

NFPA[®]

1616

Standard on
Mass Evacuation, Sheltering,
and Re-entry Programs

2020



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NFPA® 1616

Standard on

Mass Evacuation, Sheltering, and Re-entry Programs

2020 Edition

This edition of NFPA 1616, *Standard on Mass Evacuation, Sheltering, and Re-entry Programs*, was prepared by the Technical Committee on Mass Evacuation and Sheltering. It was issued by the Standards Council on November 4, 2019, with an effective date of November 24, 2019, and supersedes all previous editions.

This edition of NFPA 1616 was approved as an American National Standard on November 24, 2019.

Origin and Development of NFPA 1616

The Technical Committee on Mass Evacuation and Sheltering was given the responsibility for developing documents to establish a common set of criteria for the process of organizing, planning, implementing, and evaluating a program for mass evacuation, sheltering, and re-entry.

In 2012, NFPA received two requests for standards development, one for evacuation and one for sheltering. The Technical Committee for Mass Evacuation and Sheltering was first formed in September 2013 to fulfill those requests. In August 2014, a draft was approved by the Standards Council so the Committee could receive input from the public.

The 2017 edition of NFPA 1616, *Standard on Mass Evacuation, Sheltering, and Re-entry Programs*, was the first edition and was written in a plan-do-check-act (PDCA) format to aid in continuous improvement of the plan.

The 2020 edition of NFPA 1616 is the second edition of the standard. The committee revised the application of the standard to align with changes in NFPA 1600 centered on all hazards and crisis management. It also clarified the use of the standard for nonprofit and nongovernment entities. Other changes included alignment with more appropriate terms such as *persons with disabilities* and additional requirements in relation to Chapter 6 implementation.

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

Committee Scope: This Committee shall establish a common set of criteria for mass evacuation, mass sheltering, and mass re-entry programs, hereinafter referred to as the program.

Contents

Chapter 1 Administration	1616- 4	7.2 Goals of the Curriculum.	1616- 10
1.1 Scope.	1616- 4	7.3 Scope and Frequency of Instruction.	1616- 10
1.2 Purpose.	1616- 4	7.4 Record Keeping.	1616- 10
1.3 Application.	1616- 4	7.5 Regulatory and Program Requirements.	1616- 10
Chapter 2 Referenced Publications	1616- 4	7.6 Public Education.	1616- 10
2.1 General.	1616- 4	7.7 Training Delivery.	1616- 10
2.2 NFPA Publications.	1616- 4	Chapter 8 Exercises	1616- 10
2.3 Other Publications.	1616- 4	8.1 Program Evaluation.	1616- 10
2.4 References for Extracts in Mandatory Sections. (Reserved)	1616- 4	8.2 Exercise Methodology.	1616- 10
Chapter 3 Definitions	1616- 4	8.3 Design of Exercises.	1616- 11
3.1 General.	1616- 4	8.4 Exercise Evaluation.	1616- 11
3.2 NFPA Official Definitions.	1616- 4	8.5 Frequency.	1616- 11
3.3 General Definitions.	1616- 4	Chapter 9 Program Maintenance and Improvement	1616- 11
Chapter 4 Mass Evacuation, Sheltering, and Re- entry Program Management	1616- 6	9.1 Program Reviews.	1616- 11
4.1 Leadership and Commitment.	1616- 6	9.2 Corrective Actions.	1616- 11
4.2 Program Coordinator.	1616- 6	9.3 Continuous Improvement.	1616- 11
4.3 Program Working Group.	1616- 6	Annex A Explanatory Material	1616- 11
4.4 Program Administration.	1616- 6	Annex B Self-Assessment for Conformity with NFPA 1616	1616- 16
4.5 Performance Objectives.	1616- 6	Annex C Risk Management of Mass Evacuation, Sheltering, and Re-entry	1616- 28
4.6 Records Management.	1616- 6	Annex D Mass Evacuation Requirements Analysis	1616- 32
4.7 Laws and Authorities.	1616- 6	Annex E Sheltering Requirements Analysis	1616- 34
4.8 Finance and Administration.	1616- 6	Annex F Re-entry Requirements Analysis	1616- 57
Chapter 5 Planning	1616- 7	Annex G Persons With Disabilities and Other Access and Functional Needs	1616- 60
5.1 Plan Requirements.	1616- 7	Annex H Animals	1616- 63
5.2 Plan Assumptions.	1616- 7	Annex I Mandatory Evacuation	1616- 64
5.3 Plan Format.	1616- 7	Annex J Emergency Communication: Public Alerts and Warnings	1616- 65
5.4 Planning Process.	1616- 7	Annex K Social Media Support	1616- 66
5.5 Threat, Hazard Identification, and Risk Assessment.	1616- 7	Annex L Just-in-Time Training Support	1616- 66
5.6 Requirements Analysis.	1616- 7	Annex M Mass Evacuation, Sheltering, and Re- entry Data Interoperability	1616- 69
5.7 Resource Needs Assessment.	1616- 8	Annex N List of Acronyms	1616- 70
5.8 Communications and Public Information.	1616- 8	Annex O Informational References	1616- 72
5.9 Warning, Notifications, and Communications.	1616- 8	Index	1616- 75
5.10 Operational Procedure Planning.	1616- 8		
Chapter 6 Implementation	1616- 9		
6.1 Incident Recognition.	1616- 9		
6.2 Situational Assessments.	1616- 9		
6.3 Notifications and Activation.	1616- 9		
6.4 Mobilization.	1616- 9		
6.5 Evacuation Operations.	1616- 9		
6.6 Sheltering Operations.	1616- 10		
6.7 Transition to Interim and Recovery Housing.	1616- 10		
6.8 Transition to Re-entry.	1616- 10		
Chapter 7 Training and Education	1616- 10		
7.1 Curriculum.	1616- 10		

NFPA 1616

Standard on

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2020 Edition

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A reference in brackets [] following a section or paragraph indicates material that has been extracted from another NFPA document. Extracted text may be edited for consistency and style and may include the revision of internal paragraph references and other references as appropriate. Requests for interpretations or revisions of extracted text shall be sent to the technical committee responsible for the source document.

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

Chapter 1 Administration

1.1* Scope. This standard shall establish a common set of criteria for the process of organizing, planning, implementing, and evaluating a program for mass evacuation, sheltering, and re-entry.

1.1.1 The requirements in this standard are based on the existence of a program for all hazards/crisis/disaster/emergency management and business continuity/continuity of operations.

1.1.2 An integrated program is defined in NFPA 1600.

1.1.3 The integrated program is scalable to meet the needs of mass evacuation, sheltering, and re-entry.

1.2 Purpose. This standard shall provide public officials, private stakeholders, emergency management personnel, and emergency responders the essential elements, common terminology, roles, evacuation, stages, sheltering, and re-entry phases for evacuation.

1.3 Application. This document shall apply to public, private, nonprofit, and nongovernmental entities.

Chapter 2 Referenced Publications

2.1 General. The documents or portions thereof listed in this chapter are referenced within this standard and shall be considered part of the requirements of this document.

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

NFPA 1600®, *Standard on Continuity, Emergency, and Crisis Management*, 2019 edition.

2.3 Other Publications.

Merriam-Webster’s *Collegiate Dictionary*, 11th edition, Merriam-Webster, Inc., Springfield, MA, 2003.

2.4 References for Extracts in Mandatory Sections. (Reserved)

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 defined in this chapter or within another chapter, they shall be defined using their ordinarily accepted meanings within the context in which they are used. Merriam-Webster’s *Collegiate Dictionary*, 11th edition, shall be the source for the ordinarily accepted meaning.

3.2 NFPA Official Definitions.

3.2.1* Approved. Acceptable to the authority having jurisdiction.

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

3.2.3 Shall. Indicates a mandatory requirement.

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

3.2.5 Standard. An NFPA Standard, the main text of which contains only mandatory provisions using the word “shall” to indicate requirements and that is in a form generally suitable for mandatory reference by another standard or code or for adoption into law. Nonmandatory provisions are not to be considered a part of the requirements of a standard and shall be located in an appendix, annex, footnote, informational note, or other means as permitted in the NFPA Manuals of Style. When used in a generic sense, such as in the phrase “standards development process” or “standards development activities,” the term “standards” includes all NFPA Standards, including Codes, Standards, Recommended Practices, and Guides.

3.3 General Definitions.

3.3.1 All-Hazards. An approach for prevention, mitigation, preparedness, response, continuity, and recovery that addresses a full range of threats and hazards, including natural, human-caused, and technology-caused.

3.3.2 Animals. Includes household pets, service and assistance animals, working dogs, livestock, wildlife, exotic animals, zoo animals, research animals, and animals housed in shelters, rescue organizations, breeding facilities, and sanctuaries.

▲ **3.3.3* Assistance Animal.** An animal that works, provides assistance, or performs tasks for the benefit of a person with a disability, or provides emotional support that alleviates one or more identified symptoms or effects of a person's disability.

3.3.4* Business Continuity. An ongoing process to ensure that the necessary steps are taken to identify the impacts of potential losses and maintain viable recovery strategies, recovery plans, and continuity of services.

• **3.3.5 Capability.** The ability to perform required actions.

3.3.6 Common. Occurring or appearing frequently; occurring frequently or habitually; usual. Done often; prevalent.

3.3.7 Competence. Demonstrated capability to apply knowledge and skills to achieve intended results.

• **3.3.8 Damage Assessment.** An appraisal or determination of the effects of the emergency or disaster on humans; on physical, operational, and economic characteristics; and on the environment.

3.3.9 Emergency Communication. Alerting and warning community members in a defined area of a potential threat to life and property and the actions to be taken in response to the threat.

3.3.10* Emergency Respite Provision of short-term, temporary relief to those who are caring for family members who might otherwise require permanent placement in a facility outside the home.

3.3.11* Entity. A person, organization, or group with mutually accepted accountability who is responsible for the implementation and/or fulfillment of the requirements and considerations of this standard.

3.3.12 Evacuation. (1) The act or process of evacuating; (2) to leave or remove someone from a dangerous place; (3) to withdraw from the potential area of impact in an organized way, especially for protection; (4) organized, phased, and supervised withdrawal, dispersal, or removal of civilians from dangerous or potentially dangerous areas, and their reception and care in safe areas.

▲ **3.3.13 Evacuation Order.** An order issued by a jurisdictional authority requesting, recommending, or requiring the movement of people and animals out of a defined area due to an immediate threat to life and property from an emergency.

• **3.3.14 Evacuation Warning.** Alerting and warning of persons in a defined area of the potential need to evacuate due to a threat to life and property in response to an emergency.

3.3.15* Exercise. A process to assess, train, practice, and improve performance in an organization.

3.3.16* Incident. An event that has the potential to cause interruption, disruption, loss, emergency, crisis, disaster, or catastrophe.

3.3.17 Interoperability. The ability of diverse personnel, systems, and organizations to work together seamlessly.

■ **3.3.18 Joint Information System (JIS).** Provides the mechanism to organize, integrate, and coordinate information to ensure timely, accurate, accessible, and consistent messaging across multiple jurisdictions or disciplines with nongovernmental organizations and the private sector and includes the plans, protocols, procedures, and structures used to provide public information.

3.3.19 Mass. A quantity or aggregate of matter, usually of considerable size; a large body of persons in a group (a *mass* of spectators); a large quantity, amount, or number.

3.3.20 Mitigation. Activities taken to reduce the impact from hazards.

3.3.21* Mutual Aid/Assistance Agreement. A prearranged agreement between two or more entities to share resources in response to an evacuation.

3.3.22 People with Access and Functional Needs. Persons with disabilities and other access and functional needs include those from religious, racial, and ethnically diverse backgrounds; people with limited English proficiency; people with physical, sensory, behavioral and mental health, intellectual, developmental and cognitive disabilities, including individuals who live in the community and individuals who are institutionalized; older adults with and without disabilities; children with and without disabilities and their parents; individuals who are economically or transportation disadvantaged; women who are pregnant; individuals who have acute and chronic medical conditions; and those with pharmacological dependency.

3.3.23 Preparedness. Ongoing activities, tasks, and systems to develop, implement, and maintain the program capabilities.

3.3.24* Prevention. Activities to avoid or stop an incident from occurring or reduce the impact of the incident.

3.3.25* Recovery. Activities and programs designed to return conditions to a level that is acceptable to the entity.

3.3.26* Re-entry. The return of people to a previously evacuated area.

3.3.27* Resource Management. A system for identifying available resources to enable timely access to resources needed to prevent, mitigate, prepare for, respond to, maintain continuity during, or recover from an incident.

3.3.28* Response. Immediate and ongoing activities, tasks, programs, and systems to manage the effects of an incident that threatens life, property, operations, or the environment.

3.3.29 Risk Assessment. The process of hazard identification and the analysis of hazards, vulnerabilities, and impacts.

▲ **3.3.30* Service Animal.** Any dog or miniature horse that is individually trained to do work or perform tasks for the benefit of an individual with a disability, including a physical, sensory, psychiatric, intellectual, or other mental disability.

■ **3.3.31* Shelter.** A safe, short-term accommodation for persons and animals threatened or displaced by an emergency or disaster that can include overnight accommodations, heat or cooling, meals and water, security, health and medical services, clergy and social services, reunification, child care, showers, and laundry.

3.3.32 Sheltering. Seeking protection in the home, place of employment, or other location when disaster strikes. This can

include staying with friends and relatives, seeking commercial lodging, or staying in a mass care facility operated by disaster relief groups in conjunction with local authorities.

3.3.33 Shelter-in-Place. To use a safe area inside a building or structure during an incident.

3.3.34 Stakeholder(s). Any individual, group, or organization that might affect, be affected by, or perceive itself to be affected by the emergency.

