

NFPA 415

Standard on Airport Terminal Buildings, Fueling Ramp Drainage, and Loading Walkways

2002 Edition



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An International Codes and Standards Organization

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Standard on

Airport Terminal Buildings, Fueling Ramp Drainage, and Loading Walkways

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This edition of NFPA 415, *Standard on Airport Terminal Buildings, Fueling Ramp Drainage, and Loading Walkways*, was prepared by the Technical Committee on Airport Facilities and acted on by NFPA at its May Association Technical Meeting held May 19–23, 2002, in Minneapolis, MN. It was issued by the Standards Council on July 19, 2002, with an effective date of August 8, 2002, and supersedes all previous editions.

This edition of NFPA 415 was approved as an American National Standard on July 19, 2002.

Origin and Development of NFPA 415

NFPA 415, *Standard on Aircraft Fueling Ramp Drainage*, was first adopted in 1961. Subsequent editions were published in 1966, 1973, 1977, 1983, 1987, and 1992.

NFPA 416, *Standard on Construction and Protection of Airport Terminal Buildings*, was first adopted in 1962. Subsequent editions were published in 1967, 1972, 1973, 1975, 1983, 1987, and 1993.

NFPA 417, *Standard on Construction and Protection of Aircraft Loading Walkways*, was first adopted in 1963. Subsequent editions were published in 1968, 1973, 1977, 1985, and 1990.

The 1997 edition of NFPA 415 combined the above three documents and was given a new title, *Standard on Airport Terminal Buildings, Fueling Ramp Drainage, and Loading Walkways*.

This edition is a partial revision of the 1997 edition.

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This list represents the membership at the time the Committee was balloted on the final text of this edition. Since that time, changes in the membership may have occurred. A key to classifications is found at the back of the document.

NOTE: Membership on a committee shall not in and of itself constitute an endorsement of the Association or any document developed by the committee on which the member serves.

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NOTICE: An asterisk (*) following the number or letter designating a paragraph indicates that explanatory material on the paragraph can be found in Annex A.

Changes other than editorial are indicated by a vertical rule beside the paragraph, table, or figure in which the change occurred. These rules are included as an aid to the user in identifying changes from the previous edition. Where one or more complete paragraphs have been deleted, the deletion is indicated by a bullet between the paragraphs that remain.

Information on referenced publications can be found in Chapter 2 and Annex D.

Chapter 1 Administration

1.1 Scope. This standard specifies the minimum fire protection requirements for the construction and protection of airport terminal buildings. It specifies the minimum requirements for the design and maintenance of the drainage system of an aircraft fueling ramp to control the flow of fuel that can be spilled on a ramp and to minimize the resulting possible danger. In addition, it contains the minimum requirements for the design, construction, and fire protection of aircraft loading walkways between the terminal building and aircraft.

1.2* Purpose. The purpose of this standard is to provide a reasonable degree of protection for life and property from fire at airport terminal complexes.

1.2.1 Requirements applicable to ramp drainage systems are intended to limit the fire hazard from fuel spillage by the following:

- (1) Controlling the spread of a fuel spill to limit exposure to buildings, aircraft loading walkways, concourses, or elevated structures in order to prevent the fuel's liquid or vapors from reaching a source of ignition or accumulating within structures
- (2) Limiting the spread of the fuel spill over the ramp surface and preventing the transmission of vapors by the drainage system from exposing aircraft or other equipment parked or operating on the ramp

1.2.2 The purpose of this standard is also to specify minimum criteria for fire protection of aircraft loading walkways that can serve as an egress route from an aircraft in the event of a flammable liquid spill fire on the airport ramp exposing the walkway and the aircraft.

1.3 Application. It is not intended that the provisions of this document be applied to facilities, equipment, structures, or installations that were existing or approved for construction or installation prior to the effective date of the document, except in those cases where it is determined by the authority having jurisdiction that the existing situation involves a distinct hazard to life or adjacent property.

Chapter 2 Referenced Publications

2.1 General. The documents or portions thereof listed in this chapter are referenced within this standard and shall be considered part of the requirements of this document.

2.2 NFPA Publications. National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.

NFPA 10, *Standard for Portable Fire Extinguishers*, 1998 edition.

NFPA 11, *Standard for Low-Expansion Foam*, 1998 edition.

NFPA 13, *Standard for the Installation of Sprinkler Systems*, 1999 edition.

NFPA 14, *Standard for the Installation of Standpipe, Private Hydrant, and Hose Systems*, 2000 edition.

NFPA 15, *Standard for Water Spray Fixed Systems for Fire Protection*, 2001 edition.

NFPA 16, *Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems*, 1999 edition.

NFPA 31, *Standard for the Installation of Oil-Burning Equipment*, 2001 edition.

NFPA 54, *National Fuel Gas Code*, 1999 edition.

NFPA 70, *National Electrical Code*[®], 2002 edition.

NFPA 72[®], *National Fire Alarm Code*[®], 1999 edition.

NFPA 82, *Standard on Incinerators and Waste and Linen Handling Systems and Equipment*, 1999 edition.

NFPA 90A, *Standard for the Installation of Air-Conditioning and Ventilating Systems*, 1999 edition.

NFPA 91, *Standard for Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Noncombustible Particulate Solids*, 1999 edition.

NFPA 96, *Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations*, 2001 edition.

NFPA 101[®], *Life Safety Code*[®], 2000 edition.

NFPA 220, *Standard on Types of Building Construction*, 1999 edition.

NFPA 253, *Standard Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source*, 2000 edition.

NFPA 255, *Standard Method of Test of Surface Burning Characteristics of Building Materials*, 2000 edition.

NFPA 407, *Standard for Aircraft Fuel Servicing*, 2001 edition.

NFPA 409, *Standard on Aircraft Hangars*, 2001 edition.

NFPA 701, *Standard Methods of Fire Tests for Flame Propagation of Textiles and Films*, 1999 edition.

2.3 Other Publications.

2.3.1 ASTM Publication. American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

ASTM Test Method C569, *Standard Test Method for Indentation Hardness of Preformed Thermal Insulations*, 1983.

Chapter 3 Definitions

3.1 General. The definitions contained in this chapter shall apply to the terms used in this standard. Where terms are not included, common usage of the terms shall apply.

3.2 NFPA Official Definitions.

3.2.1* Approved. Acceptable to the authority having jurisdiction.