industry, Labor and Human Relations creates; amends;

repeals and recreates; repeals and adopts rules of Wisconsin Administrative Code chapter(s):

ILHR 10

(Number)

Flammable and Combustible Liquids Code

(Title)

The attached rules shall take effect on the first day of the month following publication
in the Wisconsin Administrative Register pursuant to section 227.22, Stats.

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Adopted at Madison, Wisconsin this

date: December 10, 1992

DEPARTMENT OF INDUSTRY, LABOR AND HUMAN
RELATIONS



Secretary



RULES in FINAL DRAFT FORM

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Rule No.: Chapter ILHR 10 - Flammable & Combustible Liquids Code

Relating to: Certification, Farms and Construction Projects

Clearinghouse Rule No.: 92-83

The Wisconsin Department of Industry, Labor and Human Relations proposes an order to repeal ss. ILHR 10.912 (2), and ILHR 10.918 (2)(a); to renumber ss. ILHR 10.912 (1), ILHR 10.916 (4)(b) to (i), ILHR 10.918 (2)(b), and ILHR 10.924 (2)(b) to (f); to amend ss. ILHR 10.916 (4)(a), ILHR 10.924 (1), and ILHR 10.924 (2)(a) (title); to repeal and recreate ss. ILHR 10.43 to 10.46; and to create ss. ILHR 10.01 (90m), ILHR 10.916 (4)(b), ILHR 10.924 (2)(b) and ILHR 10.9243 relating to the Flammable and Combustible Liquids Code.

Analysis of Rules

Statutory Authority: ss. 101.02 (1), 101.02 (15)(h) to (j), 101.09 (3) and 101.14 (1)(a), Stats.

Statutes Interpreted: s. 101.02 (15)(h) to (j), 101.09 (3) and 101.14 (1)(a), Stats.

Pursuant to ss. 101.09 and 101.14 (1)(a), Stats., the department developed the Wisconsin Flammable and Combustible Liquids Code, Chapter ILHR 10, to regulate the storage and handling of those products. The purpose of the code is to provide environmental protection as well as fire prevention and protection.

The rules contain provisions for the certification of persons who do work on flammable and combustible liquid storage systems. There are seven categories for certification: installers, removers, cleaners, liners, tightness testers, inspectors, and site assessors. All persons who do work within these categories must be certified by examination.

As of April 30, 1992, an emergency rule has been in effect to extend the interim certification of certain certification categories and to create separate certification categories for aboveground tank installers and underground tank installers. The department proposes adoption of the provisions of the emergency rule as a permanent rule in Chapter ILHR 10.

The department had received numerous requests from installers of storage tank systems to allow for separate certifications of persons who install aboveground storage tanks and persons who install underground storage tanks. The knowledge and skills necessary to install these two types of tanks are different and many installers do only one type of work.

Before the emergency rule was effective, the code required an applicant for installer certification to pass an examination on both types of installation. The proposed rules create separate exams and certification for aboveground storage tank installers and underground storage tank installers.

A large portion of the aboveground tank systems are installed on farms. The design and installation standards included in the current rules are primarily focused on retail facilities. In order to develop a certification examination that is truly appropriate for the range of aboveground tank systems, it is necessary to incorporate information that is consistent with the current national standards. Like the emergency rules, the proposed permanent rules will incorporate elements of the NFPA 395 standard that best address farm tank systems and their installation.

Subchapter V, Part 5 - Farms and Construction Projects, is repealed and recreated to make the tank design, construction, placement, and labeling standards conform to NFPA 395, Standards for the Storage of Flammable and Combustible Liquids on Farms and Isolated Construction Projects. The use of combustible tank supports, however, is still prohibited under the proposed rules. The proposed rules include new provisions for tanks over 1,100 gallons that are not covered by NFPA 395.

The proposed rules will require existing farm tanks and construction project tanks to be brought into compliance with the new standards within two years of the effective date of the rules.

* * * * *

SECTION 1. ILHR 10.01 (90m) is created to read:

ILHR 10.01 (90m) "Tank system" means a tank, connected piping, ancillary equipment and containment system, if any.

SECTION 2. ILHR 10.43 to 10.46 are repealed and recreated to read:

Part 5--Farms and Construction Projects

ILHR 10.43 APPLICATION. (1) FARMS. The provisions of ss. ILHR 10.43 to 10.46 apply to the storage and handling of flammable and combustible liquids having a flash point below 200°F on farms.

