

# NFPA 1561

## Standard on Emergency Services Incident Management System

### 2002 Edition



NFPA, 1 Batterymarch Park, PO Box 9101, Quincy, MA 02269-9101  
An International Codes and Standards Organization

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**NFPA 1561**  
**Standard on**  
**Emergency Services Incident Management System**  
**2002 Edition**

This edition of NFPA 1561, *Standard on Emergency Services Incident Management System*, was prepared by the Technical Committee on Fire Service Occupational Safety and acted on by NFPA at its November Association Technical Meeting held November 10-14, 2001, in Dallas, TX. It was issued by the Standards Council on January 11, 2002, with an effective date of January 31, 2002, and supersedes all previous editions.

This edition of NFPA 1561 was approved as an American National Standard on January 31, 2002.

**Origin and Development of NFPA 1561**

The Technical Committee on Fire Service Occupational Safety is charged with preparing documents that impact on reducing fire fighter injuries and deaths. NFPA 1561 is a standard that addresses one of the most crucial areas, that is, incident scene management.

The initial development of this document occurred in 1987 with the document being adopted by the Association in 1990. The technical committee then began work on specific areas of revision including accountability, supervisory levels, communications, rapid intervention crews, interagency coordination, unified command, training issues, and retitled the standard to include all emergency service organizations. The result was NFPA 1561, *Standard on Emergency Services Incident Management System*, 2000 edition.

In this 2002 edition the committee focused on areas of risk management, communications, roles and responsibilities of the Incident Safety Officer (ISO), rapid intervention crews, and defined command structures. In addition, the technical committee has provided new annex material to assist the users of this standard.

The National Institute of Occupational Safety and Health (NIOSH) has been given the statutory powers to investigate all fire fighter fatalities within the United States. It is interesting to note that their recommendations listed the use of an incident management system and its associated areas as key components to reducing fire fighter fatalities. NFPA 1561 provides the template on how this can be accomplished; it is imperative that fire departments look at how they operate on a daily basis and use an incident management system. Only then can the technical committee begin to address those other areas that kill over 100 fire fighters a year.

**In Memoriam, September 11, 2001**

We pay tribute to the 343 members of FDNY who gave their lives to save civilian victims on September 11, 2001, at the World Trade Center. They are true American heroes in death, but they were also American heroes in life. We will keep them in our memory and in our hearts. They are the embodiment of courage, bravery, and dedication. May they rest in peace.

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*This list represents the membership at the time the Committee was balloted on the final text of this edition. Since that time, changes in the membership may have occurred. A key to classifications is found at the back of the document.*

NOTE: Membership on a committee shall not in and of itself constitute an endorsement of the Association or any document developed by the committee on which the member serves.

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**NFPA 1561****Standard on****Emergency Services Incident  
Management System****2002 Edition**

NOTICE: An asterisk (\*) following the number or letter designating a paragraph indicates that explanatory material on the paragraph can be found in Annex A.

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

**Chapter 1 Administration**

**1.1\* Scope.** This standard shall contain the minimum requirements for an incident management system to be used by emergency services to manage all emergency incidents.

**1.2 Purpose.** The purpose of this standard shall be to define and describe the essential elements of an incident management system.

**1.3 Application.**

**1.3.1\*** This standard shall apply to organizations and other agencies that provide rescue, fire suppression, emergency medical care, special operations, and law enforcement.

**1.3.2** This standard shall apply to other emergency services, such as public, military, or private fire departments; fire brigades; and other assisting and cooperating agencies.

**1.3.3\*** This standard shall not apply to industrial fire brigades or industrial fire departments meeting the requirements of NFPA 600, *Standard on Industrial Fire Brigades*.

**1.3.4\*** Many of the performance objectives of this standard shall be permitted to be achieved in a variety of ways. This standard shall not restrict any jurisdiction from exceeding these minimum requirements or from adopting a system tailored to meet local needs while satisfying the minimum requirements of this standard.

**1.4 Equivalency.** Nothing in this standard is intended to prevent the use of systems, methods, or devices, of equivalent or superior quality, strength, fire resistance, effectiveness, durability, and safety over those prescribed by this standard. Technical documentation shall be submitted to the authority having jurisdiction to demonstrate equivalency. The system, method, or device shall be approved for the intended purpose by the authority having jurisdiction.

**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, P.O. Box 9101, Quincy, MA 02269-9101.

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

NFPA 600, *Standard on Industrial Fire Brigades*, 2000 edition.  
NFPA 1006, *Standard for Rescue Technician Professional Qualifications*, 2000 edition.

NFPA 1061, *Standard for Professional Qualifications for Public Safety Telecommunicator*, 2002 edition.

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

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

NFPA 1670, *Standard on Operations and Training for Technical Rescue Incidents*, 1999 edition.

**2.3 Other Publications.**

**2.3.1 U.S. Government Publication.** U.S. Government Printing Office, Washington, DC 20402.

Title 29, *Code of Federal Regulations*, Part 1910, Section 120 (q) (3), March 6, 1989.

**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).** The organization, office, or individual responsible for approving equipment, materials, an installation, or a procedure.

**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 Accountability.** A system or process to track resources at an incident scene.

**3.3.2\* Clear Text.** The use of plain language in radio communications transmissions.

**3.3.3 Command Staff.** Positions that are established to assume responsibility for key activities in the incident management system that are not a part of the line organization that include Safety Officer, Public Information Officer, and Liaison Officer.

**3.3.4 Emergency Incident.** Any situation to which the emergency services organization responds to deliver emergency services, including rescue, fire suppression, emergency medical care, special operations, law enforcement, and other forms of hazard control and mitigation.

**3.3.5\* Emergency Services Organization (ESO).** An organization that responds to emergency incidents to provide direct or support services.

**3.3.6 Fire Brigade.** A group of people organized to engage in rescue, fire suppression, and related activities.

**3.3.7\* Fire Department.** An organization providing rescue, fire suppression, emergency medical care, special operations, and related activities.

**3.3.8 General Staff.** Personnel that perform the functions of operations, planning, logistics, and finance/administration.

**3.3.9 High-Rise.** A building more than six stories or 23 m (75 ft) in height.

**3.3.10 Imminent Hazard.** An act or condition that is judged to present a danger to persons or property that is so urgent and severe that it requires immediate corrective or preventive action.

**3.3.11 Incident Action Plan.** A verbal or written plan that establishes the overall strategic decisions and assigned tactical objectives for the incident.

**3.3.12 Incident Commander (IC).** The individual in overall command of an emergency incident.

**3.3.13\* Incident Management System (IMS).** A system that defines the roles and responsibilities to be assumed by personnel and the operating procedures to be used in the management and direction of emergency incidents and other functions.

**3.3.14 Incident Safety Officer.** An individual appointed to respond or assigned at an incident scene by the incident commander to perform the duties and responsibilities specified in this standard.

**3.3.15\* Incident Scene.** The location where activities related to a specific incident are conducted.

**3.3.16 Incident Termination.** The conclusion of emergency service operations at the scene of an incident, usually the departure of the last unit from the scene.

**3.3.17\* Liaison.** The coordination of activities between the fire department and other agencies.

**3.3.18\* Member.** A person involved in performing the duties and responsibilities of an emergency responder, under the auspices of the emergency services organization.

**3.3.19\* Officer.** The member who is assigned by the incident commander or by any other person of comparable responsibility in the emergency service organization's incident management system.

**3.3.20 Personnel.** Fire department personnel or any individual participating within the incident scene.

**3.3.21 Procedure.** An organizational directive issued by the authority having jurisdiction or by the department that establishes a specific policy that must be followed.

**3.3.22 Public Information Officer.** Person who provides timely information to the media, is authorized by the incident commander, and functions as part of the command staff.

### 3.3.23 Radio Communications.

**3.3.23.1 Radio Communications, Command Channel.** A radio channel designated by the emergency services organization that is provided for communications between the incident commander and the tactical level management units during an emergency incident.

**3.3.23.2 Radio Communications, Dispatch Channel.** A radio channel designated by the emergency services organization that is provided for communications between the communication center and the incident commander or single resource.

**3.3.23.3\* Radio Communications, Tactical Channel.** A radio channel designated by the emergency services organization that is provided for communications between resources assigned to an incident, and the incident commander.

**3.3.24\* Rapid Intervention Crew/Company (RIC).** A minimum of two fully equipped personnel on-site, in a ready state, for immediate rescue of injured or trapped personnel.

**3.3.25 Resources.** All personnel and major items of equipment that are available, or potentially available, for assignments to incident tasks on which status is maintained.

**3.3.26 Risk.** A measure of the probability and severity of adverse effects that result from an exposure to a hazard.

**3.3.27\* Sector.** Either a geographic or functional assignment.

**3.3.28\* Special Operations.** Those emergency incidents to which the fire department responds that require specific and advanced training and specialized tools and equipment.

**3.3.29 Staging.** A specific function where resources are assembled in an area at or near the incident scene to await instructions or assignments.

**3.3.30 Standard Operating Procedure (SOP).** An organizational directive that establishes a course of action or policy.

**3.3.31 Strategy.** A goal or set of goals used to manage incident scene operations from which an incident action plan is developed.

**3.3.32 Supervisor.** Emergency services personnel who has supervisory authority and responsibility over other personnel.

### 3.3.33 Supervisory Level.

**3.3.33.1 Branch.** A supervisory level established in either the operations or logistics function to provide a span of control.

**3.3.33.2 Division.** A supervisory level established to divide an incident into geographic areas of operations.

**3.3.33.3 Group.** A supervisory level established to divide the incident into functional areas of operation.

**3.3.33.4 Intermediate Level of Supervision.** A level of supervision within the incident management system that groups fire companies and other resources working toward common objectives or in a particular area under a supervisor responsible for the objective(s) or area.

**3.3.34 Tactical Level Management Component (TLMC).** A management unit identified in the incident management system commonly known as "division," "group," or "sector."

**3.3.35 Unified Command.** A standard method to coordinate command of an incident where multiple agencies have jurisdiction.

## Chapter 4 System Structure

### 4.1 General.

**4.1.1** The purpose of an incident management system shall be to provide structure and coordination to the management

of emergency incident operations, in order to provide for the safety and health of emergency services organization personnel and other persons involved in those activities.

**4.1.2\*** This standard shall meet the requirements of Chapter 8 of NFPA 1500, *Standard on Fire Department Occupational Safety and Health Program*, and OSHA 29 CFR 1910.120(q) (3).

**4.1.3\*** The incident management system shall integrate risk management into the regular functions of incident command. The risk management plan shall meet the requirements of Chapter 4 of NFPA 1500.

## 4.2 Implementation.

**4.2.1\*** The emergency services organization (ESO) shall adopt an incident management system to manage all emergency incidents.

**4.2.2** The incident management system shall be designed to meet the particular characteristics of the incident based on size, complexity, and operating environment.

**4.2.3** The incident management system shall be defined and documented in writing.

**4.2.4** Standard operating procedures (SOPs) shall include the requirements for implementation of the incident management system and shall describe the options that are available for application according to the needs of each particular situation.

**4.2.5\*** The ESO shall prepare and adopt written plans, based on the incident management system, to address the requirements of the different types of incidents that can be anticipated.

**4.2.6\*** The plans described in 4.2.5 shall address both routine and unusual incidents and shall provide standardized procedures and supervisory assignments that can be applied to the needs of situations of differing types, sizes, and complexities.

**4.2.7\*** The incident management system shall be utilized at all emergency incidents.

**4.2.8** The incident management system shall be applied to drills, exercises, and other situations that involve hazards similar to those encountered at actual emergency incidents and to simulated incidents that are conducted for training and familiarization purposes.