3.3.35 Whole Community. Encompasses individuals, families, households, communities, the private and nonprofit sectors, faith-based organizations, and all levels of government.

Chapter 4 Mass Evacuation, Sheltering, and Re-entry Program Management

4.1 Leadership and Commitment.

4.1.1 The entity leadership shall demonstrate commitment to the program to evacuate, provide shelter, and facilitate re-entry.

4.1.2 The leadership commitment shall include the following:

- (1) Support the development, implementation, and maintenance of the program
- (2) Provide necessary resources to support the program
- (3) Ensure the program is reviewed and evaluated as needed to ensure program effectiveness
- (4) Support corrective action to address program deficiencies
- (5) Lead and support the program and execution of the mass evacuation, sheltering, and re-entry
- (6) Ensure compliance with legal protections afforded to persons with disabilities and other access and functional needs, including access for service and assistance animals

4.1.3 The entity shall adhere to policies, execute plans, and follow procedures developed to support the program.

4.2* Program Coordinator. An individual shall be appointed by the entity's leadership and authorized to develop, implement, administer, evaluate, and maintain the program.

4.3 Program Working Group.

4.3.1* A program working group shall be established by the entity in accordance with its policy.

4.3.2 The program working group shall provide input and/or assist in the coordination of the preparation, development, implementation, evaluation, and maintenance of the program.

4.3.3* The program working group shall include the program coordinator and representation from the whole community.

4.3.4 The program working group shall integrate all elements necessary for mass evacuation, sheltering, and re-entry within the entity and coordinate with other entities affected by these operations.

4.4 Program Administration.

△ **4.4.1** The entity shall have a documented program that includes the following:

- (1) Policy, including roles and responsibilities, and the enabling authority
- (2)* Program scope, goals, performance objectives, and metrics for program evaluation

(3)* Applicable authorities, legislation, regulations, and industry codes of practice as required by Section 4.7

(4) Program plans and procedures that include the following:

- (a) Anticipated program cost
- (b) Resources required
- (c) Maintenance schedule
- (d) Records management practices of the entity as required by Section 4.6

4.4.2* The program shall include an all-hazards approach and risk assessment.

4.5 Performance Objectives.

4.5.1* The entity shall establish performance objectives for the program in accordance with the elements in Chapters 5 through 9.

4.5.2 The performance objectives shall address the results of the hazard identification, the risk assessment, and the requirements analysis.

4.5.3 Performance objectives shall address both short-term and long-term needs of evacuees, including persons with disabilities and other access and functional needs.

4.5.4* The entity shall define *short term* and *long term*.

4.6 Records Management.

4.6.1* The entity shall develop, implement, and manage a records management program to ensure that records are available to the entity following an evacuation.

4.6.2 Records management is designed to aid in the identification, backup, protection, and access to paper-based and electronic records that are vital to the entity and required for mass evacuation, sheltering, and re-entry.

4.6.3 The program shall include the following:

- (1) Identification of records (hard copy or electronic) vital to continue the operations of the entity
- (2) Backup of records as necessary to meet program goals and objectives
- (3) Validation of the integrity of records backup
- (4) Implementation of procedures to store, retrieve, and recover records onsite or offsite
- (5) Storage and protection of records
- (6) Implementation of a record review process
- (7) Procedures coordinating records access within and outside the organization
- (8) Executing a retention policy to archive and destroy records according to operational needs, operating procedures, statutes, and regulations

4.7 Laws and Authorities.

4.7.1* Mass evacuation, sheltering, and re-entry programs are covered by law or voluntary guidelines.

4.7.2* The entity shall implement a strategy for addressing the need for revisions to legislation, regulations, directives, policies, and industry codes of practice.

4.8 Finance and Administration.

4.8.1 The entity shall develop finance and administrative procedures to support the program before, during, and after an evacuation.

4.8.2* There shall be a responsive finance and administrative framework that does the following:

- (1) Complies with the entity's program requirements
- (2) Provides direct linkages to mass evacuation, sheltering, and re-entry operations
- (3) Provides for maximum flexibility while retaining accountability

4.8.3 Finance and administrative procedures shall include the following:

- (1) Accounting systems to track and document costs
- (2) Program procurement procedures

Chapter 5 Planning

5.1 Plan Requirements.

Δ 5.1.1 The plan shall address the health and safety of personnel as follows:

- (1)* Identify actions to be taken to protect persons with disabilities, including those with access and functional needs
- (2) Include an accountability system for all response personnel
- (3) Monitor the health and well-being of response personnel
- (4) Establish rehabilitation of personnel
- (5) Ensure security and protection for response personnel
- (6)* Provide appropriate personal protective equipment for response personnel

5.1.2 The plan shall identify and document the following:

- (1) Assumptions made during the planning process
- (2) Responsibilities for carrying out specific actions in an mass evacuation, sheltering, and re-entry; functional roles and responsibilities of internal and external agencies, organization, departments, and positions; lines of authority
- (3) Trigger points to activate the evacuation plan
- (4) Logistics support and resource management requirements
- (5) Operational communications
- (6)* Public information, including warnings, notifications, and communications

5.1.3 The entity shall make sections of the plans available to those assigned specific tasks and responsibilities therein and to key stakeholders as required.

Δ 5.2 Plan Assumptions. The plan's assumptions shall be based on the following:

- (1) Research on human behavior and the results of threat
- (2) Hazard identification and risk assessment
- (3)* Requirements analysis
- (4) Resource analysis
- (5) The number of people requiring evacuation
- (6) That evacuation will require sheltering and re-entry
- (7) Projections for the number of people requiring sheltering
- (8) Projections for the number of people requiring re-entry
- (9) That animals will be evacuated and sheltered as appropriate and feasible to safeguard human lives and facilitate an evacuation
- (10) The types of vehicles required to transport persons with disabilities and other access and functional needs and animals

- (11) The number of responders required to complete the evacuation process
- (12) Development and implementation of plans and procedures to identify populations requiring assistance and arranging of transportation for persons with disabilities and other access and functional needs during mass evacuation, sheltering, and re-entry
- (13) Determination of physical requirements for evacuee assembly points, emergency respite stop, and staging and reception areas
- (14) Coordination with local medical facilities to identify plans and resources in the event that these facilities require evacuation into a shelter

5.3* Plan Format.

5.3.1 Plans shall include the following:

- (1) All hazards approach and risk assessment
- (2) Evacuation
- (3) Mass sheltering
- (4) Re-entry

5.3.2 Plans shall be individual documents, integrated into a single plan document, or a combination of the two.

5.4 Planning Process.

5.4.1 A process shall be established that develops, evaluates, and improves capabilities required to implement the program.

5.4.2* The entity shall include key stakeholders and operational entities in the process.

Δ 5.4.3 The entity shall develop a set of trigger points on which to base planning efforts, including the following:

- (1) The plan shall be reviewed at least annually.
- (2) The plan shall be reviewed after each incident.

5.4.4* The trigger points shall identify specific actions to be taken based on specific events, threats, or hazards.

5.5* Threat, Hazard Identification, and Risk Assessment.

5.5.1 The entity shall identify the potential threats or hazards that could require evacuation and/or sheltering.

Δ 5.5.2 Natural and human-caused hazards specific to the jurisdictions that require evacuation and sheltering shall be considered during the risk assessment.

5.5.3* The entity shall identify the threats and risks associated with mass evacuation, sheltering, and re-entry.

5.5.4 The entity shall develop a safety analysis of the threats, hazards, and risks.

5.6 Requirements Analysis.

5.6.1* The entity shall conduct a requirements analysis for mass evacuation, sheltering, and re-entry that is based upon the threat hazard identification and risk assessment.

5.6.2 The requirements analysis shall include the following:

- (1) Characteristics of the potentially affected population, including persons with disabilities and other access and functional needs
- (2) Existence of mandatory evacuation laws and expected enforcement of those laws

- (3) Characteristics of the incident that trigger consideration for evacuation shall include the following:
- (a) Weather, season, and environmental conditions
 - (b) Speed of onset
 - (c) Magnitude
 - (d) Location and direction
 - (e) Duration
 - (f) Resulting damages to essential functions
 - (g) Cultural and religious practices
 - (h)* Risk for cascading effects and secondary disasters
 - (i) Capability of transportation routes and systems to transport life-sustaining materials (food, water, medical supplies) into the affected area

5.6.3* The program shall consider the following conditions to determine whether evacuation or sheltering-in-place is appropriate to the situation and the resources available:

- (1) The anticipated impact and duration of the incident
- (2) The distance to appropriate sheltering facilities
- (3) The availability of and access to transportation to those facilities
- (4) The ability to communicate with the affected population within the required timeframe

Δ 5.6.4 Factors to be considered in planning for mass evacuation, sheltering, and re-entry shall include the following:

- (1) Establishment of single or unified command
- (2) Development of a joint information system to notify the public and provide an assessment of the time needed to reach people with the information
- (3)* Identification of appropriate sheltering facilities by location, size, types of services available, accessibility, and building safety
- (4) Identification of the modes and routes for evacuee transportation and the time needed to reach them
- (5)* Sources of evacuee support services
- (6) Manpower requirements based on various potential shelters

5.6.5* Sheltering facilities shall be deemed appropriate for temporary occupancy of evacuees for the applicable hazards by the local authority having jurisdiction and conform to the applicable requirements to ensure public health, safety, and general welfare.

5.6.6 Factors to be considered in the planning for re-entry shall include the following:

- (1) Controlling access to restricted areas for security and evacuee safety
- (2) Prioritizing building inspection and permitting
- (3) The availability of and requirements for functioning infrastructure and utilities

5.7 Resource Needs Assessment.

5.7.1 The entity shall conduct a resource needs assessment.

5.7.2 The resource needs assessment shall include the following:

- (1) Human resources, stakeholders, equipment, training, facilities, funding, expert knowledge, materials, technology, information, intelligence, and the time frames within which they will be needed
- (2) Quantity, response time, capability, and cost

5.7.3 The entity shall plan to locate, acquire, store, distribute, maintain, test, and account for services, human resources, equipment, and materials procured to support the program.

5.7.4 Facilities with known capabilities and partner agreements shall be pre-identified during the assessment and planning process.

5.7.5 Established mutual aid/assistance or partnership agreements shall be included in the plan.

5.8 Communications and Public Information.

5.8.1 The entity shall develop a plan and procedures to disseminate information related to mass evacuation, sheltering, and re-entry to and respond to requests for information from the following audiences before, during, and after an incident:

- (1) Internal audiences, including employees
- (2) External audiences, including the general population, media, access and functional needs populations, community partners, and other stakeholders

5.8.2 The entity shall establish and maintain a communications and public information plan that considers the following:

- (1) Central contact facility or communications hub
- (2) Physical or virtual information center
- (3) System for gathering, monitoring, and disseminating information
- (4) Procedures for developing and delivering coordinated messages
- (5) Protocol to clear information for release

5.9 Warning, Notifications, and Communications.

5.9.1 The entity shall determine its warning, notification, and communications needs for incidents requiring mass evacuation, sheltering, and re-entry.

5.9.2* Emergency warning, notification, and communications systems shall be reliable; interoperable; and, when feasible, redundant; and take into account persons with disabilities and other access and functional needs.

5.9.3* Emergency communications protocols and procedures shall be developed, tested regularly, and used to alert and warn stakeholders potentially at risk from an actual or impending hazard.

5.9.4* Procedures shall include issuing warnings through authorized agencies if required by law as well as the use of pre-scripted information bulletins or templates.

5.9.5 The same system used to issue pre-evacuation notifications shall be used to issue evacuation orders.

5.10 Operational Procedure Planning.

5.10.1 The entity shall develop operational procedures to support the plan.

5.10.2 Procedures shall be established for mass evacuation, sheltering, and re-entry.

5.10.3 Procedures shall consider life safety, property conservation, incident stabilization, continuity, and protection of the environment and of cultural heritage artifacts and buildings.

5.10.4 Procedures shall include the following:

- (1) Triggers for use in decision making for shelter-in-place or evacuation
- (2) Triggers for re-entry operations
- (3) Evacuation procedures

Δ 5.10.5 The evacuation plan shall consider the following positions based on the size and complexity of the incident:

- (1) Incident commander and deputies
- (2) Command staff
- (3) General staff

5.10.6* Sheltering procedures shall take into consideration the following:

- (1) Evacuee and animal registration
- (2) Facility management
- (3)* Security and building access control
- (4) Parking and traffic control
- (5) Public information, public affairs, and media relations
- (6) Dormitory management
- (7) Medical and mental health services
- (8) Disability-related needs for services, equipment, and accommodations
- (9) Personal assistance services
- (10) Communications and information technology
- (11) Recovery information and resident messaging
- (12) Family reunification
- (13) Reunification of animals to owners
- (14) Risk management and loss control
- (15) Janitorial
- (16) Building maintenance and engineering
- (17) Logistical support
- (18) Bulk distribution
- (19) Donation and volunteer management
- (20) Entertainment/recreation
- (21) Child care
- (22) Animal sheltering
- (23) Laundry service
- (24) Client transportation
- (25) Postal service
- (26) Meal service
- (27) Spiritual care services
- (28) Children's social services
- (29) Charging station and electrical connections for electrical devices (e.g., phones, tablets, and so forth)

5.10.7 Re-entry procedures shall be as given in 5.10.7.1 through 5.10.7.3.

5.10.7.1 Those responsible for managing the evacuation shall ensure the transition to re-entry through performance objectives.

5.10.7.2 The entity shall determine when the area is safe prior to re-entry

5.10.7.3 The entity shall determine whether the infrastructure is sufficient to support re-entry.

5.10.8 Procedures shall consider concurrent mass evacuation, sheltering, and re-entry operations.

Chapter 6 Implementation

6.1* Incident Recognition.

6.1.1 The entity shall notify the appropriate officials of the emergency or impending emergency.

6.1.2 Plans shall be activated when further actions are warranted.

6.2* Situational Assessments.

