

Standard for Chimneys, Fireplaces, Vents, and Solid Fuel–Burning Appliances

2019



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NFPA[®] 211

Standard for

Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances

2019 Edition

This edition of NFPA 211, *Standard for Chimneys, Fireplaces, Vents, and Solid Fuel–Burning Appliances,* was prepared by the Technical Committee on Chimneys, Fireplaces, and Venting Systems for Heat-Producing Appliances. It was issued by the Standards Council on July 26, 2018, with an effective date of August 15, 2018, and supersedes all previous editions.

This edition of NFPA 211 was approved as an American National Standard on August 15, 2018.

Origin and Development of NFPA 211

In 1906, the NFPA Committee on Chimneys and Flues presented its first report. In 1914, under the jurisdiction of the then Committee on Field Practice, recommendations on chimneys and flues were prepared as Chapter VII of the *Field Practice Manual*, presented in 1914, and adopted in 1915. In 1926, the Association adopted the Chimney Construction Ordinance of the National Board of Fire Underwriters. In 1944, the Association adopted Article XI of the 1943 edition of the *Building Code of the National Board of Fire Underwriters* to supersede the former chimney ordinance. That action was taken by the Board of Directors in the name of the Association on the recommendation of the Committee on Field Practice.

In 1948, the subject of chimneys and flues was transferred to the Committee on Building Construction. In 1950, the Association adopted Article X of the 1949 *National Building Code of the National Board of Fire Underwriters* to supersede the 1944 standard, on the recommendation of the Committee on Building Construction and action by the Board of Directors.

In 1955, the subject of chimneys and flues was transferred to the newly appointed Committee on Chimneys and Heating Equipment. NFPA 211 was revised in 1957 to make the text consistent with the provisions on the same subject appearing in the *National Building Code of the National Board of Fire Underwriters*. NFPA 211 was revised in 1961 and completely rewritten in 1964. The 1964 edition included requirements for chimney connectors, which were previously covered in NFPA 212 and was withdrawn at that point. Since 1964, revised editions of the standard were adopted by the Association in 1966, 1968, 1970, 1971, 1972, and 1977. In 1969, new text was added to cover the subject of spark arresters, previously covered in NFPA 213, which was withdrawn.

In 1980, the scope of NFPA 211 was expanded to include solid-fuel appliances, and in the 1984 edition, major revisions were made to many sections, including important tables and graphs.

The 1988 edition included revisions to wall pass-through systems, including a new Table 5.7, which showed four chimney connector systems. A complete revision to Table 5.5(b) and changes to upgrade test requirements for factory-built chimneys were included.

The 1992 edition included new figures to show fireplace clearance requirements and other construction details, new requirements for combustion air ducts for fireplaces, and a new maintenance chapter that addressed inspection, cleaning, and repair of chimneys, vents, and fireplaces. Definitions for *vent* and *chimney* were revised in the 1996 edition, and the chimney and vent selection charts were moved from Chapter 1 to a new Chapter 2. The new Chapter 2 included new figures to aid in the selection of chimney types.

The 2000 edition included new material that addressed mechanical draft systems, carbon monoxide detection and alarms, and sizing of masonry chimneys. A new chapter, Chapter 11, was added to give detailed direction for the inspection of existing chimneys.

The 2003 edition included a major editorial revision to comply with the *Manual of Style for NFPA Technical Committee Documents*. There were also technical changes in the requirements for the flue cross-sectional area and solid fuel–burning appliance connections to masonry fireplaces.

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The 2006 edition of the standard included new structural and foundation requirements for chimneys and fireplaces, requirements for the effective area of the chimney connector, and requirements for firebox and fireplace construction and sizing, as well as minor editorial changes.

The 2010 edition of the standard included extensive revisions to definitions, deleting those not used in the standard, and clarifying many definitions. Terminology for gas appliances was made consistent with NFPA 54, *National Fuel Gas Code*, by substituting *appliance* for *gas utilization appliance*. New minimum requirements for opening for rain caps and spacing of electrical wire from dryer vents were added.

In the 2013 edition, masonry heaters were relocated to a new chapter, and requirements addressing clearance from masonry heaters to combustibles were added. In addition, the 2013 edition included a new prohibition on the use of a duct wrap system to provide enclosure of a factory-built chimney.

Added to the 2016 edition were provisions for a physical barrier for insulation installed close to a chimney, metal clips to provide structural support, and maximum duct run lengths to harmonize NFPA 211 with other standards. The 2016 edition also included requirements for masonry fireplace accessories installation.

The 2019 edition includes updated references such as product listings. In addition, installation of decorative shrouds at the termination of a factory-built chimney are permitted per the standard requirements.

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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 fire safety for the construction, installation, and use of chimneys, fireplaces, vents, venting systems, and solid fuel-burning appliances. It also shall be responsible for documents on clearances of heat-producing appliances from combustible materials and terms relating to chimneys, vents, and heat-producing appliances.

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NFPA 211

Standard for

Chimneys, Fireplaces, Vents, and Solid Fuel– Burning Appliances

2019 Edition

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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. As an aid to the user, the complete title and edition of the source documents for extracts in mandatory sections of the document are given in Chapter 2 and those for extracts in informational sections are given in Annex B. 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 publications can be found in Chapter 2 and Annex B.

Chapter 1 Administration

1.1 Scope. This standard applies to the design, installation, maintenance, and inspection of all chimneys, fireplaces, venting systems, and solid fuel–burning appliances.

1.2 Purpose.

1.2.1 The primary concern of this standard is the removal of waste gases; the reduction of fire hazards associated with the construction and installation of chimneys, fireplaces, and venting systems for residential, commercial, and industrial appliances; and the installation of solid fuel–burning appliances.

1.2.2 This standard provides minimum construction and installation requirements for chimneys and vents suitable for use with fuel-burning appliances.

1.3 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.

1.3.1 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.

1.3.2 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.

1.3.3 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.

1.4 Equivalency.

1.4.1 General. Nothing in this standard shall prohibit methods of construction, materials, and designs not specifically prescribed in this standard where equivalent alternatives are approved by the authority having jurisdiction.

1.4.2 Approval of Alternatives. Alternative systems, methods, or devices approved as equivalent by the authority having jurisdiction shall be recognized as being in compliance with this standard.

1.4.3 Tests.

1.4.3.1 Whenever the authority having jurisdiction determines that there is insufficient evidence of proof of equivalency with the prescribed requirements of this standard, the authority having jurisdiction shall be authorized to require tests showing proof of equivalency.

1.4.3.2 Tests required by the authority having jurisdiction shall be provided at no expense to the jurisdiction.

1.4.3.3 Tests shall be conducted as specified in this standard or, where test methods are not specified in this standard, they shall be conducted as required by the authority having jurisdiction.

1.4.4 Approval. The authority having jurisdiction shall determine whether the proposed alternative methods of construction, materials, and designs are at least equivalent to the prescribed requirements of this standard.

1.5 Dimensions. Where used to describe building construction components, all minimum dimensions specified in this standard are actual unless otherwise stated. Nominal dimensions shall be permitted to vary from their specified dimensions by no more than $\frac{1}{2}$ in. (12.7 mm).

Shaded text = Revisions. Δ = Text deletions and figure/table revisions. • = Section deletions. N = New material.