**4.2.9\*** The incident management system described in this standard shall be used by trained individuals and applied in a manner that meets the needs of each particular situation.

**4.2.10** The incident commander shall apply the incident management system in a manner that is appropriate for the circumstances of each specific situation.

## 4.3 Communications.

**4.3.1\*** The incident management system shall include standard operating procedures for radio communications that provide for the use of standard protocols and terminology at all types of incidents.

**4.3.2** *Clear text* shall be used for radio communications.

**4.3.3** The communications system shall meet the requirements of the emergency response agency for routine and large-scale emergencies.

**4.3.4** An ESO shall provide one radio channel for dispatch and a separate tactical channel to be used initially at the incident.

**4.3.5** When a Tactical Level Management Component (TLMC) has been implemented, an ESO shall provide a dispatch channel, a command channel, and a tactical channel.

**4.3.6\*** An ESO shall provide additional radio channels for the volume of communications relating to incidents with multiple tactical channels and for the complexity of multiple emergency incidents.

**4.3.7** The communications system shall provide reserve capacity for complex or multiple incidents.

**4.3.8\*** Standard terminology shall be established to transmit information, including strategic modes of operation, situation reports, and emergency notifications of imminent hazards.

**4.3.9** The radio capabilities shall provide for communications with mutual aid resources or other agencies that could be expected to respond to a major incident.

**4.3.10\*** The communications system shall provide a standard method to give priority to the transmission of emergency messages and notification of imminent hazards over that of routine communications to all levels of the incident command structure.

**4.3.11\*** In ensuring that clear text is used for an emergency condition at an incident, the ESO shall have an SOP that uses the radio term *emergency traffic* as a designation to clear radio traffic.

**4.3.12** Emergency traffic shall be declared by an incident commander (IC), TLMC, or member who is in trouble or subjected to an emergency condition.

**4.3.13** When a member has declared an emergency traffic message, that person shall use clear text to identify the type of emergency, change in conditions, or tactical operations. The member who has declared the emergency traffic message shall conclude it by transmitting the statement, "All clear, resume radio traffic."

**4.3.14** The incident management system shall provide SOPs for a telecommunicator to provide support to emergency incident operations.

**4.3.15** Telecommunicators shall be trained to function effectively within the incident management system, and shall meet the qualifications required by NFPA 1061, *Standard for Professional Qualifications for Public Safety Telecommunicator*.

**4.3.16\*** The incident commander shall be provided with reports of elapsed time-on-scene at emergency incidents in 10-minute intervals from the ESO Communications Center, until reports are terminated by the incident commander.

## 4.4 Multi-Agency Incidents.

**4.4.1\*** The ESO shall develop an integrated incident management system in coordination with other agencies that are involved in emergency incidents.

**4.4.2\*** The incident management system shall provide a plan to coordinate with other agencies that have jurisdiction at the incident scene.

**4.4.3\*** This plan shall include a standard procedure to designate one incident commander or to establish unified command.

**4.4.4\*** Where the incident is under the command authority of a single emergency services organization, the incident commander shall provide for liaison and coordination with all assisting and cooperating agencies.

**4.4.5** Where the incident is under the overall jurisdiction of another agency that has not implemented an incident management system, the emergency services organization shall utilize the incident management system to manage its own operations and coordinate its activities with the agency having overall jurisdiction.

#### **4.5 Command Structure.**

**4.5.1** The incident management system shall provide a series of supervisory levels to be implemented to create a command structure.

**4.5.2** The particular levels to be utilized in each situation shall depend on the nature of the incident and the scale and complexity of emergency services organization activities at the scene.

**4.5.3** The incident management system shall be modular to allow the application of only those elements that are necessary at a particular incident and to allow elements to be activated or deactivated as the needs of the incident change with time.

**4.5.4** The system shall provide for a routine process of escalation as additional resources are utilized.

**4.5.5** The incident commander shall determine which levels and elements of the incident management system are to be implemented in each case and shall develop the command structure for each incident by assigning supervisory responsibilities according to standard operating procedures.

**4.5.6\*** The command structure for each incident shall maintain an effective supervisory span of control at each level of the organization.

**4.5.7** An effective span of control shall be determined by the ability of each supervisor to monitor the activities of assigned subordinates and to communicate effectively with them.

**4.5.8** The incident management system shall define standardized supervisory assignments.

**4.5.9** The assignments described in 4.5.8 shall be activated upon assignment by the incident commander.

**4.5.10\*** Standardized supervisory assignments shall define the role, authority, and responsibilities of assigned personnel.

**4.5.11** Assignments shall be defined by function or by location at the scene of the incident, or by a combination of function and location.

**4.5.12** The scope of authority to be delegated at each supervisory level shall be outlined in standard operating procedures.

**4.5.13** An assignment that is defined by function shall be based on performing or supervising a particular function or set of functions.

**4.5.14\*** An assignment that is defined by location shall be based on supervising all activities that are conducted within a designated area.

**4.5.15** The area shall be defined by standard terminology or specified by the incident commander at the time of assignment.

**4.5.16** The incident commander shall have the authority to modify standard assignments or to apply them in a manner that suits the particular needs of an incident.

**4.5.17** It shall be the responsibility of the incident commander to clearly identify the parameters of an assignment when deviating from the standard assignments in 4.5.10.

#### **4.6 Training and Qualifications.**

**4.6.1\*** All personnel who are involved in emergency operations shall be trained in the incident management and personnel accountability systems.

**4.6.2** The ESO shall provide periodic refresher training.

**4.6.3** Personnel who are expected to perform as incident commanders or to be assigned to supervisory levels within the command structure shall be trained in and familiar with the incident management system and the particular levels at which they are expected to perform.

**4.6.4** The ESO shall define training and experience requirements for supervisors.

**4.6.5\*** The incident commander shall make assignments based on the availability, qualifications, and expertise of individuals.

#### **4.7 Resource Accountability.**

**4.7.1** The incident management system shall provide for resource accountability at the incident scene.

**4.7.2\*** The ESO shall adopt and routinely use a system to maintain accountability for all resources assigned to the incident.

**4.7.3** The system adopted in accordance with 4.7.2 shall also provide a process for the rapid accounting of all personnel at the incident scene.

**4.7.4** All supervisors shall maintain a constant awareness of the position and function of all personnel assigned to operate under their supervision. This awareness shall serve as the basic means of accountability that shall be required for operational safety.

**4.7.5** The incident management system shall maintain accountability for the location and function of each company or unit at the scene of the incident.

**4.7.6** Fire department personnel who respond to the incident on fire apparatus shall be identified by a system that provides an accurate accounting of those personnel actually responding to the scene with each company or on apparatus.

**4.7.7** Personnel who arrive at the scene of the incident by means other than emergency response vehicles shall be identified by a system that accounts for their presence and their assignment at the incident scene.

**4.7.8** The system shall include a specific means to identify and keep track of personnel entering and leaving hazardous areas, such as confined spaces or areas where special protective equipment is required.

**4.7.9\*** The incident management system shall include an SOP to evacuate personnel from an area where an imminent hazard condition is found to exist and to account for the safety of personnel.

**4.7.10** The SOP described in 4.7.9 shall include a method to notify immediately all personnel as specified in 4.7.2.

#### 4.8 Personnel Accountability.

4.8.1 The personnel accountability system shall be used at all incidents.

4.8.2\* The emergency services organization shall develop the system components required to make the personnel accountability system effective.

4.8.3\* The standard operating procedures shall provide the use of additional accountability officers based on the size, complexity, or needs of the incident.

4.8.4 Where assigned as a company/crew/unit, members shall be responsible to remain under the supervision of their assigned supervisor.

4.8.5 Members shall be responsible for following personnel accountability system procedures.

#### 4.9 Incident Scene Rehabilitation.

4.9.1 The incident commander shall consider the circumstances of each incident and make provisions for the rest and rehabilitation of personnel operating at the scene.

4.9.2 The provisions required by 4.9.1 shall include medical evaluation and treatment, food and fluid replenishment, and relief from extreme climatic conditions, according to the circumstances of the incident.

4.9.3 All members entering and leaving the rehabilitation area shall be assigned by the incident management system and be tracked through the personnel accountability system.

4.9.4\* The emergency services organization shall develop standard operating procedures that outline a systematic approach for the rehabilitation of members operating at incidents.

4.9.5 Provisions addressed in these procedures shall include medical evaluation and treatment, food and fluid replenishment, crew rotation, and relief from extreme climatic conditions.

#### 4.10 Incident Scene Rehabilitation Tactical Level Management Component.

4.10.1\* The rehabilitation tactical level management component shall be designated per department standard operating procedures, for such incidents as large-scale incidents, long-duration incidents, or those associated with significant temperature extremes.

4.10.2 The rehabilitation tactical level management component shall be established in a safe environment away from the hazardous area of the incident.

#### 4.11 Evaluation and Triage of Emergency Responder Injuries.

4.11.1\* In the event of an injury to a fire fighter, the medical tactical level management component shall assess and treat the injury based on local medical protocol and standard operating procedures. At escalating incidents, additional medical assistance shall be dispatched.

4.11.2 Medical control for basic and advanced life support and other providers shall be established by the authority having jurisdiction.

4.11.3 The assigned medical control shall come from a base hospital or shall be permitted to come from a central dispatch/control facility.

#### 4.12 Risk Management. (Reserved)

## Chapter 5 System Components

### 5.1 Incident Commander.

5.1.1\* The incident management system shall clearly identify who is in overall command at the scene for the duration of the incident.

5.1.2 The incident management system shall provide for the transfer of the assignment of incident commander to take place one or more times during the course of an incident.

5.1.3\* Following the initial stages of an incident, the incident commander shall establish a stationary command post. In establishing a command post, the incident commander shall ensure the following:

- (1) The command post is located in or tied to a vehicle to establish presence and visibility.
- (2) The command post includes radio capability to monitor and communicate with assigned tactical, command, and designated emergency traffic channels for that incident.
- (3) The location of the command post is communicated to the communications center.
- (4) The incident commander, or his or her designee, is present at the command post.

5.1.4 The incident commander shall maintain an awareness of the location and function of all companies or units at the scene of the incident.

5.1.5 The incident commander shall be responsible for overall personnel accountability for the incident.

5.1.6 The incident commander shall initiate an accountability and inventory worksheet at the beginning of operations and shall maintain that system throughout operations.

5.1.7 The incident commander and members who are assigned a supervisory responsibility for a tactical level management unit that involves multiple companies or crews under their command shall have assigned a member(s) to facilitate the ongoing tracking and accountability of all assigned companies.

5.1.8 The incident commander shall be responsible for monitoring tactical, command, and designated emergency traffic channels for that incident.

5.1.9 The incident commander shall be responsible for developing and/or approving an Incident Action Plan (IAP). This plan shall be communicated to all staged and assigned members at an incident.

5.1.10\* Standard operating procedures shall provide for one individual to assume the role of incident commander from the beginning of operations at the scene of each incident.

5.1.11\* Standard operating procedures shall define the circumstances and procedures for transferring command to another on-scene officer/member and shall specify to whom command shall be transferred.

5.1.12\* The incident commander shall provide for control of access to the incident scene.

5.1.13\* The following risk management principles shall be utilized by the incident commander:

- (1) Activities that present a significant risk to the safety of personnel shall be limited to situations where there is a potential to save endangered lives.