Δ 6.2.1 Initial Assessment.

N 6.2.1.1 Depending on the nature of the incident, the initial situational assessment shall include an assessment of the impact to persons, animals, and property, infrastructure status, the availability of resources, and weather conditions.

N 6.2.1.2 Based on the initial assessment, the entity shall decide whether to evacuate or shelter-in-place.

6.2.2 Assessment and Evaluation. Assessments shall include evaluations of the effectiveness of previous and current actions.

6.3 Notifications and Activation.

6.3.1 Based upon the characteristics of the incident, those responsible for managing the incident shall make the necessary notifications to appropriate resources, directing them where and when to report.

6.3.2 Those responsible for managing the incident shall provide content for public information and warning messages, which will be approved and disseminated using the jurisdiction's established public information and warning policies and procedures.

6.4 Mobilization. Those responsible for managing the incident shall identify and mobilize the appropriate resources to support the initial incident objectives.

6.5 Evacuation Operations.

6.5.1* The entity shall be responsible for managing the evacuation operations.

6.5.2 In implementing the evacuation plan the entity shall consider the following:

- (1) Occurrences that might require evacuation
- (2) Priority of evacuation
- (3) Procedures to request and coordinate required transportation assets from jurisdictional agencies
- (4) Arrangements for transporting evacuees, including persons with disabilities and others with access and functional needs, and their animals
- (5) Evacuation timeline
- (6) Traffic management
- (7) Refueling, safety, and motorist assistance requirements

6.5.3 The entity responsible for managing the evacuation shall continue to monitor media sources, public reports, incident characteristics, and progress of the operation, reflecting changing conditions that impact the incident objectives and incident action plan.

6.5.4 The entity responsible for managing the evacuation shall provide for the safety and health of evacuees and responders during all decision making.

6.5.5* The entity responsible for managing the evacuation shall determine potential resource requirements to ensure that resource management supports evacuation operations.

6.5.6 The entity responsible for managing the evacuation shall continue to provide updated information to the public through the joint information system.

6.5.7* The entity responsible for managing the evacuation shall utilize a record-keeping process for tracking of those persons (including their animals and property) provided transportation, sheltering, or other assistance. (See Section 4.6.)

N 6.5.8 The entity managing the evacuation shall ensure appropriate record keeping of costs and claims associated with the evacuation. (See Section 4.6.)

6.6* Sheltering Operations.

6.6.1 The entity shall provide procedures and coordinate components necessary to provide shelter to evacuees.

6.6.2* The entity shall provide for a safe and secure environment for evacuees.

Δ 6.6.3 The shelter plan shall address the basic needs of evacuees, including the following:

- (1)* Medical support
- (2) Persons with disabilities and others with access and functional needs support
- (3) Cultural and religious support
- (4) Animals, including pets and service and assistance animals
- (5) Support services, including food, water, first aid, and personal care
- (6) Gender identity in accordance with applicable laws, regulations, and policies

6.6.4 The entity shall provide information on the location and accessibility of shelters.

N 6.7 Transition to Interim and Recovery Housing. The entity shall ensure processes and procedures for transitioning individuals unable to return home into interim or long-term recovery housing.

6.8 Transition to Re-entry.

Δ 6.8.1 The entity responsible for managing the evacuation shall ensure the transition to re-entry.

6.8.2 The entity shall determine when the area is safe prior to evacuees returning.

6.8.3 The entity shall determine whether the infrastructure is sufficient to support re-entry.

N 6.8.4 The entity shall complete a damage assessment prior to initiating re-entry.

Chapter 7 Training and Education

7.1 Curriculum. The entity shall develop and implement a competency-based training and education curriculum that supports all persons who have a role in the program.

7.1.1 All persons involved shall have a basic understanding of the incident command system (ICS) and how the AHJ will

implement the command functions and allocation of resources.

7.1.2 Persons who will fill command functions shall have documented additional competency-based training.

7.2 Goals of the Curriculum. The goals of the curriculum shall be to create awareness and to enhance the knowledge, skills, and abilities required to implement, support, and maintain the program.

7.3 Scope and Frequency of Instruction. The scope of the curriculum and the frequency of instruction shall be identified by the AHJ.

7.4 Record Keeping. Records of training and education shall be maintained as specified in Section 4.6.

7.5 Regulatory and Program Requirements. The curriculum shall comply with applicable regulatory and program requirements.

7.6* Public Education. A public education program shall be implemented to communicate the following:

- (1) Community awareness of potential hazards
- (2) Understanding how and when a declaration of shelter-in-place or evacuation will take place
- (3) Preparation for and safety during shelter-in-place
- (4) Sources of reliable information on evacuation
- (5) Evacuation warnings and orders
- (6) Preparations for and safety during evacuation
- (7) Consequences of refusal to evacuate
- (8) Preparations for and safety during sheltering
- (9) How re-entry information will be determined and communicated to all persons

Δ 7.7* Training Delivery. Training delivery to support mass evacuation, sheltering, and re-entry shall be presented by competent personnel.

Chapter 8 Exercises

8.1 Program Evaluation.

8.1.1 The entity shall evaluate program plans, procedures, training, and capabilities and promote continuous improvement through periodic exercises.

8.1.2 The entity shall evaluate the program based on post-incident analyses of mass evacuation, sheltering, and re-entry; lessons learned; and operational performance during exercises in accordance with Chapter 9.

8.1.3 Exercises shall be documented.

8.2* Exercise Methodology.

8.2.1 Exercises shall provide a standardized methodology to practice and interact with other entities (internal and external) in a controlled setting.

8.2.2 Exercises shall be designed to assess the maturity of program plans, procedures, and strategies.

8.3* Design of Exercises. Exercises shall be designed to do the following:

- (1) Ensure the safety of people, animals, property, and the environment involved in the exercise
- (2) Evaluate the program
- (3) Identify planning and procedural opportunities for improvement
- (4) Validate recently changed procedures or plans
- (5) Clarify roles and responsibilities
- (6) Obtain participant feedback and recommendations for program improvement
- (7) Measure improvement compared to performance objectives
- (8) Improve coordination among internal and external teams, organizations, and entities
- (9) Validate training and education effectiveness
- (10) Increase awareness of hazards and the potential impact of hazards
- (11) Identify additional resources and assess the capabilities of existing resources, including personnel and equipment needed for effective mass evacuation, sheltering, and re-entry. The resources need to take into account persons with disabilities and other access and functional needs and owners and their animals.
- (12) Practice the deployment of resources to manage mass evacuation, sheltering, and re-entry
- (13) Assess the ability to manage the mass evacuation, sheltering, and re-entry program
- (14) Improve individual performance

8.4 Exercise Evaluation. Exercises shall evaluate program plans, procedures, training, and capabilities to identify opportunities for improvement.

8.5 Frequency.

8.5.1 Exercises shall be conducted on the frequency needed to establish and maintain required capabilities.

8.5.1.1 Frequencies of exercises and resources needed shall be defined in the plan.

8.5.2 The entity shall establish the schedule for exercises.

Chapter 9 Program Maintenance and Improvement

9.1* Program Reviews. The entity shall maintain and improve the program by evaluating its effectiveness using performance objectives and by identifying corrective and preventive action changes based upon assessments and evaluations conducted during exercises and real events.

9.1.1 The entity shall improve effectiveness of the program through incorporation of identified preventive and corrective actions.

9.1.2 The program shall be re-evaluated when a change in any of the following affects the entity's program:

- (1) Regulations
- (2) Hazards and potential impacts
- (3) Resource availability or capability
- (4) The entity's organizational structure or operations
- (5) Funding changes
- (6) Infrastructure, including the technology environment
- (7) Economic stability and demographics

9.1.3* The entity shall review and revise the program based on post-incident analyses of mass evacuation, sheltering, and re-entry; lessons learned; and operational performance during exercises and real events.

9.1.4 The entity shall maintain records of its reviews and evaluations, in accordance with the records management practices developed under Section 4.6.

9.1.5 Documentation, records, and reports shall be provided to management for review and follow-up.

9.2 Corrective Actions.

9.2.1 The entity shall establish a corrective action process.

9.2.2 The entity shall take corrective actions on identified opportunities for improvement.

9.3 Continuous Improvement. The entity shall effect continuous improvement of the program through the use of program reviews and the corrective action process.

Annex A Explanatory Material

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

A.1.1 The annex sections found in this standard include material specific to each chapter and are intended to assist the end user with a mass evacuation, sheltering, and re-entry program.

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.

Δ A.3.3.3 Assistance Animal. Assistance animals are not required to be individually trained or certified. Dogs are the most common, but not the only type of assistance animal. An assistance animal is not a pet or a service animal.

This definition was developed in accordance with the Fair Housing Act and Air Carrier Access Act.

The AHJ must comply with federal statutory requirements and might have state, tribal, or local requirements to comply with legal protections and requirements for management of animals that do work or provide support for persons with disabilities and others with access and functional needs during mass evacuation, sheltering, and re-entry.

A.3.3.4 Business Continuity. Other terms for business continuity are *operational continuity* and *continuity of operations (COOP)*. In the public sector, the term *continuity of government (COG)* is also used.

A.3.3.10 Emergency Respite. Respite programs provide short-term and time-limited breaks for families and other caregivers. Respite often provides a positive experience for the person receiving care. The term *short break* is also used to describe respite care.

Δ A.3.3.11 Entity. See Annex G for more information on the use of the term *entities*.

A.3.3.15 Exercise. Exercise is the principal means of evaluating a program's ability to execute its response procedures. It allows the entity and stakeholder organizations to practice procedures and interact in a controlled setting. Participants identify and make recommendations to improve the overall program. Exercises include activities performed for the purpose of training and conditioning team members and personnel in appropriate responses, with the goal of achieving maximum performance. An exercise can include seminars, workshops, games, drills, tabletops, functional exercises, or full-scale exercises and involve the simulation of a response or operational continuity incident. Exercises can be announced or unannounced and involve participants role playing in order to identify issues that might arise in a real evacuation.

A.3.3.16 Incident. An *incident* occurs without warning or with only minimal warning, whereas an *event* can be predicted and pre-planned. A *continuum* exists from the interruption of normal operations to catastrophe. The continuum exists without definitive separation from one incident type to another.

A.3.3.21 Mutual Aid/Assistance Agreement. The term *mutual aid/assistance agreement*, as used in this standard, includes cooperative agreements, partnership agreements, memoranda of understanding, memoranda of agreement, intergovernmental compacts, and other terms commonly used for the sharing of resources. Agreements can be executed between and among any combination of public, private, and not-for-profit entities.

A.3.3.24 Prevention. The term *prevention* refers to activities, tasks, programs, and systems intended to avoid or stop an incident from occurring or reduce the impact of the incident.

A.3.3.25 Recovery. Recovery programs are designed to assist people affected by the disaster incident and their families, restore entities to suitable economic growth and confidence, relocate or rebuild destroyed property, and reconstitute government operations and services. Recovery actions can be short term or long term, often continuing long after the inci-

dent has ended. Recovery programs include mitigation components designed to avoid damage from future incidents.

A.3.3.26 Re-entry. Other terms, including *repatriotization*, *repopulation*, and *reunification*, are also used. The return to a previously evacuated area would be under the following restrictions:

- (1) The AHJ that ordered the evacuation authorizes the return for unrestricted use.
- (2) The re-entry would be authorized when the threat that caused the evacuation has been mitigated, infrastructure and utilities are secured, and emergency services restored.

A.3.3.27 Resource Management. This system includes a process for identifying, categorizing, ordering, mobilizing, tracking, and recovering and demobilizing resources, as well as a process for reimbursement for resources, as appropriate.

A.3.3.28 Response. The term *response* refers to the actions taken by an entity in reaction to an incident or event. Actions can include activities, tasks, programs, and systems to protect life safety, meet basic human needs, preserve operational capability, and protect property and the environment. An incident response can include protective actions for life safety (evacuation or shelter-in-place), sheltering, conducting damage assessment, initiating recovery strategies, and any other measures necessary to bring an entity to a more stable status.

Δ A.3.3.30 Service Animal. This definition was developed in accordance with the Fair Housing Act and Air Carrier Access Act.

The AHJ has federal statutory requirements and might have state, tribal, or local requirements to comply with legal protections and requirements for management of animals that do work or provide support for persons with disabilities and others with access and functional needs during mass evacuation, sheltering, and re-entry. In the United States, jurisdictions must, at a minimum, comply with service animal requirements of the Americans with Disabilities Act (ADA), as well as any additional protections afforded by state or local law, regulation, or policy.

N A.3.3.31 Shelter. Commonly used terms for types of shelters include medical shelter, evacuation shelter, hurricane shelter, storm shelter, emergency/disaster shelter, and alternate care site.

Commonly used terms for mass care facilities that do not provide overnight accommodations include disaster reception center, cooling or warming centers, convenience centers, and power and shower sites.

A.4.2 Terms other than *program coordinator* are in use. Different entities use various forms and names for the person who performs the program coordinator functions identified in this standard, for example, *emergency manager* (for the public sector) and *business continuity manager* (for the private sector). A written description of the position should be provided.

A.4.3.1 Mandating an entity to have a program committee/working group might, in some cases, violate the authorities under which the emergency management entity is established. Those entities that can have, or want to have, a program committee that will provide advice and guidance should be encouraged to do so.

A.4.3.3 When the representation on the program committee is being determined, consideration should be given to public sector representation on a private sector committee and vice versa, which will help to establish a coordinated and cooperative approach to the program.

A.4.4.1(2) Goals and objectives should be consistent with the entity's policy, vision, mission statement, roles and responsibilities, and enabling authority. Consideration also should be given to resource constraints, management support, regulatory requirements, and codes of practice.