(2) CONSTRUCTION PROJECTS. The provisions of ss. ILHR 10.43 to 10.46 apply to the temporary storage and handling of flammable and combustible liquids at construction projects where it is customary to obtain fuels in bulk and dispense or transfer them under control of the owner or contractor and where long distances from other structures make it unnecessary to require compliance with the more restrictive standards of this chapter.

(3) EXCEPTIONS. (a) The provisions of this part do not apply to the storage, handling and use of fuel oil tanks and containers connected with oil-burning equipment.

(b) The provisions of this part do not apply to the storage of 25 gallons or less of flammable or combustible liquids in containers not exceeding 5 gallons capacity each.

(4) CONFLICTS WITH OTHER REQUIREMENTS OF THIS CHAPTER. Where the provisions of this part conflict with more rigid standards of this chapter, this part shall govern.

(5) RETROACTIVITY. Existing tanks at farms and construction projects shall comply with this part within 2 years of the effective date of this part.

Note: The effective date of this part is . . . [revisor inserts date].

Note: Tanks that are designed in accordance with NFPA 395, Standard for the Storage of Flammable and Combustible Liquids on Farms and Isolated Construction Projects, will comply with the tank design requirements of this part (exclusive of tank supports).

ILHR 10.44 GENERAL REQUIREMENTS FOR TANK STORAGE. (1) TYPES OF APPROVED STORAGE. Flammable and combustible liquids shall be stored in one of the following tank systems:

(a) In aboveground or underground tanks or in containers meeting the requirements of this chapter.

(b) In containers of 60 gallons or less capacity each in accordance with s. ILHR 10.445.

(c) In tanks of 61 to 1,100 gallons capacity each in accordance with s. ILHR 10.45 or 10.455.

(d) In tanks of more than 1,100 gallons capacity each in accordance with s. ILHR 10.455.

(2) STORAGE AREAS. Storage areas shall be kept free of weeds and extraneous combustible material. Open flames and smoking shall be prohibited in flammable or combustible liquids storage areas.

ILHR 10.445 INDIVIDUAL CONTAINERS OF 60 GALLONS OR LESS CAPACITY EACH. (1) STORAGE AND DISPENSING. Flammable and combustible liquids shall be stored in department of transportation approved metal containers or in other approved containers of 60 gallons or less capacity each. Discharge devices requiring the container to be pressurized are prohibited. Pumping devices or faucets used for dispensing flammable and combustible liquids shall be well maintained to prevent leakage. Individual containers shall not be interconnected and shall be kept closed when not in use.

(2) STORAGE LOCATION. Containers provided for in this section for storage of Class I flammable liquids shall be stored outside at least 10 feet from any building or may be stored inside a building used exclusively for the storage of flammable and combustible liquids and located at least 10 feet from any other building. Buildings used for the storage of Class I flammable liquids shall be provided with cross ventilation with at least two vents of 64 square inches of area, each placed at floor level.

ILHR 10.45 TANKS OF 61 TO 1,100 GALLONS CAPACITY EACH. (1) CONSTRUCTION. Flammable and combustible liquids in aboveground tanks of 61 to 1,100 gallons capacity shall be stored outside buildings in tanks of single-compartment design constructed in accordance with accepted engineering practice. Joints shall be riveted and caulked, riveted and welded, or welded. Tank heads over 6 feet in diameter shall be dished, stayed, braced, or reinforced. Tanks shall comply with the requirements of Table 10.45 (1).

Table 10.45 (1)
Tank Thickness

Capacity Gallons	Minimum Thickness of Steel Manufacturer's Standard Gage Number
60 to 560	14
561 to 1,100	12

(2) FILL OPENINGS. A fill opening shall be provided and shall be equipped with a closure designed so that it may be locked. The fill opening shall be separate from the vent opening.

(3) VENTS. (a) Each tank shall be provided with a free opening vent of the minimum nominal pipe size given in Table 10.45 (2) or with venting devices of equivalent venting capacity, to relieve vacuum or pressure which may develop in normal operation or from fire exposure.

Table 10.45 (2)
Minimum Vent Size

Tank Capacity Gallons	Vent Diameter Inches
Up to 275	1 1/2
276 to 660	2
661 to 900	2 1/2
901 to 1,100	3

(b) Vents shall be arranged to discharge in a manner that prevents localized overheating of, or flame impingement on, any part of the tank in the event vapors from such vents are ignited.

