NFPA 1710

Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments

2004 Edition

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

--`,,,,,,-`-`,,`,,`,`,,`---

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS

Not for Resale

IMPORTANT NOTICES AND DISCLAIMERS CONCERNING NFPA DOCUMENTS

NOTICE AND DISCLAIMER OF LIABILITY CONCERNING THE USE OF NFPA DOCUMENTS

NFPA codes, standards, recommended practices, and guides, of which the document contained herein is one, are developed through a consensus standards development process approved by the American National Standards Institute. This process brings together volunteers representing varied viewpoints and interests to achieve consensus on fire and other safety issues. While the NFPA administers the process and establishes rules to promote fairness in the development of consensus, it does not independently test, evaluate, or verify the accuracy of any information or the soundness of any judgments contained in its codes and standards.

The NFPA disclaims liability for any personal injury, property or other damages of any nature whatsoever, whether special, indirect, consequential or compensatory, directly or indirectly resulting from the publication, use of, or reliance on this document. The NFPA also makes no guaranty or warranty as to the accuracy or completeness of any information published herein.

In issuing and making this document available, the NFPA is not undertaking to render professional or other services for or on behalf of any person or entity. Nor is the NFPA undertaking to perform any duty owed by any person or entity to someone else. Anyone using this document should rely on his or her own independent judgment or, as appropriate, seek the advice of a competent professional in determining the exercise of reasonable care in any given circumstances.

The NFPA has no power, nor does it undertake, to police or enforce compliance with the contents of this document. Nor does the NFPA list, certify, test or inspect products, designs, or installations for compliance with this document. Any certification or other statement of compliance with the requirements of this document shall not be attributable to the NFPA and is solely the responsibility of the certifier or maker of the statement.

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

ADDITIONAL NOTICES AND DISCLAIMERS

Updating of NFPA Documents

Users of NFPA codes, standards, recommended practices, and guides should be aware that these documents may be superseded at any time by the issuance of new editions or may be amended from time to time through the issuance of Tentative Interim Amendments. An official NFPA document at any point in time consists of the current edition of the document together with any Tentative Interim Amendments and any Errata then in effect. In order to determine whether a given document is the current edition and whether it has been amended through the issuance of Tentative Interim Amendments or corrected through the issuance of Errata, consult appropriate NFPA publications such as the National Fire Codes® Subscription Service, visit the NFPA website at www.nfpa.org, or contact the NFPA at the address listed below.

Interpretations of NFPA Documents

A statement, written or oral, that is not processed in accordance with Section 6 of the Regulations Governing Committee Projects shall not be considered the official position of NFPA or any of its Committees and shall not be considered to be, nor be relied upon as, a Formal Interpretation.

Patents

The NFPA does not take any position with respect to the validity of any patent rights asserted in connection with any items which are mentioned in or are the subject of NFPA codes, standards, recommended practices, and guides, and the NFPA disclaims liability for the infringement of any patent resulting from the use of or reliance on these documents. Users of these documents are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, is entirely their own responsibility.

NFPA adheres to applicable policies of the American National Standards Institute with respect to patents. For further information contact the NFPA at the address listed below.

Law and Regulations

Users of these documents should consult applicable federal, state, and local laws and regulations. NFPA does not, by the publication of its codes, standards, recommended practices, and guides, intend to urge action that is not in compliance with applicable laws, and these documents may not be construed as doing so.

Copyrights

This document is copyrighted by the NFPA. It is made available for a wide variety of both public and private uses. These include both use, by reference, in laws and regulations, and use in private self-regulation, standardization, and the promotion of safe practices and methods. By making this document available for use and adoption by public authorities and private users, the NFPA does not waive any rights in copyright to this document.

Use of NFPA documents for regulatory purposes should be accomplished through adoption by reference. The term "adoption by reference" means the citing of title, edition, and publishing information only. Any deletions, additions, and changes desired by the adopting authority should be noted separately in the adopting instrument. In order to assist NFPA in following the uses made of its documents, adopting authorities are requested to notify the NFPA (Attention: Secretary, Standards Council) in writing of such use. For technical assistance and questions concerning adoption of NFPA documents, contact NFPA at the address below.

For Further Information

All questions or other communications relating to NFPA codes, standards, recommended practices, and guides and all requests for information on NFPA procedures governing its codes and standards development process, including information on the procedures for requesting Formal Interpretations, for proposing Tentative Interim Amendments, and for proposing revisions to NFPA documents during regular revision cycles, should be sent to NFPA headquarters, addressed to the attention of the Secretary, Standards Council, NFPA, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.

For more information about NFPA, visit the NFPA website at www.nfpa.org.

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

Copyright © 2004, National Fire Protection Association, All Rights Reserved

NFPA 1710

Standard for the

Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments

2004 Edition

This edition of NFPA 1710, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*, was prepared by the Technical Committee on Fire and Emergency Service Organization and Deployment — Career and acted on by NFPA at its May Association Technical Meeting held May 23–26, 2004, in Salt Lake City, UT. It was issued by the Standards Council on July 16, 2004, with an effective date of August 5, 2004, and supersedes all previous editions.

This edition of NFPA 1710 was approved as an American National Standard on August 5, 2004.

Origin and Development of NFPA 1710

In 2001, the first edition of NFPA 1710 was issued. The development of that benchmark standard was the result of a considerable amount of hard work and tenacity by the Technical Committee members and the organizations they represented. That standard was the first organized approach to defining levels of service, deployment capabilities, and staffing levels for substantially career fire departments. Research work and empirical studies in North America were used by the Committee as a basis for developing response times and resource capabilities for those services, as identified by the fire department.

Following the issuance of the first edition, the NFPA Standards Council asked the Technical Committee to begin the revision process for NFPA 1710 so that a revised standard would be considered at the May 2004 NFPA membership meeting in Salt Lake City, Utah. The Committee met in the fall of 2001 and began the process of reviewing and revising the first edition of NFPA 1710. The Committee formed several Task Groups to look at various aspects of the document. The Committee met and reviewed the work of the Task Groups and the public proposals that had been received, and in the summer of 2003, the Committee's Report on Proposals was released for public review and comment. Based on the Committee's consideration and review of the public input received, this edition of the standard was developed.

The work done by the Committee provides the user with a template for developing an implementation plan on the standard. Most important, it provides the body politic and the citizens a true picture of the risks in their community and the fire department's capabilities to respond to and manage those risks.

--`,,,,,,-`-`,,`,,`,`,,`---

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS

Not for Resale

Technical Committee on Fire and Emergency Service Organization and Deployment — Career

Alan V. Brunacini, *Chair*
City of Phoenix Fire Department, AZ [E]

Richard M. Duffy, *Secretary*
International Association of Fire Fighters, DC [L]
Rep. International Association of Fire Fighters
(Alt. to IAFF Rep.)

Terry Allen, City of Cambridge Fire Department, Canada [E]
Rep. NFPA Fire Service Section
Robert C. Barr, Firescope, Incorporated, MA [SE]
William L. Bingham, City of Boynton Beach, FL [U]
Rep. International Fire Marshals Association
Ricky Black, City of Southlake, TX [E]
Michael R. Brown, Kitsap Fire District 7, WA [E]
Rep. International Association of Fire Chiefs
Ross Chadwick, City of Denton Fire Department, TX [E]
Welling S. Clark, ICARE, CO [SE]
Dennis R. Compton, Dennis Compton & Associates, AZ [E]
Rep. International Association of Fire Chiefs
Michael J. Crouse, International Association of Fire Fighters, DC [L]
Rep. International Association of Fire Fighters
Don R. Forrest, United Firefighters of Los Angeles City, CA [L]
Peter L. Gorman, Uniformed Fire Officers Association, NY [L]
Rep. International Association of Fire Fighters
Gregory H. Grayson, City of Asheville Fire & Rescue, NC [C]
Rep. National League of Cities
Harold B. Hairston, City of Philadelphia Fire Department, PA [E]
Rep. Metropolitan Fire Chiefs
Gerard J. Hoetmer, Public Entity Risk Institute, VA [C]
Rep. International City/County Management Association
William D. Killen, U.S. Department of the Navy, DC [U]
John K. King, City of Detroit Fire Department, MI [L]
Valerie A. Lemmie, City of Cincinnati, OH [C]
Peter R. Lucarelli, City of Bellevue Fire Department, WA [C]
Rep. National League of Cities
Christopher K. McKenzie, League of California Cities, CA [C]
Rep. National League of Cities
Patrick McOsker, Los Angeles City Fire Department, CA [L]
Rep. International Association of Fire Fighters
Gus Morrison, City of Fremont, CA [C]
Rep. U.S. Conference of Mayors
Christopher E. Platten, Wylie, McBride, Jesinger, Sure & Platten, CA [SE]
Richard Powell, Saginaw Township Fire Department, MI [E]
Rep. International Association of Fire Chiefs
Franklin D. Pratt, Los Angeles County Fire Department, CA [SE]
Gary Rainey, Miami Dade Fire Rescue, FL [L]
Ken Riddle, City of Las Vegas Fire Department, NV [U]
Rep. Emergency Medical Services Section
David L. Rohr, Fairfax County Fire & Rescue Department, VA [E]
Mark A. Sanders, Cincinnati Fire Fighters Union, OH [L]
Patrick N. Smith, U.S. Department of Energy, ID [U]
Charles C. Soros, Fire Department Safety Officers Association, WA [M]
Rep. Fire Department Safety Officers Association

Alternates

Philip A. Chovan, Georgia Tech Research Institute, GA [M]
(Alt. to C. C. Soros)
Sallie Clark, ICARE, CO [RT]
(Alt. to W. S. Clark)
James C. Featherstone, United Firefighters of Los Angeles City, CA [L]
(Alt. to D. R. Forrest)
Erling L. Horn, Fischer Industrial Finishing/Town of Lafayette, CA [C]
(Alt. to C. K. McKenzie)
Matthew W. Iarocci, City of New Rochelle, NY [C]
(Alt. to G. Morrison)
Brian D. Johnson, International Association of Fire Chiefs, CO [E]
(Alt. to M. R. Brown)
Steve L. Kreis, City of Phoenix Fire Department, AZ [E]
(Alt. to A. V. Brunacini)
Cortez Lawrence, Federal Emergency Management Agency, MD [SE]
(Alt. to USFA Rep.)
Charles Peterson, Bolingbrook Fire Department, IL [C]
(Alt. to P. R. Lucarelli)
Don N. Whittaker, U.S. Department of Energy, ID [U]
(Alt. to P. N. Smith)
Tom Wieczorek, City of Ionia, MI [C]
(Alt. to G. J. Hoetmer)
Milt Wilson, City of Oshawa, Canada [E]
(Alt. to T. Allen)

Gary O. Tokle, NFPA Staff Liaison

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 organization, operation, deployment, and evaluation of substantially all career public fire protection and emergency medical services.

--`,,,,,,-`-`,,`,,`,`,,`---

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

Contents

Chapter 1 Administration **1710–** 4
1.1 Scope **1710–** 4
1.2 Purpose **1710–** 4
1.3 Equivalency **1710–** 4

Chapter 2 Referenced Publications **1710–** 4
2.1 General **1710–** 4
2.2 NFPA Publications **1710–** 4
2.3 Other Publications **1710–** 4

Chapter 3 Definitions **1710–** 4
3.1 General **1710–** 4
3.2 NFPA Official Definitions **1710–** 4
3.3 General Definitions **1710–** 5

Chapter 4 Organization **1710–** 6
4.1 Fire Department Organizational Statement **1710–** 6
4.2 Fire Suppression Services **1710–** 7
4.3 Emergency Medical Services **1710–** 7
4.4 Special Operations **1710–** 7
4.5 Airport Rescue and Fire-Fighting Services **1710–** 7
4.6 Marine Rescue and Fire-Fighting Services ... **1710–** 7
4.7 Wildland Fire Suppression Services **1710–** 7
4.8 Intercommunity Organization **1710–** 7

Chapter 5 Fire Department Services **1710–** 7
5.1 Purpose **1710–** 7
5.2 Fire Suppression Services **1710–** 7
5.3 Emergency Medical Services **1710–** 9
5.4 Special Operations Response **1710–**10
5.5 Airport Rescue and Fire-Fighting Services **1710–**10
5.6 Marine Rescue and Fire-Fighting (MRFF) Services **1710–**10
5.7 Wildland Fire Suppression Services **1710–**11

Chapter 6 Systems **1710–**12
6.1 Safety and Health System **1710–**12
6.2 Incident Management System **1710–**12
6.3 Training Systems **1710–**12
6.4 Communications Systems **1710–**12
6.5 Pre-Incident Planning **1710–**12

Annex A Explanatory Material **1710–**12

Annex B Informational References **1710–**16

Index **1710–**19

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

NFPA 1710

Standard for the

Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments

2004 Edition

IMPORTANT NOTE: This NFPA document is made available for use subject to important notices and legal disclaimers. These notices and disclaimers appear in all publications containing this document and may be found under the heading "Important Notices and Disclaimers Concerning NFPA Documents." They can also be obtained on request from NFPA or viewed at www.nfpa.org/disclaimers.