A.4.4.1(3) Industry codes of practices and guidelines also should be considered. In the private sector, corporate policy might dictate the directives that should be followed. The entity should consider local cultural and religious customs as well as demographics when developing the program.

A.4.4.2 This hazards and risk assessment could be performed by the entity or by an external agency, professional engineer, or similar licensed professional.

A.4.5.1 Performance objectives should be established for all elements in the program and should be linked to human performance. When the performance is compared to criteria to determine if the performance meets expectations, the measurement and evaluation of performance are impossible without well-written performance objectives. Performance objectives should contain three essential parts:

- (1) *Performance.* Specific identification of expected behavior that is observable and measurable. If the specific behavior is based on expected knowledge (cognitive process) or attitudes (emotions, feelings), indicator behaviors should be used, because knowledge and attitude performance objectives are not directly observable and, therefore, are not measurable. An indicator behavior is observable and is based on either cognitive or emotional processes.
- (2) *Conditions.* Specific identification of exact location, tools, the equipment used, and so forth that will be part of the observable, measurable behavior.
- (3) *Criteria.* Specific criteria that will be used to compare the observed behavior so it can be determined if the performance objectives have been achieved.

A.4.5.4 The time frames that define short-term and long-term performance objectives should be developed by the entity. Examples of short-term objectives might include "initiate evacuation order" and "maintain current status of evacuation," while long-term objectives might include "prevent environmental damage" and "comply with regulatory requirements."

A.4.6.1 It is not the intent of this section to require a records management program for all of the entity's records.

A.4.7.1 The program should comply with applicable legislation, policies, regulatory requirements, and directives. The regulatory requirements include mandatory evacuation laws and laws to enforce mandatory evacuation. Annex I provides additional information.

A.4.7.2 Leadership should research applicable legal, regulatory, and other industry requirements that are related to the hazards, threats, and risks associated with the entity's facilities, activities, functions, products, services, and supply chain; the environment; and stakeholders. The entity should document this information and keep it up to date.

A.4.8.2 In addition to having sound financial and administration procedures for daily operations, it is equally important to have procedures in place that will allow an entity to expedite financial decision making and ensure that proper accounting occurs. The finance department should be actively involved with identifying, prioritizing, and purchasing internal and external resources.

A.5.1.1(1) Annex G provides information to complete the requirements.

A.5.1.1(6) The entity should be responsible for all personal protective equipment (PPE) used, whether the equipment is supplied by the entity or others. The PPE program should specify the responsibilities of the entity and of the personnel.

The entity is responsible for the following:

- (1) Performing a hazard assessment of the workplace to identify and control physical and health hazards
- (2) Identifying and providing appropriate PPE for employees
- (3) Training personnel in the use and care of the PPE
- (4) Maintaining PPE, including replacing worn or damaged PPE
- (5) Periodically reviewing, updating, and evaluating the effectiveness of the PPE program
- (6) Personnel reporting to the entity are responsible for the following:
 - (a) Properly wearing PPE
 - (b) Attending training sessions on PPE
 - (c) Cleaning and maintaining PPE
 - (d) Notifying a supervisor of the need to repair or replace PPE

A.5.1.2(6) Public information messages as warnings, notifications and communications should be presented to end user devices in a consistent way, so as to avoid confusion on their interpretation, especially by tourists, foreigners, or residents of other states. Even when using the same data standard, messaging system developers each make their separate presentation design choices. As a result, users often are often confused by inconsistent warning presentations. Every effort should be made to harmonize device developers' design choices when they deal with communicating emergency warnings to the public as publishers of messages from official alerting authorities.

A.5.2(3) See Annex D, Annex E, and Annex F, which support the requirement for a requirement analysis in planning.

A.5.3 Plans should be available in alternative formats, including large print, braille, and in languages common within the jurisdiction.

A.5.4.2 For information on coordinating with health care facilities requiring evacuation of patients, see 12.5.3.4.7 in NFPA 99.

A.5.4.4 See Annex C, which identifies risks related to mass evacuation, sheltering, and re-entry.

A.5.5 See Annex C.

A.5.5.3 Risk assessment is a process for identifying potential hazards/risk exposures and their relative probability of occurrence; identifying assets at risk; assessing the vulnerability of the assets exposed; and quantifying the potential impacts of the hazard/risk exposures on the assets. Periodic reassessment is needed when changes to the entity occur. Reassessment is also

necessary because hazards/risk exposures change over time, and the collective knowledge of hazard/risk exposures develops over time.

In addition to identifying hazards that could be the primary cause of an incident, consideration should also be given to those secondary hazards or cascading events that could cause additional impact to the entity and its assets. As an example, a fire could result in injury or death, property damage, interruption of operations, contamination of the environment, and negative attention on the entity.

Particular attention should be paid to the hazards that could affect the buildings that are going to be selected to shelter evacuees. As an example, the shelters' requirements could easily result in the selection of buildings in flat areas, often located in flooding-prone areas. While such hazard could be acceptable for most purposes, it is not for sheltering purposes when an emergency of such kind is ongoing.

A comprehensive risk assessment identifies the range of hazard/risk exposures, including threats or disruptive incidents, that have impacted or might impact the entity, surrounding area, or critical infrastructure supporting the entity. The potential impact of each threat, hazard/risk exposure, or disruptive incident is determined by the capabilities of the perpetrator, magnitude of the hazard, and scope of the incident; as well as the vulnerability of people, property, technology, the environment; the entity's operations to the threat, hazard, or incident; and the adequacy of existing mitigation. There are multiple methods to perform a risk assessment, but the entity should adhere to the following steps for conducting a comprehensive risk assessment:

- (1) Determine the methodology the entity will use to conduct the assessment and determine whether the entity has the necessary expertise to perform the assessment.
- (2) Consult with internal or external experts with the expertise to assess the vulnerability of the entity's assets from identified hazards.
- (3) Identify and categorize assets (human resources, buildings, equipment, operations, technology, electronic information, suppliers, vendors, third-party service providers, etc.).
- (4) Identify threats and hazards — natural, human caused (accidental and intentional), and technology caused.
- (5) Evaluate hazards/risks to which the entity is exposed.
- (6) Assess existing preventive measures and mitigation controls in place against credible threats.
- (7) Categorize threats, hazard/risk exposures, and potential incidents by their relative frequency and severity. Keep in mind that there might be many possible combinations of frequency and severity for each, as well as cascading impacts.
- (8) Evaluate the residual hazard/risk exposures (those that remain hazardous after prevention and mitigation activities).

A.5.6.1 See Annex D, Annex E, and Annex F, which provide detailed information on the requirements in the section.

A.5.6.2(3)(h) Two examples of cascading effects are an earthquake causing a tsunami or a hurricane causing a flood. An example of a secondary disaster would be multiple hurricanes.

A.5.6.3 See Annex D and Annex G.

A.5.6.4(3) See Annex E for best practice guidance on building safety and accessibility considerations in selection of resilient sheltering facilities and guidance on shelters for specific hazards.

A.5.6.4(5) See Annex H for detailed information on requirements for animals.

A.5.6.5 Sheltering facilities should be deemed appropriate for use as a temporary shelter facility for the applicable hazards by the local authority having jurisdiction and conform to the applicable structural, fire safety, means of egress, accessibility, light, ventilation, and sanitary requirements to ensure public health, safety, and general welfare.

A.5.9.2 The Emergency Communications Systems chapter in *NFPA 72* addresses critical equipment concerns for warning, notification, and communications systems regarding reliability, intelligibility of voice messages, signaling pathway survivability, secondary power, and interoperability with other alarm systems. See Annex J and Annex M for additional information.

A.5.9.3 See Annex J, which provides information on common information and templates for warning messages and alerts.

A.5.9.4 See Annex J, which provides information on common information and templates for warning messages and alerts.

A.5.10.6 These requirements might not apply to all types of shelters.

A.5.10.6(3) To maintain security and population count, all guests will be registered at the reception area and will be provided with wristbands, which will be scanned each time they go through the main entrance. However, if multiple shelters are used, the wristbands scanning systems could register data in different formats. In this way it could become difficult, if not impossible, to build up one consistent common operational picture — in real time, if possible, or later on. For this reason wristbands should adopt the same standard and encoding for the barcode and implement interoperability features into the scanning systems, so as to allow for a seamless data exchange. Whenever possible such wristbands should embed UHF-RFID tags, for a faster remote scanning, which could allow real-time population count, setting-up unsupervised RFID-fitted exit gates.

A.6.1 There are two types of incidents: no-notice incidents and advance-notice incidents.

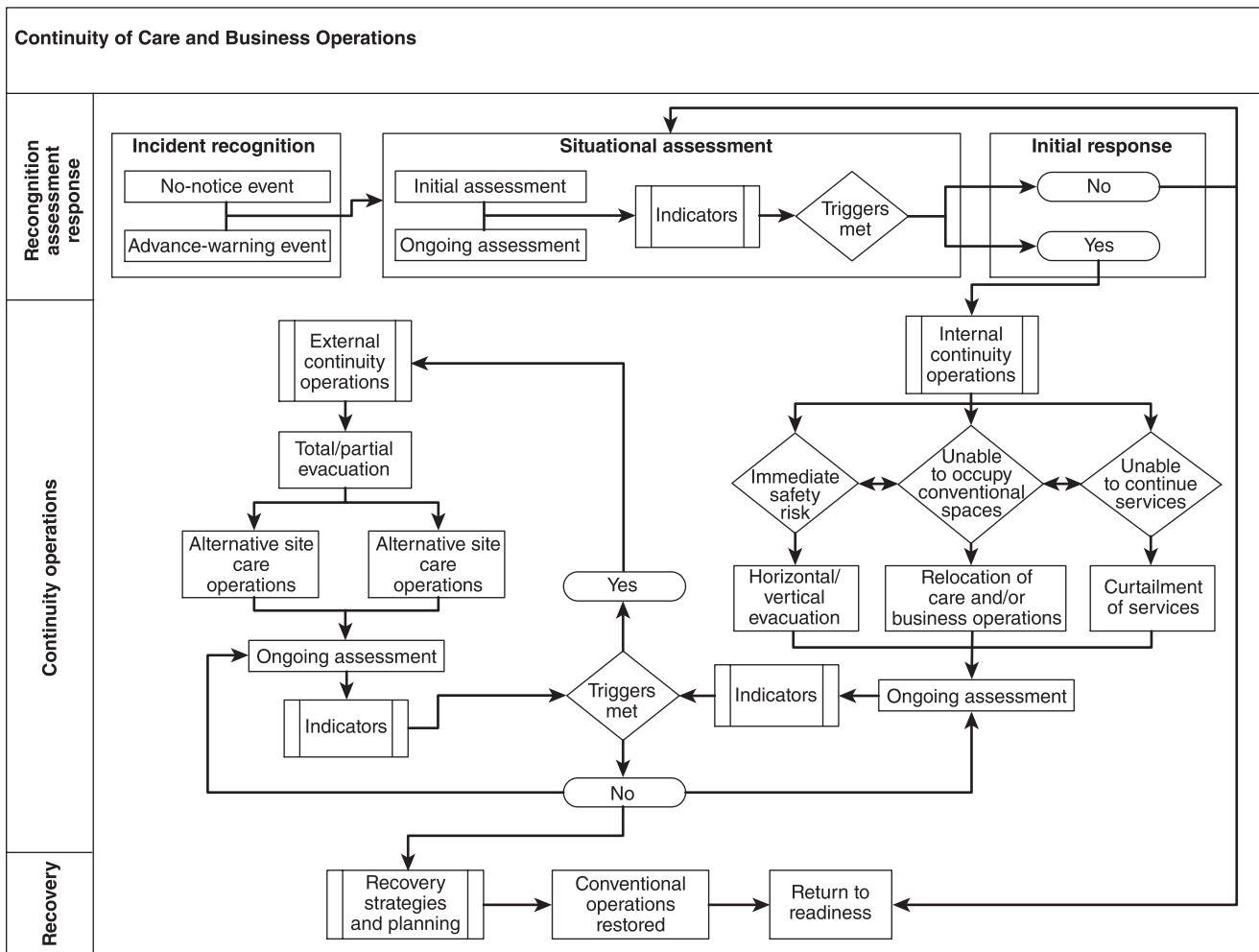
In no-notice incidents, the initial indicator is often instant recognition or notification of an event or incident (earthquake, fire alarm or 911 call reporting an incident) which prompts a response activity.

In advance-notice incidents or events, one or more indicators of a potential incident are monitored and evaluated over time, which might lead to an incident response activity.

A.6.2 See Annex J, which provides information on the interoperability of data to support mass evacuation, sheltering, and re-entry operations.

A.6.5.1 An organization's evacuation and sheltering planning process should include a decision flow chart for continuity of care and business operations, as shown in Figure A.6.5.1.

A.6.5.5 Information produced should be assembled in accessible formats in accordance with the American Disabilities Act (ADA) and the Rehabilitation Act.



▲ FIGURE A.6.5.1 Continuity of Care and Business Operations Decision Flow Chart.

A.6.5.7 Some entities involved with the evacuation and sheltering might not share information about those transported or sheltered.

A.6.6 Typical shelter operations are described in Annex E.

A.6.6.2 The following steps should be taken to identify and acquire buildings that can be used for sheltering:

- (1) Contact local realtors and possibly engage one.
- (2) Conduct site visits and carry out an initial and a comprehensive survey, as follows:
 - (a) Initial survey by the shelter operations team
 - (b) Comprehensive survey by other agencies and partners, including local Americans with Disabilities Act (ADA) compliance agencies, public works and utilities, health services, water supply systems, and local animal welfare agencies
- (3) Continually monitor building availability and lease terms
- (4) Consider a building's accessibility to the following:
 - (a) Highways
 - (b) Public transportation
 - (c) Shopping
 - (d) Medical facilities
 - (e) Animal shelter
 - (f) Reception
 - (g) Proximity to neighborhoods
 - (h) Schools
- (5) Assess the vulnerability of the building versus the identified hazards/risks

A.6.6.3(1) See Chapter 12 of NFPA 99 for information about coordinating with local health care facilities in the event of a health care evacuation.