- (2) Activities that are routinely employed to protect property shall be recognized as inherent risks to the safety of personnel, and actions shall be taken to reduce or avoid these risks.
- (3) No risk to the safety of personnel shall be acceptable where there is no possibility to save lives or property.

**5.1.14\*** The incident commander shall evaluate the risk to personnel with respect to the purpose and potential results of their actions in each situation. In situations where the risk to emergency service personnel is excessive, as defined in 5.1.13, activities shall be limited to defensive operations.

## **5.2 Command Staff.**

**5.2.1\*** Command staff functions shall include those elements of the incident management system that operate in direct support of the incident commander and contribute to the overall management of the incident.

**5.2.2\*** Standard operating procedures shall define the roles and responsibilities of personnel assigned to command staff functions. Three specific staff positions shall be identified: information officer, liaison officer, and incident safety officer.

**5.2.3\*** Additional staff functions shall be assigned, depending on the nature and location of the incident or on requirements established by the incident commander.

## **5.3 Information Officer.**

**5.3.1** The information officer shall act as a liaison between the media and the incident commander.

**5.3.2** The information officer shall consult with the incident commander regarding any constraints on the release of information and shall prepare press briefings.

## **5.4 Liaison Officer.**

**5.4.1** The liaison officer shall provide a point of contact for assisting and cooperating agencies.

**5.4.2** The liaison officer shall identify current or potential interagency needs.

## **5.5 Incident Safety Officer (ISO).**

**5.5.1\*** The incident safety officer shall be integrated with the incident management system as a command staff member. (*See Annex C.*)

**5.5.2\*** Standard operating procedures shall define criteria for the response or appointment of an incident safety officer.

**5.5.3** If the incident safety officer is designated by the incident commander, the fire department shall establish criteria for appointment based upon 4.6.5.

**5.5.4\*** The incident safety officer and assistant incident safety officer(s) shall be specifically identifiable on the incident scene.

## **5.6 Incident Scene Safety.**

**5.6.1** The incident safety officer shall monitor conditions, activities, and operations to determine whether they fall within the criteria as defined in the fire department's risk management plan. When the perceived risk(s) is not within these criteria, the incident safety officer shall take action as outlined in 5.1.13.

**5.6.2** The incident safety officer shall ensure that the incident commander establishes an incident scene rehabilitation tactical level management unit during emergency operations.

**5.6.3** The incident safety officer shall monitor the scene and report the status of conditions, hazards, and risks to the incident commander.

**5.6.4** The incident safety officer shall ensure that the fire department's personnel accountability system is being utilized.

**5.6.5** The incident commander shall provide the incident safety officer with the incident action plan.

**5.6.6** The incident safety officer shall provide the incident commander with a risk assessment of incident scene operations.

**5.6.7** The incident safety officer shall ensure that established safety zones, collapse zones, hot zones, and other designated hazard areas are communicated to all members present on scene.

**5.6.8** The incident safety officer shall evaluate motor vehicle scene traffic hazards and apparatus placement and take actions to mitigate hazards.

**5.6.9** The incident safety officer shall monitor radio transmissions and stay alert to transmission barriers that could result in missed, unclear, or incomplete communication.

**5.6.10\*** The incident safety officer shall communicate to the incident commander the need for assistant incident safety officers due to the need, size, complexity, or duration of the incident.

**5.6.11** The incident safety officer shall survey and evaluate the hazards associated with the designation of a landing zone and interface with helicopters.

## **5.7 Fire Suppression.**

**5.7.1** The incident safety officer shall meet the provisions of Section 4.3 during fire suppression operations.

**5.7.2** The incident safety officer shall ensure that a rapid intervention crew meeting the criteria in Chapter 8 of NFPA 1500, *Standard on Fire Department Occupational Safety and Health Program*, is available and ready for deployment.

**5.7.3** Where fire has involved a building or buildings, the incident safety officer shall advise the incident commander of hazards, collapse potential, and any fire extension in such building(s).

**5.7.4** The incident safety officer shall evaluate visible smoke and fire conditions and advise the incident commander, tactical level management component officers, and company officers on the potential for flashover, backdraft, blow-up, or other fire event that could pose a threat to operating teams.

**5.7.5** The incident safety officer shall monitor the accessibility of entry and egress of structures and the effect it has on the safety of members conducting interior operations.

## **5.8 Emergency Medical Service Operations.**

**5.8.1** The incident safety officer shall meet provisions of the authority having jurisdiction during EMS operations.

**5.8.2** The incident safety officer shall ensure compliance with the department's infection control plan and NFPA 1581, *Standard on Fire Department Infection Control Program*, during EMS operations.

**5.8.3** The incident safety officer shall ensure that incident scene rehabilitation and critical incident stress management are established as needed at EMS operations, especially mass casualty incidents.

**5.9\* Hazardous Materials Operations.** Where hazardous material operations are being conducted using personnel trained at the haz-mat technician level, the incident safety officer shall appoint a technical safety officer (TSO) who meets the requirements of NFPA 472, *Standard for Professional Competence of Responders to Hazardous Materials Incidents*.

#### **5.10 Special Operations.**

**5.10.1\*** Where special operations incidents occur, as outlined in NFPA 1670, *Standard on Operations and Training for Technical Rescue Incidents*, the incident safety officer shall appoint a technical safety officer who meets the applicable requirements specified in NFPA 1006, *Standard for Rescue Technician Professional Qualifications*.

**5.10.2** The incident safety officer shall maintain communication and hazard assessment awareness with assigned technical safety officers and assistant safety officers.

#### **5.11 Accident Investigation and Review.**

**5.11.1** Upon notification of a member injury, illness, or exposure, the incident safety officer shall immediately communicate this to the incident commander to ensure that emergency medical care is provided.

**5.11.2** The incident safety officer shall initiate the accident investigation procedures as required by the fire department.

**5.11.3** In the event of a serious injury, fatality, or other potentially harmful occurrence, the incident safety officer shall request assistance from the health and safety officer.

#### **5.12 Post Incident Analysis.**

**5.12.1** The incident safety officer shall participate in the post incident analysis.

**5.12.2\*** The incident safety officer shall prepare a written report for the post incident analysis that includes pertinent information about the incident relating to safety and health issues.

**5.12.3** The incident safety officer shall include in the post incident analysis information about issues relating to the use of protective clothing and equipment, personnel accountability system, rapid intervention crews, rehabilitation operations, and other issues affecting the safety and welfare of members at the incident scene.

#### **5.13 General Staff.**

**5.13.1** An incident management system shall include the general staff sections of operations, planning, logistics, and finance/administration.

#### **5.13.2 Operations Functions.**

**5.13.2.1** Operations functions shall refer to those tactical components of the incident management system that are within the primary mission of the emergency services organization.

**5.13.2.2\*** The incident commander shall assign intermediate levels of supervision and organize resources following standard operating procedures based on the scale and complexity of operations.

**5.13.2.3\*** All supervisors assigned to operations functions shall support an overall strategic plan, as directed by the incident commander, and shall work toward the accomplishment of tactical objectives.

**5.13.2.4** Supervisors assigned to operations functions shall be accountable for all resources assigned under their span of control and for coordination with higher levels of the command structure and with other supervisors at the same level. The safety and health of all personnel shall be primary considerations.

#### **5.13.3 Staging.**

**5.13.3.1\*** The incident management system shall provide a standard system to manage reserves of personnel and other resources at or near the scene of the incident.

**5.13.3.2\*** When emergency activities are being conducted in a location where there would be a delay in activating standby resources, the incident commander shall establish staging areas close to the area where the need for those resources is anticipated.

#### **5.14 Planning Functions.**

**5.14.1** Planning staff functions shall include those components of the incident management system that are involved with information management that support the incident commander and other levels of the incident command structure.

**5.14.2\*** The incident management system shall include a standard approach for the collection, evaluation, dissemination, and use of information.

**5.14.3** The planning staff shall account for the organizational structure, availability of resources, deployment of resources, and situation status reports.

**5.14.4** The incident management system shall include standard methods and terminology to record and track the assignment of resources for the duration of an incident.

**5.14.5** The incident management system shall include a standard approach utilizing technical advisors to support the development of strategic plans and to assist the incident commander.

#### **5.15 Logistics Functions.**

**5.15.1** Logistics shall provide services and support systems to all the organizational components involved in the incident including facilities, transportation, supplies, equipment maintenance, fueling, feeding, communications, and medical services, including responder rehabilitation.

**5.15.2\*** When implementing high-rise logistics, the following functions shall be included:

- (1) Base
- (2) Lobby control
- (3) Ground (stairwell) support
- (4) Communications

#### **5.16 Finance/Administration.**

**5.16.1\*** The incident management system shall provide finance/administrative services where necessary.

**5.16.2\*** The incident commander shall assign finance/administrative functions based on the needs or complexity of the incident.

## 5.17 Supervisory Personnel.

**5.17.1** Risk management principles shall be employed routinely by supervisory personnel (supervisors) at all levels of the incident management system to define the limits of acceptable and unacceptable positions and functions for all personnel at the incident scene.

**5.17.2\*** Supervisors shall assume responsibility for activities within their span of control, including responsibility for the safety and health of personnel and other authorized persons within their designated areas.

**5.17.3\*** Supervisors shall work toward assigned objectives, within the overall strategy defined by the incident commander. They shall, on a regular basis, report progress, or lack of progress, in meeting those objectives as well as any deviation from established plans.

**5.17.4** Supervisors at each level of the command structure shall receive direction from, and shall provide progress reports to, supervisors at a higher level.

**5.17.5** Supervisors shall be alert to recognize conditions and actions that create a hazard within their span of control.

**5.17.6** All supervisors shall have the authority and responsibility to take immediate action to correct imminent hazards and to advise their supervisor regarding these actions.

**5.17.7** Supervisors shall coordinate their activities with other supervisors at the same level and shall provide direction to supervisors at a lower level or to personnel within their span of control.

**5.17.8\*** Where conflicting orders are received at any level of the incident management system, the individual receiving the conflicting order shall inform the individual giving the order that a conflict exists. If the conflicting order is required to be carried out, the individual giving the conflicting order shall so inform the individual who provided the initial order.

**5.17.9** All supervisors shall maintain a constant awareness of the position and function of all personnel assigned to operate under their supervision. This awareness shall serve as the basic means of accountability that shall be required for operational safety.

## 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** This document establishes minimum requirements for the development and implementation of an incident management system. The system is intended to apply to operations conducted at the scene of emergency incidents by an emergency services organization. Although this document is written largely in terms that relate to a single-agency system, it is intended to integrate with emergency management systems that apply to multiple agencies and large-scale situations.

**A.1.3.1** For effective use of an incident management system, it should be acknowledged that emergency incidents are rarely true single-discipline events. The Emergency Services Organization (ESO) Incident Management System should be known to participants and integrated with similar systems of other

emergency services organizations (such as law enforcement), private emergency medical service providers, and public works agencies. In fact, it is in the best interest of the ESO to promote the use of a standard system on an interagency and interdisciplinary basis.

**A.1.3.3** The intent of this requirement is to ensure that industrial fire brigades that perform fire fighting beyond the incipient stage comply with the requirements of this standard. Based upon the organizational statement of the industrial fire brigade, the types or potential types of fires encountered (i.e., fires that develop beyond the incipient stage), and other job tasks performed by personnel, dictate the required compliance with this standard. These requirements should be addressed through training, standard operating procedures, and company or corporate policy.

**A.1.3.4** Many of the requirements of this standard could be satisfied by adopting a model system (such as the incident command system) that is intended to provide for a uniform approach to incident management while providing for some variations to meet local requirements.