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.

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 mandatory extracts are given in Chapter 2 and those for nonmandatory extracts are given in Annex B. 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 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.

1.1.1 This standard contains minimum requirements relating to the organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by substantially all career fire departments.

1.1.2 The requirements address functions and objectives of fire department emergency service delivery, response capabilities, and resources.

1.1.3 This standard also contains minimum requirements for managing resources and systems, such as health and safety, incident management, training, communications, and preincident planning.

1.1.4 This standard addresses the strategic and system issues involving the organization, operation, and deployment of a fire department and does not address tactical operations at a specific emergency incident.

1.2 Purpose.

1.2.1* The purpose of this standard is to specify the minimum criteria addressing the effectiveness and efficiency of the career public fire suppression operations, emergency medical service, and special operations delivery in protecting the citizens of the jurisdiction and the occupational safety and health of fire department employees.

1.2.2 Nothing herein is intended to restrict any jurisdiction from exceeding these minimum requirements.

1.3* Equivalency. Nothing in this standard is intended to prohibit the use of systems, methods, or approaches of equivalent or superior performance to those prescribed by this standard. Technical documentation shall be submitted to the authority having jurisdiction to demonstrate equivalency.

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 403, *Standard for Aircraft Rescue and Fire-Fighting Services at Airports,* 2003 edition.

NFPA 472, *Standard for Professional Competence of Responders to Hazardous Materials Incidents,* 2002 edition.

NFPA 1143, *Standard for Wildland Fire Management,* 2003 edition.

NFPA 1221, *Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems,* 2002 edition.

NFPA 1500, *Standard on Fire Department Occupational Safety and Health Program,* 2002 edition.

NFPA 1561, *Standard on Emergency Services Incident Management System,* 2002 edition.

NFPA 1670, *Standard on Operations and Training for Technical Search and Rescue Incidents,* 2004 edition.

2.3 Other Publications.

2.3.1 U.S. Government Publications. U.S. Government Printing Office, Washington, DC 20402.

Title 29, Code of Federal Regulations, Part 1910.120, "Hazardous Waste Operations and Emergency Response."

Title 29, Code of Federal Regulations, Part 1910.146, "Permit-Required Confined Space."

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.

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.

--`,,,,,,`-`-,,`,,`,`,,`---

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

3.2.3 Shall. Indicates a mandatory requirement.

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

3.2.5 Standard. A document, the main text of which contains only mandatory provisions using the word "shall" to indicate requirements and which is in a form generally suitable for mandatory reference by another standard or code or for adoption into law. Nonmandatory provisions shall be located in an appendix or annex, footnote, or fine-print note and are not to be considered a part of the requirements of a standard.

3.3 General Definitions.

3.3.1 Aid.

3.3.1.1* ***Automatic Aid.*** A plan developed between two or more fire departments for immediate joint response on first alarms. [**1142:**3.3]

3.3.1.2* ***Mutual Aid.*** Reciprocal assistance by emergency services under a prearranged plan. [**402:**3.3]

3.3.2* Aircraft Rescue and Fire-Fighting (ARFF) Vehicle. A vehicle intended to carry rescue and fire-fighting equipment for rescuing occupants and combating fires in aircraft at, or in the vicinity of, an airport. [**1002:**3.3]

3.3.3* Airport Fire Department Personnel. Personnel under the operational jurisdiction of the chief of the airport fire department assigned to aircraft rescue and fire fighting. [**403:**3.3]

3.3.4* Alarm. A signal or message from a person or device indicating the existence of a fire, medical emergency, or other situation that requires fire department action.

3.3.5* Apparatus. A motor-driven vehicle or group of vehicles designed and constructed for the purpose of fighting fires. [**1143:**3.3]

3.3.5.1 ***Fire Apparatus.*** A fire department emergency vehicle used for rescue, fire suppression, or other specialized functions.

3.3.5.2 ***Quint Apparatus.*** A fire department emergency vehicle with a permanently mounted fire pump, a water tank, a hose storage area, an aerial device with a permanently mounted waterway, and a complement of ground ladders.

3.3.5.3 ***Specialized Apparatus.*** A fire department emergency vehicle that provides support services at emergency scenes, including command vehicles, rescue vehicles, hazardous material containment vehicles, air supply vehicles, electrical generation and lighting vehicles, or vehicles used to transport equipment and personnel.

3.3.6* Company. A group of members: (1) Under the direct supervision of an officer; (2) Trained and equipped to perform assigned tasks; (3) Usually organized and identified as engine companies, ladder companies, rescue companies, squad companies, or multi-functional companies; (4) Operating with one piece of fire apparatus (engine, ladder truck, elevating platform, quint, rescue, squad, ambulance) except where multiple apparatus are assigned that are dispatched and arrive together, continuously operate together, and are managed by a single company officer; (5) Arriving at the incident scene on fire apparatus. [**1500:**3.3]

3.3.7 Emergency Incident. Any situation to which an emergency services organization responds to deliver emergency services and other forms of hazard control and mitigation.

3.3.8 Emergency Medical Care. The provision of treatment to patients, including first aid, cardiopulmonary resuscitation, basic life support (First Responder or EMT level), advanced life support (Paramedic level), and other medical procedures that occur prior to arrival at a hospital or other health care facility. [**1581:**1.3]

3.3.9 Fire Chief. The highest ranking officer in charge of a fire department. [**1201:**3.3]

3.3.10 Fire Department Member. See 3.3.25, Member.

3.3.11 Fire Department Vehicle. Any vehicle, including fire apparatus, operated by a fire department. [**1002:**3.3]

3.3.12 Fire Fighting.

3.3.12.1* ***Aircraft Rescue and Fire Fighting.*** The fire-fighting actions taken to rescue persons and to control or extinguish fire involving or adjacent to aircraft on the ground. [**1500:**3.3]

3.3.12.2* ***Marine Rescue and Fire Fighting.*** The fire-fighting action taken to prevent, control, or extinguish fire involved in or adjacent to a marine vessel and the rescue actions for occupants using normal and emergency routes for egress.

3.3.12.3 ***Structural Fire Fighting.*** The activities of rescue, fire suppression, and property conservation in buildings, enclosed structures, aircraft interiors, vehicles, vessels, aircraft, or like properties that are involved in a fire or emergency situation.

3.3.13 Fire Protection. Methods of providing for fire control or fire extinguishment. [**801:**3.3]

3.3.14* Fire Suppression. The activities involved in controlling and extinguishing fires. [**1500:**3.3]

3.3.15* First Responder (EMS). Functional provision of initial assessment (i.e., airway, breathing, and circulatory systems) and basic first-aid intervention, including CPR and automatic external defibrillator (AED) capability.

3.3.16 Forcible Entry. Techniques used by fire personnel to gain entry into buildings, vehicles, aircraft, or other areas of confinement when normal means of entry are locked or blocked.

3.3.17* Hazard. The potential for harm or damage to people, property, or the environment.

3.3.18 Hazardous Material. A substance that presents an unusual danger to persons due to properties of toxicity, chemical reactivity, or decomposition, corrosivity, explosion or detonation, etiological hazards, or similar properties.

3.3.19* High Hazard Occupancy. Areas that have high hazard buildings, materials, processes, or contents.

3.3.20 Incident Commander. The fire department member in overall command of an emergency incident.

3.3.21* Incident Management System (IMS). An organized system of roles, responsibilities, and standard operating procedures used to manage emergency operations.

3.3.22 Initial Full Alarm Assignment. Those personnel, equipment, and resources ordinarily dispatched upon notification of a structural fire.

--`,,,,,,-`-`,,`,,`,`,,`---

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

3.3.23 Initial Rapid Intervention Crew (IRIC). Two members of the initial attack crew who are assigned for rapid deployment to rescue lost or trapped members.

3.3.24 Life Support.

3.3.24.1 ***Advanced Life Support (ALS).*** Emergency medical treatment beyond basic life support level as defined by the medical authority having jurisdiction. [**1500:**3.3]

3.3.24.2* ***Basic Life Support (BLS).*** Emergency medical treatment at a level as defined by the medical authority having jurisdiction. [**1500:**3.3]

3.3.25* Member. A person involved in performing the duties and responsibilities of a fire department, under the auspices of the organization. [**1500:**3.3]

3.3.26 Officer.

3.3.26.1* ***Company Officer.*** A supervisor of a crew/company of personnel.

3.3.26.2 ***Incident Safety Officer.*** An individual appointed to respond or assigned at an incident scene by the incident commander to perform the duties and responsibilities of that position as part of the command staff.

3.3.26.3* ***Supervisory Chief Officer.*** A member whose responsibility is to assume command through a formalized transfer of command process and to allow company officers to directly supervise personnel assigned to them.

3.3.27 Operations.

3.3.27.1 ***Emergency Operations.*** Activities of the fire department relating to rescue, fire suppression, emergency medical care, and special operations, including response to the scene of the incident and all functions performed at the scene. [**1500:**3.3]

3.3.27.2* ***Special Operations.*** Those emergency incidents to which the fire department responds that require specific and advanced training and specialized tools and equipment. [**1500:**3.3]

3.3.28 Public Safety Answering Point (PSAP). A facility in which 9-1-1 calls are answered, either directly or through rerouting. [**1221:**3.3]

3.3.29* Rapid Intervention Crew (RIC). A dedicated crew of fire fighters who are assigned for rapid deployment to rescue lost or trapped members.

3.3.30 Related Duties. Any and all functions that fire department members can be called upon to perform in the execution of their duties.

3.3.31 Rescue. Those activities directed at locating endangered persons at an emergency incident, removing those persons from danger, treating the injured, and providing for transport to an appropriate health care facility. [**1500:**3.3]

3.3.32* Staff Aide. A fire fighter or fire officer assigned to a supervisory chief officer to assist with the logistical, tactical, and accountability functions of incident, division, or sector command.

3.3.33 Standard Operating Procedure. A written organizational directive that establishes or prescribes specific operational or administrative methods to be followed routinely for the performance of designated operations or actions. [**1521:**3.3]

3.3.34 Sustained Attack. The activities of fire confinement, control, and extinguishment that are beyond those assigned to the initial responding companies.

3.3.35 Tactical Considerations. Specific fire-fighting objectives that are intended to support the strategy of the incident.

3.3.36 Team. Two or more individuals who have been assigned a common task and are in communication with each other, coordinate their activities as a work group, and support the safety of one another. [**1081:**3.3]

3.3.37 Time.

3.3.37.1 ***Alarm Time.*** The point of receipt of the emergency alarm at the public safety answering point to the point where sufficient information is known to the dispatcher to deploy applicable units to the emergency.

3.3.37.2 ***Call Processing Time.*** See 3.3.37.3, Dispatch Time.

3.3.37.3* ***Dispatch Time.*** The point of receipt of the emergency alarm at the public safety answering point to the point where sufficient information is known to the dispatcher and applicable units are notified of the emergency.

3.3.37.4 ***Response Time.*** The travel time that begins when units are en route to the emergency incident and ends when units arrive at the scene.

3.3.37.5 ***Turnout Time.*** The time beginning when units acknowledge notification of the emergency to the beginning point of response time.

Chapter 4 Organization

4.1 Fire Department Organizational Statement.

4.1.1* The authority having jurisdiction (AHJ) shall maintain a written statement or policy that establishes the following:

(1) Existence of the fire department
(2) Services that the fire department is required to provide
(3) Basic organizational structure
(4) Expected number of fire department members
(5) Functions that fire department members are expected to perform

4.1.2* The fire department organizational statement shall provide service delivery objectives, including specific response time objectives for each major service component (i.e., fire suppression, EMS, special operations, aircraft rescue and fire fighting, marine rescue and fire fighting, and/or wildland fire fighting) and objectives for the percentage of responses that meet the response time objectives.

4.1.2.1 The fire department shall establish the following time objectives:

(1) One minute (60 seconds) for turnout time
(2)*Four minutes (240 seconds) or less for the arrival of the first arriving engine company at a fire suppression incident and/or 8 minutes (480 seconds) or less for the deployment of a full first alarm assignment at a fire suppression incident
(3) Four minutes (240 seconds) or less for the arrival of a unit with first responder or higher level capability at an emergency medical incident
(4) Eight minutes (480 seconds) or less for the arrival of an advanced life support unit at an emergency medical incident, where this service is provided by the fire department

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

4.1.2.2 The fire department shall establish a performance objective of not less than 90 percent for the achievement of each response time objective specified in 4.1.2.1.

