

NFPA 395  
Storage of  
Flammable and  
Combustible  
Liquids on Farms  
and Isolated  
Construction  
Projects  
1984



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**Standard for the  
Storage of Flammable and Combustible Liquids  
on Farms and Isolated Construction Projects**

**NFPA 395-1984**

**1984 Edition of NFPA 395**

This edition of NFPA 395, *Standard for the Storage of Flammable and Combustible Liquids on Farms and Isolated Construction Projects*, was prepared by the Technical Committee on General Storage of Flammable Liquids, and acted on by the National Fire Protection Association, Inc. at its Annual Meeting held May 21-24, 1984 in New Orleans, LA. It was issued by the Standards Council on June 14, 1984 with an effective date of July 5, 1984, and supersedes all previous editions.

The 1984 edition of this standard has been approved by the American National Standards Institute.

Changes other than editorial are indicated by a vertical rule in the margin of the pages on which they appear. These lines are included as an aid to the user in identifying changes from the previous edition.

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## Standard for the Storage of Flammable and Combustible Liquids on Farms and Isolated Construction Projects

NFPA 395-1984

### 1-1 Scope.

1-1.1 This standard applies to the storage on farms or in rural areas of flammable and combustible liquids having a flash point below 200°F (93.3°C) (as defined in NFPA 30, *Flammable and Combustible Liquids Code*). It is also applicable to the storage of flammable and combustible liquids at rural construction and rural earthmoving projects, including gravel pits and borrow pits, where it is customary to obtain fuels in bulk and dispense or transfer them under control of the owner or contractor, and where isolation from other structures and temporary use make it unnecessary, in the opinion of the authority having jurisdiction, to require compliance with the more rigid standards of NFPA 30.

1-1.2 This standard does not apply to (a) the storage, handling and use of fuel oil tanks and containers connected with oil burning equipment as covered in NFPA 31, *Standard for the Installation of Oil Burning Equipment*, (b) storage of 25 gal (95 L) or less of flammable and combustible liquids in containers not exceeding 5 gal (19 L) capacity each.

### 1-2 Types of Approved Storage.

1-2.1 Storage of flammable and combustible liquids in rural areas for private use shall be permitted in any of the following:

(a) In aboveground or underground tanks or in containers in accordance with NFPA 30;

(b) In containers of 60 gal (227 L) or less capacity each in accordance with Section 1-3 of this standard;

(c) In tanks of 61 to 1,100 gal (231 L — 4164 L) capacity each in accordance with Section 1-4 of this standard.

1-2.2 Storage areas shall be kept free of weeds and extraneous combustible material. Open flames and smoking shall not be permitted in flammable or combustible liquids storage areas.

### 1-3 Individual Containers of 60 Gallons or Less Capacity Each.

1-3.1 Storage shall be in metal DOT or other approved containers of 60 gal (227 L) or less capacity each. Discharge devices requiring pressure on the container 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.

1-3.2 Containers as provided in this section storing Class I flammable liquids shall be stored outside at least 10 ft (3 m) 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 ft (3 m) from any other building. Buildings used for the storage of Class I flammable liquids shall be provided with cross ventilation with at least 2 vents of 64 sq in. (645 sq mm) of area each placed at floor level.

### 1-4 Tanks of 60 to 1,100 Gallons Capacity Each.

1-4.1 Flammable and combustible liquids in aboveground tanks of 60 to 1,100 gal (227 L to 4164 L) 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 ft (2 m) in diameter shall be dished, stayed, braced or reinforced. Tanks shall meet the following:

Capacity		Minimum Thickness of Steel Mfgs. Std. Gage No.
Gallons	Liters	
60 to 560	231 to 2120	14
560 to 1,100	2120 to 4164	

1-4.1.1 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.

1-4.1.2 Each tank shall be provided with a free opening vent of the following minimum nominal pipe size to relieve vacuum or pressure which may develop in normal operation or from fire exposure.<sup>1</sup>

Tank Capacity		Vent Size	
Gallons	Liters	Diameter Inches	Millimeters
Up to 275	1040	1½	38
275 - 660	1040 - 2498	2	50.8
660 - 900	2498 - 3407	2½	63.5
900 - 1100	3407 - 4164	3	76.2

Vents shall be arranged to discharge in such a way as to prevent localized overheating of, or flame impingement on, any part of the tank in the event vapors from such vents are ignited.