**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.3.3.2 Clear Text.** Ten codes or agency-specific codes should not be used when using clear text.

**A.3.3.5 Emergency Services Organization (ESO).** These organizations can include law enforcement; emergency medical services; fire departments; American Red Cross; Salvation Army; public works; federal, state, or local government agencies; private contractors; environmental agencies; fire brigades; and others.

**A.3.3.7 Fire Department.** The term fire department should include any public, governmental, private, industrial, or military organization engaging in this type of activity.

**A.3.3.13 Incident Management System (IMS).** The system is also referred to as an Incident Command System (ICS).

**A.3.3.15 Incident Scene.** This location should include the entire area subject to incident-related hazards and all areas used by fire department personnel and equipment in proximity to the incident scene.

**A.3.3.17 Liaison.** The person assigned to the position functions as a member of the incident commander's command staff.

**A.3.3.18 Member.** Fire department personnel can be full-time or part-time employees, paid or unpaid volunteers, can occupy any position or rank within the fire department, and might or might not engage in emergency operations.

**A.3.3.19 Officer.** In some organizations this position is outlined as part of the rank structure, for example, Sergeant, Lieutenant, Captain, Deputy Chief. In other circumstances the term is used to describe a position of responsibility, for example, Incident Scene Safety Officer, Haz-Mat Branch Officer. There are circumstances where a member who holds no rank, but who has the technical expertise, can be assigned to a position within IMS by the Incident Commander.

**A.3.3.23.3 Radio Communications, Tactical Channel.** It is also used at the tactical level management unit when implemented.

**A.3.3.24 Rapid Intervention Crew/Company (RIC).** In some departments they can also be known as a rapid intervention team. At wildland incidents this crew designation would be addressed through the planning process and contingency planning.

Emergency services personnel respond to many incidents that present a high risk to personnel safety. Departments in compliance with OSHA 29 CFR 1910.134 "Respiratory Protection Regulations" need to have a minimum of two persons on scene fully equipped when members are operating in an Immediately Dangerous to Life and Health (IDLH) or potentially IDLH atmosphere. The primary purpose is the rescue of injured, lost, or trapped fire fighters. Departments utilizing an incident management system in accordance with NFPA 1561, *Standard on Emergency Services Incident Management System*, or 29 CFR 1910.120, along with a personnel accountability system, have incorporated the RIC into their management system. Many departments have redefined their response plans to include the dispatch of an additional company (engine, rescue, or truck) to respond to incidents and stand by as the rapid intervention crew/company. Incident commanders can assign additional RICs based on the size and complexity of the incident scene. This requirement is also included as part of special operations incidents in NFPA 1500, *Standard on Fire Department Occupational Safety and Health Program*.

**A.3.3.27 Sector.** Sector can be used as either division, group, or both.

**A.3.3.28 Special Operations.** Special operations include water rescue, hazardous materials, confined space entry, high-angle rescue, terrorism [chemical, biological, radiological, nuclear, and explosive (CBRNE)], and other operations requiring specialized training.

**A.4.1.2** This standard establishes minimum performance requirements for an incident management system based on concerns for the safety and health of emergency services organization personnel. The benefits of an incident management system extend far beyond this single concern, but personnel health and safety is considered to be the most important rea-

son to implement an incident management system. This standard also can be used for guidance in meeting the requirements for an incident command system as outlined in other NFPA documents, including NFPA 471, *Recommended Practice for Responding to Hazardous Materials Incidents*, and NFPA 472, *Standard for Professional Competence of Responders to Hazardous Materials Incidents*.

**A.4.1.3** The incident commander has the ultimate responsibility for the safety of all emergency services personnel operating at an incident and for any and all other persons whose safety is affected by emergency services organization operations. Risk management provides a basis for the following:

- (1) Standard evaluation of the situation
- (2) Strategic decision making
- (3) Tactical planning
- (4) Plan evaluation and revision
- (5) Operational command and control

**A.4.2.1** The emergency services organization should evaluate existing recognized systems in order to develop or adopt a system that meets its own particular requirements and provides compatibility with systems used by other agencies that would reasonably be expected to be working with the ESO at emergency incidents.

**A.4.2.5** Emergency services organizations respond to a wide variety of incidents. Most of these incidents are considered routine and involve a small commitment of resources, while a few incidents involve large commitments of resources, complex situations, and potentially high-risk operations. It is important for an incident management system to accommodate all types and sizes of incidents and to provide for a regular process of escalation from the arrival of the first responding units at a routine incident to the largest and most complex incidents. The system always should be applied, even to routine incidents, in order to provide familiarity with it, to be prepared for escalation, and to be cognizant of the risks that exist at all incidents.

**A.4.2.6** During fire fighter rescue operations, the incident commander should consider implementing the following:

- (1) Requesting additional resources
- (2) Including a medical component
- (3) Utilizing staging for resources
- (4) Committing the RIC team from standby mode to deployment
- (5) Changing from a strategic plan to a high priority rescue operation
- (6) Initiating a PAR (personnel accountability report)
- (7) Withdrawing companies from affected area
- (8) Assigning a rescue officer
- (9) Assigning a safety officer
- (10) Assigning a backup RIC
- (11) Assigning of an Advanced Life Support (ALS) or Basic Life Support (BLS) company
- (12) Requesting additional command level officers
- (13) Requesting specialized equipment
- (14) Ensuring that dispatch is monitoring all radio channels
- (15) Opening appropriate doors to facilitate egress and access
- (16) Requesting additional vertical/horizontal ventilation
- (17) Providing lighting at doorways, especially at points of entry

**A.4.2.7** The emergency services organization should use the same basic approach for all situations, including drills, to en-

sure that personnel are fully familiar and confident with the incident management system. Drills and simulated incidents often involve risks that are similar in nature to those of actual incidents.

**A.4.2.9** An incident management system is intended to provide a standard approach to the management of emergency incidents. The many different and complex situations encountered by emergency responders require a considerable amount of judgment in the application of the incident management system. The primary objective is always to manage the incident, not to fully implement and utilize the incident management system. The command officer should be able to apply the incident management system in a manner that supports effective and efficient management of the incident. The use of the system should not create an additional challenge for the incident commander.

**A.4.3.1** The intent of the use of clear text for radio communications is to reduce confusion at incidents, particularly where different agencies work together.

**A.4.3.6** The ESO should preplan radio channel usage for all incident levels.

**A.4.3.8** A change in strategic mode of operation would include, as an example for structural fire fighting, the switch from offensive strategy (interior fire attack with hand lines) to defensive strategy (exterior operation with master streams and hand lines) or establishing a perimeter around an active crime scene. In such an instance, it is essential to notify all affected personnel of the change in strategic modes, to ensure that all personnel withdraw from the area, and to account for all personnel.

**A.4.3.10** The emergency notification system should provide a means to rapidly warn all persons who might be in danger if an imminent hazard is identified or if a change in strategy is made. An emergency message format with distinctive alert tones and definitive instructions should be used to make such notifications.

**A.4.3.11** Examples of emergency conditions could be “fire fighter missing,” “fire fighter down,” “officer needs assistance,” “evacuate the building/area,” “wind shift from north to south,” “change from offensive to defensive operations,” or “fire fighter trapped on the first floor.” In addition to the emergency traffic message, the ESO can use additional signals such as an air horn signal for members to evacuate as part of their SOPs.

**A.4.3.16** Some emergency services organizations might also wish to be provided with reports of elapsed time-from-dispatch. This method could be more appropriate for ESOs with long travel times where significant incident progress might have occurred prior to first unit arrival.

**A.4.4.1** The incident management system should be a component of interagency and multijurisdictional planning for emergency operations. An emergency services organization is seldom the only agency involved in activities at the scene of emergency incidents, particularly large-scale incidents. Any other agencies that have an established role at emergency incidents also should be included.

The incident management system also should be integrated with plans for major emergencies that could involve activities at different sites. In these circumstances, the incident management system as defined in this document should apply

specifically to activities conducted at a particular site and should be integrated with large-scale plans for the coordination of activities at multiple sites.

**A.4.4.2** At large-scale and complex incidents, several agencies could become involved and could have legal jurisdiction over different aspects of the situation or different areas that are involved in the incident.

An emergency services organization needs to build into its incident management system a system for interaction and coordination with other agencies. This is best accomplished by developing an integrated system in cooperation with all of the agencies that would be expected to work together at routine or large-scale incidents.

It is possible that other agencies might be unwilling to develop fully integrated incident management systems with the emergency services organization. In these circumstances, the emergency services organization should utilize its own capabilities to develop and implement an incident management system that meets the intent of this standard.

If plans are not established in advance, the authority for overall command of the incident could be in question. Most emergency incidents occur clearly within the jurisdictional area of one emergency services organization. The agency having jurisdiction is normally responsible for designating the incident commander, although pre-established plans could provide for an individual from a different agency to assume command under some circumstances. The basic concept should be to designate one emergency services organization incident commander, even where several emergency services organizations are involved in the incident.

**A.4.4.3** Where multiple jurisdictions are involved, the plan should incorporate a process to assign, divide, or share overall command responsibilities in a standard manner. It is essential to establish the roles, responsibilities, and relationships among the different agencies that could be involved in advance of a major incident.

One approach that is used for multijurisdictional incidents is “unified command.” In this system, each agency having jurisdiction can have its own designated incident commander, with all of the incident commanders working together to develop one unified plan of action. This approach should be used only within a well-established interagency standard operating procedure.

Another approach that is employed in some cases, where different agencies have specific jurisdiction over different aspects of an incident, is “lead agency.” Under a lead agency structure, one agency assumes overall command of the incident, while other agencies fulfill their jurisdictional responsibilities under the coordination of the lead agency’s incident commander. The lead agency role can be transferred at different stages of an incident, as objectives are accomplished and priorities change. Each agency can operate using its own incident management structure under the overall coordination.

**A.4.4.4** Designated representatives should be assigned by other agencies involved in emergency incidents to ensure that all functions performed by their agencies support and are coordinated with emergency services organization activities. There should be an established system for representatives of cooperating agencies to report to the command post. Where necessary, the incident commander should assign a designated liaison officer to manage interaction with representatives of other agencies. Where emergency services organizations routinely work together under mutual aid or automatic

aid systems, standard operating procedures and communications capabilities should provide for activities to be managed routinely by one incident commander under a management system that does not necessarily require representatives of each emergency services organization to be present at the command post.

**A.4.5.6** The most important factor in establishing supervisory levels within the command structure is the need to maintain an effective span of control.

A span of control of personnel between three and seven is considered desirable in most cases. An effective span of control should be maintained at each level of the command structure, and the organization should be expanded to meet this objective wherever the need is identified. This can be accomplished by adding levels or reassigning responsibilities within existing levels, or a combination of both. The incident commander also should consider activating additional levels within the command structure where activities become highly complex or are conducted over a large geographic area.

Additional levels of the command structure should be available to the incident commander as an option for activation in complex and large-scale incidents. Plans for large-scale incidents should provide standard organization charts for command structures.

**A.4.5.10** The intent of defining standardized assignments is to provide for efficient communications when assignments are made. Instead of explaining each assignment in detail, the incident commander makes assignments that are predefined and described in the standard operating procedures. The incident commander determines which standardized assignments to utilize, depending on the situation. When an assignment is made, both the incident commander and assigned personnel know what is expected, based on their knowledge of the written standard operating procedure.

Standard operating procedures can define certain assignments that would be assumed automatically upon arrival at the scene by designated individuals, such as the emergency services organization safety officer. The pre-assigned individuals should make the incident commander aware of their presence upon arrival and assume their pre-designated functions unless otherwise instructed by the incident commander. This could involve relieving an individual who had been assigned to the function pending the arrival of the designated individual.