A.7.6 The material should be prepared in multiple formats to ensure accessibility to the whole community.

A.7.7 See Annex L, which provides information on training that could be presented with shortened lead times.

A.8.2 An exercise is the principal means of validating a program's ability to implement its mass evacuation, sheltering, and re-entry policies, plans, procedures, training, equipment, and interagency agreements. Exercises also provide a means of clarifying and training persons in roles and responsibilities, improving interagency coordination and communications, identifying gaps in resources, improving individual performance, and identifying opportunities for improvement. It allows the entity and other agencies and organizations to practice and interact in a controlled setting. Participants identify and make recommendations for improvement of the exercises and the overall program.

A.8.3 Exercises should include, but not be limited to, orientation seminars, drills, tabletop exercises, functional exercises, and full-scale exercises.

Orientation Seminar. The orientation seminar is an overview or introduction. Its purpose is to familiarize participants with roles, plans, procedures, or equipment. It can also be used to resolve questions of coordination and assignment of responsibilities.

Drill. A drill is a coordinated, supervised exercise activity normally used to test a single specific operation or function. With a drill, there is no attempt to coordinate organizations or to fully activate the emergency operation center (EOC). Its role

in an exercise program is to practice and perfect one small part of the response plan and help prepare for more extensive exercises in which several functions will be coordinated and tested. The effectiveness of a drill is its focus on a single, relatively limited portion of the overall emergency management system. It makes possible a tight focus on a potential problem area.

Tabletop Exercise. A tabletop exercise is a facilitated analysis of an emergency situation in an informal, relatively stress-free environment. It is designed to elicit constructive discussion as participants examine and resolve problems based on existing operational plans and identify where those plans need to be refined. The success of the exercise is determined largely by group participation in the identification of problem areas.

Functional Exercise. A functional exercise is a fully simulated interactive exercise that tests the capability of an organization to respond to a simulated event. The exercise tests multiple functions of the organization's operational plan. It is a coordinated response to a situation in a time-pressured, realistic simulation.

Full-Scale Exercise. A full-scale exercise simulates a real event as closely as possible. It is designed to evaluate the operational capability of emergency management systems in a highly stressful environment that simulates actual response conditions. To accomplish this realism, it can include the mobilization and actual movement of emergency personnel, equipment, and resources. Ideally, the full-scale exercise should test and evaluate most functions of the emergency management plan or operational plan.

A.9.1 Performance improvement is based on two distinct but interrelated functions:

- (1) *Measurement.* Sometimes called "assessment," measurement is the function in which the personnel determine what organizational performance has occurred.
- (2) *Evaluation.* Evaluation is the function in which the observed performance is compared with criteria, sometimes called "standards" or "competencies," to determine if the actual organizational performance meets expectations.

A.9.1.3 The facility's mass evacuation, sheltering, and re-entry plan should be evaluated through exercises. As with any emergency incident or exercise, an after-action report (AAR) should be completed to identify lessons learned and processes that can be improved for the future. The AAR should solicit feedback from all participants involved and should provide a frame of reference from which leaders can make improvements.

Annex B Self-Assessment for Conformity with NFPA 1616

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

B.1 Table B.1 is a self-assessment tool to assist entities in determining conformity with the requirements of NFPA 1616. The table includes a list of hazards from Annex A and repeats text from the body of the standard where needed to make the self-assessment tool more user friendly. Users of this self-assessment tool can indicate conformity, partial conformity, or nonconformity as well as evidence of conformity, corrective action, task assignment, a schedule for action, or other information in the Comments column.

Table B.1 Self-Assessment Tool for Conformity with the 2020 Edition of NFPA 1616

NFPA 1616 Program Elements	Conforming	Partially Conforming	Nonconforming	Comments
Chapter 4 Mass Evacuation, Sheltering, and Re-entry Program Management				
4.1 Leadership and Commitment.				
4.1.1 The entity leadership shall demonstrate commitment to the program to evacuate, provide shelter, and facilitate re-entry.				
4.1.2 The leadership commitment shall include the following:				
(1) Support the development, implementation, and maintenance of the program				
(2) Provide necessary resources to support the program				
(3) Ensure the program is reviewed and evaluated as needed to ensure program effectiveness				
(4) Support corrective action to address program deficiencies				
(5) Lead and support the program and execution of the mass evacuation, sheltering, and re-entry				
(6) Ensure compliance with legal protections afforded to persons with disabilities and other access and functional needs, including access for service and assistance animals				
4.1.3 The entity shall adhere to policies, execute plans, and follow procedures developed to support the program.				
4.2 Program Coordinator. An individual shall be appointed by the entity's leadership and authorized to develop, implement, administer, evaluate, and maintain the program.				
4.3 Program Working Group.				
4.3.1 A program working group shall be established by the entity in accordance with its policy.				
4.3.2 The program working group shall provide input and/or assist in the coordination of the preparation, development, implementation, evaluation, and maintenance of the program.				
4.3.3 The program working group shall include the program coordinator and representation from the whole community.				
4.3.4 The program working group shall integrate all elements necessary for mass evacuation, sheltering, and re-entry within the entity and coordinate with other entities affected by these operations.				
4.4 Program Administration.				
4.4.1 The entity shall have a documented program that includes the following:				
(1) Policy, including roles and responsibilities, and the enabling authority				
(2) Program scope, goals, performance objectives, and metrics for program evaluation				
(3) Applicable authorities, legislation, regulations, and industry codes of practice as required by Section 4.7				
(4) Program plans and procedures that include the following:				
(a) Anticipated program cost				
(b) Resources required				
(c) Maintenance schedule				
(d) Records management practices of the entity as required by Section 4.6				
4.4.2 The program shall include an all-hazards approach and risk assessment.				

(continues)

Table B.1 *Continued*

NFPA 1616 Program Elements	Conforming	Partially Conforming	Nonconforming	Comments
4.5 Performance Objectives.				
4.5.1 The entity shall establish performance objectives for the program in accordance with the elements in Chapters 5 through 9.				
4.5.2 The performance objectives shall address the results of the hazard identification, the risk assessment, and the requirements analysis.				
4.5.3 Performance objectives shall address both short-term and long-term needs of evacuees, including persons with disabilities and other access and functional needs.				
4.5.4 The entity shall define <i>short term</i> and <i>long term</i> .				
4.6 Records Management.				
4.6.1 The entity shall develop, implement, and manage a records management program to ensure that records are available to the entity following an evacuation.				
4.6.2 Records management is designed to aid in the identification, backup, protection, and access to paper-based and electronic records that are vital to the entity and required for mass evacuation, sheltering, and re-entry.				
4.6.3 The program shall include the following:				
(1) Identification of records (hard copy or electronic) vital to continue the operations of the entity				
(2) Backup of records as necessary to meet program goals and objectives				
(3) Validation of the integrity of records backup				
(4) Implementation of procedures to store, retrieve, and recover records onsite or offsite				
(5) Storage and protection of records				
(6) Implementation of a record review process				
(7) Procedures coordinating records access within and outside the organization				
(8) Executing a retention policy to archive and destroy records according to operational needs, operating procedures, statutes, and regulations				
4.7 Laws and Authorities.				
4.7.1 Mass evacuation, sheltering, and re-entry programs are covered by law or voluntary guidelines.				
4.7.2 The entity shall implement a strategy for addressing the need for revisions to legislation, regulations, directives, policies, and industry codes of practice.				
4.8 Finance and Administration.				
4.8.1 The entity shall develop finance and administrative procedures to support the program before, during, and after an evacuation.				
4.8.2 There shall be a responsive finance and administrative framework that does the following:				
(1) Complies with the entity's program requirements				
(2) Provides direct linkages to mass evacuation, sheltering, and re-entry operations				
(3) Provides for maximum flexibility while retaining accountability				
4.8.3 Finance and administrative procedures shall include the following:				
(1) Accounting systems to track and document costs				

(continues)

Table B.1 *Continued*

NFPA 1616 Program Elements	Conforming	Partially Conforming	Nonconforming	Comments
(2) Program procurement procedures				
Chapter 5 Planning				
5.1 Plan Requirements.				
5.1.1 The plan shall address the health and safety of personnel as follows:				
(1) Identify actions to be taken to protect persons with disabilities, including those with access and functional needs				
(2) Include an accountability system for all response personnel				
(3) Monitor the health and well-being of response personnel				
(4) Establish rehabilitation of personnel				
(5) Ensure security and protection for response personnel				
(6) Provide appropriate personal protective equipment for response personnel				
5.1.2 The plan shall identify and document the following:				
(1) Assumptions made during the planning process				
(2) Responsibilities for carrying out specific actions in a mass evacuation, sheltering, and re-entry; functional roles and responsibilities of internal and external agencies, organization, departments, and positions; lines of authority				
(3) Trigger points to activate the evacuation plan				
(4) Logistics support and resource management requirements				
(5) Operational communications				
(6) Public information, including warnings, notifications, and communications				
5.1.3 The entity shall make sections of the plans available to those assigned specific tasks and responsibilities therein and to key stakeholders as required.				
5.2 Plan Assumptions. The plan's assumptions shall be based on the following:				
(1) Research on human behavior and the results of threat				
(2) Hazard identification and risk assessment				
(3) Requirements analysis				
(4) Resource analysis				
(5) The number of people requiring evacuation				
(6) That evacuation will require sheltering and re-entry				
(7) Projections for the number of people requiring sheltering				
(8) Projections for the number of people requiring re-entry				
(9) That animals will be evacuated and sheltered as appropriate and feasible to safeguard human lives and facilitate an evacuation				
(10) The types of vehicles required to transport persons with disabilities and other access and functional needs				
(11) The number of responders required to complete the evacuation process				

(continues)

Table B.1 *Continued*

NFPA 1616 Program Elements	Conforming	Partially Conforming	Nonconforming	Comments
(12) Development and implementation of plans and procedures to identify populations requiring assistance and arranging transportation for persons with disabilities and other access and functional needs during mass evacuation, sheltering, and re-entry				
(13) Determination of physical requirements for evacuee assembly points, emergency respite stop, and staging/reception areas				
(14) Coordination with local medical facilities to identify plans and resources in the event that these facilities require evacuation into a shelter				
5.3 Plan Format.				
5.3.1 Plans shall include the following:				
(1) All hazards approach and risk assessment				
(2) Evacuation				
(3) Mass sheltering				
(4) Re-entry				
5.3.2 Plans shall be individual documents, integrated into a single plan document, or a combination of the two.				
5.4 Planning Process.				
5.4.1 A process shall be established that develops, evaluates, and improves capabilities required to implement the program.				
5.4.2 The entity shall include key stakeholders and operational entities in the process.				
5.4.3 The entity shall develop a set of trigger points on which to base planning efforts, including the following:				
(1) The plan shall be reviewed at least annually.				
(2) The plan shall be reviewed after each incident.				
5.4.4 The trigger points shall identify specific actions to be taken based on specific events, threats, or hazards.				
5.5 Threat, Hazard Identification, and Risk Assessment.				
5.5.1 The entity shall identify the potential threats or hazards that could require evacuation and/or sheltering.				
5.5.2 Natural and human-caused hazards specific to the jurisdictions that require evacuation and sheltering shall be considered during the risk assessment.				
5.5.3 The entity shall identify the threats and risks associated with mass evacuation, sheltering, and re-entry.				
5.5.4 The entity shall develop a safety analysis of the threats, hazards, and risks.				
5.6 Requirements Analysis.				
5.6.1 The entity shall conduct a requirements analysis for mass evacuation, sheltering, and re-entry that is based upon the threat hazard identification and risk assessment.				
5.6.2 The requirements analysis shall include the following:				
(1) Characteristics of the potentially affected population, including persons with disabilities and other access and functional needs, number of infants and toddlers, and animal populations.				
(2) Existence of mandatory evacuation laws and expected enforcement of the laws				

(continues)

Table B.1 *Continued*

NFPA 1616 Program Elements	Conforming	Partially Conforming	Nonconforming	Comments
(3) Characteristics of the incident that trigger consideration for evacuation shall include the following:				
(a) Weather, season, and environmental conditions				
(b) Speed of onset				
(c) Magnitude				
(d) Location and direction				
(e) Duration				
(f) Resulting damages to essential functions				
(g) Cultural and religious practices				
(h) Risk for cascading effects and secondary disasters				
(i) Capability of transportation routes and systems to transport life-sustaining materials (food, water, medical supplies) into the affected area				
5.6.3 The program shall consider the following conditions to determine whether evacuation or sheltering-in-place is appropriate to the situation and the resources available:				
(1) The anticipated impact and duration of the incident				
(2) The distance to appropriate sheltering facilities				
(3) The availability of and access to transportation to those facilities				
(4) The ability to communicate with the affected population within the required timeframe				
5.6.4 Factors to be considered in planning for evacuation and sheltering shall include the following:				
(1) Establishment of single or unified command				
(2) Development of a joint information system to notify the public and provide an assessment of the time needed to reach people with the information				
(3) Identification of appropriate sheltering facilities by location, size, and types of services available, accessibility, and building safety				
(4) Identification of the modes and routes for evacuee transportation and the time needed to reach them				
(5) Sources of evacuee support services				
(6) Manpower requirements based on various potential shelters				
5.6.5 Factors to be considered in the planning for re-entry shall include the following:				
(1) Controlling access to restricted areas for security and evacuee safety				
(2) Prioritizing building inspection and permitting				
(3) The availability of and requirements for functioning infrastructure and utilities				
5.7 Resource Needs Assessment.				
5.7.1 The entity shall conduct a resource needs assessment.				
5.7.2 The resource needs assessment shall include the following:				
(1) Human resources, stakeholders, equipment, training, facilities, funding, expert knowledge, materials, technology, information, intelligence, and the time frames within which they will be needed				
(2) Quantity, response time, capability, and cost				