1-4.1.3 Tanks as provided in this section shall be kept outside and at least 40 ft (12.2 m) from any building, and shall be so located, or such additional distance from buildings shall be provided, as will ensure that any vehicle, equipment, or container being filled directly from such tank will be at least 40 ft (12.2 m) from any building.

1-4.1.4 Tanks as provided in this section may be either tanks with top openings only or tanks elevated for gravity discharge.

<sup>1</sup>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, *Flammable and Combustible Liquids Code*, subsection 2-2.5, Emergency Relief Venting for Fire Exposure for Aboveground Tanks.

**1-4.2 Tanks with Top Openings Only.** Tanks constructed and located as provided above may be designed with all openings in the top of the tank and in such event shall be mounted and equipped as follows:

(a) Stationary tanks shall be mounted on timbers or blocks approximately 6 in. (152 mm) in height so as to protect the bottom of the tank from corrosion from contact with the ground and, when so placed, be in a stable position; or, 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.

(b) 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.

**1-4.3 Tanks Elevated for Gravity Discharge.** Tanks constructed and located as provided above may be designed with a connection in the bottom or the end of the tank for gravity dispensing of flammable and combustible liquids and shall be mounted and equipped as follows:

(a) Supports to elevate the tank for gravity discharge shall be of adequate strength and design to provide stability. Supports may be of steel or of wood.

(b) Alternately, the tank may be placed on a pile of earth or near the edge of a cut bank to provide the necessary elevation, and shall be supported on timbers or

blocks for stability and to prevent corrosion by contact with the ground.

(c) Bottom opening 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. 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.

**1-5 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 which they contain and "FLAMMABLE — KEEP FIRE AND FLAME AWAY." Tanks of 60 to 1,100 gal (227 L — 4164 L) capacity shall bear the additional marking "KEEP 40 FEET (12.2 M) FROM BUILDINGS."

NOTE: Clearance of 40 ft (12.2 m) from buildings should also apply to other combustible structures, haystacks, etc.

**1-6 Mandatory Referenced Publications.** This section lists publications which, in whole or in part, are part of the requirements of this document.

**1-6.1 NFPA Publications.** The following publication is available from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

NFPA 30-1984, *Flammable and Combustible Liquids Code*.