In addition to defining the role, authority, and responsibilities, standard operating procedures should provide guidance or direction on how an assignment will be performed.

These functions generally are performed without geographic limitation and interact with different levels of the command structure. Other functional assignments, such as staging or medical treatment, could refer to both the function and a designated location where it is applied.

**A.4.5.14** Location assignments generally address the supervision of all activities that are conducted within a specified area. A specified area could include one exterior side of a building, the roof or a particular floor of a building, or a section of an interior. A location assignment could include any subdivision of the area where emergency activities are being conducted. It is important that the limits of the area are defined sufficiently to avoid overlap or omission of areas. Standard terminology should be used to define commonly used subdivisions of the incident scene.

**A.4.6.1** In addition to being familiar with the basic structure of the incident management system, all personnel should be

trained to assume initial command of an incident in the absence of a more qualified individual. This applies to a situation where an individual could be the first arriving at the scene of an incident and, therefore, responsible for initiating command responsibilities at the scene.

**A.4.6.5** Some functions are performed best by individuals with specific expertise, particularly in highly technical areas. The emergency services organization should endeavor to have more than one qualified individual to perform all essential functions within the incident management system.

**A.4.7.2** One purpose of the system is to provide rapid determination if any personnel are missing in the event that an area is required to be evacuated, or if a structural collapse or other unplanned event occurs. The incident management system should account for the degree of danger that is involved in specific activities and should provide more direct supervision over personnel exposed to greater risks.

**A.4.7.9** The intent of this requirement is to provide assurance that all personnel are notified of urgent safety warnings and to account for all personnel in the event of an unanticipated emergency situation. The system should include all personnel and any other individuals who are operating in areas where they could be endangered.

**A.4.8.2** There are many means of meeting these requirements. Some components can include tactical worksheets, command boards, apparatus riding lists, company personnel boards, electronic bar-coding systems, and so forth. These components can be used in conjunction with one another to facilitate the tracking of personnel by both location and function. The components of the personnel accountability system should be modular and expand with the size and complexity of the incident.

**A.4.8.3** The accountability officers should work with the incident commander and tactical level management unit officers to assist in the ongoing tracking and accountability of members.

**A.4.9.4** The incident commander should consider the circumstances of each incident and initiate rest and rehabilitation of members in accordance with the fire department's standard operating procedures.

For more information on emergency incident rehabilitation, see the United States Fire Administration Publication FA-114, *Emergency Incident Rehabilitation*.

**A.4.10.1** For major incidents or escalating incidents, medical control needs to be established by the emergency services organization physician or medical director at the incident scene.

**A.4.11.1** At an incident scene medical persons should assess the severity or seriousness of the injury. If there are multiple injuries, they should request additional resources.

**A.5.1.1** There should be one, clearly identifiable incident commander for the duration of the incident, from the arrival of the first emergency services organization unit until the incident is terminated. Although a succession of individuals could assume the role of incident commander, there should be no question of who is in command. When a transfer of command takes place, it should be performed in a standard manner.

An exception to the "one incident commander" requirement can be permitted where two or more agencies have specific jurisdictional responsibility for an incident. In such circumstances a unified command guideline can be employed,

by prior agreement, with two or more individuals working together to command the incident. (*See A.4.4.3.*)

**A.5.1.3** In order to effectively command an incident, it is recognized that the incident commander needs to be in the most advantageous position possible. The best position is being seated inside a vehicle. This can be accomplished utilizing his or her staff vehicle, a designated command vehicle, or fire apparatus. An acceptable alternative is utilizing the rear area of a sport utility vehicle or van-style vehicle. This method will provide the incident commander with an area that is quiet and free of distractions from which to command an incident.

It is also vital for the incident commander to be able to hear all radio transmissions, especially from those operating on scene. The best way to accomplish this is through the use of a radio communication headset. This will enable the incident commander to be in the best position possible to hear critical radio transmissions.

The incident command post also should be visible and recognizable. This can be accomplished by displaying a colored light, flag, banner, or other symbol to mark the location. Where special command post vehicles are used, such vehicles are usually marked with distinctive identification to make the command post recognizable.

**A.5.1.10** The incident management system should be applied to every incident from the arrival of the first individual until termination. At small-scale incidents, the assumption of command can be informal, but the principle of one individual in overall command of the incident always should apply. Routine application of the system is intended to increase familiarity with the concepts and procedures, even where the need to apply a formal command structure is not obvious. The officer in charge of the first arriving company or the first arriving individual of the emergency services organization, regardless of rank or function, should be the incident commander until relieved by more qualified personnel. All personnel should be sufficiently familiar with basic responsibilities and communications protocols in order to assume the role of initial-arriving incident commander, if only until a more qualified individual arrives.

**A.5.1.11** The emergency services organization should establish a protocol of command authority based on rank structure, assignments, and qualifications to define a hierarchy for transferring command. The qualifications required to perform as incident commander should increase with the size and complexity of the incident. Standard operating procedures should define the circumstances under which an officer at a higher level should respond to an incident and whether the transfer of command to an officer at a higher level is mandatory or discretionary.

In certain cases, an individual with a higher level of command authority arriving at the scene can direct the current incident commander to continue in this role. The higher level officer is responsible for the command of the incident, but could act as an observer or advisor to allow the incident commander to benefit from the experience. The exercise of this option should be at the discretion of the higher level officer.

**A.5.1.12** The incident management system should include standard operating procedures to protect personnel from hazards and to keep unauthorized persons out of hazardous areas. All supervisors should be aware of hazards and should take the necessary steps to control access to areas under their supervision. The incident commander should provide for con-

trol of access to the entire incident scene and, where appropriate, should exclude, establish limitations for, or provide an escort for nonemergency services organization personnel.

**A.5.1.13** The risk to emergency services organization personnel is the most important factor considered by the incident commander in determining the strategy that will be employed in each situation. The management of risk levels involves all of the following factors:

- (1) Routine evaluation of risk in all situations
- (2) Well-defined strategic options
- (3) Standard operating procedures
- (4) Effective training
- (5) Full protective clothing and equipment
- (6) Effective incident management and communications
- (7) Safety procedures and safety officers
- (8) Backup crews for rapid intervention
- (9) Adequate resources
- (10) Rest and rehabilitation
- (11) Regular re-evaluation of conditions
- (12) Pessimistic evaluation of changing conditions
- (13) Experience based on previous incidents and critiques

**A.5.1.14** The acceptable level of risk is directly related to the potential to save lives or property. Where there is no potential to save lives, the risk to emergency services organization personnel needs to be evaluated in proportion to the ability to save property of value. Where there is no ability to save lives or property, there is no justification to expose emergency services organization personnel to any avoidable risk, and defensive fire suppression operations are the appropriate strategy.

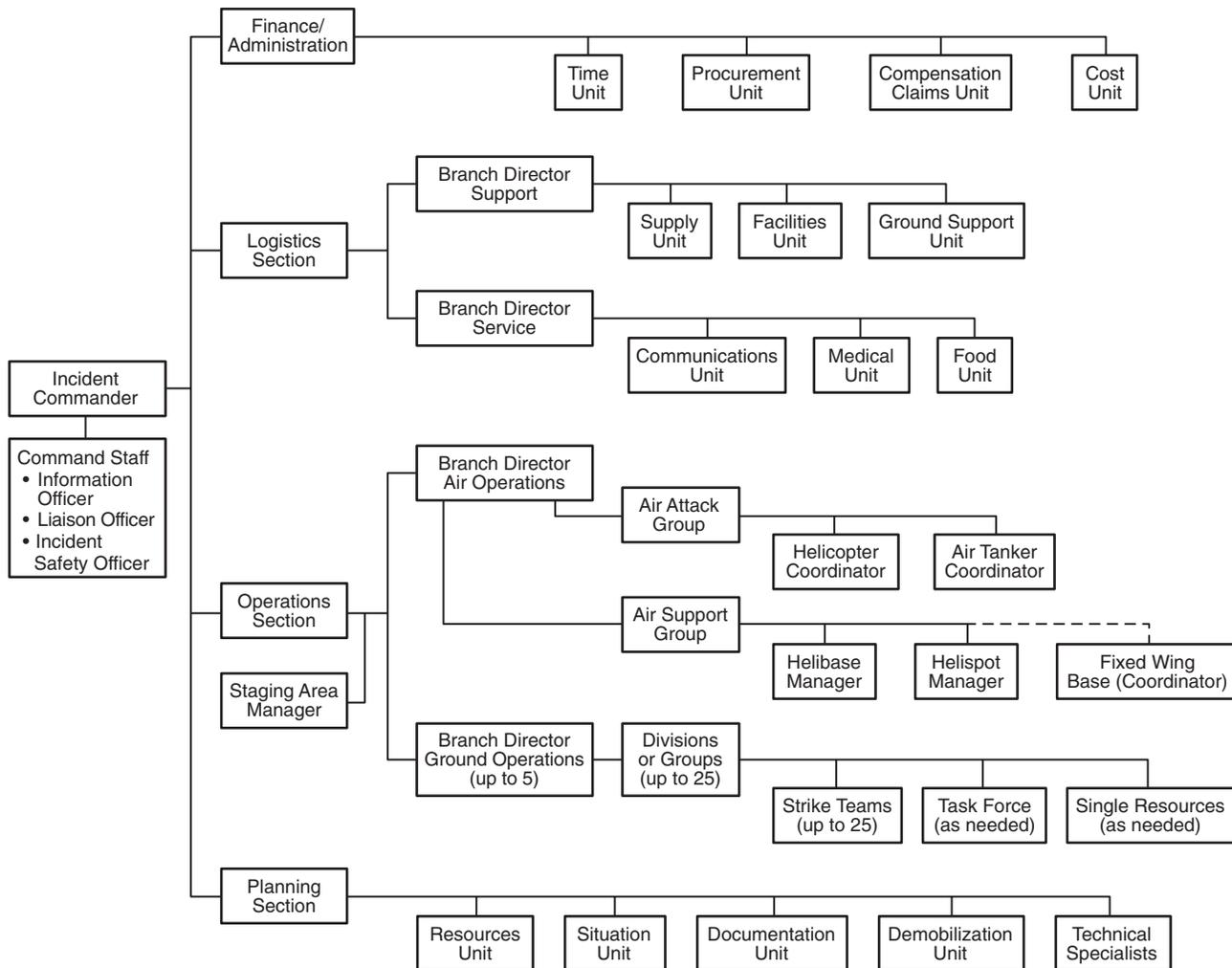
**A.5.2.1** The command staff generally includes those personnel who work at the command post and provide direct support to the incident commander. This includes personnel who fulfill specifically assigned duties. Figure A.5.2.1 charts these functions.

**A.5.2.2** The incident management system should include command staff functions that are automatically activated upon escalation of an incident or with multiple alarms. Specific individuals should be designated to respond and assume command staff duties automatically.

**A.5.2.3** The basic function of the command staff is to support the incident commander. The assigned individuals should be able to differentiate between routine actions and those that could have a significant impact on the overall incident. Part of their responsibility is to inform the incident commander of significant information and to request direction when major decisions are necessary.

**A.5.5.1** The function of incident scene safety has to be carried out at all incidents. It is the responsibility of the incident commander who cannot perform this function due to the size or complexity of the incident to assign or request response of an incident safety officer to this function. There are, however, incidents that require immediate response or appointment of an incident safety officer, such as a hazardous materials incident or special operations incident. These types of incidents should be defined in the fire department's response policy or procedure to ensure that the incident safety officer responds. Likewise, some situations require an incident safety officer to respond after members are on the scene, such as a working fire or at the request of the incident commander.