Note: Vent sizes are based upon limiting internal tank pressure to 120 percent of 2.5 psig using an orifice coefficient of 0.8 and an environmental factor of 0.5. The environmental factor of 0.5 recognizes the limited time a small tank is subjected to fire exposure, loss of fuel by absorption into the soil and the drainage of liquid away from the tank. Calculation methods are based upon NFPA 30, 1987 Flammable and Combustible Liquids Code, subsection 2-2.5, Emergency Relief Venting for Fire Exposure for Aboveground Tanks.

(4) OVERFILL PREVENTION. Tanks shall be constantly attended during product delivery and shall be provided with a vent whistle or other overfill prevention device acceptable to the department.

(5) LOCATION. Tanks installed under this section shall be located outside, at least 40 feet from any building and shall be so located, or such additional distance from buildings shall be provided, as to ensure that any vehicle, equipment, or container being filled directly from such tank will be at least 40 feet from any building, hay stack, or combustible structure.

(6) TOP OPENINGS OR GRAVITY DISCHARGE. Tanks installed under this section shall be tanks with top openings only or tanks elevated for gravity discharge.

(a) Tanks designed with all openings in the top of the tank shall be mounted and equipped as follows:

1. Stationary tanks shall be mounted on noncombustible supports so that the bottom of the tank is elevated at least six inches. The tank shall be placed in a stable position. Movable tanks may be equipped with attached metal legs resting on shoes or runners designed so that the tank is supported in a stable position and so that the entire tank and its supports may be moved as a unit.

2. Tanks shall be equipped with a tightly and permanently attached approved pumping device having an approved hose of sufficient length for filling vehicles, equipment or containers to be served from the tank. Either the pump or the hose shall be equipped with a padlock to its hanger to prevent tampering. An effective antisiphoning device shall be included in the pump discharge unless a self-closing nozzle is provided. Siphons or internal pressure discharge devices are prohibited.

(b) Tanks designed with a connection in the bottom or the end of the tank for gravity dispensing of flammable and combustible liquids shall be mounted and equipped as follows:

1. Supports to elevate the tank for gravity discharge shall be of adequate strength and design to provide stability. Supports shall be noncombustible.

2. The base of the supports shall be at the same grade level as the vehicles positioned for fueling.

3. Bottom openings for gravity discharge shall be equipped with a valve located adjacent to the tank shell which will close automatically in the event of fire through the operation of an effective heat actuated releasing device. If this valve cannot be operated manually, it shall be supplemented by a second valve which can be operated manually. The gravity discharge outlet shall be provided with an approved hose equipped with a self-closing valve at the discharge end, of a type that can be padlocked to its hanger to prevent tampering.

ILHR 10.455 TANKS OF MORE THAN 1,100 GALLONS CAPACITY OR LOCATED LESS THAN 40 FEET FROM BUILDINGS. Aboveground tanks at farms and construction projects that exceed 1,100 gallons capacity or that are located less than 40 feet from buildings shall conform to this section.

(1) TANK LISTING. The tank shall be listed for aboveground use in accordance with standards recognized by the department as specified in s. ILHR 10.27.

(2) SYSTEM DESIGN AND LOCATION. The design, capacity and location of the tank fueling system shall comply with s. ILHR 10.415 with the following exceptions:

(a) In lieu of the setback requirements specified in s. ILHR 10.415, the fueling tank system may be located in accordance with the setbacks specified in Table 10.455. The setbacks shall be measured from the inside of the dike wall or other secondary containment. In addition, tanks shall be so located, or additional setback distances shall be provided, to ensure that any vehicle, equipment or container being filled from the tank will be located in accordance with the setbacks specified in Table 10.455.

Table 10.455
Tank System Setbacks
For Tanks Constructed and Diked per ILHR 10.455 (2)

Aggregate Capacity Gallons	Distance to Nearest Building, Haystack or Combustible Structure or Nearest Side of Any Public Way	Distance to Property Line Which is or Can be Built Upon, Including the Opposite of a Public Way
275 or less	5 feet	5 feet
276 - 750	5 feet	10 feet
751 - 12,000	5 feet	15 feet
12,001 - 30,000	5 feet	20 feet
Any size.	The minimum setback between multiple tank fueling systems shall be 200 feet.	

(b) The fence or enclosure specified in s. ILHR 10.415 (5) may be omitted.

(c) The vehicle collision protection specified in s. ILHR 10.415 (8) may be omitted when a dike is provided for secondary containment in accordance with s. ILHR 10.415 (7)(a).

