

NFPA 80A

Recommended Practice for Protection of Buildings from Exterior Fire Exposures

2007 Edition



NFPA, 1 Batterymarch Park, Quincy, MA 02169-7471
An International Codes and Standards Organization

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Protection of Buildings from Exterior Fire Exposures

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This edition of NFPA 80A, *Recommended Practice for Protection of Buildings from Exterior Fire Exposures*, was prepared by the Technical Committee on Exposure Fire Protection. It was issued by the Standards Council on July 28, 2006, with an effective date of August 17, 2006, and supersedes all previous editions.

This edition of NFPA 80A was approved as an American National Standard on August 17, 2006.

Origin and Development of NFPA 80A

In 1924, the NFPA Committee on Protection of Openings in Walls and Partitions developed a *Suggested Practice for Protection Against Exposure of Openings in Fire-Resistive Walls* to meet the demand for a method of evaluating the severity of exposure and a uniform practice for specifying protection. This pamphlet was submitted as a tentative recommended practice and was adopted by NFPA in 1925.

In 1930, this pamphlet was added to the *Standard for the Protection of Openings in Walls and Partitions Against Fire* as an appendix, but it was not published until the 1944 edition of the *National Fire Codes*®, Vol. III, except as part of the “NFPA Proceedings.” It also was summarized in the 9th edition (1941) of the *Handbook of Fire Protection*.

In 1963, a new NFPA Committee on Exposure Fire Protection was formed and was charged with the task of updating the 1925 edition of NFPA 80A. The committee submitted a complete revision of the 1925 text to the Association for tentative adoption in 1967 and a revision of the tentative text for official adoption in 1970.

In the 1987 edition, there were substantive and editorial changes. In 1993, revisions continued to examine the effect of fire on an exposed structure and calculative methods to help ensure a reduction in fire impact due to exposure fires.

In the 1996 edition, some editorial changes were made in addition to changes in the example in Appendix B.

Revisions for the 2001 edition were mainly editorial to comply with the 2000 edition of the *Manual of Style for NFPA Technical Committee Documents*. Language was added to recognize new technology such as *listed window sprinklers*.

Revisions in the 2007 edition include a change to the definition for *noncombustible material*, which accomplishes two objectives. First, it removes technical requirements from the definition in accordance with the *Manual of Style for NFPA Technical Committee Documents*, and second, it allows the technical committee responsible for NFPA 220, *Standard on Types of Building Construction*, which owns the definition, to make changes to the technical criteria, if and when they deem appropriate, without having to “cascade” changes across other documents.

Other changes were made to clarify the committee’s intent in a number of sections.

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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 protection of buildings from fire exposure, excluding installation details for outside sprinklers, which are handled by the Technical Committee on Automatic Sprinklers.



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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 the recommendations sections of this document are given in Chapter 2 and those for extracts in the informational sections are given in Annex C. Editorial changes to extracted material consist of revising references to an appropriate division in this document or the inclusion of the document number with the division number when the reference is to the original document. Requests for interpretations or revisions of extracted text should be sent to the technical committee responsible for the source document.

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 C.

Chapter 1 Administration

1.1 Scope. This recommended practice addresses separation distances between buildings to limit exterior fire spread based on exterior openings and other construction features.

1.2 Purpose. These recommendations are intended to provide a reasonable level of protection for combustibles within and on the exterior of a building exposed to an external building fire while effective fire-fighting activity is being contemplated.

1.3 Application. The hazards of exposure to a structure from adjacent exposing fires and the multiple conditions under which such exposure can occur make it impossible to develop a table, formula, or set of rules that adequately covers all conditions. The user of this recommended practice should become familiar with the general theory of radiation exposure hazard as outlined in A.3.3.2, Exposure Severity.

1.4 Units and Formulas. Metric units of measurement in this recommended practice are in accordance with the modernized metric system known as the International System of Units (SI). The liter unit, which is outside of but recognized by SI, is

commonly used in fire protection and is therefore used in this recommended practice. In this document, values for measurements are expressed in SI units followed by an equivalent English unit. The first stated value should be regarded as the recommendation because the given equivalent value might be approximate.

Chapter 2 Referenced Publications

2.1 General. The documents or portions thereof listed in this chapter are referenced within this recommended practice and should be considered part of the recommendations of this document.

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

NFPA 13, *Standard for the Installation of Sprinkler Systems*, 2007 edition.

NFPA 80, *Standard for Fire Doors and Other Opening Protectives*, 2007 edition.

NFPA 255, *Standard Method of Test of Surface Burning Characteristics of Building Materials*, 2006 edition.

2.3 Other Publications. Merriam-Webster's *Collegiate Dictionary*, 11th edition, Merriam-Webster, Inc., Springfield, MA, 2003.

2.4 References for Extracts in Recommendations Sections.

NFPA 220, *Standard on Types of Building Construction*, 2006 edition.

Chapter 3 Definitions

3.1 General. The definitions contained in this chapter apply to the terms used in this recommended practice. Where terms are not defined in this chapter or within another chapter, they should be defined using their ordinarily accepted meanings within the context in which they are used. Merriam-Webster's *Collegiate Dictionary*, 11th edition, is the source for the ordinarily accepted meaning.

3.2 NFPA Official Definitions.

3.2.1* Approved. Acceptable to the authority having jurisdiction.

3.2.2* Authority Having Jurisdiction (AHJ). An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure.

3.2.3 Should. Indicates a recommendation or that which is advised but not required.

3.3 General Definitions.

3.3.1 Exposure. The heat effect from an external fire that might cause ignition of, or damage to, an exposed building or its contents.

3.3.2* Exposure Severity. The intensity of an exposing fire.

3.3.3 Noncombustible Material. A substance that will not ignite and burn when subjected to fire. [220, 2006]

3.3.4* Pilot Ignition. The ignition of a material by radiation where a local high-temperature igniting source is located in the stream of gases and volatiles issuing from the exposed material.