The position of incident safety officer can be expanded to include the following additional roles and responsibilities under safety in responding to such incidents:



**FIGURE A.5.2.1 Command Structure.**

- (1) The ability to cover all critical areas of the incident with safety staff
- (2) Provide a structured organization and communication system to manage the safety function
- (3) Provide an enhanced focus on safety related progress reports to the command post
- (4) Enhance fire fighter safety at the incident scene
- (5) Improve safety information to the incident commander for better command decisions

In addition, the incident safety officer should be supervised by a chief officer; assigned a separate radio channel, separate from dispatch and tactical frequencies; and carry a separate radio to monitor fire ground/tactical communications components.

The incident safety officer should be implemented by the incident commander as the situation dictates, and this should be outlined in department SOPs.

**A.5.5.2** A fire department should develop response procedures for an incident safety officer that is on call or designated to respond. Examples could be as follows:

- (1) Commercial fires
- (2) Multiple alarm

- (3) Fire fighter injury or fire fighter transported for treatment
- (4) Hazardous materials incident
- (5) Technical rescue incident
- (6) At the request of the incident commander

**A.5.5.4** This can be accomplished by wearing a highly visible vest, helmet, or other indicator.

**A.5.6.10** The size, complexity, or duration of an incident can necessitate the need for additional assistant incident safety officers. Incidents such as high-rise fires, hazardous materials incidents, and special operations require additional assistance. In these cases, the incident safety officer should request from the incident commander the establishment of a safety unit. Under the direction of the incident safety officer, assistant incident safety officers can be assigned to handle scene monitoring, action planning, risk management, interior safety at a high-rise incident or operations safety at hazardous materials incidents or special operations, or serve as relief for the incident safety officer during extended incident operations.

**A.5.9** Hazardous materials incidents require an incident safety officer based on the following factors:

- (1) Potential risks to members
- (2) Substantial number of members to control an incident
- (3) Duration of the incident

Due to the knowledge and expertise required at a hazardous materials incident, the incident safety officer needs to have an understanding of these operations. This can be achieved by being trained to the hazardous materials technician level of NFPA 472, *Standard for Professional Competence of Responders to Hazardous Materials Incidents*.

**A.5.10.1** Some functions are performed best by individuals with specific expertise, particularly in highly technical areas. The fire department should endeavor to have more than one qualified individual to perform all essential functions within the incident management system.

**A.5.12.2** The incident safety officer should document pertinent information about the incident, including assignments given by the incident commander, the incident safety plan, procedures that worked well, obstacles encountered and how to correct them, and significant accidents and/or injuries.

It is important to include successful or positive actions as well as those actions that require training or procedural changes to improve incident safety and health for all members.

**A.5.13.2.2** The command structure should be assembled by the incident commander by grouping resources, assigning supervisors, and adding additional levels of supervision. This procedure provides a degree of supervision that enhances the safety of all personnel.

**A.5.13.2.3** The strategic plan should identify the broad goals of emergency incident activities and the basic manner in which operations should be conducted. An offensive strategic plan involves operations to provide search and rescue and to control and extinguish the fire. A defensive strategic plan involves operations directed toward protecting exposures. Offensive and defensive operations should not be conducted in an area that would create unnecessary risk to fire department personnel.

Tactical objectives should be based on the strategic plan and assigned by the incident commander to supervisors within the command structure. Each supervisor should be expected to direct the assigned resources to accomplish one or more tactical objectives. The accomplishment of tactical objectives should support successful completion of the strategic plan. An example of a tactical objective is to ensure that all occupants are removed from the second floor of a building and to control the fire on that floor.

**A.5.13.3.1** Staging provides a standard method to keep reserves of personnel, apparatus, and other resources ready for action at the scene or close to the scene of an incident. Staging also provides a standard method to control and record the arrival of such resources and their assignment to specific activities. When units are dispatched to assist at working incidents, they should be dispatched to a designated staging or base area where they can be ready for assignment when required by the incident commander. This process helps the incident commander to keep track of the resources that are on the scene and available for assignment, and to know where they are located and where specific units have been assigned. The incident commander always should attempt to keep reserves of personnel, equipment, and supplies available to rotate assignments with fatigued crews and to go into action quickly when changing conditions require a rapid commit-

ment of resources. Equipment failures should be anticipated and supplies should be ordered to the scene in time and in sufficient quantities to provide a safe margin over anticipated needs. The ability to provide these reserves is necessarily dependent on the amount of resources that are available, but each emergency services organization should have plans to utilize its available resources to maximum advantage and should have contingency plans to obtain resources from other sources that might be available.

**A.5.13.3.2** It generally is desirable to keep staged resources in locations where they can be ready for action within two minutes. In some cases, particularly where imminent hazards exist, it is advisable to keep an immediate response capability in a state of readiness in a safe location that provides immediate access to the area.

The term *base* is often used to refer to a more remote location where standby resources are gathered but are not available for immediate action. As needed, resources can be moved up to a staging location where they are ready for immediate action. An example is a high-rise building where apparatus is parked at a safe distance from the building, and personnel and equipment are moved in to stand by on a safe floor below the fire level.

**A.5.14.2** The incident management system should provide standard worksheets, charts, diagrams, and other forms to assist the incident commander in keeping track of pertinent information and to provide for the transfer of information in a standard format when command is transferred. The planning staff function should be to provide information such as accountability, pre-fire plans, reference information, maps, diagrams, and other pertinent information to the incident commander as needed.

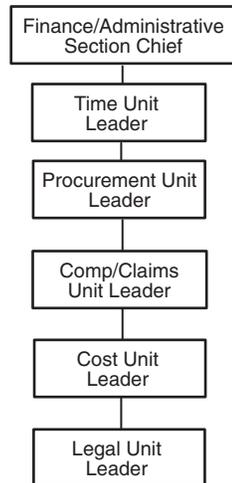
**A.5.15.2** High-rise logistical support places additional responsibilities within the logistics section. The use of base, lobby control, and ground (stairwell) support as functional assignments emphasizes the need to address early in the incident the resources to support this major operation. The term *base* in this context is not to be confused with the term *base camp*, which is used in wildland fire fighting. (See Annex D.)

**A.5.16.1** Where resources necessary for the safe conduct of an incident reach beyond the procurement authority of the incident commander, a finance/administration function should be provided to authorize and expedite procurement of necessary resources.

**A.5.16.2** The finance/administration section is established for incidents where the agency(s) that is involved has a specific need for financial services. Not all agencies require the establishment of a specific finance/administration section. In some cases, where only one specific function is required (i.e., cost analysis), the position of technical specialist in the planning section could be established. (See Figure A.5.16.2.)

**A.5.17.2** Supervisors should be visible and recognizable to their subordinates and to other persons who would need to communicate with them. First-level supervisors, such as company officers, are often identified by distinctively colored helmets or other markings. Tactical level management supervisors also should be identified, particularly in situations where personnel from different agencies are directly involved in operations. Colored helmets, vests, and other means are often used to identify tactical level management supervisors.

**A.5.17.3** The emergency services organization should establish a standard time interval for progress reports from supervi-



**FIGURE A.5.16.2 Structure of Finance/Administration Section.**

sors. Routine progress reports should be provided at intervals of 10 to 15 minutes. If conditions change significantly at any time, this information should be transmitted promptly to the higher level supervisor. Any report relating to the safety of personnel should have the highest priority.

**A.5.17.8** The guideline for clarifying conflicting orders should not apply to imminent hazard situations where immediate action is necessary to avoid a dangerous situation.

## Annex B Additional Information

*This annex is not a part of the requirements of this NFPA document but is included for informational purposes only.*

**B.1** The following are examples of two existing incident management systems that illustrate how the performance objectives of the standard might be achieved. These examples do not signify any approval or endorsement of the systems.

- (1) Fire Command System, available from the National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101, 1985
- (2) National Fire Academy, Incident Command System, available from the USFA, 16825 S. Seton Ave., Emmitsburg, MD 21727, 1999

**B.2** The following are available documents regarding incident management for structural fire fighting, emergency medical services, and high-rise fire fighting.

**B.2.1** The National Fire Service Incident Management System (NFIMS) Consortium has developed a "Model Procedures Guide for Structural Firefighting," 1999, which is an application of Fire Command System tactics and strategy as applied to the National Fire Academy's Incident Command System (ICS) and designed for structural fire fighting for incidents up to 25 companies.

**B.2.2** Two additional publications that also have useful applications are "Model Procedures Guide for EMS Incidents," and "Model Procedures Guide for Hi-Rise Incidents." These are available from Fire Protection Publications, Oklahoma State University, Stillwater, OK 74078.

**B.3** The following document provides Incident Command System operational descriptions as used within the National Interagency Incident Management System (NIIMS): "NIIMS Incident Command System, Operational System Description," ICS 12-1, December 1981 (Order NFES No. 1355); a publication of the National Wildfire Coordinating Group (NWCG), which can be obtained from the National Interagency Fire Center (NIFC), Attn: Supply, 3905 Vista Ave., Boise, ID 83705.

**B.4** The document shown in Annex C is one example of a fire fighter incident safety and accountability guideline. It was developed by the FIREScope (Fire Resources of California Organized for Potential Emergencies) and referenced by the NFIMS (National Fire Incident Management Consortium) to enhance incident scene safety.

## Annex C Managing Responder Safety

*This annex is not a part of the requirements of this NFPA document but is included for informational purposes only.*

**NOTE:** The following annex is an extract from "Incident Command Positions Manual: FireFighter Incident Safety and Accountability Guidelines," which was developed by the Fire Resources of California Organized for Potential Emergencies (FIREScope) to assist fire departments in establishing fire fighter safety and accountability guidelines.

**C.1 Incident Safety Officer and Assistant Safety Officer.** The incident commander (IC) should appoint an incident safety officer (ISO) at all significant emergency incidents. Complex incidents or those that cover a large geographic area may require the appointment of assistant safety officers. These assistant safety officers can be assigned to geographical areas or functional positions such as branch directors, or division, group, or sector supervisors. Nothing restricts an incident commander from assigning assistant safety officers. Assistant safety officers carry the same authority to change unsafe conditions at an incident as the incident safety officer. The following items should be considered regarding the appointment of an incident safety officer:

- (1) The incident safety officer must be assigned as early in the incident as possible.
- (2) The incident safety officer reports directly to the IC.
- (3) The incident safety officer reconns the incident to identify existing or potential hazards and informs the incident commander.
- (4) The incident safety officer recommends to the IC any changes to the incident action plan as a result of the ongoing surveys.
- (5) At an emergency incident where the incident safety officer judges activities unsafe or an imminent hazard, the incident safety officer shall have the authority to alter, suspend, or terminate those activities. The incident safety officer needs to immediately inform the incident commander of any actions taken to correct imminent hazards at the emergency scene.
- (6) At an emergency incident where an incident safety officer identifies unsafe conditions, operations, or hazards that do not present an imminent danger, the incident safety officer should take appropriate action through the incident commander to mitigate or eliminate the unsafe condition, operation, or hazard at the incident scene.
- (7) When operating in forward or otherwise hazardous positions, the incident safety officer must be attired in appro-

ropriate Personal Protective Equipment (PPE), including Self-Contained Breathing Apparatus (SCBA); have radio communication equipment; and be accompanied by another fire fighter.