4.1.2.3 Evaluations.

4.1.2.3.1 The fire department shall evaluate its level of service and deployment delivery and response time objectives on an annual basis.

4.1.2.3.2 The evaluations shall be based on data relating to level of service, deployment, and the achievement of each response time objective in each geographic area within the jurisdiction of the fire department.

4.1.2.4 The fire department shall provide the AHJ with a written report, quadrennially, which shall be based on the annual evaluations required by 4.1.2.3.

4.1.2.4.1 The quadrennial report shall define the geographic areas and/or circumstances in which the requirements of this standard are not being met.

4.1.2.4.2 The quadrennial report shall explain the predictable consequences of these deficiencies and address the steps that are necessary to achieve compliance.

4.2 Fire Suppression Services. The fire department organizational statement shall set forth the criteria for the various types of fire suppression incidents to which the fire department is required to respond.

4.3 Emergency Medical Services.

4.3.1 The fire department organizational statement shall set forth the criteria for the various types of emergency medical incidents to which the fire department is required and/or expected to respond.

4.3.2 The fire department organizational statement shall ensure that the fire department's emergency medical response capability includes personnel, equipment, and resources to deploy at the first responder level with automatic external defibrillator (AED) or higher treatment level.

4.3.3 Where emergency medical services beyond the first responder with AED level are provided by another agency or private organization, the AHJ, based upon recommendations from the fire department, shall include the minimum staffing, deployment and response criteria as required in Section 5.3 in the following:

(1) The fire department organizational statement
(2) Any contract, service agreement, governmental agreement, or memorandum of understanding between the AHJ and the other agency or private organization

4.4 Special Operations.

4.4.1 The fire department organizational statement shall set forth the criteria for the various types of special operations response and mitigation activities to which the fire department is required and/or expected to respond.

4.4.2* The fire department organizational statement shall ensure that the fire department's hazardous materials response capability includes personnel, equipment, and resources to deploy at the first responder operational level as required by 29 CFR 1910.120.

4.4.3 The fire department organizational statement shall ensure that the fire department's confined space response capability includes personnel, equipment, and resources to deploy at the confined space operational level as required by 29 CFR 1910.146.

4.4.4 The fire department organizational statement shall set forth the criteria for the various types of fire department response during natural disasters or terrorism incidents, weapons of mass destruction incidents, or large-scale or mass casualty events.

4.5 Airport Rescue and Fire-Fighting Services. The fire department organizational statement shall set forth the criteria for the various types of airport rescue and fire-fighting incidents to which the fire department is required and/or expected to respond.

4.6 Marine Rescue and Fire-Fighting Services. The fire department organizational statement shall set forth the criteria for the various types of marine rescue and fire-fighting incidents to which the fire department is required and/or expected to respond.

4.7 Wildland Fire Suppression Services. The fire department organizational statement shall set forth the criteria for the various types of wildland fire suppression incidents to which the fire department is required and/or expected to respond.

4.8 Intercommunity Organization.

4.8.1* Mutual aid, automatic aid, and fire protection agreements shall be in writing and shall address issues such as liability for injuries and deaths, disability retirements, cost of service, authorization to respond, staffing, and equipment, including the resources to be made available and the designation of the incident commander.

4.8.2 Procedures and training of personnel for all fire departments in mutual aid, automatic aid, and fire protection agreement plans shall be comprehensive to produce an effective fire force and to ensure uniform operations.

4.8.3 Companies responding to mutual aid incidents shall be equipped with communications equipment that allow personnel to communicate with incident commander and division supervisors, group supervisors, or sector officers.

Chapter 5 Fire Department Services

5.1 Purpose.

5.1.1 The services provided by the fire department shall include those activities required by Chapter 4.

5.1.2 The procedures involved in these services, including operations and deployment, shall be established through written administrative regulations, standard operating procedures, and departmental orders.

5.2* Fire Suppression Services.

5.2.1 Fire Suppression Capability.

5.2.1.1 Fire suppression operations shall be organized to ensure that the fire department's fire suppression capability includes personnel, equipment, and resources to deploy the initial arriving company, the full initial alarm assignment, and additional alarm assignments.

--`,,,,,,,-`-`,,`,,`,`,,`---

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

5.2.1.2 The fire department shall be permitted to use established automatic mutual aid and mutual aid agreements to comply with the requirements of Section 5.2.

5.2.2* Staffing. On-duty fire suppression personnel shall be of the numbers necessary for fire-fighting performance relative to the expected fire-fighting conditions.

5.2.2.1 These numbers shall be determined through task analyses that take the following factors into consideration:

(1) Life hazard to the populace protected
(2) Provisions of safe and effective fire-fighting performance conditions for the fire fighters
(3) Potential property loss
(4) Nature, configuration, hazards, and internal protection of the properties involved
(5) Types of fireground tactics and evolutions employed as standard procedure, type of apparatus used, and results expected to be obtained at the fire scene

5.2.2.2* On-duty personnel assigned to fire suppression shall be organized into company units and shall have appropriate apparatus and equipment assigned to such companies.

5.2.2.2.1* The fire department shall identify minimum company staffing levels as necessary to meet the deployment criteria required in 5.2.4 to ensure that a sufficient number of members are assigned, on duty, and available to safely and effectively respond with each company.

5.2.2.2.2 Each company shall be led by an officer who shall be considered a part of the company.

5.2.2.2.3* Supervisory chief officers shall be dispatched or notified to respond to all full alarm assignments.

5.2.2.2.4 The supervisory chief officer shall ensure that the incident management system is established as required in Section 6.2.

5.2.2.2.5* Supervisory chief officers shall have staff aides deployed to them for purposes of incident management and accountability at emergency incidents.

5.2.3 Operating Units. Fire company staffing requirements shall be based on minimum levels for emergency operations for safety, effectiveness, and efficiency.

5.2.3.1 Fire companies whose primary functions are to pump and deliver water and perform basic fire fighting at fires, including search and rescue, shall be known as engine companies.

5.2.3.1.1 These companies shall be staffed with a minimum of four on-duty personnel.

5.2.3.1.2 In jurisdictions with tactical hazards, high hazard occupancies, high incident frequencies, geographical restrictions, or other pertinent factors as identified by the AHJ, these companies shall be staffed with a minimum of five or six on-duty members.

5.2.3.2 Fire companies whose primary functions are to perform the variety of services associated with truck work, such as forcible entry, ventilation, search and rescue, aerial operations for water delivery and rescue, utility control, illumination, overhaul, and salvage work, shall be known as ladder or truck companies.

5.2.3.2.1 These companies shall be staffed with a minimum of four on-duty personnel.

5.2.3.2.2 In jurisdictions with tactical hazards, high hazard occupancies, high incident frequencies, geographical restrictions, or other pertinent factors as identified by the AHJ, these companies shall be staffed with a minimum of five or six on-duty personnel.

5.2.3.3 Other Types of Companies.

5.2.3.3.1 Other types of companies equipped with specialized apparatus and equipment shall be provided to assist engine and ladder companies where deemed necessary as part of established practice.

5.2.3.3.2 These companies shall be staffed with a minimum number of on-duty personnel as required by the tactical hazards, high-hazard occupancies, high incident frequencies, geographical restrictions, or other pertinent factors as identified by the AHJ.

5.2.3.4 Fire Companies with Quint Apparatus.

5.2.3.4.1 Fire companies that deploy with quint apparatus, designed to operate as either an engine company or a ladder company, shall be staffed as specified in 5.2.3.

5.2.3.4.2 If the company is expected to perform multiple roles simultaneously, additional staffing, above the levels specified in 5.2.3, shall be provided to ensure that those operations can be performed as required.

5.2.4 Deployment.

5.2.4.1 Initial Arriving Company.

5.2.4.1.1 The fire department's fire suppression resources shall be deployed to provide for the arrival of an engine company within a 4-minute response time and/or the initial full alarm assignment within an 8-minute response time to 90 percent of the incidents as established in Chapter 4.

5.2.4.1.2* Personnel assigned to the initial arriving company shall have the capability to implement an initial rapid intervention crew (IRIC).

5.2.4.2 Initial Full Alarm Assignment Capability.

5.2.4.2.1* The fire department shall have the capability to deploy an initial full alarm assignment within an 8-minute response time to 90 percent of the incidents as established in Chapter 4.

5.2.4.2.2 The initial full alarm assignment shall provide for the following:

(1) Establishment of incident command outside of the hazard area for the overall coordination and direction of the initial full alarm assignment. A minimum of one individual shall be dedicated to this task.
(2) Establishment of an uninterrupted water supply of a minimum 1520 L/min (400 gpm) for 30 minutes. Supply line(s) shall be maintained by an operator who shall ensure uninterrupted water flow application.
(3) Establishment of an effective water flow application rate of 1140 L/min (300 gpm) from two handlines, each of which shall have a minimum of 380 L/min (100 gpm). Each attack and backup line shall be operated by a minimum of two individuals to effectively and safely maintain the line.
(4) Provision of one support person for each attack and backup line deployed to provide hydrant hookup and to assist in line lays, utility control, and forcible entry.

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

(5) A minimum of one victim search and rescue team shall be part of the initial full alarm assignment. Each search and rescue team shall consist of a minimum of two individuals.
(6) A minimum of one ventilation team shall be part of the initial full alarm assignment. Each ventilation team shall consist of a minimum of two individuals.
(7) If an aerial device is used in operations, one person shall function as an aerial operator who shall maintain primary control of the aerial device at all times.
(8) Establishment of an IRIC that shall consist of a minimum of two properly equipped and trained individuals.

5.2.4.3 Additional Alarm Assignments.

5.2.4.3.1 The fire department shall have the capability for additional alarm assignments that can provide for additional personnel and additional services, including the application of water to the fire; engagement in search and rescue, forcible entry, ventilation, and preservation of property; accountability for personnel; and provision of support activities for those situations that are beyond the capability of the initial full alarm assignment.

5.2.4.3.2 When an incident escalates beyond an initial full alarm assignment or when significant risk is present to fire fighters due to the magnitude of the incident, the incident commander shall upgrade the IRIC to a full rapid intervention crew(s) (RIC) that consists of four fully equipped and trained fire fighters.

5.2.4.3.3 An incident safety officer shall be deployed to all incidents that escalate beyond an initial full alarm assignment or when significant risk is present to fire fighters.

5.2.4.3.4 The incident safety officer shall ensure that the safety and health system is established as required in Section 6.1.

5.3* Emergency Medical Services.

5.3.1 Purpose. EMS operations shall be organized to ensure that the fire department's emergency medical capability includes personnel, equipment, and resources to deploy the initial arriving company and additional alarm assignments.

5.3.1.1 The fire department shall be permitted to use established automatic mutual aid or mutual aid agreements to comply with the requirements of Section 5.3.

5.3.1.2 The purpose of this section shall be to provide standards for the delivery of EMS by fire departments.

5.3.1.3 The fire department shall clearly document its role, responsibilities, functions, and objectives for the delivery of EMS.

5.3.2* System Components.

5.3.2.1 Treatment Levels.

5.3.2.1.1 The basic treatment levels within an EMS system, for the purposes of this standard, shall be categorized as first responder, basic life support (BLS), and advanced life support (ALS).

5.3.2.1.2 The specific patient treatment capabilities associated with each level shall be determined by the AHJ for the approval and licensing of EMS providers within each state or province.

5.3.2.2 Training Levels.

5.3.2.2.1 The minimal level of training for all fire fighters that respond to emergency incidents shall be to the first responder/AED level.

5.3.2.2.2 The AHJ shall determine if further training is required.

5.3.3 EMS System Functions.

5.3.3.1 The five basic functions within a career fire department EMS system shall be as follows:

(1) Initial response to provide medical treatment at the location of the emergency (first responder with AED capability or higher)
(2) BLS response
(3) ALS response
(4) Patient transport in an ambulance or alternative vehicle designed to provide for uninterrupted patient care at the ALS or BLS level while en route to a medical facility
(5) Assurance of response and medical care through a quality management program

5.3.3.2 The fire department shall be involved in providing any or all of the functions identified in 5.3.3.1.

5.3.3.3 Staffing.

5.3.3.3.1 On-duty EMS units shall be staffed with the minimum personnel necessary for emergency medical care relative to the level of EMS provided by the fire department.

5.3.3.3.2 EMS staffing requirements shall be based on the minimum levels needed to provide patient care and member safety.

5.3.3.3.2.1 Units that provide emergency medical care shall be staffed at a minimum with personnel trained to the first responder/AED level.

5.3.3.3.2.2 Units that provide BLS transport shall be staffed and trained at the level prescribed by the state or provincial agency responsible for providing emergency medical services licensing.

5.3.3.3.2.3 Units that provide ALS transport shall be staffed and trained at the level prescribed by the state or provincial agency responsible for providing emergency medical services licensing.