(continues)

Table B.1 *Continued*

NFPA 1616 Program Elements	Conforming	Partially Conforming	Nonconforming	Comments
5.7.3 The entity shall plan to locate, acquire, store, distribute, maintain, test, and account for services, human resources, equipment, and materials procured to support the program.				
5.7.4 Facilities with known capabilities and partner agreements shall be pre-identified during the assessment and planning process.				
5.7.5 Established mutual aid/assistance or partnership agreements shall be included in the plan.				
5.8 Communications and Public Information.				
5.8.1 The entity shall develop a plan and procedures to disseminate information related to mass evacuation, sheltering, and re-entry to and respond to requests for information from the following audiences before, during, and after an incident: (1) Internal audiences, including employees				
(2) External audiences, including the general population, media, access and functional needs populations, community partners, and other stakeholders				
5.8.2 The entity shall establish and maintain a communications and public information plan that considers the following: (1) Central contact facility or communications hub				
(2) Physical or virtual information center				
(3) System for gathering, monitoring, and disseminating information				
(4) Procedures for developing and delivering coordinated messages				
(5) Protocol to clear information for release				
5.9 Warnings, Notifications, and Communications.				
5.9.1 The entity shall determine its warning, notification, and communication needs for incidents requiring mass evacuation, sheltering, and re-entry.				
5.9.2 Emergency warning, notification, and communications systems shall be reliable; interoperable; and, when feasible, redundant; and take into account persons with disabilities and other access and functional needs.				
5.9.3 Emergency communications protocols and procedures shall be developed, tested regularly, and used to alert and warn stakeholders potentially at risk from an actual or impending hazard.				
5.9.4 Procedures shall include issuing warnings through authorized agencies if required by law as well as the use of pre-scripted information bulletins or templates.				
5.9.5 The same system used to issue pre-evacuation notifications shall be used to issue evacuation orders.				
5.10 Operational Procedure Planning.				
5.10.1 The entity shall develop operational procedures to support the plan.				
5.10.2 Procedures shall be established for mass evacuation, sheltering, and re-entry.				
5.10.3 Procedures shall consider life safety, property conservation, incident stabilization, continuity, and protection of the environment.				
5.10.4 Procedures shall include the following: (1) Triggers for use in decision making for shelter-in-place or evacuation				
(2) Triggers for re-entry operations				

(continues)

Table B.1 *Continued*

NFPA 1616 Program Elements	Conforming	Partially Conforming	Nonconforming	Comments
(3) Evacuation procedures				
5.10.5 The evacuation plan shall consider the following positions based on the size and complexity of the incident:				
(1) Incident commander and deputies				
(2) Command staff				
(3) General staff				
5.10.6 Sheltering procedures shall take into consideration the following:				
(1) Evacuee and animal registration				
(2) Facility management				
(3) Security and building access control				
(4) Parking and traffic control				
(5) Public information, public affairs, media relations				
(6) Dormitory management				
(7) Medical and mental health services				
(8) Disability-related needs for services, equipment, and accommodations				
(9) Personal assistance services				
(10) Communications and information technology				
(11) Recovery information and resident messaging				
(12) Family reunification				
(13) Reunification of animals to owners				
(14) Risk management and loss control				
(15) Janitorial				
(16) Building maintenance and engineering				
(17) Logistical support				
(18) Bulk distribution				
(19) Donation and volunteer management				
(20) Entertainment/recreation				
(21) Child care				
(22) Animal sheltering				
(23) Laundry service				
(24) Client transportation				
(25) Postal service				
(26) Meal service				
(27) Spiritual care services				
(28) Children's social services				
(29) Charging station and electrical connections for electrical devices (e.g., phones, tablets, and so forth)				
5.10.7 Re-entry procedures shall be as given in 5.10.7.1 through 5.10.7.3.				
5.10.7.1 Those responsible for managing the evacuation shall ensure the transition to re-entry through performance objectives.				

(continues)

Table B.1 *Continued*

NFPA 1616 Program Elements	Conforming	Partially Conforming	Nonconforming	Comments
5.10.7.2 The entity shall determine the area is safe prior to re-entry.				
5.10.7.3 The entity shall determine the infrastructure is sufficient to support re-entry.				
5.10.8 Procedures shall consider concurrent mass evacuation, sheltering, and re-entry operations.				
6.1 Incident Recognition.				
6.1.1 The entity shall notify the appropriate officials of the emergency or impending emergency.				
6.1.2 The appropriate plans shall be activated when further actions are warranted.				
6.2 Situational Assessments.				
6.2.1 Initial Assessment.				
6.2.1.1 Depending on the nature of the incident, the initial situational assessment shall include an assessment of the impact to persons, animals, and property, infrastructure status, the availability of resources, and weather conditions.				
6.2.1.2 Based on the initial assessment, the entity shall decide whether to evacuate or shelter-in-place.				
6.2.2 Assessment and Evaluation. Assessments shall include evaluations of the effectiveness of previous and current actions.				
6.3 Notifications and Activation.				
6.3.1 Based upon the characteristics of the incident, those responsible for managing the incident shall make the necessary notifications to appropriate resources, directing them where and when to report.				
6.3.2 Those responsible for managing the incident shall provide content for public information and warning messages, which will be approved and disseminated using the jurisdiction's established public information and warning policies and procedures.				
6.4 Mobilization. Those responsible for managing the incident shall identify and mobilize the appropriate resources to support the initial incident objectives.				
6.5 Evacuation Operations.				
6.5.1 The entity shall be responsible for managing the evacuation operations.				
6.5.2 In implementing the evacuation plan the entity shall consider the following:				
(1) Occurrences that might require evacuation				
(2) Priority of evacuation				
(3) Procedures to request and coordinate required transportation assets from jurisdictional agencies				
(4) Arrangements for transporting evacuees, including persons with disabilities and others with access and functional needs, and their animals				
(5) Evacuation timeline				
(6) Traffic management				
(7) Refueling, safety, and motorist assistance requirements				

(continues)

Table B.1 *Continued*

NFPA 1616 Program Elements	Conforming	Partially Conforming	Nonconforming	Comments
6.5.3 The entity responsible for managing the evacuation shall continue to monitor media sources, public reports, incident characteristics, and progress of the operation, reflecting changing conditions that impact the incident objectives and incident action plan.				
6.5.4 The entity responsible for managing the evacuation shall provide for the safety and health of evacuees and responders during all decision making.				
6.5.5 The entity responsible for managing the evacuation shall determine potential resource requirements to ensure that resource management supports evacuation operations.				
6.5.6 The entity responsible for managing the evacuation shall continue to provide updated information to the public through the joint information system.				
6.5.7 The entity responsible for managing the evacuation shall utilize a record-keeping process for tracking of those persons (including their animals and property) provided transportation, sheltering, or other assistance. <i>(See Section 4.6.)</i>				
6.5.8 The entity managing the evacuation shall ensure appropriate record keeping of costs and claims associated with the evacuation. <i>(See Section 4.6.)</i>				
6.6 Sheltering Operations.				
6.6.1 The entity shall provide procedures and coordinate components necessary to provide shelter to evacuees.				
6.6.2 The entity shall provide for a safe and secure environment for evacuees.				
6.6.3 The shelter plan address the basic needs of evacuees, including the following:				
(1) Medical support				
(2) Persons with disabilities and others with access and functional needs support				
(3) Cultural and religious support				
(4) Animals, including pets and service and assistance animals				
(5) Support services, including food, water, first aid, and personal care				
(6) Gender identity in accordance with applicable laws, regulations, and policies				
6.6.4 The entity shall provide information and accessibility on the location of shelters.				
6.7 Transition to Interim and Recovery Housing. The entity shall ensure processes and procedures for transitioning individuals unable to return home into interim or long-term recovery housing.				
6.8 Transition to Re-entry.				
6.8.1 The entity responsible for managing the evacuation shall ensure the transition to re-entry through performance objectives.				
6.8.2 The entity shall determine when the area is safe prior to evacuees returning.				
6.8.3 The entity shall determine whether the infrastructure is sufficient to support re-entry.				

(continues)

Table B.1 *Continued*

NFPA 1616 Program Elements	Conforming	Partially Conforming	Nonconforming	Comments
6.8.4 The entity shall complete a damage assessment prior to initiating re-entry.				
7.1 Curriculum. The entity shall develop and implement a competency-based training and education curriculum that supports all persons who have a role in the program.				
7.1.1 All persons involved shall have a basic understanding of the incident command system (ICS) and how the AHJ will implement the command functions and allocation of resources.				
7.1.2 Persons who will fill command functions shall have documented additional competency-based training.				
7.2 Goals of the Curriculum. The goals of the curriculum shall be to create awareness and to enhance the knowledge, skills, and abilities required to implement, support, and maintain the program.				
7.3 Scope and Frequency of Instruction. The scope of the curriculum and the frequency of instruction shall be identified by the AHJ.				
7.4 Record Keeping. Records of training and education shall be maintained as specified in Section 4.6.				
7.5 Regulatory and Program Requirements. The curriculum shall comply with applicable regulatory and program requirements.				
7.6 Public Education. A public education program shall be implemented to communicate the following:				
(1) Community awareness of potential hazards				
(2) Understanding how and when a declaration of shelter-in-place or evacuation will take place				
(3) Preparation for and safety during shelter-in-place				
(4) Sources of reliable information on evacuation				
(5) Evacuation warnings and orders				
(6) Preparations for and safety during evacuation				
(7) Consequences of refusal to evacuate				
(8) Preparations for and safety during sheltering				
(9) How re-entry information will be determined and communicated to all persons.				
7.7 Training Delivery. Training delivery to support mass evacuation, sheltering, and re-entry shall be presented by competent personnel.				
8.1 Program Evaluation.				
8.1.1 The entity shall evaluate program plans, procedures, training, and capabilities and promote continuous improvement through periodic exercises.				
8.1.2 The entity shall evaluate the program based on post-incident analyses of mass evacuation, sheltering, and re-entry; lessons learned; and operational performance during exercises in accordance with Chapter 9.				
8.1.3 Exercises shall be documented.				
8.2 Exercise Methodology.				
8.2.1 Exercises shall provide a standardized methodology to practice and interact with other entities (internal and external) in a controlled setting.				

(continues)

Table B.1 *Continued*

NFPA 1616 Program Elements	Conforming	Partially Conforming	Nonconforming	Comments
8.2.2 Exercises shall be designed to assess the maturity of program plans, procedures, and strategies.				
8.3 Design of Exercises. Exercises shall be designed to do the following:				
(1) Ensure the safety of people, animals, property, and the environment involved in the exercise				
(2) Evaluate the program				
(3) Identify planning and procedural opportunities for improvement				
(4) Validate recently changed procedures or plans				
(5) Clarify roles and responsibilities				
(6) Obtain participant feedback and recommendations for program improvement				
(7) Measure improvement compared to performance objectives				
(8) Improve coordination among internal and external teams, organizations, and entities				
(9) Validate training and education effectiveness				
(10) Increase awareness of hazards and the potential impact of hazards				
(11) Identify additional resources and assess the capabilities of existing resources, including personnel and equipment needed for effective mass evacuation, sheltering, and re-entry. The resources need to take into account persons with disabilities and other access and functional needs and owners and their animals.				
(12) Practice the deployment of resources to manage mass evacuation, sheltering, and re-entry				
(13) Assess the ability to manage the mass evacuation, sheltering, and re-entry program				
(14) Improve individual performance				
8.4 Exercise Evaluation. Exercises shall evaluate program plans, procedures, training, and capabilities to identify opportunities for improvement.				
8.5 Frequency.				
8.5.1 Exercises shall be conducted on the frequency needed to establish and maintain required capabilities.				
8.5.2 The entity shall establish the schedule for exercises.				
9.1 Program Reviews. The entity shall maintain and improve the program by evaluating its effectiveness using performance objectives and by identifying corrective and preventive action changes based upon assessments and evaluations conducted during exercises and real events.				
9.1.1 The entity shall improve effectiveness of the program through incorporation of identified preventive and corrective actions.				
9.1.2 The program shall be re-evaluated when a change in any of the following affects the entity's program:				
(1) Regulations				
(2) Hazards and potential impacts				
(3) Resource availability or capability				
(4) The entity's organizational structure or operations				

(continues)

Table B.1 *Continued*

NFPA 1616 Program Elements	Conforming	Partially Conforming	Nonconforming	Comments
(5) Funding changes				
(6) Infrastructure, including technology environment				
(7) Economic stability and demographics				
9.1.3 The entity shall review and revise the program based on post-incident analyses of mass evacuation, sheltering, and re-entry; lessons learned; and operational performance during exercises and real events.				
9.1.4 The entity shall maintain records of its reviews and evaluations, in accordance with the records management practices developed under Section 4.6.				
9.1.5 Documentation, records, and reports shall be provided to management for review and follow-up.				
9.2 Corrective Actions.				
9.2.1 The entity shall establish a corrective action process.				
9.2.2 The entity shall take corrective actions on identified opportunities for improvement.				
9.3 Continuous Improvement. The entity shall effect continuous improvement of the program through the use of program reviews and the corrective action process.				

Annex C Risk Management of Mass Evacuation, Sheltering, and Re-entry

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

C.1 Risk Management Consideration. The matrix in Table C.1 lists risks that might be encountered leading up to and during sheltering-in-place, mass evacuation, sheltering, and re-entry, along with potential strategies for mitigation. This tool is intended to assist entities preparing plans in advance of an incident,

recognizing that there are many risks and mitigation strategies not identified here. The planning effort must consider the various risks that can be expected in individual jurisdictions and the mitigation strategies identified to address those risks. Note: The risks and the mitigation strategies are not intended to be all-inclusive or comprehensive but to provide a starting point for discussions and consideration.