## Bibliography of NFPA Standards

- 1 Fire Prevention Code  
 10 Portable Extinguishers  
 10L Model Enabling Act  
 11 Foam Ext. Systems  
 11A Medium and High Expansion Foam Syst.  
 11C Mobile Foam Apparatus  
 12 Carbon Dioxide Systems  
 12A Halon 1301 Systems  
 12B Halon 1211 Systems  
 12CT Halon 2402 Systems  
 13 Sprinkler Systems  
 13A Sprinkler Maintenance  
 13D Sprinkler Sys., Dwellings  
 13E Sprinkler Prop., F.D. Operations at  
 14 Standpipe, Hose Systems  
 15 Water Spray Fixed Syst.  
 16 Deluge Foam-Water Systems  
 16A Closed Head Foam-Water Sprinkler Systs.  
 17 Dry Chem. Ext. Systems  
 18 Wetting Agents  
 20 Centrifugal Fire Pumps  
 21 Steam Fire Pumps  
 22 Water Tanks  
 24 Private Fire Service Mains  
 26 Supv'n, Water Supply Valves  
 27 Private Fire Brigades  
 291 Fire Hydrants  
 295 Wildfire Control  
 30 Flam. Liquids Code  
 30A Automotive and Marine Service Station Code  
 31 Oil Burning Equipment  
 32 Drycleaning Plants  
 321 Class. Flam. Liquids  
 325M Prop. Flam. Liquids  
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 43C Gaseous Oxidizing Materials  
 43D Pesticides in Port. Containers  
 45 Labs Using Chemicals  
 46 Forest Products, Storage  
 48 Magnesium  
 481 Titanium  
 482 Zirconium  
 49 Hazardous Chem. Data  
 490 Ammonium Nitrate  
 491M Chem. Reactions  
 493 Intrinsically Safe Apparatus  
 495 Explosives, Stge., Use  
 496 Purged Enclosures  
 497 Class. of Class I Haz. Locations for Elec. Inst.  
 497M Class of Gases, Vapors, Dusts for Elec. Equip. in Haz. (Classified) Locations  
 498 Explosives, Motor Term.  
 50 Bulk Oxygen Systems  
 50A Gaseous Hydrogen Syst.  
 50B LH-Syst., Consumer Sites  
 51 Welding and Cutting  
 51A Acetylene Charging Plants  
 51B Welding Processes  
 52 CNG Vehicular Fuel Systems  
 53M Oxy. Atmospheres  
 54 Nat'l Fuel Gas Code  
 56F Nonflammable Medical Gases  
 56HM Home Respiratory Therapy  
 58 LP-Gas Storage, Use  
 59 LP-Gas, Utility Plants  
 59A LN-Gas, Stg., Handling  
 61A Starch, Mfg. Handling  
 61B Grain Elevators  
 61C Feed Mills  
 61D Agricultural Commodities  
 65 Aluminum Processing  
 650 Pneumatic Conveying Systs.  
 651 Aluminum, Magnesium Powder  
 654 Plastics, Expl. Prevent.  
 655 Sulfur Fires  
 664 Wood Processing, Woodworking  
 68 Explosion Venting  
 69 Explosion Prev. Syst.  
 70 Nat'l Electrical Code<sup>®</sup>  
 70A Dwelling Electrical Code  
 70B Elect. Equip. Maint.  
 70E Employee Electrical Safety  
 70L Inspection of Elect. Installations  
 71 Central Station Sig.  
 72A Local Protective Syst.  
 72B Auxiliary Sig. System  
 72C Remote Station System  
 72D Proprietary Sig. Syst.  
 72E Auto. Fire Detectors  
 72H Testing Prot. Sig. Systs.  
 74 Household Warning Equip.  
 75 Electronic Computer Syst.  
 77 Static Electricity  
 78 Lightning Prot. Code  
 79 Electrical Metalworking Machine Tools and Plastics Processing Machinery  
 80 Fire Doors, Windows  
 80A Exposure Fires, Prot.  
 81 Fur Storage & Cleaning  
 82 Incinerators, Rubbish  
 85A Single Burner Boiler-Furnaces  
 85B Gas Multi-Burner Boiler  
 85D Oil Multi-Burner Boiler  
 85E Coal Multi-Burner Boiler  
 85F Pulverized Fuel Systems  
 85G Implosions in Multi-Burner Boiler  
 86A Ovens and Furnaces  
 86B Industrial Furnaces  
 86C Ind. Furn., Sp. Processing  
 86D Ind. Vacuum Furnaces  
 87 Piers and Wharves  
 88A Parking Structures  
 88B Repair Garages  
 90A Air Conditioning Syst.  
 90B Warm Air Htg., Air Cond.  
 91 Blower and Exhaust Syst.  
 96 Vapor Removal Cooking Eq.  
 97M Heating Terms, Glossary  
 99 Health Care Facilities  
 101<sup>®</sup> Life Safety Code<sup>®</sup>  
 102 Assembly Seating, Tents, Air-Supported Structures  