5.3.3.4 Service Delivery Deployment.

5.3.3.4.1 The fire department shall adopt service delivery objectives based on time standards for the deployment of each service component for which it is responsible.

5.3.3.4.2 The fire department's EMS for providing a first responder with AED shall be deployed to provide for the arrival of a first responder with AED company within a 4-minute response time to 90 percent of the incidents as established in Chapter 4.

5.3.3.4.3* When provided, the fire department's EMS for providing ALS shall be deployed to provide for the arrival of an ALS company within an 8-minute response time to 90 percent of the incidents as established in Chapter 4.

5.3.3.4.4 Personnel deployed to ALS emergency responses shall include a minimum of two members trained at the emergency medical technician–paramedic level and two members trained at the emergency medical technician–basic level arriving on scene within the established response time.

5.3.4 Quality Management.

5.3.4.1 The fire department shall institute a quality management program to ensure that the service has response times as required in 4.1.2.1 for all medical responses.

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

5.3.4.2 Fire Department Medical Personnel Review.

5.3.4.2.1 All first responder and BLS medical care provided by the fire department shall be reviewed by the fire department medical personnel.

5.3.4.2.2 This review process shall be documented.

5.3.4.3 Medical Director Review.

5.3.4.3.1 All fire departments with ALS services shall have a named medical director with the responsibility to oversee and ensure quality medical care in accordance with state or provincial laws or regulations.

5.3.4.3.2 This review process shall be documented.

5.3.4.4 Fire departments providing ALS services shall provide a mechanism for immediate communications with EMS supervision and medical oversight.

5.4 Special Operations Response. Special operations shall be organized to ensure that the fire department's special operations capability includes personnel, equipment, and resources to deploy the initial arriving company and additional alarm assignments providing such services.

5.4.1 The fire department shall be permitted to use established automatic mutual aid or mutual aid agreements to comply with the requirements of Section 5.4.

5.4.2 The fire department shall adopt a special operations response plan and standard operating procedures (SOPs) that specify the roles and responsibilities of the fire department and the authorized functions of members responding to hazardous materials emergency incidents.

5.4.3 All fire department members who are expected to respond to emergency incidents beyond the first responder operations level for hazardous materials response shall be trained to the applicable requirements of NFPA 472.

5.4.4 All fire department members who are expected to respond to emergency incidents beyond the confined space operations level for confined space operations shall be trained to the applicable requirements of NFPA 1670.

5.4.5 The fire department shall have the capacity to implement an RIC during all special operations incidents that would subject fire fighters to immediate danger of injury, or in the event of equipment failure or other sudden events, as required by NFPA 1500.

5.4.6 If a higher level of emergency response is needed beyond the capability of the fire department for special operations, the fire department shall determine the availability of outside resources that deploy these capabilities and the procedures for initiating their response.

5.4.7 The fire department shall be limited to performing only those specific special operations functions for which its personnel have been trained and are correctly equipped.

5.5 Airport Rescue and Fire-Fighting Services.

5.5.1 Airport fire departments shall adopt operations response plan and standard operating procedures (SOPs) that specify the roles and responsibilities for non-aircraft incidents as required by 5.1.2.

5.5.2 Airport rescue and fire-fighting operations shall be organized to ensure that the fire department's capability includes personnel, equipment, and resources to deploy the initial arriving company, the full initial alarm assignment, and additional alarm assignments as required in 5.2.4.

5.5.3 Airport fire departments shall have access to special tools, equipment, supplies, personal protective equipment (PPE), and other airport resources that are required to perform operations in their assigned roles and responsibilities.

5.5.4 Deployment.

5.5.4.1 The airport fire department's aircraft rescue and fire-fighting (ARFF) resources shall deploy the required number of vehicles required for the airport assigned category as established by NFPA 403.

5.5.4.2 Airport fire department companies equipped with specialized apparatus and equipment shall be provided to assist ARFF companies where deemed necessary as identified in 5.5.1.

5.5.4.3 Airport fire department companies that deploy to structural incidents on airport property shall meet the response time requirements of 4.1.2.1.

5.5.4.4 Airport fire department companies that deploy to emergency medical incidents on airport property shall meet the response time requirements of 5.3.3.4.

5.5.4.5 The airport fire department shall be permitted to use established automatic mutual aid or mutual aid agreements to comply with the requirements of Section 5.5.

5.5.5 Staffing.

5.5.5.1 Airport fire department ARFF companies shall be staffed as required by NFPA 403.

5.5.5.2 Airport fire department companies that deploy to structural incidents on airport property shall meet the staffing requirements of 5.2.2.

5.5.5.3 Airport fire department companies that deploy to emergency medical incidents on airport property shall meet the staffing requirements of 5.3.3.3.

5.5.6 Emergency Operations.

5.5.6.1 At all emergency scene operations, an incident management system shall be used that meets the requirements of Section 6.2.

5.5.6.2* Incident command shall be established outside of the hazard area for the overall coordination and direction of the initial full alarm assignment.

5.5.6.3 An individual shall be dedicated to the task of incident commander.

5.5.6.4 Incident Safety Officer.

5.5.6.4.1 An incident safety officer shall be deployed to all incidents that escalate beyond a full alarm assignment or when there is a significant risk to fire fighters.

5.5.6.4.2 The incident safety officer shall ensure that the safety and health system is established as required in Section 6.1.

5.6* Marine Rescue and Fire-Fighting (MRFF) Services.

5.6.1 MRFF operations shall be organized to ensure that the fire department's marine capability includes personnel, equipment, and resources to deploy to the alarm assignments associated with a marine emergency incident.

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

5.6.2 The fire department shall adopt a marine operations response plan and SOPs that specify the roles and responsibilities of the fire department and the authorized functions of members responding to marine emergencies.

5.6.2.1 Fire department marine SOPs shall be coordinated with the applicable agencies, such as the port or harbor authority and supporting agencies.

5.6.3 Marine fire departments shall have access to special tools, equipment, supplies, PPE, and other marine resources that are required to perform operations in their assigned roles and responsibilities.

5.6.4 Staffing.

5.6.4.1 Numbers of On-Duty Marine Personnel.

5.6.4.1.1 On-duty marine personnel shall be composed of the number necessary for fire-fighting performance relative to the expected MRFF conditions.

5.6.4.1.2 These numbers shall be determined through task analyses as required for types of marine vessels and through additional task analyses that take the following factors into consideration:

(1) Life hazard to the populace protected
(2) Provisions of safe and effective fire-fighting performance conditions for the fire fighters
(3) Potential property loss
(4) Nature, configuration, hazards, and internal protection of the properties involved
(5) Types of tactics and evolutions employed as standard procedure, type of marine vessel used, and results expected to be obtained at the fire scene
(6) Requirements of the regulatory authorities having jurisdiction over navigable waters, ports, and harbors

5.6.4.2 Organization of On-Duty Personnel.

5.6.4.2.1 On-duty personnel assigned to marine fire fighting shall be organized into company units and shall have required vessels and equipment assigned to such companies.

5.6.4.2.2 Each marine company shall be led by an officer who shall be considered a part of the company.

5.6.5 Operating Units.

5.6.5.1* Fire companies whose primary function is to deliver and pump water and extinguishing agents at the scene of a marine incident shall be known as marine companies.

5.6.5.2 These companies shall be staffed with a minimum number of on-duty personnel as required by the tactical and occupancy hazards to which the marine vessel responds and by the regulatory authorities having jurisdiction over navigable waters, ports, and harbors.

5.7 Wildland Fire Suppression Services.

5.7.1 Wildland fire suppression operations shall be organized to ensure that the fire department's wildland fire suppression capability includes personnel, equipment, and resources to deploy wildland direct operations that can address marginal situations before they get out of control and wildland indirect fire-fighting operations that can be assembled and placed into operation against major wildland fires.

5.7.2 Organization.

5.7.2.1 Fire departments performing wildland operations shall adopt a wildland fire-fighting operations response plan and SOPs that specify the roles and responsibilities of the fire department and the authorized functions of members responding to wildland fire emergencies.

5.7.2.2 All wildland fire suppression operations shall be organized to ensure compliance with NFPA 1143.

5.7.3 Fire departments performing wildland operations shall have access to special tools, equipment, supplies, PPE, and other wildland resources that are required to perform operations in their assigned roles and responsibilities.

5.7.4 Staffing. On-duty wildland fire-fighting personnel shall be of the numbers necessary for fire-fighting performance relative to the expected wildland fire-fighting conditions.

5.7.4.1 These numbers shall be determined through task analyses that take the following factors into consideration:

(1) Life hazard to the populace protected
(2) Provisions of safe and effective fire-fighting performance conditions for the fire fighters
(3) The number of trained response personnel available to the department, including mutual aid resources
(4) Potential property loss
(5) Nature, configuration, hazards, and internal protection of the properties involved
(6) Types of wildland tactics and evolutions employed as standard procedure, type of apparatus used, and results expected to be obtained at the fire scene
(7) Topography, vegetation, and terrain in the response area(s)

5.7.4.2 On-duty personnel assigned to wildland operations shall be organized into company units and shall have required apparatus and equipment assigned to such companies.

5.7.4.2.1 The fire department shall identify minimum company staffing levels necessary to meet the deployment criteria to ensure that a sufficient number of members are assigned, on duty, and available to respond with each company.

5.7.4.2.2 Each company shall be led by an officer who shall be considered a part of the company.

5.7.4.2.3 Supervisory chief officers shall be dispatched or notified to respond to all full alarm assignments.

5.7.4.2.4 The supervisory chief officer shall ensure that the incident management system is established as required in Section 6.2.

5.7.5 Operating Units. Fire companies whose primary function is to deliver and pump water and extinguishing agents at the scene of a wildland fire shall be known as wildland companies.

5.7.5.1 These companies shall be staffed with a minimum of four on-duty personnel.

5.7.5.2 Engine and ladder (truck) companies that respond to wildland fire fighting and/or urban interface wildland fire fighting incidents shall be staffed as required by 5.2.3.

5.7.5.3 Other Types of Companies.

5.7.5.3.1 Other types of companies equipped with specialized apparatus and equipment for wildland fire fighting, including aircraft, heavy equipment, mini pumpers, and fast attack vehicles, shall be provided to assist wildland engine and ladder companies where deemed necessary as part of established practice.

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

5.7.5.3.2 These companies shall be staffed with a minimum number of on-duty personnel as required by the tactical, topographical, environmental, fuel (vegetation), and occupancy hazards.

5.7.6 Deployment.

5.7.6.1 Required Number of Vehicles.

5.7.6.1.1 The fire department's wildland resources shall deploy the number of vehicles required for a direct and/or indirect attack.

5.7.6.1.2* Prior to the initiation of any wildland fire attack, the fire department shall have the capacity to establish a lookout(s), communications with all crew members, escape route(s), and safety zone(s) for vehicles and personnel.

5.7.6.2 Direct Attack.

5.7.6.2.1 The fire department shall have the capability to initiate a direct wildland attack within 10 minutes after arrival of the initial company or crew at the fire scene.

5.7.6.2.2 One individual in the first arriving company or crew shall be assigned as the incident commander for the overall coordination and direction of the direct attack activities.

5.7.6.2.3 The direct wildland attack shall include the requirements of 5.7.6.2.3.1 through 5.7.6.2.3.3.

5.7.6.2.3.1 Water Flow.

(A) An effective water flow application rate of 111 L/min (30 gpm) from at least two 150 m (500 ft) 38 mm (1.5 in.) diameter attack handlines from two engines shall be established.

(B) Each attack handline shall be operated by a minimum of two individuals to deploy and maintain the line.

5.7.6.2.3.2 One operator shall remain with each fire apparatus supplying water flow to ensure uninterrupted water flow application.

5.7.6.2.3.3 A wildland crew leader or company officer shall be provided with each crew to be responsible for overall supervision of each of the crew and for maintaining personnel accountability and crew safety.

5.7.6.3 Indirect Attack.

5.7.6.3.1 The fire department providing wildland fire suppression operations shall have the capability to deploy an indirect attack, including application of water to the fire, engagement in search and rescue and preservation of property, accountability for personnel, and provision of support activities for those situations that are beyond the capability of the direct attack.

5.7.6.3.2 An incident safety officer shall be deployed to all incidents that escalate beyond a direct attack alarm assignment or when there is a significant risk to fire fighters.

5.7.7 Non-Wildland Emergencies.

5.7.7.1 Wildland companies that deploy to structural incidents shall meet the response time requirements of 4.1.2.1.

5.7.7.2 Wildland companies that deploy to emergency medical incidents shall meet the response time requirements of 4.1.2.1.

Chapter 6 Systems

6.1 Safety and Health System. A fire-fighter occupational safety and health program shall be provided in accordance with NFPA 1500.