C.2 For additional information on risk management, see NFPA 1250, NFPA 1300, and Chapter 5 of NFPA 1730.

Table C.1 Risk Identification and Potential Mitigation Strategies

Potential Risks	Potential Mitigation Strategies
Onset of Incident	
Failure to recognize impending incident could require shelter-in-place or evacuation determination; no-notice incidents	Evacuation plan should identify various triggers that assist the AHJ in recognizing circumstances that could require shelter-in-place or evacuation orders to be given.
Inadequate identification of area(s) to be evacuated	Evacuation plan should provide the AHJ with considerations for area(s) that should be evacuated based on a variety of factors including, but not limited, to expected hazard, time of onset, areas susceptible to negative impacts, at-risk populations, and egress limitations.
Inadequate lead time to accomplish evacuation	Evacuation plan should provide the AHJ with guidance as to the expected lead time necessary to evacuate areas based on the expected hazard and resources available.
Inadequate consideration given to priority of evacuation areas	Evacuation plan should provide the AHJ with prioritized considerations for areas with higher risk potential or exposure that could require additional resources or time to evacuate.
Resources for use in evacuation unavailable or otherwise allocated	Evacuation plan should identify available resources to assist with evacuation and a means of confirming their availability for use at the time of need. Depending on circumstances of the incident, command might need to identify potential alternative sources for the resources.
Shelter-in-Place	
Inadequate knowledge of shelter-in-place areas	Public education on shelter-in-place preparations.
Inadequate protection from harm to people and animals	Public education through schools, churches, nongovernmental organizations (NGOs), animal shelters, and medical and veterinary doctors.
Notification to Evacuate	
Failure to effectively communicate who does or does not need to evacuate	Evacuation plan should include evacuation alerting and communication strategies that will be used. These strategies should identify emergency notification tools such as public alert systems and communication strategies using conventional public media (e.g., radio, television), websites, and social media. Communications must provide detailed yet easily understood information explaining who should act and what actions they should take.
Evacuees might not understand what they need to take or leave when evacuating	Public education to include what items evacuees should take including, but not limited to, the following: important documents (passports, insurance papers, identifications, and so forth), medications, personal items, credit cards, cash, food, and so forth. Public education to also identify prohibited items that should be left behind if reporting to a shelter.
Power failure significantly affecting ability to notify the public of the need to evacuate	Evacuation plan should include alternative strategies for notification should widespread power outages limit the ability to communicate through normal channels. Strategies could include first responders utilizing vehicular public address systems and door-to-door notification.
Shadow evacuations (i.e., evacuations of persons outside the identified evacuation areas), increasing traffic volume on evacuation routes, and sheltering/resource demands	Evacuation plan should include alerting and communications strategies for situations in which specific areas or groups need to evacuate and others do not. Specific messaging regarding the consequences of unnecessary or unaffected area evacuations on the availability of resources.
Unattended animals left behind when owners evacuate	Regardless of expected length of evacuation, evacuation notices should inform animal owners that they are to take their animal with them when they leave, where feasible. All animal owners should be encouraged to plan and prepare for evacuation of their animal.
Resource limitations	Evacuation should identify resource requirements and how those resources will be obtained and assigned. If door-to-door notifications are part of the evacuation plan, consideration will need to be given to the number of physical resources required to complete the notification within an adequate timeframe to allow for effective evacuation.

(continues)

Table C.1 *Continued*

Potential Risks	Potential Mitigation Strategies
Refusal to evacuate	Evacuation plan should include information for the AHJ on how to deal with individuals who refuse to leave under mandatory evacuation orders. The policy will depend on local authorities and legislation applicable to the situation. While it is suggested that resources not be dedicated to removing individuals from impacted or potentially impacted areas, it is important that the AHJ provide information to those who refuse to evacuate regarding the risks associated with refusal and the potential inability of responders to assist during hazardous conditions or their inability to return to the impacted area.
Security of evacuated areas	Evacuation plan should include information on if, how, and when security will be provided for the evacuated areas.
Evacuation issues with hospitals and other resident health care facilities	The AHJ should ensure that hospitals and other resident health care facilities have comprehensive emergency response plans in place for their facilities that include shelter-in-place and evacuation provisions. The AHJ will need to consider how to assist should the facilities' plans prove to be inadequate or they become overwhelmed.
Transportation-disadvantaged and persons with disabilities and others with access and functional needs	Evacuation plan should provide guidance for the AHJ to manage those who do not have a means of transportation available to evacuate. Consideration must be given for those persons with disabilities and others with access and functional needs who will require additional assistance and resources to be able to evacuate.
Routes of egress impeded by disabled vehicles or other obstacles	Evacuation plan should include support for evacuation routes to include fuel sources for vehicles that run low on fuel as well as tow trucks or other means to move disabled vehicles from the traffic lanes.
Evacuation routes inadequate for traffic flow requirements	Evacuation pre-planning should include transportation officials to identify strategies that will be used for effective traffic management during evacuations. Traffic management plans should include anticipated number of vehicles, how egress will be managed, and implementation of contra-flow lanes if contra-flow is part of the evacuation plan.
Emergent conditions along evacuation routes	Evacuation plan should consider provisions for response of fire and emergency medical responders along evacuation routes for fires, motor vehicle collisions, and medical issues.
Resources to Manage Evacuation	
Insufficient emergency personnel	Established continuity of operations plans should include guidance for emergency personnel and their families to ensure they are prepared for emergencies and evacuation thereby personnel are available for duty; potential provision of assistance to family members of emergency personnel during evacuations; and mutual aid agreements with nearby communities for emergency personnel. Examine policies and labor agreements that could affect the ability to utilize personnel.
Insufficient transportation personnel	Evacuation pre-planning should include mass transportation officials and include provisions for family members of (essential operations personnel such as vehicle operators or pilots. Established continuity of operations plans should include guidance for transportation personnel and their families to ensure they are prepared for emergencies and evacuation thereby personnel are available for duty. Transportation resources might require mutual aid agreements with nearby communities.
Sheltering	
Insufficient number of shelters	Sheltering plan should include identification of sufficient shelter space to accommodate the anticipated number of evacuees; could include multiple shelters or a mega shelter. Consideration of contingency shelters should be included in the sheltering plan for instances where an existing shelter is damaged due to the unfolding incident.
Inadequate facilities	Sheltering plan should include minimum criteria for facilities to serve as shelters along with necessary (e.g., bathrooms, showers, laundry, and so forth) and recommended (e.g., children's play areas, quiet rooms, and so on) ancillary support services. Facilities should be intact and structurally sound.

(continues)

Table C.1 *Continued*

Potential Risks	Potential Mitigation Strategies
Insufficient resources to maintain shelter	Sheltering plan should include minimum criteria for service provisions, including shelter staffing, security, feeding plans, cots/bedding, medical needs/prescriptions, and so forth.
Providing for persons with disabilities and others with access and functional needs	Sheltering plan should address meeting the needs of persons with disabilities and others with access and functional needs.
Managing animals in shelters	Sheltering plan should address how evacuees with animals, including pets, service animals, and assistance animals, will be managed, including remote, colocated, or cohabitational pet/animal shelters, as well as provisions in general-population shelters for service animals and assistance animals based on legal requirements.
Sex offenders arriving at shelters	Sheltering plan should address how sex offenders who present at shelters will be handled.
Persons arriving at shelters with weapons	Plans should identify how persons will be screened for weapons and how found weapons will be managed.
Record keeping; reunification issues	Sheltering plan should address plans for a reception center (remote or onsite), registration, and reunification. Unaccompanied minors will need to be accounted for, separated from the general population, and supervised until the appropriate social services or law enforcement agency is able to reunite the minor with parents or guardians.
Inadequate fire and life safety provisions in shelters	Shelter plans should address facility evacuation preplanning, training/education for evacuees, and shelter personnel, along with control of ignition sources, electrical equipment, emergency lighting, and maintaining means of egress.
Extended response time from emergency responders	Shelters might not have immediate access to emergency response during an emergency and should consider this in planning stages.
Re-entry	
Residents kept away from their homes and businesses longer than potentially necessary, resulting in frustrated evacuees and prolonged demand on responders and shelters	AHJ should determine what level of services (e.g., heat, electricity, water, emergency services, and so forth) need to be restored prior to allowing re-entry. AHJ should consider allowing evacuees to conduct scheduled inspections of their homes or businesses.
Failure to effectively communicate accurate and timely re-entry information	Re-entry plan should address the use of conventional public media (e.g., radio, television, print), web sites, and social media to provide detailed information regarding re-entry plans to evacuees, including when and where it will be safe to return.
Uncoordinated re-entry, resulting in roadways and services becoming overwhelmed	Re-entry plan should provide for phased access and coordinated re-entry of persons back into their communities. Plans should consider providing services similar to evacuation services such as towing, fueling, and medical services.
Increased demand for information and services from returned evacuees; lack of information regarding who to call for unmet needs	Re-entry plan should have an effective communications component to address various needs of returning evacuees. It might be helpful to establish call centers. Re-entry plans should identify how assistance will be provided to returning evacuees. Services required can include electrical/building inspectors, police, mental health providers, and so on. Plan should also consider the potential need for supplies such as water, food, gloves, dust masks, and so forth. Consider having preprinted informational materials for returning evacuees regarding how to return safely to their homes and businesses.
Re-entry security	Re-entry plan should include provisions for security of the evacuated area as well as safety for evacuees returning to their homes and businesses. This should include requirements for identification of residents and business owners and employees who need to gain access to the area.
Business resumption delays	Depending on circumstances, re-entry plan should consider allowing businesses to enter first so services and supplies will be available to evacuees who return, including cleanup, remediation, and reconstruction supplies and services.

Annex D Mass Evacuation Requirements Analysis

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

D.1 Best Practice Concepts. The committee would like to credit the Ontario Ministry of Community Safety & Correctional Services. Best practice concepts were captured from some of their emergency evacuation plans that were published at www.mcscs.jus.gov.on.ca.

Δ D.2 Risk Considerations. The decision to evacuate should be based on the reasonable assurance that evacuation to an area outside the affected area is in the best interest of the evacuees' health and safety and that the risk will be managed. The following items should be taken into consideration:

- (1) Population size
- (2) Persons with disabilities and other access and functional needs
- (3) Timing
- (4) Weather and environmental conditions
- (5) Distances to safety and to shelter
- (6) Transportation
- (7) Communication
- (8) Reunification
- (9) Duration of evacuation
- (10) Geography
- (11) Critical services
- (12) Evacuee support
- (13) Safety and security
- (14) Medical
- (15) Essential personnel
- (16) Speed of onset
- (17) Animals, including pets, service animals, and assistance animals

The decision to evacuate is the responsibility of the authority having jurisdiction. Depending on the applicable laws, that authority can be delegated to an incident commander where there is an immediate danger to life and health requiring evacuation. If the authority having jurisdiction decides to call for a partial or full evacuation of a community, an appropriate declaration should be considered depending on the size and scope of the incident. The decision to evacuate might be prompted by advice based on the real-time threat assessment concerning a threat to the municipality or a private or commercial concern.

The urgency of an evacuation is determined by the immediacy of the threat to the community (i.e., life, safety, health, and welfare), the resilience of the community, and the availability of resources for evacuation or shelter-in-place options.

Δ D.3 Speed of Onset. Speed of onset is a factor that must be accounted for when planning for evacuations. Evacuations can take place prior to (i.e., pre-emptive), during, or after an incident has occurred. Provided a community has adequate warning about a hazard, adequate resources, and the likelihood of the threat actually impacting a community, it is advisable to conduct pre-emptive evacuations. A pre-emptive evacuation might be undertaken when it is clear that if delayed, conditions (i.e., weather or other hazard) would impede evacuation, travel times, and the safety of responders and the population being evacuated. If adequate resources are not available to conduct a pre-emptive evacuation, it might still be possible and necessary to carry out an evacuation even while a threat is already affecting a community. Evacuations of this nature are done when life

safety is at extreme risk and failure to conduct evacuations under rescue conditions would result in severe injury and death to the population. Evacuation under these conditions increase risks to all involved. Adequate resources are required to provide evacuation under conditions of limited time with increased hazards to the population and responders.

Emergency responders might require personal protective equipment (PPE), as responder safety will be critical. Additional assets might be required to facilitate an evacuation of this type. These assets might be obtained through mutual aid agreements, and state and federal agencies.

After a threat has already impacted a community it might be necessary to remove residents from an environment that is no longer able to sustain them, or prevent or mitigate the onset of further consequences leading to a prolonged or new emergency. As time is critical in these circumstances, the value of and advanced planning cannot be overemphasized. Determining considerations that influence when to begin or carry out an evacuation include the following:

- (1) The safety of the responders
- (2) The available lead time to order and complete the evacuation
- (3) The time of day
- (4) The potential risk to the evacuees during the evacuation
- (5) The number (i.e., scale) of persons to be evacuated, which encompasses the following:
 - (a) Scale refers to the number of residents or communities to be evacuated
 - (b) Scale impacts the following:
 - (i) Whether or not full activation of an emergency operations center would be required
 - (ii) What type and quantity of resources, including host communities, are required for the evacuation and the level of planning that is required

If the evacuation is for a localized area, planning might be restricted to movements within the same general geographic area. However, the evacuation of multiple communities due to an area-wide emergency is likely to require out-of-area movements for hosting. The goal is to keep families together. When planning for evacuation, consideration should be given to reunification.