**C.1.1 Function of the Incident Safety Officer.** The incident safety officer is integrated within the incident command system and identified as a member of the command staff. Fire departments should define the standard operating procedures for the response of an incident safety officer. The incident commander should consider assistant safety officers to assist the incident safety officer in covering the geographic areas of the incident.

The incident safety officer shall be instructed to recon the scene and report to the incident commander the status of conditions, hazards, and risks. The incident safety officer shall ensure the fire department's personnel accountability system is being utilized and an incident scene rehabilitation tactical level management component is established.

The incident commander shall provide the incident safety officer with the incident action plan. In the initial stage of the incident, this could be as simple as a verbal report. The incident safety officer shall provide the incident commander with a risk assessment of the incident scene operations.

The incident safety officer's responsibilities include:

- (1) Ensuring established safety zones, collapse zones, hot zone, and other designated hazard areas are communicated to all members on scene
- (2) Evaluating motor vehicle scene traffic hazards and apparatus placement and taking appropriate actions to mitigate hazards
- (3) Monitoring radio transmissions, and staying alert to transmission barriers that could result in missed, unclear, or incomplete communications
- (4) Communicating to the incident commander the need for assistant safety officers due to the need, size, complexity, or duration of the incident

**C.1.2 Fire Suppression.** The function of incident scene safety shall be carried out at all incidents. It is the responsibility of the IC, who cannot perform this function due to the size or complexity of the incident, to assign or request response of a safety officer to fill this function. However, there are incidents that require immediate response or on-scene designation of an incident safety officer who has technical expertise. This could include such incidents as a hazardous materials or special operations incident. These types of incidents should be defined in the fire department's response policy or procedure to ensure the incident safety officer responds. Likewise, some situations require an incident safety officer to respond after personnel are on the scene, such as a working fire or at the request of the incident commander.

A fire department should develop response procedures for an incident safety officer who is on call or designated to respond. Examples could be as follows:

- (1) Commercial fire
- (2) Multiple alarm
- (3) Fire fighter injury or fire fighter transported for treatment
- (4) Hazardous materials incident
- (5) Technical rescue incident
- (6) At the request of the incident commander, the incident safety officer shall confirm with the incident commander that a rapid intervention crew/company is available and

ready for deployment and that a rescue group supervisor is considered for multiple crews.

Where fire has involved a building or buildings, the incident safety officer should advise the incident commander of hazards, collapse potential, and any fire extension in such buildings.

The incident safety officer shall evaluate visible smoke and fire conditions and advise the incident commander, tactical level management component supervisors, or company officers of the potential for flashover, backdraft conditions, unsafe structural conditions, or other fire events that could pose a threat to operational teams.

The incident safety officer should monitor the accessibility of entry and egress of structures and the effect it has on the safety of members conducting interior operations.

The need, size, complexity, or duration of an incident can necessitate the need for additional assistant safety officers. Incidents such as high-rise fires, hazardous materials incidents, and special operations may require additional assistance. In these cases, the incident safety officer should request from the incident commander the establishment of assistant safety officers under the direction of the incident safety officer. Assistant safety officers can be assigned to handle scene monitoring, action planning, risk management, interior safety at high-rise incidents, complex incidents, or operations such as hazardous materials incidents or special operations, or serve as relief for the safety officer during extended incidents.

Some safety officer functions are best performed by individuals with specific expertise, and this is particularly true in highly technical areas. Fire departments should endeavor to have more than one qualified individual to perform all essential functions within the incident command system.

The incident safety officer responsibilities include documenting pertinent information about the incident, including assignments given by the incident commander, the incident safety plan, obstacles encountered, and significant accidents and/or injuries. It is important to include successful actions as well as those actions that require training or procedural changes to improve incident safety and health for all members.

The information that has been provided is not inclusive of all aspects of safety. The intent was to provide information to fire departments across the country of the need to address this very important safety officer area, and to provide additional safety for personnel working in a very dangerous occupation.

The area of safety is being addressed in many different ways in the fire service. This area continually needs to be addressed by incident commanders and fire departments through training. FIREScope has developed a position description for a safety officer and assistant safety officers and continues to enhance this very important area. The NFIMS Consortium has also expanded the responsibilities for a safety officer and assistant safety officers.

NFPA 1500, *Standard on Fire Department Occupational Safety and Health Program*, sets a minimum requirement for a fire service-related occupational safety and health program.

By reviewing this NFPA standard, fire fighters can obviously see that NFPA 1500 addresses the areas of "safety." This subject is very broad-based, and there are many different aspects of safety.

Fire departments have many obligations that include providing safety equipment and developing standard operating procedures for their individual members to follow. But it is incumbent on individual department members to use the per-

sonal protective equipment issued and to follow department operational procedures to ensure the safety of all personnel operating on the fire ground.

Members that are provided safety clothing shall use the protective ensemble for the type of incident to which they are exposed, such as structural fire fighting, wildland fire fighting, emergency medical incidents, proximity fire fighting, hazardous materials incidents, and other types of incidents. Department members must wear the appropriate respiratory protection when exposed to IDLH atmospheres, and a Personal Alert Safety System (PASS) shall be activated prior to entry. Eye, face, and hearing protection needs to be worn when appropriate for protection.

**C.2 General.** The following extracted annex material is provided by the Phoenix Fire Department and is included as standard operating procedure in that department's operations manual. This example is provided for those departments or agencies who want to implement their own standard operating procedures. Additional information can be obtained from the Phoenix Fire Department, Fire Administration, City of Phoenix Fire Department, 150 South 12th Street, Phoenix, AZ 85034-2301.

**C.2.1 Risk Management During Emergency Operations.** The incident command system starts with the arrival of the first department company. The first company to arrive integrates risk management into the routine functions of incident command.

As indicated in NFPA 1500, *Standard on Fire Department Occupational Safety and Health Program*, the concept of risk management shall be utilized on the basis of the following principles:

- (1) Activities that present a significant risk to safety of members shall be limited to situations where there is a potential to save endangered lives.
- (2) Activities that are routinely employed to protect property shall be recognized as inherent risks to the safety of members, and actions shall be taken to reduce or avoid these risks.
- (3) No risk to the safety of members shall be acceptable when there is no possibility to save lives or property.

As indicated in (2), "actions shall be taken to reduce or avoid these risks." Identifying potential safety concerns to members and taking actions to reduce risks to fire fighters is without a doubt one of the most important things that can be accomplished. The following are just some of the ways to reduce the overall risks to members operating at the scene of emergency incidents:

- (1) Written guidelines shall be established and used that provide for the tracking and inventory of all members operating an emergency incident.
- (2) All members operating in an emergency are responsible to actively participate in the department's accountability system.
- (3) The incident commander shall be responsible for the overall personnel accountability for the incident. The incident commander shall initiate an accountability worksheet at the beginning of the incident and maintain the system throughout the operation.
- (4) The incident commander shall maintain an awareness of the location and function of all companies assigned to an incident.
- (5) The incident commander shall implement branch directors, division/group or sector supervisors when needed to reduce the span of control for the incident commander.

- (6) Branch directors, division/group or sector supervisors shall directly supervise and account for companies operating under their command.
- (7) Company commanders are accountable for all company members and company members are responsible to remain under the supervision of their assigned company commander. Members shall be responsible for following the personnel accountability system procedures, which shall be used at all incidents.
- (8) The incident command system shall provide for additional accountability personnel based on the size, complexity, or needs of an incident. The implementation of division, group or sector supervisors can assist the incident commander in this area by reducing the span-of-control.
- (9) The incident commander shall provide for control of access to the incident scene.
- (10) A department shall adopt and routinely use a standard personnel identification system to maintain accountability for each member assigned to an incident. There are several accountability systems used during structural fire fighting.
- (11) The personnel accountability system shall provide an accounting of those members actually responding to the scene on each company or apparatus.
- (12) The incident command system shall include standard operating guidelines that use "emergency traffic" communication to evacuate personnel from an area where imminent hazard is found to exist and to account for their safety.

The fire department standard operating procedure provides direction in the use of clear text radio messages for emergency incidents. The standard operating procedure shall use "Emergency traffic" as the designator to clear the radio traffic. This "emergency traffic" can be declared by the incident commander, tactical level management component supervisor, or member in trouble or subject to emergency conditions.

Clear text should be used to describe the emergency conditions present. Examples of emergency conditions that could be used include the following:

- (1) "Fire fighter down"
- (2) "Fire fighter missing"
- (3) "Fire fighter trapped"
- (4) Serious conditions, "all members evacuate the building"
- (5) Change in conditions, "wind changed direction from north to south"
- (6) Hazard identification, "power line has energized a fence to metal roof"
- (7) Change in tactics, "change from offensive to defensive"

When a member has declared "emergency traffic," that person shall use clear text to identify the type of emergency, change in conditions, or tactical operations. The member who has declared the "emergency traffic" shall conclude the condition by transmitting "all clear, resume radio traffic" to end the emergency situation or to re-open the radio channels for communication after announcing the emergency message.

A fire department shall have an operational retreat policy. In addition to an emergency traffic radio message, fire departments could use an additional signal, such as an apparatus air horn, to cause an "evacuation" of personnel. Some departments have incorporated a series of three 10-second short blasts on an air horn with a 10-second silence between each series of blasts of an air horn. For fire departments that adopt this system, it is very important for the incident commander to

select apparatus away from the command post to reduce the possibility of missing radio messages while the air horns are sounding.

The incident commander should conduct a Personnel Accountability Report (PAR) from each division or group supervisor whenever there is a change in conditions that could create an unsafe operation such as an “emergency traffic” announcement to “all companies evacuate the building.”

When a tactical level management component supervisor is requested to conduct a PAR, this supervisor is responsible for reporting on the accountability of all companies or members working within their area of responsibility. (*A position description that addresses fire fighter Incident Safety and Accountability is available from FIRESCOPE and is published in the ICS 910 publication.*)

An incident safety officer shall be designated by the incident commander whenever the IC cannot perform this vital function due to the size or complexity of the incident. At an emergency incident where activities are determined by the incident safety officer to be unsafe or to involve an imminent hazard, the incident safety officer shall have the authority to alter, suspend, or terminate those activities. The incident safety officer shall immediately inform the incident commander of any actions taken to correct imminent hazards at the emergency scene. At an emergency incident where an incident safety officer identifies unsafe conditions, operation, or hazards that do not present an imminent danger, the incident safety officer shall take appropriate action through the incident commander to mitigate or eliminate the unsafe condition, operation, or hazard at the incident scene.

The incident safety officer shall be designated by the incident commander and be integrated with the incident management system as a command staff member. The incident safety officer shall recon and monitor the scene and report the status of conditions, hazards and risks to the incident commander. The incident safety officer can have designated assistant safety officers based upon the need, size, complexity, or duration of the incident.

The incident commander shall be provided with reports of elapsed time-on-scene at emergency incidents in 15-minute intervals from the emergency service organization communication center, until reports are terminated by the incident commander.

Members operating in hazardous areas at emergency incidents shall operate in crews of two or more.

In the initial stages of an incident where only one crew is operating in the hazardous area at a working structure fire, a minimum of four individuals is required, consisting of two individuals working as a crew in the hazard area and two individuals present outside this hazard area who are available for assistance or rescue at emergency operations where entry into the danger area is required. The standby members shall be responsible for maintaining a constant awareness of the number and identity of members operating in the hazardous area, their location and function, and time of entry. The standby members shall remain in radio, visual, voice, or signal line communications with the crew. The “initial stages” of an incident shall encompass the tasks undertaken by the first arriving company with only one crew assigned or operating in the hazardous area.