6.2* Incident Management System.

6.2.1 An incident management system shall be provided in accordance with NFPA 1561 to form the basic structure of all emergency operations of the fire department, regardless of the scale of the department or the emergency.

6.2.2* An incident management system shall be designed to manage incidents of different types, including structure fires, wildland fires, hazardous materials incidents, emergency medical operations, and other types of emergencies that could be handled by the department.

6.3 Training Systems. The fire department shall have a training program and policy that ensures that personnel are trained and competency is maintained to execute all responsibilities consistent with the department's organization and deployment as addressed in Chapters 4 and 5.

6.4 Communications Systems.

6.4.1 The fire department shall have a reliable communications system to facilitate prompt delivery of public fire suppression, emergency medical services, and special operations.

6.4.2 All communications facilities, equipment, staffing, and operating procedures shall comply with NFPA 1221.

6.4.3 Operating procedures for radio communications shall provide for the use of standard protocols and terminology at all types of incidents.

6.4.4 Standard terminology, in compliance with NFPA 1561, shall be established to transmit information, including strategic modes of operation, situation reports, and emergency notifications of imminent hazards.

6.5* Pre-Incident Planning.

6.5.1 The fire department shall set forth operational requirements to conduct pre-incident planning.

6.5.2 Particular attention shall be provided to all target hazards.

Annex A Explanatory Material

Annex A is not a part of the requirements of this NFPA document but is included for informational purposes only. This annex contains explanatory material, numbered to correspond with the applicable text paragraphs.

A.1.1 The standard includes minimum requirements that are intended to provide effective, efficient, and safe protective services that operate on a sound basis to prevent fires and reduce risk to lives and property, to deal with incidents that occur, and to prepare for anticipated incidents. It sets minimum standards considered necessary for the provision of public fire protection by career fire departments. It addresses the structure and operation of organizations providing such services, including fire suppression and other assigned emergency response responsibilities, which include emergency medical services and special operations.

--`,,,,,,,-`-`,,`,,`,`,,`---
Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

A.1.2.1 There is a fundamental concept of fire risk associated with modern society. Public fire service organizations are expected to reduce the risk within their areas of jurisdiction by taking measures to prevent the outbreak of fires, to limit the extent and severity of fires, to provide for the removal or rescue of endangered persons, to control and extinguish fires that occur within the jurisdiction, and to perform other emergency response operations and delivery of emergency medical services.

The cumulative effects of preventive efforts, risk reduction and control, and fire suppression capabilities result in variable levels of risk to the jurisdictions and their residents.

The risk remaining after deducting the cumulative effect of the public fire service organization's efforts is the responsibility of each individual, including owners, operators, occupants, and casual visitors to properties. It should be noted that fire risk cannot be completely avoided or eliminated.

A.1.3 The AHJ determines what systems, methods, or approaches are equivalent or superior in performance. An AHJ should approach the assessment by reviewing the overall public fire protection and EMS system performance.

A.3.2.1 Approved. The National Fire Protection Association does not approve, inspect, or certify any installations, procedures, equipment, or materials; nor does it approve or evaluate testing laboratories. In determining the acceptability of installations, procedures, equipment, or materials, the authority having jurisdiction may base acceptance on compliance with NFPA or other appropriate standards. In the absence of such standards, said authority may require evidence of proper installation, procedure, or use. The authority having jurisdiction may also refer to the listings or labeling practices of an organization that is concerned with product evaluations and is thus in a position to determine compliance with appropriate standards for the current production of listed items.

A.3.2.2 Authority Having Jurisdiction (AHJ). The phrase "authority having jurisdiction," or its acronym AHJ, is used in NFPA documents in a broad manner, since jurisdictions and approval agencies vary, as do their responsibilities. Where public safety is primary, the authority having jurisdiction may be a federal, state, local, or other regional department or individual such as a fire chief; fire marshal; chief of a fire prevention bureau, labor department, or health department; building official; electrical inspector; or others having statutory authority. For insurance purposes, an insurance inspection department, rating bureau, or other insurance company representative may be the authority having jurisdiction. In many circumstances, the property owner or his or her designated agent assumes the role of the authority having jurisdiction; at government installations, the commanding officer or departmental official may be the authority having jurisdiction.

A.3.3.1.1 Automatic Aid. The capabilities of personnel and equipment for a predetermined response to a neighboring jurisdiction upon receipt of an alarm, this process is accomplished through simultaneous dispatch, documented in writing, and included as part of a communication center's dispatch protocols.

A.3.3.1.2 Mutual Aid. A written policy or contract that allows for the deployment of personnel and equipment to respond to an alarm in another jurisdiction, this is part of the written deployment criteria for response to alarms as dispatched by a communication center. *(See also 3.3.1.1.)*

A.3.3.2 Aircraft Rescue and Fire-Fighting (ARFF) Vehicle. The apparatus is typically equipped with a large water tank (commencing at 1000 gal and extending to over 6000 gal); a supply of fire-fighting extinguishing agents; remote-controlled large roof turret(s), extendable turret nozzle(s), and bumper turret(s) (ground sweep nozzles) that are used for the discharge of extinguishing agent; and pre-connected handlines.

A.3.3.3 Airport Fire Department Personnel. These individuals can also be responsible for additional fire protection and suppression, emergency medical, and other emergency response within the boundaries of the airport facility.

A.3.3.4 Alarm. In some jurisdictions, this is referred to as an incident or call for service.

A.3.3.5 Apparatus. Examples include fire engines, water tenders, and ladder trucks.

A.3.3.6 Company. For fire suppression, jurisdictions exist where the response capability of the initial arriving company is configured with the response of two apparatus. In some jurisdictions, apparatus is not configured with seated and belted positions for four personnel and therefore would respond with an additional vehicle in consort with the initial arriving engine to carry additional personnel. This response would be to ensure that a minimum of four individuals are assigned to and deployed as a company. The intent of this definition and the requirements in the standard are to ensure that these two (or more) pieces of apparatus would always be dispatched and respond together as a single company. Some examples of this include the following:

(1) Engine and tanker/tender that would be responding outside a municipal water district
(2) Multiple-piece company assignment, specified in a fire department's response SOPs, such as an engine company response with a pumper and a hose wagon
(3) Engine with a vehicle personnel carrier
(4) Engine with an ambulance or rescue unit

"Company," as used in this standard, is synonymous with company unit, response team, crew, and response group, rather than a synonym for a fire department.

A.3.3.12.1 Aircraft Rescue and Fire Fighting. Such rescue and fire-fighting actions are performed both inside and outside of the aircraft.

A.3.3.12.2 Marine Rescue and Fire Fighting. Marine companies can be utilized for special operations, including a platform for dive and scuba operations and for providing a secure water supply for land-based operations.

A.3.3.14 Fire Suppression. Fire suppression includes all activities performed at the scene of a fire incident or training exercise that expose fire department members to the dangers of heat, flame, smoke, and other products of combustion, explosion, or structural collapse.

A.3.3.15 First Responder (EMS). The first responder also assists higher-level emergency medical service providers.

A.3.3.17 Hazard. Hazards include the characteristics of facilities, equipment systems, property, hardware, or other objects; and the actions and inactions of people that create such hazards.

A.3.3.19 High Hazard Occupancy. Also included are high-risk residential occupancies, neighborhoods with structures in close proximity to one another, special medical occupancies, high-rise occupancies, and hazardous materials occupancies.

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

A.3.3.21 Incident Management System (IMS). Such systems are often referred to as incident command systems (ICS).

A.3.3.24.2 Basic Life Support (BLS). Basic life support personnel also assist higher-level EMS providers.

A.3.3.25 Member. A fire department member can be a full-time or part-time employee or a paid or unpaid volunteer, can occupy any position or rank within the fire department, and can engage in emergency operations.

A.3.3.26.1 Company Officer. This person can be someone appointed in an acting capacity. The rank structure could be either sergeant, lieutenant, or captain.

A.3.3.26.3 Supervisory Chief Officer. The position of supervisory chief officer is above that of a company officer, who responds automatically and/or is dispatched to an alarm beyond the initial alarm capabilities, or other special calls. In some jurisdictions, this is the rank of battalion chief, district chief, deputy chief, assistant chief, or senior divisional officer (U.K. fire service).

A.3.3.27.2 Special Operations. Special operations include water rescue, extrication, hazardous materials, confined space entry, high-angle rescue, aircraft rescue and fire fighting, and other operations requiring specialized training.

A.3.3.29 Rapid Intervention Crew (RIC). The RIC report directly to the incident commander or operations chief. This dedicated crew is not to be confused with the IRIC.

A.3.3.32 Staff Aide. This member is assigned to a supervisory chief officer who assists at incident scene operations, which can include personnel accountability, communications, and other logistical and administrative support. In addition, this member can assist in coordinating training activities, respond to citizen inquiries, coordinate staffing issues and sick leave follow-up, and assign resource allocations for facilities and apparatus under the supervisory chief officer's jurisdiction. Staff aides can be known as field incident technician, staff assistant, battalion fire fighter, or battalion adjutant.

A.3.3.37.3 Dispatch Time. Dispatch times are addressed in NFPA 1221. These include call-taking and call-processing requirements.

A.4.1.1 The AHJ generally has the responsibility to determine the following:

(1) Scope and level of service provided by the fire department
(2) Necessary level of funding
(3) Necessary level of personnel and resources, including facilities

To provide service, the AHJ should have the power to levy taxes or solicit funding, to own property and equipment, and to cover personnel costs. The authority necessary is conveyed by law to a local jurisdiction.

In addition, the governing body also should monitor the achievement of the management goals of the department, such as fire prevention, community life safety education, fire suppression, employee training, communications, maintenance, and department administration.

The organizational statement is a very important basis for many of the provisions of this standard. The statement sets forth the legal basis for operating a fire department, the organizational structure of the fire department, number of members, training requirements, expected functions, and authorities and responsibilities of various members or defined positions.

A key point is to clearly set out the specific services the fire department is authorized and expected to perform. Most fire departments are responsible to a governing body. The governing body has the right and should assert its authority to set the specific services and the limits of the services the fire department will provide. It also has the responsibility to furnish the necessary resources for delivery of the designated services. The fire department should provide its governing body with a specific description of each service, with options or alternatives and an accurate analysis of the costs and resources needed for each service.

Such services could include structural fire fighting, wildland fire fighting, airport/aircraft fire fighting, emergency medical services, hazardous materials response, high angle rescue, heavy rescue, and others.

Spelling out the specific parameters of services to be provided allows the fire department to plan, staff, and equip, train, and deploy members to perform these duties. It also gives the governing body an accounting of the costs of services and allows it to select those services it can afford to provide. Likewise, the governing body should identify services it cannot afford to provide and cannot authorize the fire department to deliver, or it should assign those services to another agency.

The fire department should be no different than any other government agency that has the parameters of its authority and services clearly defined by the governing body.

Legal counsel should be used to ensure that any statutory services and responsibilities are being met.

The majority of public fire departments are established under the charter provisions of their governing body or through the adoption of statutes. These acts define the legal basis for operating a fire department, the mission of the organization, the duties that are authorized and expected to be performed, and the authority and responsibilities that are assigned to certain individuals to direct the operations of the fire department.

The documents that officially establish the fire department as an identifiable organization are necessary to determine specific responsibilities and to determine the parties responsible for compliance with the provisions of this standard.

In many cases, these documents can be part of state laws, a municipal charter, or an annual budget. In such cases, it would be appropriate to make these existing documents part of the organizational statement, if applicable.

A.4.1.2 There can be incidents or areas where the response criteria are affected by circumstances such as response personnel who are not on duty, nonstaffed fire station facilities, natural barriers, traffic congestion, insufficient water supply, and density of population or property. The reduced level of service should be documented in the written organizational statement by the percentage of incidents and geographical areas for which the response time criteria are achieved.

A.4.1.2.1(2) This service delivery requirement is intended to have a fire department plan and situate its resources to consistently meet a 4-minute initial company fire suppression response and an 8-minute full alarm fire response assignment. While it is recognized that on some occasions (e.g., a company is out of service for training) the initial company response might not meet the 4-minute requirement, the 8-minute criterion must always be met.

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

A.4.4.2 Occupational Safety and Health Administration (OSHA) regulations require that all fire departments be trained to respond to hazardous materials incidents at the first responder operations level.

Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA), known as the Emergency Planning and Right-to-Know Act, established requirements for federal, state, and local governments and industrial facilities regarding emergency planning for spills or other releases, community right-to-know, and reporting of hazardous and toxic chemicals.

