NFPA No.

395

FARM STORAGE OF FLAMMABLE & COMBUSTIBLE LIQUIDS 1972

$1.00

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NATIONAL FIRE PROTECTION ASSOCIATION
International
60 Batterymarch Street, Boston, Mass. 02110

5M-6-72-FP
Printed in U.S.A.

Official NFPA Definitions

Adopted Jan. 23, 1964: Revised Dec. 9, 1969. Where variances to these definitions are found, efforts to eliminate such conflicts are in process.

SHALL is intended to indicate requirements.

SHOULD is intended to indicate recommendations or that which is advised but not required.

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*Among the laboratories nationally recognized by the authorities having jurisdiction in the United States and Canada are the Underwriters' Laboratories, Inc., the Factory Mutual Research Corp., the American Gas Association Laboratories, the Underwriters' Laboratories of Canada, the Canadian Standards Association Testing Laboratories, and the Canadian Gas Association Approvals Division.

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AUTHORITY HAVING JURISDICTION: The organization, office or individual responsible for "approving" equipment, an installation, or a procedure.

Statement on NFPA Procedures

This material has been developed in the interest of safety to life and property under the published procedures of the National Fire Protection Association. These procedures are designed to assure the appointment of technically competent Committees having balanced representation from those vitally interested and active in the areas with which the Committees are concerned. These procedures provide that all Committee recommendations shall be published prior to action on them by the Association itself and that following this publication these recommendations shall be presented for adoption to the Annual Meeting of the Association where anyone in attendance, member or not, may present his views. While these procedures assure the highest degree of care, neither the National Fire Protection Association, its members, nor those participating in its activities accepts any liability resulting from compliance or noncompliance with the provisions given herein, for any restrictions imposed on materials or processes, or for the completeness of the text.

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Standard for the

Storage of Flammable and Combustible Liquids on Farms and Isolated Construction Projects

NFPA No. 395 — 1972

The 1972 edition of this Standard supersedes the 1965 and all previous editions.

This Standard was prepared by the Sectional Committee on General Storage of Flammable Liquids, approved by the Flammable Liquids Correlating Committee, and adopted at the Annual Meeting of the National Fire Protection Association in May, 1972 in Philadelphia, Pa.

The amendments in this edition were made in the following paragraphs: 12, 22 (new), 32, 461(b), 471, 471(a) and 471(b).

Committee on Flammable Liquids

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E. F. Tabisz, Underwriters' Laboratories of Canada

T. H. Wright, Worthington, Ohio

Nonvoting Members.

H. Griffiths, Walsall County Borough Council, Walsall, Staffs., England.
Dr. Ing. Gert Magnus, Mannheim, Germany.

SCOPE: To direct the activities of the eight Sectional Committees assigned to it which have primary responsibility for the development and revision of NFPA Codes, Standards, Recommended Practices, and Manuals pertaining to the storage, transportation, handling, and use of flammable and combustible liquids. This Correlating Committee shall act in an administrative and judicial capacity to establish that no conflicts exist and that satisfactory correlation is achieved among the recommendations of the Sectional Committees operating under its jurisdiction. Each report of a Sectional Committee shall be reviewed by, and a two-thirds affirmative vote secured from, the Correlating Committee before the report is submitted to an NFPA Annual Meeting. In cases where the Correlating Committee finds reason to object to a report, it shall refer the report back to the appropriate Sectional Committee with explanation as to its reasons for so doing, but shall not, itself, modify the report.

†Nonvoting.

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Richard Southers, American Petroleum Institute (Alternate to A. F. Dyer)
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SCOPE: To develop fire safety codes, standards, recommended practices and manuals as may be desirable covering the storage, handling and use of flammable and combustible liquids except as covered by the Scopes of other NFPA Committees and Sectional Committees. This committee is specifically charged with the development of a general code relating to the storage, transfer, and use of flammable and combustible liquids which forms a basis for the specific recommendations of the Association covering this subject. In addition, this committee is responsible for standards on the storage of flammable and combustible liquids on farms and isolated construction projects.