ILHR 10.46 MARKING OF TANKS AND CONTAINERS. Tanks and containers for the storage of flammable and combustible liquids aboveground shall be conspicuously marked with the name of the product that they contain and "FLAMMABLE--KEEP FIRE AND FLAME AWAY." Tanks of 60 to 1,100 gallons capacity installed in accordance with s. ILHR 10.45 shall bear the additional marking "KEEP 40 FEET FROM BUILDINGS."

SECTION 3. ILHR 10.912 (2) is repealed.

SECTION 4. ILHR 10.912 (1) is renumbered ILHR 10.912.

SECTION 5. ILHR 10.916 (4)(a) is amended to read:

ILHR 10.916 (4)(a) For underground storage tank system installers, the standards for tank installation specified in s. ILHR 10.51;

SECTION 6. ILHR 10.916 (4)(b) to (i) are renumbered 10.916 (4)(c) to (j).

SECTION 7. ILHR 10.916 (4)(b) is created to read:

ILHR 10.916 (4)(b) For aboveground storage tank system installers, the standards for installation specified in subchapter V and NFPA 30, Flammable and Combustible Liquids Code, for aboveground storage tank systems including: retail or nonretail motor vehicle fueling; farm; construction project; public and private waste oil collection; waste oil used for heating; heating oil; tanks inside buildings; and shop-fabricated bulk petroleum storage.

SECTION 8. ILHR 10.918 (2)(a) is repealed.

SECTION 9. ILHR 10.918 (2)(b) is renumbered 10.918 (2).

SECTION 10. ILHR 10.924 (1) is amended to read:

ILHR 10.924 (1) GENERAL. Storage tank system installation; removal, testing, ~~relining~~ lining, cleaning and site assessments shall be supervised by a person holding an appropriate certification.

SECTION 11. ILHR 10.924 (2)(a) (title) is amended to read:

ILHR 10.924 (2)(a) (title) Installation of underground tank systems.

SECTION 12. ILHR 10.924 (2)(b) to (f) are renumbered to 10.924 (2)(c) to (g).

SECTION 13. ILHR 10.924 (2)(b) is created to read:

ILHR 10.924 (2)(b) Installation of aboveground tank systems.

1. Test tank tightness.
2. Inspection and repair of coatings.
3. Placement of tanks.
4. Installation and testing of all connections and tank-related piping including vapor recovery, vents, and supply pipes.
5. Installation of monitoring devices.
6. Hook up of pumps and dispensers.

SECTION 14. ILHR 10.9243 is created to read:

ILHR 10.9243 ELECTRICAL WORK. All electrical equipment shall be installed in accordance with ch. ILHR 16, Wisconsin State Electrical Code, Volume 2.

Note: Some municipalities require electrical contractors to be licensed to install electrical equipment.

* * * * *

EFFECTIVE DATE

Pursuant to s. 227.026 (1) (intro.), Stats., these rules shall take effect on the first day of the month following publication in the Wisconsin Administrative Register.

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Tommy G. Thompson
Governor
Carol Skornicka
Secretary



Mailing Address:
201 E. Washington Avenue
Post Office Box 7946
Madison, WI 53707-7946
Telephone (608) 266-7552

State of Wisconsin
Department of Industry, Labor and Human Relations

December 10, 1992

Gary Poulson
Assistant Revisor of Statutes
2nd Floor
119 Martin Luther King Blvd.
Madison, Wisconsin 53703

Douglas LaFollette
Secretary of State
10th Floor
30 West Mifflin Street
Madison, Wisconsin 53703

Dear Messrs. Poulson and LaFollette:

TRANSMITTAL OF RULE ADOPTION

CLEARINGHOUSE RULE NO. 92-83
RULE NO. Ch ILHR 10 - Flammable and Combustible Liquids Code
RELATING TO: Certification, Farms and Construction Projects


Pursuant to section 227.20, Stats., agencies are required to file a certified copy of every rule adopted by the agency with the offices of the Secretary of State and the Revisor of Statutes.

At this time, the following material is being submitted to you:

1. Order of Adoption.
2. Rules Certificate Form.
3. Rules in Final Draft Form.

Pursuant to section 227.114, Stats., a summary of the final regulatory flexibility analysis is included for permanent rules. A fiscal estimate and fiscal estimate worksheet is included with an emergency rule.

Respectfully submitted,


Carol Skornicka
Secretary

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