The Emergency Planning and Right-to-Know Act covers the following four major areas that will provide the fire service and communities with a broad perspective on the chemical hazards within the local area and those at individual facilities:

(1) Sections 301 through 303 — emergency planning
(2) Section 304 — emergency release notification
(3) Sections 311 and 312 — community right-to-know reporting requirements
(4) Section 313 — toxic chemical release inventory

A.4.8.1 Where appropriate, the mutual aid agreement should include automatic responses on first alarms (automatic aid). This concept contemplates joint response of designated apparatus and personnel on a predetermined running assignment basis.

Mutual aid concepts should be considered on a regional basis. In an effective mutual aid arrangement, each fire department should retain reserves of personnel and apparatus. Traditionally and legally, overall command of the incident is vested with the senior officer of the jurisdiction experiencing the emergency.

Some areas use consolidated dispatching to coordinate the response of fire companies to assist an outside fire department. The management of responses can be made easier by utilizing computerization, "running cards," and other advance planning.

A.5.2 Suppression capability is an expression of how much fire-fighting power can be put into action when there is a fire. It includes the amount of apparatus, equipment, and personnel available; the time needed to respond and place equipment in action; the water supply; the application of strategy and tactics; the level of training; and all of the components that add up to effective fireground operations.

A.5.2.2 For more information, see NFPA 1250; FEMA, National Fire Academy, "Fire Risk Analysis: A Systems Approach"; and Phoenix, AZ, Fire Department, "Fire Department Evaluation System (FIREDAP)."

A.5.2.2.2 For further information on companies, see 3.3.6 and A.3.3.6.

A.5.2.2.2.1 An early, aggressive, and offensive primary interior attack on a working fire, where feasible, is usually the most effective strategy to reduce loss of lives and property damage. In Figure A.5.2.2.2.1, the line represents a rate of fire propagation in an unsprinklered room, which combines temperature rise and time. It roughly corresponds to the percentage of property destruction. At approximately 10 minutes into the fire sequence, the hypothetical room of origin flashes over. Extension outside the room begins at this point.

Consequently, given that the progression of a structural fire to the point of flashover (i.e., the very rapid spreading of the fire due to superheating of room contents and other combustibles) generally occurs in less than 10 minutes, two of the most important elements in limiting fire spread are the quick arrival of sufficient numbers of personnel and equipment to attack and extinguish the fire as close to the point of its origin as possible. For more information, refer to *Fire Service Today*, "Reduced Staffing: At What Cost," and NIST, "Hazard I Fire Hazard Assessment Method." Also, refer to National Fire Academy, "Fire Risk Analysis: A Systems Approach," and Office of the Ontario Fire Marshal, *Shaping the Future of Fire Ground Staffing and Delivery Systems within a Comprehensive Fire Safety Effectiveness Model.*

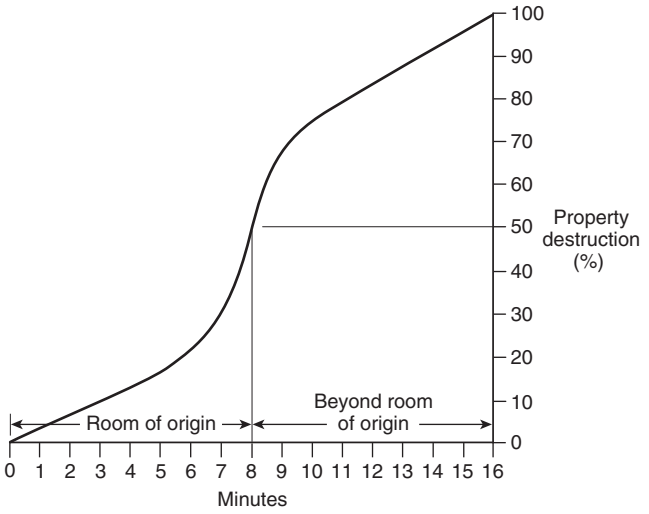

FIGURE A.5.2.2.2.1 Fire Propagation Curve.

The ability of adequate fire suppression forces to greatly influence the outcome of a structural fire is undeniable and predictable. Data generated by NFPA provide empirical data that rapid and aggressive interior attack can substantially reduce the human and property losses associated with structural fires *(see Table A.5.2.2.2.1)*.

Table A.5.2.2.2.1 Fire Extension in Residential Structures 1994–1998

	Rate per 1000 Fires		
Extension	Civilian Deaths	Civilian Injuries	Dollar Loss per Fire
Confined to the room of origin	2.32	35.19	3,185
Beyond the room but confined to the floor of origin	19.68	96.86	22,720
Beyond the floor of origin	26.54	63.48	31,912

Note: Residential structures include dwellings, duplexes, manufactured homes (also called mobile homes), apartments, row houses, townhouses, hotels and motels, dormitories, and barracks.
Source: NFPA Annual Fire Experience Survey and National Fire Incident Reporting System.

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

A.5.2.2.2.3 The assignment of specific response districts to command officers should be based on the number of companies, workload, and response distances. Department administrative procedures should indicate clearly the jurisdiction of command officers.

A.5.2.2.2.5 For further information on staff aides, see 3.3.32.

A.5.2.4.1.2 NFPA 1500, 29 CFR 1910.134, and *Memorandum for Regional Administration and State Designees; Response to IDLH or Potential IDLH Atmospheres,* provide further information. The initial rapid intervention crew (IRIC) and the rapid intervention crew (RIC) members are equipped with the fire fighters' protective ensemble, including protective clothing and equipment as required by NFPA 1500.

A.5.2.4.2.1 For the purposes of this standard, the initial full alarm assignment capability is for a response to a structural fire in a typical 264 m^2 (2000 ft^2), two-story, single-family occupancy without a basement and with no exposures (detached home). The hazards presented by this scenario are not unusual, as all communities respond to fire incidents in this type of structure on a regular basis.

Other occupancies and structures in the community that present greater hazards should be addressed by additional fire fighter functions and additional responding personnel on the initial full alarm assignment. For further information on the classification of hazards, see NFPA *Fire Protection Handbook.*

A.5.3 An EMS is defined as a comprehensive, coordinated arrangement of resources and functions that are organized to respond in a timely, staged manner to medical emergencies, regardless of their cause. The term *system* can be applied locally or at the state, province, or national level. The fundamental functions of an EMS system are the following:

(1) System organization and management
(2) Medical direction
(3) Human resources and training
(4) Communications
(5) Emergency response
(6) Transportation
(7) Care facilities
(8) Quality assurance
(9) Public information and education
(10) Disaster medical services
(11) Research
(12) Special populations

A.5.3.2 The following four functions do not necessarily exist as separate elements in a particular system:

(1) The first responding unit can be an advanced life support (ALS) ambulance that can provide ALS treatment and ambulance transportation.
(2) The first responding unit can be a fire suppression unit that can provide both initial and advanced level medical care.
(3) ALS can be provided by the ambulance or by an additional fire suppression unit or a unit that is dedicated to ALS response only.
(4) The system may not have ALS treatment capability — only a fire apparatus with fire fighters trained as first responder AED can respond.

A.5.3.3.4.3 The American Heart Association recommends the minimum required personnel for an emergency cardiac care response. In those systems that have attained survival rates higher than 20 percent for patients with ventricular fibrillation, response teams include, as a minimum, two ALS providers and two BLS providers. See "Guidelines 2000 for Cardiopulmonary Resuscitation and Emergency Cardiac Care," "Basic Trauma Life Support for Paramedics and Other Providers," "Pre-Hospital Trauma Life Support," "Pediatric Advanced Life Support," and "Emergency Care and Transportation of the Sick and Injured."

A.5.5.6.2 The U.S. Air Force has defined the areas involved in the emergency within 24 m (75 ft) of the aircraft as immediately dangerous to life and health (IDLH).

A.5.6 For additional information on marine fire fighting, see NFPA 1405.

A.5.6.5.1 For additional information on marine rescue and fire-fighting vessels, see NFPA 1925.

A.5.7.6.1.2 A system developed by Chief Paul Gleason of the United States Forest Service addresses specific mandatory fire orders in a system termed *LCES*, which stands for lookout(s), communication(s), escape route(s), and safety zone(s). These four items are to be implemented as an integrated system by a single resource unit, a strike team, or a full assignment. The implementation of LCES is a minimum safety requirement prior to the initiation of any wildland fire-fighting operations.

A.6.2 Emergency incidents can involve operations that vary considerably in their complexity and scale. The control of these incidents depends on the planned, systematic implementation of an effective fireground organization to accomplish identified objectives. Every fire department, regardless of size, needs a proper system to regulate and direct emergency forces and equipment at both routine and major incidents. The incident management system forms the basic structure of operations, regardless of scale. An effective system is designed to manage incidents of different types, including structure fires, wildland fires, hazardous materials incidents, and medical and other emergencies.

A.6.2.2 Unlike fire incidents where command is normally predicated by rank structure, EMS patient care is based upon statutory recognition of the individual with the highest level of medical certification. It is recommended that departments adopt protocols that define the degree of both member and nonmember involvement in direct patient care based upon local standards, medical control, and statutory requirements.

A.6.5 For additional information, see NFPA 1620.

Annex B Informational References

B.1 Referenced Publications. The following documents or portions thereof are referenced within this standard for informational purposes only and are thus not part of the requirements of this document unless also listed in Chapter 2.

B.1.1 NFPA Publications. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA 1221, *Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems*, 2002 edition.

NFPA 1250, *Recommended Practice in Emergency Service Organization Risk Management*, 2004 edition.

NFPA 1405, *Guide for Land-Based Fire Fighters Who Respond to Marine Vessel Fires*, 2001 edition.

NFPA 1500, *Standard on Fire Department Occupational Safety and Health Program*, 2002 edition.

NFPA 1620, *Recommended Practice for Pre-Incident Planning*, 2003 edition.

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

NFPA 1925, *Standard on Marine Fire-Fighting Vessels*, 2004 edition.

NFPA Annual Fire Experience Survey and National Fire Incident Reporting System.

Fire Protection Handbook, 18th edition, 1997.

Fire Service Today, Gerard, J.C. and A.T. Jacobsen, "Reduced Staffing: At What Cost," September 1981.

B.1.2 Other Publications.

B.1.2.1 AMA Publication. American Medical Association, 515 North State Street, Chicago, IL 60610.

"Guidelines 2000 for Cardiopulmonary Resuscitation and Emergency Cardiac Care." 1992. *Journal of the American Medical Association,* 268(16) (October 28).

B.1.2.2 FEMA Publication. Federal Emergency Management Agency, Washington, DC 20002.

"Fire Risk Analysis: A Systems Approach," NFA-SM-FRAS, National Emergency Training Center, National Fire Academy, July 20, 1984.

B.1.2.3 NIST Publication. National Institute of Standards and Technology, Bldg. 820, Rm. 164, Gaithersburg, MD 20899.

"Hazard I Fire Hazard Assessment Method," U.S. Department of Commerce, June 1991.

B.1.2.4 U.S. Government Publications. U.S. Government Printing Office, Washington, DC 20402.

Memorandum for Regional Administration and State Designees; Response to IDLH or Potential IDLH Atmospheres, Department of Labor, Occupational Safety & Health Administration.

Title 29, Code of Federal Regulations, Part 1910.134, "Respiratory Protection," 1998.

B.1.2.5 Other Publications.

"Basic Trauma Life Support for Paramedics and Other Providers," American College of Emergency Physicians; John Campbell (ed); 1997.

Office of the Ontario Fire Marshal, *Shaping the Future of Fire Ground Staffing and Delivery Systems within a Comprehensive Fire Safety Effectiveness Model*, 1993.

"Pre-Hospital Trauma Life Support," American College of Surgeons; Paturaas, Wertz and McSwain (eds); 1999.

"Pediatric Advanced Life Support," American Heart Association; Besson (ed); 1997.

Phoenix, AZ, Fire Department, "Fire Department Evaluation System (FIREDAP)," December 1991.

"Emergency Care and Transportation of the Sick and Injured," American Association of Orthopedic Surgeons; Browner (ed); 1999.

B.2 Informational References. The following documents or portions thereof are listed here as informational resources only. They are not a part of the requirements of this document.

B.2.1 CFAI Publication. Commission on Fire Accreditation International, 4500 Southgate Place, Suite 100, Chantilly, VA 20151.

Fire and Emergency Service Self Assessment Manuals, National Fire Service Accreditation Program.

B.2.2 Fire Protection Publications. International Fire Service Training Association/FPP Oklahoma State University, Stillwater, OK.

"Systems Approach to Managing Fire and Life Safety Services," Dennis Compton.

B.2.3 Government Accounting Standards Board. Government Accounting Standards Board, 401 Merritt, 7 P.O. Box 5116, Norwalk, CT 06856-5116.

B.2.4 IAFC/IAFF Publication. International Association of Fire Chiefs/International Association of Fire Fighters. International Association of Fire Chiefs, 4025 Fair Ridge Drive, Fairfax, VA 22033-2868. International Association of Fire Fighters, 1750 New York Avenue, NW, Washington, DC 20006.