†Nonvoting.

Standard for the

Storage of Flammable and Combustible Liquids on Farms and Isolated Construction Projects

NFPA No. 395 — 1972

1. Scope.

11. This Standard is intended to apply to the storage on farms or in rural areas of flammable and combustible liquids having a flash point below 200° F (as defined in the Flammable and Combustible Liquids Code, NFPA No. 30). It is also applicable to the storage of flammable and combustible liquids at farms, rural road construction and other rural earth-moving 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 No. 30.

12. This Standard does not apply to the storage, handling and use of fuel oil tanks and containers connected with oil burning equipment as covered in the Standard for the Installation of Oil Burning Equipment, NFPA No. 31 (ANSI Z95.1).

2. Types of Approved Storage.

21. 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 in accordance with NFPA No. 30;

(b) In containers of 60 gallons or less capacity each in accordance with Section 3 of this Standard;

(c) In tanks of 61 to 1,100 gallons capacity each in accordance with Section 4 of this Standard.

22. 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.

3. Individual Containers of 60 Gallons or Less Capacity Each.

31. Containers shall be substantial closed metal drums of 60 gallons

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.

32. Containers as provided in this section storing 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 2 vents of 64 square inches of area each placed at floor level.

4. Tanks of 61 to 1,100 Gallons Capacity Each.

41. 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 six feet in diameter shall be dished, stayed, braced or reinforced. Tanks shall meet the following:

Capacity Gallons	Minimum Thickness of Steel Mfrs. Std. Gage No.
61 to 560	14
561 to 1,100	12

42. A fill opening shall be provided and shall be equipped with a closure designed so that it may be locked.

43. A vent having a free opening of at least 1½-inches diameter shall be provided to relieve such vacuum or pressure as will develop in normal operation or from exposure to fire.

44. Tanks as provided in this section shall be kept outside and at least 40 feet from any building and shall be so located or such additional distance from buildings shall be provided as will insure that any vehicle, equipment or vessel being filled directly from such tank will be at least 40 feet from any building.

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

46. Tanks with top openings only.

461. 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 inches in height so as to protect the bottom of the tank from corrosion from contact with the ground and when so placed to be in a stable position; or portable tanks may be equipped with attached metal legs resting on shoes or runners to be at least one tank diameter apart, which in turn rest upon the ground, 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 vessels 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.

47. Tanks elevated for gravity discharge.

471. 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 may be supported on timbers or blocks.

(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.

5. Marking of Tanks and Containers.

51. Tanks and containers for the storage of flammable and combustible liquids in rural districts shall be conspicuously marked with the name of the product which they contain and FLAMMABLE — KEEP FIRE AND FLAME AWAY. Tanks of 61–1,100 gallons capacity shall bear the additional marking KEEP 40 FEET FROM BUILDINGS.

NOTE: Clearance of 40 feet from buildings should also apply to other combustible structures, haystacks, etc.

National Fire Protection Association

International

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The National Fire Protection Association was organized in 1896 to promote the science and improve the methods of fire protection. Anyone interested may become a Member; the annual dues are $30.00. National and regional societies and associations are eligible to be Organization Members; annual dues are $225. Full membership information is available on request.

This is one of a large number of publications on fire safety issued by the Association. All NFPA codes, standards, and recommended practices are prepared by NFPA Technical Committees and adopted at an Annual Meeting of the Association. They are intended to prescribe reasonable measures for minimizing losses of life and property by fire.

This and other NFPA codes, standards, and recommended practices are published in the **National Fire Codes,** a ten-volume compilation of NFPA's official technical material. Following are the titles of the ten-volume set:

Vol. 1 Flammable Liquids, Ovens, Boiler-Furnaces
Vol. 2 Gases
Vol. 3 Combustible Solids, Dusts and Explosives
Vol. 4 Building Construction and Facilities
Vol. 5 Electrical
Vol. 6 Sprinklers, Fire Pumps and Water Tanks
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