 110T Emergency and Standby Power Systs.  
 120 Coal Preparation Plants  
 121 Mobile Surface Mining Equip.  
 130 Fixed Guideway Transit Systs.  
 150 Racetrack Stables  
 172 Fire Protection Symbols for Architectural & Engineering Drawings  
 174 Fire Protection Symbols for Risk Analysis Diagrams  
 178 Symbols — Fire Fighting Operations  
 203M Roof Coverings  
 204M Smoke, Heat Venting  
 206M Building Areas  
 211 Chimneys, Fireplaces, Vents  
 214 Water Cooling Towers  
 220 Types Bldg. Construction  
 224 Homes, Forest Areas  
 231 Indoor General Storage  
 231C Rack Storage of Mat'ls.  
 231D Storage of Rubber Tires  
 231E Storage of Baled Cotton  
 231F Storage of Roll Paper  
 232 Protection of Records  
 232AM Archives Centers  
 241 Bldg. Constr. Operation  
 251 Fire Tests Bldg. Constr. & Mat'ls.  
 252 Fire Tests Door Assem.  
 253 Flooring Radiant Panel Test  
 255 Burning Character. Bldg. Mat'ls.  
 256 Tests Roof Coverings  
 257 Window Assemblies  
 258 Tests Smoke Generated  
 259 Tests Heat of Bldg. Mat'ls.  
 260A Cig. Ignition Resistance — Components of Furniture  
 260B Cig. Ignition Resistance — Composites of Furniture  
 302 Pleasure and Commercial Motor Craft  
 303 Marinas and Boatyards  
 306 Gas Hazards on Vessels  
 312 Vessels, Constr., Repair  
 402M Aircraft Rescue, Fire Fighting Op. Procedures  
 403 Aircraft Rescue Services  
 407 Aircraft Fuel Servicing  
 408 Aircraft Extinguishers  
 409 Aircraft Hangars  
 410 Aircraft Maintenance  
 412 Testing, Foam Vehicles  
 414 Rescue Vehicles  
 415 Fueling Ramp Drainage  
 416 Airport Terminals  
 417 Loading Walkways  
 418 Roof-top Heliports  
 419 Airport Water Systems  
 421 Aircraft Interior F. P.  
 422M Aircraft Fire Investigators Manual  
 423 Aircraft Engine Test Facilities  
 424 Airport/Community Emerg. Planning  
 501A Mobile Home Instal., Sites  
 501C Recreational Vehicles  
 501D Recreational Vehicle Pks.  
 502 Highways, Tunnels, Bridges  
 505 Powered Industrial Trucks  
 512 Truck Fire Protection  
 513 Motor Freight Terminals  
 601 Guard Service  
 601A Guard Operations  
 701 Fire Tests, Textiles, Films  
 702 Wearing Apparel  
 703 Fire-Retardant Treatments of Bldg. Mat'ls.  
 704 Ident. of Materials  
 801 Radioactive Mat'l. Facil.  
 802 Nuclear Research Reactors  
 803 Light Water Nuclear Power Plants  
 901 Uniform Coding for F. P.  
 902M Field Incident Manual  
 903M Property Survey Manual  
 904M Investigative Report Manual  
 907M Investigation of Fires of Elec. Origin  
 910 Libraries and Library Collections  
 911 Museums and Museum Collections  
 1001 Fire Fighter Prof. Qual.  
 1002 Driver Prof. Qual.  
 1003 Airport Fire Fighter Prof. Qual.  
 1021 Fire Officer Prof. Qual.  
 1031 Fire Inspector Prof. Qual.  
 1041 Fire Instructor Prof. Qual.  
 1121L Model State Fireworks Law  
 1122 Unmanned Rockets Code  
 1123 Fireworks, Public Display  
 1124 Fireworks, Mfg., Trans., Stge.  
 1201 Organization, Fire Services  
 1202 Fire Dept. Organization  
 1221 Public Fire Serv. Comm.  
 1231 Suburban & Rural Water Supplies  
 1301 Public Fire Prev. Criteria  
 1401 Training Reports, Records  
 1410 Initial Fire Attack  
 1501 Fire Dept. Safety Officer  
 1901 Automotive Fire Apparatus  
 1904 Aerial Ladders & Elev. Platforms  
 1921 Portable Pumping Units  
 1931 Fire Dept. Ground Ladders  
 1932 Fire Dept. Ground Ladders, Use, Maint., Testing  
 1961 Fire Hose  
 1962 Fire Hose Care, Use  
 1963 Hose Connection Threads  
 1971 Protective Clothing  
 1972 Fire Fighters' Helmets  
 1973 Gloves for Structural Fire Fighters  
 1981 Self-Contained Breathing App.  
 1982 Personal Alert Safety System for Fire Fighters