"NFPA 1710 IMPLEMENTATION GUIDE," August 2002.

B.2.5 IAFF Publications. International Association of Fire Fighters, 1750 New York Avenue, NW, Washington, DC 20006.

Department of Research and Labor Issues, "Effectiveness of Fire-Based EMS," 1995.

Department of Research and Labor Issues, "Safe Fire Fighting Staffing," 1993.

Department of Emergency Medical Services, "Emergency Medical Services Performance Objectives, 2002."

B.2.6 Insurance Services Office Publication. ISO Customer Service Division, 545 Washington Blvd., Jersey City, NJ 07310-1686.

"Public Protection Classification Service"; Fire Suppression Rating Schedule.

B.2.7 International City/County Management Association Publication. 777 N. Capitol Street, Washington, DC 20022.

"Managing Fire and Rescue Services," June 2002.

"Interim Report of the Tricom Consortium."

B.2.8 U.S. Government Publications. U.S. Government Printing Office, Washington, DC 20402.

Title 29, Code of Federal Regulations, Part 1910.120, "Hazardous Waste Operations and Emergency Response," 1986.

Title 29, Code of Federal Regulations, Part 1910.156, "Fire Protection; Means of Egress; Hazardous Materials."

B.2.9 Other Publications.

"Guidelines 2000 for Cardiopulmonary Resuscitation and Emergency Cardiac Care," *JAMA*, August 2000.

Office of the Ontario Fire Marshal, "Performance Measurement and Benchmarking Project," 2003.

B.3 References for Extracts. The following documents are listed here to provide reference information, including title and edition, for extracts given throughout the nonmandatory sections of this standard as indicated by a reference in brackets [ ] following a section or paragraph. These documents are not a part of the requirements of this document unless also listed in Chapter 2 for other reasons.

NFPA 402, *Guide for Aircraft Rescue and Fire Fighting Operations*, 2002 edition.

NFPA 403, *Standard for Aircraft Rescue and Fire-Fighting Services at Airports*, 2003 edition.

NFPA 801, *Standard for Fire Protection for Facilities Handling Radioactive Materials*, 2003 edition.

NFPA 1002, *Standard for Fire Apparatus Driver/Operator Professional Qualifications*, 2003 edition.

NFPA 1081, *Standard for Industrial Fire Brigade Member Professional Qualifications*, 2001 edition.

NFPA 1142, *Standard on Water Supplies for Suburban and Rural Fire Fighting*, 2001 edition.

NFPA 1143, *Standard for Wildland Fire Management*, 2003 edition.

NFPA 1201, *Standard for Providing Emergency Services to the Public*, 2004 edition.

--`,,,,,,-`-`,,`,,`,`,,`---

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS Not for Resale

NFPA 1221, *Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems*, 2002 edition.

NFPA 1500, *Standard on Fire Department Occupational Safety and Health Program*, 2002 edition.

NFPA 1521, *Standard for Fire Department Safety Officer*, 2002 edition.

NFPA 1581, *Standard on Fire Department Infection Control Program*, 2000 edition.

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

Index

© 2004 National Fire Protection Association. All Rights Reserved.

The copyright in this index is separate and distinct from the copyright in the document that it indexes. The licensing provisions set forth for the document are not applicable to this index. This index may not be reproduced in whole or in part by any means without the express written permission of NFPA.

-A-

Advanced life support ..... *see* Life support
Aerial devices ..... 5.2.4.2.2(7)
Aid
Automatic 4.8, 5.2.1.2, 5.3.1.1
Airport fire department 5.5.4.5
Definition 3.3.1.1, A.3.3.1.1
Special operations response 5.4.1
Mutual 4.8, 5.2.1.2, 5.3.1.1, A.4.8.1
Airport fire department 5.5.4.5
Definition 3.3.1.2, A.3.3.1.2
Special operations response 5.4.1, 5.4.6
Aircraft rescue and fire fighting 5.5.4.1, 5.5.4.2, 5.5.5.1
Definition 3.3.12.1, A.3.3.12.1
Aircraft rescue and fire-fighting (ARFF) vehicles 5.5.4.1, 5.5.4.2
Definition 3.3.2, A.3.3.2
Airport fire department
Personnel 5.5, A.5.5.6.2
Definition 3.3.3, A.3.3.3
Rescue and fire fighting 4.5, 5.5, A.5.5.6.2
Alarm (definition) 3.3.4, A.3.3.4
Alarm time (definition) 3.3.37.1
Apparatus
Definition 3.3.5, A.3.3.5
Fire ..... 5.2.2.1(5), 5.2.2.2, A.5.2.2.2
Definition 3.3.5.1
Quint 5.2.3.4
Definition 3.3.5.2
Specialized 5.2.3.3.1
Definition 3.3.5.3
Approved (definition) 3.2.1, A.3.2.1
Authority having jurisdiction
Definition 3.2.2, A.3.2.2
Organizational statement 4.1.1, A.4.1.1
Automatic aid ..... *see* Aid
Automatic external defibrillators (AED) ..... 4.3.2, 5.3.3.1(1), 5.3.3.3.2.1, 5.3.3.4.2

-B-

Basic life support ..... *see* Life support

-C-

Call processing time (definition) 3.3.37.3
Communications systems 4.8.3, 6.4
Emergency medical services (EMS) 5.3.4.4, 6.4.1
Wildland fire suppression 5.7.6.1.2, A.5.7.6.1.2
Companies 5.2.2.2, A.5.2.2.2
Airport fire department ..... 5.5.4.2 to 5.5.4.4, 5.5.5.1 to 5.5.5.3
Definition 3.3.6, A.3.3.6
Initial arriving 5.2.4.1, A.5.2.4.1.2
Marine rescue and fire fighting 5.6.4.2.1, 5.6.4.2.2
Staffing requirements 5.2.3
Wildland fire 5.7.4.2, 5.7.5, 5.7.7.1, 5.7.7.2
Company officers ..... *see* Officers
Confined space response 4.4.3, 5.4.4

-D-

Definitions ..... Chap. 3
Deployment ..... 4.1.2, A.4.1.2; *see also* Time
Airport rescue and fire-fighting services 5.5.4
Emergency medical services (EMS) ..... 4.1.2.1(3), 4.1.2.1(4), 5.3.3.4, A.5.3.3.4.3
Evaluation 4.1.2.3.1
Fire suppression services ..... 4.1.2.1(2), 5.2.4, A.4.1.2.1(2), A.5.2.4.1.2
Additional alarm assignment 5.2.4.3
Initial arriving company 5.2.4.1, A.5.2.4.1.2
Initial full alarm assignment capability 5.2.4.2, A.5.2.4.2.1
Special operations response 5.4
Wildland fire suppression 5.7.6, A.5.7.6.1.2
Disaster response 4.4.4
Dispatch time (definition) 3.3.37.3, A.3.3.37.3
Documentation 5.3.1.3
Evaluations 4.1.2.4
Fire department services, procedures for 5.1.2
Mutual aid agreements 4.8.1, A.4.8.1
Organizational statement 4.1.1, A.4.1.1

-E-

Emergency incidents ..... A.6.2; *see also* Emergency medical services (EMS); Marine rescue and fire fighting; Special operations
Definition 3.3.7
Medical incidents
Airport 5.5.4.4, 5.5.5.3
Deployment ..... 4.1.2.1(3), 4.1.2.1(4)
Training for 5.3.2.2
Wildland fire companies 5.7.7.2
Emergency medical care ..... A.6.2.2; *see also* Emergency medical services (EMS)
Definition 3.3.8
Emergency medical services (EMS) ..... 5.3, 6.2.2, A.5.3, A.6.2.2; *see also* Emergency incidents
Components 5.3.2, A.5.3.2
Deployment ..... 4.1.2.1(3), 4.1.2.1(4), 5.3.3.4, A.5.3.3.4.3
Functions 5.3.3, A.5.3.3.4.3
Quality management 5.3.4
Response criteria and capability 4.3
Emergency operations 5.2.3, 5.5.6, 6.2, A.5.5.6.2, A.6.2
Definition 3.3.27.1
Engine companies 5.2.3.1, 5.2.3.4.1, 5.7.5.2
Equivalency to standard 1.3, A.1.3
Evaluations 4.1.2.3, 4.1.2.4

-F-

Fire apparatus 5.2.2.2, A.5.2.2.2
Definition 3.3.5.1
Fire chief (definition) 3.3.9
Fire department members ..... *see* Members
Fire department vehicles ..... *see also* Aircraft rescue and fire-fighting (ARFF) vehicles; Fire apparatus
Definition 3.3.11
Wildland fire suppression services 5.7.6.1, A.5.7.6.1.2
Fire fighting ..... *see* Aircraft rescue and fire fighting; Fire suppression; Marine rescue and fire fighting; Structural fire fighting; Wildland fire suppression
Fire protection (definition) 3.3.13
Fire suppression ..... 5.2; *see also* Wildland fire suppression
Definition 3.3.14, A.3.3.14
Deployment ..... *see* Deployment
Response criteria 4.2

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

First responder (EMS) ..... 4.3.2, 5.3.2.1.1, 5.3.3.1(1), 5.3.3.3.2.1, 5.3.3.4.2
Definition 3.3.15, A.3.3.15
Hazardous materials response 4.4.2, A.4.4.2
Review of personnel 5.3.4.2.1
Forcible entry 5.2.3.2, 5.2.4.3.1
Definition 3.3.16

-G-

Governing body A.4.1.1

-H-

Hazard
Definition 3.3.17, A.3.3.17
Target 6.5.2
Hazardous materials
Definition 3.3.18
Response 4.4.2, 5.4.3, 6.2.2, A.4.4.2
High hazard occupancies 5.2.3.1.2, 5.2.3.2.2, 5.2.3.3.2
Definition 3.3.19, A.3.3.19

-I-

Immediately dangerous to life and health (IDLH) A.5.5.6.2
Incident commander ..... 5.2.4.2.2(1), 5.2.4.3.2
Airport incidents 5.5.6.2, 5.5.6.3
Definition 3.3.20
Wildland fire suppression 5.7.6.2.2
Incident management system (IMS) 5.5.6.1, 5.7.4.2.4, 6.2, A.6.2
Definition 3.3.21, A.3.3.21
Incident safety officers ..... *see* Officers
Initial arriving company
Airport rescue and fire-fighting services 5.5.2
Emergency medical services (EMS) 5.3.1
Fire suppression 5.2.4.1, A.5.2.4.1.2
Response times ..... 4.1.2.1(2), A.4.1.2.1(2)
Special operations response 5.4
Initial full alarm assignment 5.2.1.1, 5.2.4.1.1
Airport rescue and fire-fighting services 5.5.2
Definition 3.3.22
Deployment ..... 4.1.2.1(2), 5.2.4.2, A.4.1.2.1(2), A.5.2.4.2.1
Emergency operations 5.5.6.2
Initial rapid intervention crew (IRIC) ..... 5.2.4.1.2, 5.2.4.2.2(8), 5.2.4.3.2, A.5.2.4.1.2
Definition 3.3.23
Intercommunity organization 4.8, A.4.8.1

-L-

Ladder companies 5.2.3.2, 5.2.3.4.1, 5.7.5.2
Life support
Advanced (ALS) ..... 5.3.2.1.1, 5.3.3.1(3), 5.3.3.1(4), 5.3.3.3.2.3, 5.3.3.4.3, 5.3.3.4.4, A.5.3.3.4.3
Definition 3.3.24.1
Medical director review 5.3.4.3
Basic (BLS) ..... 5.3.2.1.1, 5.3.3.1(2), 5.3.3.1(4), 5.3.3.3.2.2
Definition 3.3.24.2, A.3.3.24.2
Review of personnel 5.3.4.2.1

-M-

Marine rescue and fire fighting 5.6, A.5.6
Definition 3.3.12.2, A.3.3.12.2
Organization 4.6
Medical director review 5.3.4.3
Members ..... 4.1.1(4)
Definition 3.3.25, A.3.3.25
Sufficient number for response 5.2.2.2.1, A.5.2.2.2.1
Mutual aid ..... *see* Aid

-O-

Officers
Company
Definition 3.3.26.1, A.3.3.26.1
Fire suppression 5.2.2.2.2
Marine rescue and fire fighting 5.6.4.2.2
Wildland fire suppression 5.7.4.2.2, 5.7.6.2.3.3
Incident safety
Airport rescue and fire-fighting 5.5.6.4
Definition 3.3.26.2
Fire suppression 5.2.4.3.3, 5.2.4.3.4
Wildland fire suppression 5.7.6.3.2
Supervisory chief
Definition 3.3.26.3, A.3.3.26.3
Fire suppression ... 5.2.2.2.3 to 5.2.2.2.5, A.5.2.2.2.3, A.5.2.2.2.5
Wildland fire suppression 5.7.4.2.3, 5.7.4.2.4
Operations ..... *see* Emergency operations; Special operations
Organization, fire department ..... Chap. 4
Airport rescue and fire-fighting services 4.5
Emergency medical services 4.3
Evaluations 4.1.2.3, 4.1.2.4
Fire suppression services 4.2
Intercommunity 4.8, A.4.8.1
Marine rescue and fire-fighting services 4.6
Organizational statement ..... 4.1, 4.3.3(1), A.4.1.1, A.4.1.2
Special operations 4.4, A.4.4.2
Wildland fire suppression services 4.7

