NFPA®

418

Standard for Heliports

2021

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NFPA® 418

Standard for

Heliports

2021 Edition

This edition of NFPA 418, *Standard for Heliports*, was prepared by the Technical Committee on Helicopter Facilities. It was issued by the Standards Council on October 5, 2020, with an effective date of October 25, 2020, and supersedes all previous editions.

This edition of NFPA 418 was approved as an American National Standard on October 25, 2020.

Origin and Development of NFPA 418

The development of NFPA 418 began in 1965 after the NFPA Sectional Committee on Aircraft Hangars and Airport Facilities was asked to provide guidance on the construction and protection of elevated heliports. Earlier work had been done by the NFPA Sectional Committee on Aircraft Rescue and Fire Fighting with regard to fire protection in the event of accidents during flight operations, and the NFPA Sectional Committee on Aircraft Fuel Servicing developed the safeguards needed for the prevention of fire accidents during fueling operations at such locations.

In 1967, a *Tentative Standard on Elevated Heliport Construction and Protection* was approved at the NFPA Annual Meeting. The 1968 edition was a revision of the tentative standard, including a change in title, and the 1973 edition was a complete revision of the 1968 edition. The 1979 edition contained further amendments. The 1990 edition added chapters for land-based facilities and offshore heliports, and the title was changed from *Standard on Rooftop Heliport Construction and Protection* to *Standard for Heliports*.

The standard was revised for the 1995 edition, and criteria for rooftop helicopter hangars were added for the 2001 edition. The 2006 edition was a partial revision.

The 2011 edition revised the requirements for means of egress, fuel equipment locations, and suppression system design and testing, and a requirement for emergency response planning was added. Those changes were intended to address problems that had contributed to recent helipad fires.

For the 2016 edition, the committee wanted to build on the improvements in the previous edition. A retroactivity clause was added to provide a means for ensuring the safety of existing heliports without requiring full compliance. New criteria for determining noncombustibility of helipad materials were incorporated. The authority having jurisdiction was required to approve the emergency response plan, to ensure that the plan is coordinated with first responders.

The committee also reorganized the section on fire protection for rooftop heliports for clarity while addressing the following technical issues:

(1) The foam discharge duration was increased from 5 minutes to 10 minutes to better align with other standards and to allow additional time for first responders to reach the rooftop heliport.
(2) Signs to identify the foam system activation stations were required to ensure that personnel are able to locate and identify the correct pull station in an emergency.
(3) The foam system shutoff controls were required to be located where they would be accessible during a fire on the helipad.

In addition, the committee assigned two task groups: the first to further study the implications of requiring compliance with the latest edition of FAA AC 150/5390, and the second to review the requirements for portable extinguishers. Following the task groups' reports, the committee reaffirmed the existing requirements.

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For the 2021 edition, the technical committee made three significant revisions. First, several foam requirements were changed in Chapter 5, including the duration of foam discharge for hose line systems from 2 minutes to 10 minutes. In addition, a new requirement in Chapter 5 allows for manual firefighting equipment, as approved by the authority having jurisdiction. Finally, a new reserved Chapter 11, Vertiports and Vertistops, has been added. The technical committee will request public input and public comments during the next revision cycle to help create the specific requirements for electric/hybrid aircraft.

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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.

Committee Scope: This Committee shall have primary responsibility for documents on the fire protection criteria for the design and construction of elevated and ground level heliports, helistops, and helipads; fire protection requirements for heliports, helistops, and helipads; and requirements for rescue and firefighting operations at heliports, helistops, and helipads.

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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.

A reference in brackets [ ] following a section or paragraph indicates material that has been extracted from another NFPA document. Extracted text may be edited for consistency and style and may include the revision of internal paragraph references and other references as appropriate. Requests for interpretations or revisions of extracted text shall be sent to the technical committee responsible for the source document.

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

Chapter 1 Administration

1.1 Scope.

1.1.1 This standard specifies the minimum requirements for fire protection for heliports, vertiports, vertistops, and rooftop hangars.

1.1.2 This standard does not apply to ground-level helicopter hangars.

1.1.3 All hangars not covered by this standard are required to comply with NFPA 409.

1.1.4 Temporary landing sites and emergency evacuation facilities are outside the scope of this standard.

1.2 Purpose. The purpose of this standard is to establish minimum fire safety requirements for operation at heliports for the protection of persons, aircraft, and other property. *(See Annex B, Heliport Emergency Planning and Training for Safety Personnel.)*

1.3 New Technology.

1.3.1 Nothing in this standard shall be intended to restrict new technologies or alternative arrangements, provided the level of safety prescribed by this standard is not lowered.

1.3.2 Materials or devices not specifically designated by this standard shall be utilized in complete accord with all conditions, requirements, and limitations of their listings.

1.4 Retroactivity. The provisions of this standard reflect a consensus of what is necessary to provide an acceptable degree of protection from the hazards addressed in this standard at the time the standard was issued.

1.4.1 Unless otherwise specified, the provisions of this standard shall not apply to facilities, equipment, structures, or installations that existed or were approved for construction or installation prior to the effective date of the standard. Where specified, the provisions of this standard shall be retroactive.

1.4.2 In those cases where the authority having jurisdiction determines that the existing situation presents an unacceptable degree of risk, the authority having jurisdiction shall be permitted to apply retroactively any portions of this standard deemed appropriate.

1.4.3 The retroactive requirements of this standard shall be permitted to be modified if their application clearly would be impractical in the judgment of the authority having jurisdiction, and only where it is clearly evident that a reasonable degree of safety is provided.

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.

Δ **2.2 NFPA Publications.** National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA 10, *Standard for Portable Fire Extinguishers,* 2018 edition.

NFPA 11, *Standard for Low-, Medium-, and High-Expansion Foam,* 2021 edition.

NFPA 13, *Standard for the Installation of Sprinkler Systems,* 2019 edition.

NFPA 14, *Standard for the Installation of Standpipe and Hose Systems,* 2019 edition.

NFPA 20, *Standard for the Installation of Stationary Pumps for Fire Protection,* 2019 edition.

NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems,* 2020 edition.

NFPA 30, *Flammable and Combustible Liquids Code,* 2021 edition.

NFPA 70®, National Electrical Code®, 2020 edition.

NFPA 72®, National Fire Alarm and Signaling Code®, 2019 edition.

NFPA 99, *Health Care Facilities Code,* 2021 edition.

NFPA *101®, Life Safety Code®,* 2021 edition.

NFPA 220, *Standard on Types of Building Construction,* 2021 edition.

NFPA 407, *Standard for Aircraft Fuel Servicing,* 2017 edition.

NFPA 409, *Standard on Aircraft Hangars,* 2021 edition.

NFPA 780, *Standard for the Installation of Lightning Protection Systems,* 2020 edition.

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