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17A

Standard for Wet Chemical Extinguishing Systems

2021

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NFPA® 17A

Standard for

Wet Chemical Extinguishing Systems

2021 Edition

This edition of NFPA 17A, *Standard for Wet Chemical Extinguishing Systems*, was prepared by the Technical Committee on Dry and Wet Chemical Extinguishing Systems. It was issued by the Standards Council on March 15, 2020, with an effective date of April 4, 2020, and supersedes all previous editions.

This edition of NFPA 17A was approved as an American National Standard on April 4, 2020.

Origin and Development of NFPA 17A

On April 6, 1983, the Standards Council received a request to assign the subject of wet chemical extinguishing systems to the appropriate committee. Listed systems had been available for some time. After the Foam Committee declined the request, the Dry Chemical Extinguishing Systems Committee, which had been activated in 1952, was asked to assume responsibility for the project. In May 1983, that committee voted to accept the assignment and requested that the Standards Council expand the Committee Scope to include the new topic. The Committee also requested that the new document be identified as NFPA 17A, *Standard for Wet Chemical Extinguishing Systems*. A subcommittee met in June 1983 to develop the text. In November 1984, the Council approved a request to change the name of the Committee to the Committee on Dry and Wet Chemical Extinguishing Systems. The first edition of NFPA 17A was in 1986; the 1990 edition was a partial revision of the 1986 edition.

The 1994 edition was rewritten to more clearly state the requirements and to separate the mandatory requirements from the nonmandatory recommendations to assist in making the document more usable, enforceable, and adoptable.

The 1998 edition of the standard was revised to clarify the requirements for protection of unclosable openings and equipment shutdown.

The changes to the 2002 edition consisted of an editorial reformatting of the standard to comply with the *Manual of Style for NFPA Technical Committee Documents*. Technical changes included clarification of requirements for fuel and power shutoff upon actuation of the system and rewriting the requirement for simultaneous systems operation.

Changes to the 2009 edition clarified inspection, maintenance, and service requirements and qualifications for service personnel.

Revisions to the 2013 edition of this standard clarified requirements for inspection and maintenance and added new requirements for installation acceptance.

For the 2017 edition, redundant language within NFPA 17A and NFPA 96 was eliminated for correlation purposes. Other sections were deleted for correlation purposes with NFPA 96. New annex material was added to identify the areas of protection for the discharge nozzles. Changes also were made requiring the authority having jurisdiction to approve used components in the system. A requirement was added for a placard to be placed near all Class K portable fire extinguishers indicating that the fire protection system must be activated before a portable fire extinguisher is used.

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The major revision for the 2021 edition of NFPA 17A is the addition of a new chapter addressing wet chemical extinguishing systems for mobile equipment. Since the application in the previous editions of the standard was limited to the protection of cooking equipment and its exhaust systems, the new Chapter 6 parallels similar requirements in NFPA 17 and addresses issues specific to wet chemical extinguishing systems. Other revisions include new provisions on the methodology of how to test for blocked piping, a new requirement that impairments be communicated in a timely manner, and modified language throughout the standard to correlate provisions between NFPA 96 and NFPA 17A.

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Committee Scope: This Committee shall have primary responsibility for documents on the design, installation, operation, testing, maintenance, and use of dry and wet chemical extinguishing systems for fire protection.

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NFPA 17A

Standard for

Wet Chemical Extinguishing Systems

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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. The provisions of this standard apply to the design, installation, operation, testing, and maintenance of pre-engineered wet chemical fire-extinguishing systems that discharge wet chemical from fixed nozzles and piping by means of expellant gas. It contains only the essential requirements and recommendations needed to make the standard workable in the hands of those skilled in this field.

1.2 Purpose. This standard is prepared for the use and guidance of those charged with the purchasing, designing, installing, testing, inspecting, approving, listing, operating, or maintaining of pre-engineered wet chemical fire-extinguishing systems in order that such equipment will function as intended throughout its life.

Δ **1.3* Application.**

N **1.3.1** Minimum requirements are specified for hoods, plenums, ducts, and associated cooking appliances. *(See Chapter 5.)*

N **1.3.2** Minimum requirements are specified for mobile equipment systems. *(See Chapter 6.)*

1.4 Retroactivity.

1.4.1 The provisions of this document are considered necessary to provide a reasonable level of protection from loss of life and property from fire. They reflect situations and the state of the art at the time the standard was issued.

1.4.2 Unless otherwise noted, 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 this document.

1.5 Equivalency. Nothing in this standard is intended to prevent the use of new methods or devices, provided sufficient technical data are submitted to the authority having jurisdiction to demonstrate that the new method or device is equivalent in quality, effectiveness, durability, and safety to that prescribed by this standard.

1.6 Units and Formulas.

1.6.1 When a primary value for measurement in U.S. customary units as given in this standard is followed by a parenthetical equivalent value in metric units, the primary U.S. customary value stated is to be regarded as the requirement.

1.6.1.1* Metric units of measurement in this standard are in accordance with the modernized metric system known as the International System of Units (SI).

1.6.1.2 The conversion procedure used for the SI units is to multiply the primary U.S. customary quantity by the conversion factor and then round the result if necessary to the appropriate number of significant digits.

1.7* Qualifications. Only trained persons shall be considered competent to design or lay out, install, and service wet chemical systems.

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, Quincy, MA 02169-7471.

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

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

NFPA 96, *Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations*, 2021 edition.

2.3 Other Publications.

Δ **2.3.1 UL Publications.** Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.

UL 300, *Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment*, 2019.

UL 1254, *Pre-Engineered Dry and Wet Chemical Extinguishing System Units*, 2019.

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