The following examples from NFPA 1500 indicate how a fire department could deploy a team of four members initially at the scene of a structure fire:

- (1) The team leader and one fire fighter could advance a fire-fighting hoseline into the IDLH atmosphere, and one fire fighter and the pump operator become the stand-by members.
- (2) The team leader could designate the pump operator to be the incident commander. The team leader and one fire fighter enter the IDLH atmosphere, and one fire fighter and pump operator remain outside as the standby members.
- (3) The two fire fighters could advance the hoseline in the IDLH atmosphere, and the team leader and pump operator remain outside as stand-by members.

Once a second crew is assigned or operating in the hazardous area, the incident shall no longer be considered in the “initial stage,” and at least one rapid intervention crew/company shall comply with the following requirements:

- (1) On-scene members designated and dedicated as rapid intervention crew/company
- (2) On-scene members performing other functions but ready to re-deploy to perform rapid intervention crew/company functions

The assignment of any personnel shall not be permitted as members of the rapid intervention crew/company if abandoning their critical task(s) to perform rescue clearly jeopardizes the safety and health of any member operating at the incident.

As the incident expands in size or complexity, which includes an incident commander’s requests for additional resources beyond the fire department’s initial attack assignment, the dedicated rapid intervention crew/company (RICs) shall upon arrival of these additional resources be either one of the following:

- (1) On-scene members designated and dedicated as rapid intervention crew/company
- (2) On-scene crew/company or crews/companies located for rapid deployment and dedicated as rapid intervention crews

During fire fighter rescue operations, each crew/company shall remain intact.

At least one dedicated rapid intervention crew/company shall be in the “stand-by mode” with equipment to provide for the rescue of members that are performing special operations or for members that are in positions that present an immediate danger of injury in the event of equipment failure or collapse.

When more than one RIC is deployed, consider implementing a rescue group supervisor to manage the multiple rapid intervention companies and to coordinate any rescue attempts when in the “deployment mode.”

Whenever a RIC is deployed, the incident commander shall designate another RIC in the “stand-by mode” to provide for fire fighter safety.

Additional areas that are also very important in reducing risks to members include the following:

- (1) Effective training
- (2) Rest and rehabilitation
- (3) Continuous evaluation of changing conditions
- (4) Past experience

This information regarding safety and safety officers is to enhance fire departments that need assistance in developing their standard operating procedures in regards to safety and accountability of their members.

## Annex D High-Rise Supervisory Levels

*This annex is not a part of the requirements of this NFPA document but is included for informational purposes only.*

**D.1 General.** The following is based on an excerpt from an Oklahoma State University Fire Protection Publication, “Model Procedures Guide for Hi-Rise Incidents,” and is provided to assist the Incident Commander in assigning supervisor levels for high-rise incidents.

**D.2 Base.** The base area of a high-rise structural incident serves as an assembly and deployment point from which large quantities of personnel and equipment are distributed. The base area serves as the primary point outside the structure to which responding resources report and from which resources receive their initial orders for entering the incident. Base works in coordination with lobby control. The base manager reports to the logistics section chief, or to the incident commander if the logistics section has not been activated.

The incident commander will determine the need for base at any high-rise incident. The incident commander will establish the level of resources required in base, and request those resources from the dispatching center. Once the level of resources is established, the base manager will assure that the level is maintained (replenished) until notified by the appropriate incident supervisor. The base manager must maintain communications with the resource status unit (planning section) to assure accountability of resources within the incident.

The responsibilities of the base manager may be summarized as follows:

- (1) Verify location of base with the incident commander.
- (2) Assure that the base location is a safe distance from the involved high-rise, normally 200 ft (60 m) or more from the structure.
- (3) Determine the most effective access route to base for responding resources, advise dispatch center.
- (4) Establish one or more safe routes to the fire building, coordinate the route(s) with lobby control.
- (5) Maintain an accurate log of apparatus, equipment, and available personnel within base.
- (6) Coordinate movement of equipment and resources into the fire building through lobby control.
- (7) Establish equipment pools by priority of need according to the incident action plan, coordinate with logistics chief.
- (8) Assure that base resources (apparatus, equipment, personnel) are requested before they are actually needed.
- (9) Assure the security of base, utilize police if necessary.
- (10) Supply water to the base of the stairwell for use by stairwell support personnel.

The base manager must control resources as they arrive at base. Strict control must be maintained over the parking location and movement of personnel and equipment through base. The base manager must select a base site that is large enough for the parking and movement of a large number of responding apparatus. Typical base sites include very wide streets or large parking areas. Park apparatus at diagonal angles (\\\\) to allow easy access and egress in base. If a street is used as a base site, block the street to nonemergency vehicles. If police are not available for this function, use aerial ladder apparatus or other large emergency service organization vehicles. Make sure the apparatus driver(s) remain with the vehicle(s) so that they may be moved when other apparatus need to pass by.

Establish safe traffic flow routes that will assure the effective movement of personnel and equipment into and out of the high-rise. Pickup trucks or similar vehicles may be used to move personnel and portable equipment if necessary. Establish a priority order for deployment of personnel and equipment to the incident: spare SCBA air cylinders are always the first priority!

Assure that fire company integrity is maintained. Fire companies must stay together as cohesive units. Maintain an accurate log of fire companies — their arrival in and departure from base — by time interval.

**D.3 Lobby Control.** The responsibilities for lobby control at a high-rise incident are extensive. Lobby control should be a priority like staging, and it is recommended that it be established on all working high-rise incidents from the first alarm assignment. The lobby control officer reports to the logistics section chief or the incident commander if the logistics position has not been established.

The lobby control officer shall report to the logistics/ incident commander the number of floors in the building (based on elevator floor indicators) and whether the elevators have been recalled. This is valuable information for the incident commander because of the possibility that people may be trapped in elevators.

The lobby control officer is responsible for the control of emergency service organization personnel and civilians entering and exiting the building. It is very important to direct incoming resources to the correct stairwell when they are ascending to upper floors or staging. All personnel entering or exiting the building should be accounted for by maintaining records that include in and out times and destinations. When directing companies to upper floors, make sure that they are carrying additional equipment.

When the elevators are determined to be safe, the lobby control officer shall designate specific elevators to be used by fire personnel. Lobby control will assign an emergency service organization elevator operator. Any car not equipped with fire fighter service should be placed out of service.

Lobby control will also be given responsibility for controlling some of the important building systems that affect the fire-fighting operation. Lobby control may be required to shut down the HVAC system to reduce smoke and heat movement within the building unless an on-scene building engineer can isolate the HVAC to assist with smoke removal. Lobby control should also verify that the water supply into the building standpipe system has been completed. The lobby control officer may use the fire control room for public address system operation, HVAC control, fire alarm information, sound-powered phones, and to relay pertinent building information to the incident commander. Use the building engineer when available.

The responsibilities of the lobby control officer may be summarized as follows:

- (1) Use the building communications system to address civilian occupants.
- (2) Pressurize the stairwells with fans when the building HVAC cannot be used.
- (3) Determine occupant egress to ensure a safe corridor for exiting people (consider the use of police officers to control civilians evacuated from the building). Direct personnel to move occupants a minimum of 200 feet (60 m) from the building.

**D.4 Ground Support.** The stairwell support function [when implemented under ground support] is used when equipment cannot be moved to staging by elevators or when an additional water supply is needed. This operation can consume a large number of personnel, not only for the initial setup but also for relief personnel. The stairwell support unit leader reports to the logistics section chief or the incident commander if the logistics section has not been activated.

The responsibility of stairwell support is the priority transportation of equipment by way of a stairwell to the staging floor. If equipment is delivered to the roof by helicopter, stairwell support will handle equipment movement down the stairwell to staging. If an auxiliary water supply is required by way of the stairwell, the officer in charge of stairwell support will coordinate and supervise this effort. In this situation, a request should be made for base to provide a water supply line to the stairwell entrance.

The following strategies will be helpful in performing stairwell support:

- (1) Determine the number of personnel necessary to accomplish the task. Consider one person per two floors and one officer per four or five personnel.
- (2) If available, provide a separate radio channel for stairwell support.
- (3) Officers must remain mobile to supervise the operation. Stairwell support is very demanding work, and officers must ensure a smooth flow of equipment at a pace that can be sustained.
- (4) Officers must monitor their personnel for signs of undue fatigue or distress. If it is to be an extended operation, arrange for timely relief and consider assigning two-person teams alternating with one carrying and one resting.
- (5) Lobby control or base will deliver equipment to the stairwell entrance at ground level.

Normally, one person picks up equipment at the ground floor entrance to the stairwell and carries it to the third floor landing. That person then returns to the ground floor for another load. The person at the third floor carries the equipment to the fifth floor landing and then returns to the third floor for another load. This process continues until the equipment is delivered to the staging floor hallway. Moving equipment beyond that point is the responsibility of the staging area manager.

If the route involves unusual problems, long or crossover hallways, scissor stairwells, etc., supervising officers may need to adjust assignments. Stairwell support personnel shall have their personal safety equipment (turnouts, helmets, breathing apparatus, and flashlights) available to them in the stairwell. In addition, officers will have their portable radios and, when available, building sound-powered phones.

## Annex E Informational References

**E.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.

**E.1.1 NFPA Publications.** National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.

NFPA 471, *Recommended Practice for Responding to Hazardous Materials Incidents*, 2002 edition.

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

### E.1.2 Other Publications.

**E.1.2.1 Fire Protection Publications.** Fire Protection Publications, Oklahoma State University, Stillwater, OK 74078

“Model Procedures Guide for EMS Incidents,” July 1996.

“Model Procedures Guide for Hi-Rise Incidents,” 1998.

National Fire Service Incident Management System (NFIMS) Consortium “Model Procedures Guide for Structural Firefighting,” 1999.

**E.1.2.2 Fire Resources of California Organized for Potential Emergencies (FIREScope).** Fire Resources of California Organized for Potential Emergencies (FIREScope), Office of Emergency Services, Document Control, P.O. Box 55157, Riverside, CA 92517.

“Incident Command Position Manual: Firefighter Incident Safety and Accountability Guidelines,” ICS 910, July 2001.

**E.1.2.3 National Interagency Fire Center (NIFC).** National Interagency Fire Center (NIFC), 3905 Vista Avenue, Boise, ID 83705

“NIIMS Incident Command System, Operational System Description,” ICS 12-1, December 1981 [a National Wildfire Coordinating Group (NWCG) publication].

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

Title 29, *Code of Federal Regulations*, Part 1910, Section 120, 1986.

Title 29, *Code of Federal Regulations*, Part 1910, Section 134, “Respiratory Protection Regulations,” 1998.

**E.1.2.5 USEA Publication.** U.S. Fire Administration, 16825 S. Seton Ave., Emmitsburg, MD 21727.

*Emergency Incident Rehabilitation* (FA-114), July 1992.

**E.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.

*2001 Firefighter Fatality Report*, NFPA One-Stop Data Shop, NFPA, 1 Batterymarch Park, Quincy, MA 02269.

VectorCommand, LLC, 4811 Woodland Way, Annandale, VA 22003 *IMS Training, Supporting and Facilitating Command Development*

**E.2.1 Public Entity Risk Institute (PERI).** 11350 Random Hills Road, #210, Fairfax, VA 22030.

*Command Teams and Decision Synthesis*; Deputy Chief Mark W. Smitherman, Nottingham Fire Brigade, Nottingham England, UK, December 2000 (electronic product).

*Firefighter Occupational Safety*; Stephen N. Foley, National Fire Protection Association, Quincy, MA, December 2000 (electronic product).

### E.3 References for Extracts. (Reserved)

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