-P-

Pre-incident planning systems 6.5
Public safety answering point (PSAP) (definition) 3.3.28
Purpose of standard 1.2, A.1.2.1

-Q-

Quint apparatus 5.2.3.4
Definition 3.3.5.2

-R-

Rapid intervention crew (RIC) 5.2.4.3.2, 5.4.5
Definition 3.3.29, A.3.3.29
References ..... Chap. 2, Annex B
Related duties (definition) 3.3.30
Rescue ..... 5.2.3.1, 5.2.3.2, 5.2.4.2.2(5), 5.2.4.3.1, 5.7.6.3.1
Definition 3.3.31
Response time ..... *see* Time
Risk reduction A.1.2.1

-S-

Safety and health systems 5.5.6.4.2, 6.1
Scope of standard 1.1, A.1.1
Search and rescue ..... *see* Rescue
Services ..... Chap. 5; *see also* Emergency medical services (EMS)
Airport rescue and fire-fighting 5.5
Evaluation 4.1.2.3.1
Fire suppression 5.2, A.5.2
Marine rescue and fire-fighting 5.6, A.5.6
Organizational statement ..... 4.1.1(2), 4.1.2, A.4.1.2
Special operations response 5.4
Wildland fire suppression 5.7
Shall (definition) 3.2.3
Should (definition) 3.2.4
Specialized apparatus 5.2.3.3.1, 5.7.5.3.1
Definition 3.3.5.3
Special operations 4.4, 5.4, A.4.4.2
Definition 3.3.27.2, A.3.3.27.2
Staff aide (definition) 3.3.32, A.3.3.32
Staffing
Aircraft rescue and fire fighting 5.5.5
Emergency medical services (EMS) 5.3.3.3

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

Fire suppression 5.2.2, 5.2.3, A.5.2.2
Marine rescue and fire fighting 5.6.4
Wildland fire suppression 5.7.4
Standard (definition) 3.2.5
Standard operating procedures 5.1.2
Airport rescue and fire-fighting services 5.5.1
Definition 3.3.33
Marine rescue and fire fighting 5.6.2
Special operations response 5.4.2
Wildland fire suppression 5.7.2.1
Structural fire fighting 5.5.4.3, 5.7.7.1, 6.2.2
Definition 3.3.12.3
Supervisory chief officers ..... *see* Officers
Sustained attack (definition) 3.3.34
Systems ..... Chap. 6
Communications 6.4
Incident management 6.2, A.6.2
Pre-incident planning 6.5, A.6.5
Safety and health 6.1
Training 6.3

-T-

Tactical considerations (definition) 3.3.35
Team (definition) 3.3.36
Terrorism incidents response 4.4.4
Time
Alarm (definition) 3.3.37.1
Call processing (definition) 3.3.37.2
Dispatch (definition) 3.3.37.3, A.3.3.37.3
Response
Definition 3.3.37.4
Emergency medical services (EMS) ..... 5.3.3.4.1 to 5.3.3.4.3, A.5.3.3.4.3
Initial arriving company 5.2.4.1.1
Initial full alarm assignment 5.2.4.1.1, 5.2.4.2.1, A.5.2.4.2.1
Organizational statement ..... 4.1.2, 4.1.2.1 to 4.1.2.4, A.4.1.2, A.4.1.2.1(2)
Special operations 5.4
Wildland companies, nonwildland emergencies 5.7.7
Turnout ..... 4.1.2.1(1)
Definition 3.3.37.5
Training 6.3
Emergency incidents ..... 5.3.2.2.1, 5.3.3.3.2.1 to 5.3.3.3.2.3, 5.3.3.4.4
Mutual aid 4.8.2
Special operations 5.4.3, 5.4.4, 5.4.7
Truck companies 5.2.3.2, 5.2.3.4.1, 5.7.5.2
Turnout time ..... 4.1.2.1(1)
Definition 3.3.37.5

-V-

Ventilation team ..... 5.2.4.2.2(6), 5.2.4.3.1

-W-

Water supplies and application ..... 5.2.3.1, 5.2.3.2, 5.2.4.2.2(2), 5.2.4.2.2(3), 5.2.4.3.1, 5.7.5, 5.7.6.2.3.1, 5.7.6.3.1
Wildland fire suppression 5.7, 6.2.2, A.5.7.6.1.2
Deployment 5.7.6, A.5.7.6.1.2
Nonwildland emergencies 5.7.7
Operating units 5.7.5
Organization 4.7

--`,,,,,,-`-`,,`,,`,`,,`---

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

Sequence of Events Leading to Publication of an NFPA Committee Document

Call goes out for proposals to amend existing document or for recommendations on new document.

▼

Committee meets to act on proposals, to develop its own proposals, and to prepare its report.

▼

Committee votes on proposals by letter ballot. If two-thirds approve, report goes forward. Lacking two-thirds approval, report returns to committee.

▼

Report — *Report on Proposals* (ROP) — is published for public review and comment.

▼

Committee meets to act on each public comment received.

▼

Committee votes on comments by letter ballot. If two-thirds approve, supplementary report goes forward. Lacking two-thirds approval, supplementary report returns to committee.

▼

Supplementary report — *Report on Comments* (ROC) — is published for public review.

▼

NFPA membership meets (Annual or Fall Meeting) and acts on committee report (ROP or ROC).

▼

Committee votes on any amendments to report approved at NFPA Annual or Fall Meeting.

▼

Appeals to Standards Council on Association action must be filed within 20 days of the NFPA Annual or Fall Meeting.

▼

Standards Council decides, based on all evidence, whether or not to issue standard or to take other action, including upholding any appeals.

Committee Membership Classifications

The following classifications apply to Technical Committee members and represent their principal interest in the activity of the committee.

M *Manufacturer:* A representative of a maker or marketer of a product, assembly, or system, or portion thereof, that is affected by the standard.

U *User:* A representative of an entity that is subject to the provisions of the standard or that voluntarily uses the standard.

I/M *Installer/Maintainer:* A representative of an entity that is in the business of installing or maintaining a product, assembly, or system affected by the standard.

L *Labor:* A labor representative or employee concerned with safety in the workplace.

R/T *Applied Research/Testing Laboratory:* A representative of an independent testing laboratory or independent applied research organization that promulgates and/or enforces standards.

E *Enforcing Authority:* A representative of an agency or an organization that promulgates and/or enforces standards.

I *Insurance:* A representative of an insurance company, broker, agent, bureau, or inspection agency.

C *Consumer:* A person who is, or represents, the ultimate purchaser of a product, system, or service affected by the standard, but who is not included in the *User* classification.

SE *Special Expert:* A person not representing any of the previous classifications, but who has a special expertise in the scope of the standard or portion thereof.

NOTES:

1. "Standard" connotes code, standard, recommended practice, or guide.
2. A representative includes an employee.
3. While these classifications will be used by the Standards Council to achieve a balance for Technical Committees, the Standards Council may determine that new classifications of members or unique interests need representation in order to foster the best possible committee deliberations on any project. In this connection, the Standards Council may make such appointments as it seems appropriate in the public interest, such as the classification of "Utilities" in the National Electrical Code Committee.
4. Representatives of subsidiaries of any group are generally considered to have the same classification as the parent organization.

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

NFPA Technical Committee Document Proposal Form

Note: All proposals must be received by 5:00 p.m. EST/EDST on the published proposal closing date.

For further information on the standards-making process, please contact Codes and Standards Administration at 617-984-7249. For technical assistance, please call NFPA at 617-770-3000.

FOR OFFICE USE ONLY
Log #: _____
Date Rec'd: _____

Please indicate in which format you wish to receive your ROP/ROC: ☐ **CD ROM** ☐ **paper** ☐ **download**
(Note: In choosing the download option you intend to view the ROP/ROC from our Website. No copy will be sent to you.)

Date 12/18/02 **Name** John B. Smith **Telephone** 617-555-1212
Company _____
Address 9 Seattle St. **City** Seattle **State** WA **Zip** 02255
Please indicate organization represented (if any) Fire Marshals Assn. of North America

1. **a) NFPA Document Title** National Fire Alarm Code
   b) NFPA No. & Edition NFPA 72, 2002 ed. **c) Section/Paragraph** 4.4.7.1.1

2. **Proposal Recommends:** *(check one)* ☐ **new text** ☐ **revised text** ☒ **deleted text**

3. **Proposal.** *(Include proposed new or revised wording, or identification of wording to be deleted.)* Note: Proposed text should be in legislative format, that is, use underscore to denote wording to be inserted (inserted wording) and strike-through to denote wording to be deleted (~~deleted wording~~). Delete exception.

4. **Statement of Problem and Substantiation for Proposal.** Note: State the problem that will be resolved by your recommendation. Give the specific reason for your proposal including copies of tests, research papers, fire experience, etc. If more than 200 words, it may be abstracted for publication. A properly installed and maintained system should be free of ground faults. The occurrence of one or more ground faults should be required to cause a "trouble" signal because it indicates a condition that could contribute to future malfunction of the system. Ground fault protection has been widely available on these systems for years and its cost is negligible. Requiring it on all systems will promote better installations, maintenance and reliability.

5. ☒ **This Proposal is Original Material.** Note: Original material is considered to be the submitter's own idea based on or as a result of his/her own experience, thought, or research and, to the best of his/her knowledge, is not copied from another source.

   ☐ **This Proposal is Not Original Material; Its Source** ***(if known)*** **is as Follows:** _____

Sample

I hereby grant the NFPA all and full rights in copyright to this proposal, and I understand that I acquire no rights in any publication of NFPA in which this proposal in this or another similar or analogous form is used.

Signature ***(Required)*** John B. Smith

PLEASE USE SEPARATE FORM FOR EACH PROPOSAL • NFPA FAX (617) 770-3500

Mail to: Secretary, Standards Council • NFPA • 1 Batterymarch Park • PO Box 9101 • Quincy, MA 02269-9101

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

NFPA Technical Committee Document Proposal Form

Note: All proposals must be received by 5:00 p.m. EST/EDST on the published proposal closing date.

For further information on the standards-making process, please contact Codes and Standards Administration at 617-984-7249. For technical assistance, please call NFPA at 617-770-3000.

FOR OFFICE USE ONLY
Log #: _____
Date Rec'd: _____

Please indicate in which format you wish to receive your ROP/ROC: ☐ **CD ROM** ☐ **paper** ☐ **download**
(Note: In choosing the download option you intend to view the ROP/ROC from our Website. No copy will be sent to you.)

Date _____ **Name** _____ **Telephone** _____
Company _____
Address _____ **City** _____ **State** _____ **Zip** _____
Please indicate organization represented (if any) _____

1. **a) NFPA Document Title** _____
   b) NFPA No. & Edition _____ **c) Section/Paragraph** _____

2. **Proposal Recommends:** *(check one)* ☐ **new text** ☐ **revised text** ☐ **deleted text**

3. **Proposal.** *(Include proposed new or revised wording, or identification of wording to be deleted.)* Note: Proposed text should be in legislative format, that is, use underscore to denote wording to be inserted (inserted wording) and strike-through to denote wording to be deleted (~~deleted wording~~). _____

4. **Statement of Problem and Substantiation for Proposal.** Note: State the problem that will be resolved by your recommendation. Give the specific reason for your proposal including copies of tests, research papers, fire experience, etc. If more than 200 words, it may be abstracted for publication. _____

5. ☐ **This Proposal is Original Material.** Note: Original material is considered to be the submitter's own idea based on or as a result of his/her own experience, thought, or research and, to the best of his/her knowledge, is not copied from another source.

   ☐ **This Proposal is Not Original Material; Its Source** ***(if known)*** **is as Follows:** _____

I hereby grant the NFPA all and full rights in copyright to this proposal, and I understand that I acquire no rights in any publication of NFPA in which this proposal in this or another similar or analogous form is used.

Signature ***(Required)*** _____

PLEASE USE SEPARATE FORM FOR EACH PROPOSAL • NFPA FAX (617) 770-3500

Mail to: Secretary, Standards Council • NFPA • 1 Batterymarch Park • PO Box 9101 • Quincy, MA 02269-9101

--`,,,,,,-`-`,,`,,`,`,,`---

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS

Not for Resale