There are many factors that complicate the decision to order an evacuation, such as the following:

- (1) In the early phases of an incident, information is likely to be incomplete and less accurate. It might be prudent to conduct a pre-emptive evacuation.
- (2) The decision to utilize a pre-emptive evacuation provides for a controlled and effective evacuation that minimizes the exposure of the evacuated population and responders to the hazards that are present.

Factors that should be considered when determining the need to order a partial or full evacuation include the following:

- (1) The level of threat to the lives and well-being of the population
- (2) The availability and reliability of information and intelligence
- (3) The availability of resources to conduct the evacuation
- (4) The urgency of the evacuation
- (5) The time frame to conduct the evacuation

- (6) The ability of some of the community to self-evacuate
- (7) The size of the incident (i.e., size of the community and populations to be evacuated)
- (8) Meteorological conditions that can affect the evacuation including the safety of responders, evacuees, and the transportation efforts
- (9) The capacity of the community to address the threat or its impact to reduce the need for an evacuation
- (10) The damage to community infrastructure such that the following conditions are or could be in effect:
 - (a) Food, water, and shelter are not immediately available
 - (b) Debris restricts movement
 - (c) Electrical power is or will be unavailable for an extended period of time
 - (d) Local emergency or public communications is or will be unavailable
 - (e) Health services, medical facilities, and medical transport are or will be unavailable

D.4 Shelter-in-Place. Shelter-in-place options should be considered when the incident is rapidly moving across the populated area and will dissipate under the prevailing weather conditions. Other factors that need to be evaluated for shelter-in-place options are as follows:

- (1) Time of onset to the populated area
- (2) The type of hazard, hazardous materials, severe weather events, flash flooding, where evacuations routes are located on low ground
- (3) The availability of resources to provide timely evacuation options for transportation
- (4) The number of people requiring evacuation
- (5) Predictive weather patterns, such as prevailing winds, and the weather forecast for the expected duration of the incident

Δ D.5 Population. Population size is a critical element of any evacuation for populations to be moved out of a dangerous area. It is critical that emergency managers and planners have a clear understanding of the populations that are to be evacuated prior to determining key decisions based on modes of transportation, hosting destinations, routes of transportation, and travel times.

Many critical factors that need to be examined and accounted for include, but are not limited to, the following:

- (1) Number of evacuees
- (2) Languages spoken
- (3) Location of evacuees — seasonal activities might affect the number of people in a community
- (4) Modes of transportation available or preferred by evacuees
- (5) Preferences of evacuating communities with respect to location of host
- (6) Potential limitations to modes of transportation (e.g., characteristics of airports, transportation centers, and capacity of the transportation vehicle)
- (7) Persons who might require specialized or additional assistance
- (8) Populations in known areas of high risk, such as close to fuel storage sites, hazardous materials sites, and nuclear sites
- (9) Persons from diverse backgrounds

When determining population categories that might require evacuation, particular attention should be paid to, but not limited to, the following categories:

- (1) Persons with disabilities, such as sensory (e.g., hearing, vision, color-blindness); mobility (visible and nonvisible); mental health (e.g., anxiety, depression); intellectual/developmental (e.g., autism, Down syndrome); or learning disabilities (e.g., dyslexia, dysgraphia)
- (2) Persons with medical conditions, including females with high-risk or at-term pregnancies
- (3) Persons requiring addiction services
- (4) Persons requiring interpretation and translation services
- (5) Incarcerated persons
- (6) Temporary populations (e.g., tourists, seasonal workers, summer camps)
- (7) Students and children (e.g., in colleges, schools, child-care centers, and home day care units)
- (8) Persons with animals (*see Annex H*)
- (9) Elderly persons at home, in retirement centers, and in nursing homes

Δ D.6 Persons with Disabilities and Others with Access and Functional Needs. Persons with disabilities and others with access and functional needs bring complex planning issues while preparing and planning for evacuations.

Annex G offers detailed information on addressing these populations. (*See Annex G.*)

Δ D.7 Weather and Environmental Conditions. Weather and environmental conditions require constant monitoring and evaluation during the planning process, actual evacuation, and the completion of re-entry. Weather can and does affect all aspects of evacuation planning. The primary reason to continuously monitor weather during evacuation planning and actual evacuations is life safety of responders and evacuees. Adverse weather conditions such as lightning, flash flooding, flood conditions along with hazardous materials releases, are immediate life safety concerns for all involved in evacuations. In addition, excessive temperatures can bring additional stress to those with medical conditions as well as responders. Heat-related illness is a factor that must be accounted for when planning for and conducting evacuations.

When considering weather and environmental conditions, adding a technical specialist to the incident management team planning section will aid in current and predictive weather that might affect the overall incident and the evacuation process. Technical experts might also be assigned in other sections of the command and general staff incident management system. Technical weather experts can include, but are not limited to, the following:

- (1) The National Weather Service, www.weather.gov
- (2) National Oceanic and Atmospheric Administration (NOAA), www.noaa.gov
- (3) U.S. Army Corps of Engineers, www.usace.army.mil
- (4) National Hurricane Center, www.nhc.noaa.gov
- (5) National Interagency Fire Center, www.nifc.gov
- (6) Tsunami Center, www.tsunami.noaa.gov
- (7) Space Weather Prediction Center, www.swpc.noaa.gov
- (8) Local university meteorology department professors
- (9) Local meteorologists

D.8 Categories. When planning for evacuation, dividing the population in priority-based categories is suggested.

D.8.1 Vulnerable Population. This could include persons with disabilities, seniors, children, pregnant women, and those with debilitating medical conditions. Among these, some might require caregivers or service or assistance animals.

D.8.2 General Populations. This includes all remaining persons in the affected area that need to be evacuated.

△ **D.8.3 Medical Evacuation.** Medical evaluation is utilized for those medically compromised individuals in the evacuation area that are unable to self-evacuate without assistance. This process requires teams utilizing air and ground resources.

△ **D.8.4 Medical Condition Consideration.** The medical condition of those being evacuated is critical when determining which type of transportation will be required. When determining transportation for evacuation there are factors that should be considered. The following list is not all inclusive:

- (1) Time of onset of the disaster
- (2) Duration of the evacuation
- (3) Time and distance to the shelters
- (4) Time and distance to safety
- (5) Geography in the area to be evacuated
- (6) Evacuee support available during the evacuation

D.9 Communications for Responders. Communications should follow an incident management system and use clear speech and text. The use of special codes is discouraged. It should be expected to have disruption of some of the different forms of communication. Having redundancy that operates on different communicative platforms is a way to limit disruptions. State and federal agencies along with private industry might be requested to deploy high end communication assets to aid in communication.

D.10 Communications with the Public. Communication with the public prior to and during an evacuation is critical to a successful evacuation effort. Establishing a joint information center (JIC) and utilizing public information officers early in the process is critical.

The following communications options are not required but should be considered:

- (1) Local media television and radio
- (2) Government-owned emergency radio stations
- (3) Automatic notification systems
- (4) Integrated public alert warning system (IPAWS)
- (5) Social media (*see Annex L for information on social media*)
- (6) Emergency outdoor warning sirens
- (7) Newspapers
- (8) Fliers
- (9) Town hall meetings
- (10) Community bulletin boards (i.e., locations established where information to the public is posted on a regular basis)

D.11 Critical Service. (Reserved)

D.12 Safety and Security. (Reserved)

D.13 Medical. (Reserved)

△ **D.14 Mandatory Evacuation and People Who Refuse to Evacuate.** Many states and local jurisdictions have laws related to mandatory evacuation, and it is critical to know and under-

stand these laws. These laws should be complied with and enforced. In addition to the applicable laws, there are many challenges to mandatory evacuation and people who refuse to evacuate. The decision whether to order a mandatory evacuation or advisory or recommended evacuation could also affect the amount of federal assistance that is available to assist in the disaster and evacuation. The Robert T. Stafford Disaster Relief and Emergency Assistance Act as amended provides the federal government the authority to assist state and local governments with disaster preparedness and relief, but specifies that the assistance is contingent on a request from the governor or state declaring the disaster is such a magnitude that effective response is beyond the capabilities of the state. This act also identifies that the state must execute the state's emergency plan, which generally includes evacuation measures. The local government maintains primary authority in the disaster when the federal government becomes involved. Disasters start local and end local in all cases.

The enforcement of evacuations needs to be carefully considered. There are moral and pragmatic reasons mandatory evacuations should not entail physical force. Officials might use a variety of nonphysical means to enforce the order for evacuation. Some means of nonphysical force include, but are not limited to, the following:

- (1) Use of automatic notification systems to call and warn residents of the urgent need to evacuate the area
- (2) Calls to those residents asked not to evacuate (i.e., shadow evacuations) that cause traffic congestion for those residents that really need to evacuate
- (3) Use of social media such as Facebook, Twitter, and so on to warn residents of the need to evacuate
- (4) Door-to-door visits by officials explaining the dangers of not evacuating and asking for information of next of kin to notify if injury or death occur from not evacuating
- (5) Establish that those residents who fail to evacuate as requested bear the cost of rescue should rescue become necessary
- (6) Establish by law that individuals who fail to comply with a mandatory evacuation be cited with a misdemeanor charge

The planning section of the incident management system should develop contingency plans to coordinate rescue of residents that fail to follow the mandatory evacuation if conditions would allow for safe rescue operations.

D.15 Evacuation Planning Resources. For more information see NGA (National Governors Association) publication, *Governor's Guide to Mass Evacuation*.

Annex E Sheltering Requirements Analysis

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

E.1 Terminology.

E.1.1 Storm Shelter. A storm shelter is a building, structure, or portion(s) thereof, constructed in accordance with ICC 500, *ICC/NSSA Standard for the Design and Construction of Storm Shelters*, designated for use during a severe wind storm event such as a hurricane or tornado. [ICC 500:6]

E.1.2 Safe Room. A safe room is a storm shelter specifically designed to meet FEMA safe room recommended criteria and provide near-absolute protection in extreme-wind events, including tornadoes and hurricanes. [FEMA P-361: B2–4]

E.1.3 Best Available Refuge Areas. Best available refuge areas are locations in an existing building that are likely to offer the greatest safety for building occupants during a hazard event. People in best available refuge areas are less likely to be injured or killed than people in other areas of a building.

E.1.4 Vertical Evacuation Refuge. A vertical evacuation refuge is a building or earthen mound that has sufficient height to elevate evacuees above the level of tsunami inundation, and is designed and constructed with the strength and resiliency needed to resist both tsunami and earthquake loads. [FEMA P-646A: 1]

E.1.5 Hazard Area. A hazard area is an area with defined boundaries where the impact from a natural or human-made disaster may be immediately or over time dangerous to the life and health of people and animals. Boundaries for the area may be designated based on the expected or realized impact of a natural or human-made disaster.

E.1.6 Refuge of Last Resort (ROLR). A type of shelter facility that is not recommended for long-term sheltering, offering only protection or refuge from environmental hazards in the event individuals do not or cannot evacuate. ROLRs might not provide any services or support and are intended to function as a place of refuge from the elements until it is safe to return home or evacuate to another location.

E.2 Shelter Management.

Δ E.2.1 Typical Shelter Planning and Organizational Cycle. A shelter planning and organization cycle typically consists of the following:

- (1) Annual organizational meeting involving sheltering partners and stakeholders
- (2) Assessment meetings, during which all aspects of the shelter plan, including planning for functional needs support services (FNSS), are reviewed and updated
- (3) Training and education, which includes the following:
 - (a) Material for shelter manager class is reviewed and updated.
 - (b) Continuing education material for existing managers and assistant managers is posted.
 - (c) Shelter manager class is held.
- (4) Facility and supply review, which includes the following:
 - (a) Review and update of the shelter building list
 - (b) Begin shelter site surveys
 - (c) Hold regional organizational meeting
 - (d) Review supply inventory
- (5) Final organizational meeting and exercise
- (6) After-action or end-of-year meeting, which might include the following:
 - (a) Review and analysis
 - (b) Inventory of remaining supplies and equipment

Δ E.2.2 Building Identification and Acquisition. The following steps should be considered when identifying and acquiring buildings for sheltering:

- (1) Contact local realtors and possibly engage one.

- (2) Conduct site visits and carry out an initial comprehensive, and an accessibility survey as follows:
 - (a) Initial survey by the shelter operations team
 - (b) Comprehensive survey by other agencies and partners, including local access and functional needs compliance agencies, public works and utilities, health services, water supply systems, local animal welfare agencies
 - (c) Survey of the accessibility of the building using the *Americans with Disabilities Architectural Accessibility Guidelines*
- (3) Continually monitor availability of building.
- (4) Consider a building's accessibility to the following:
 - (a) Highways
 - (b) Public transportation
 - (c) Shopping
 - (d) Medical facilities
 - (e) Pet shelter
 - (f) Reception
 - (g) Proximity to neighborhoods
 - (h) Schools
- (5) Consider using the following resources:
 - (a) Table E.2.2, which, coupled with a thorough understanding of local conditions and best practices, can serve as a guide in the decision-making process.
 - (b) Comprehensive building safety assessment survey for compliance with 5.6.4(3) and 5.6.6.
 - (c) Figure E.3.2.1 for inside and outside hazard area sheltering sections.
 - (d) *ADA Checklist for Emergency Shelters*.
 - (e) Figure E.2.2(a), which is a sample shelter site planning checklist.
 - (f) Figure E.2.2(b), which is a sample equipment checklist.
 - (g) Figure E.2.2(c), which is a sample school evaluation list.

E.2.3 Shelter Organization. Figure E.2.3 shows an example of a shelter organization chart.

E.2.4 Shelter Personnel.

Δ E.2.4.1 Shelter personnel can consist of the following:

- (1) Local first responders trained in ICS 100, *Introduction to Incident Command System*, and ICS 200, *Incident Command System for Single Resources and Initial Action Incidents*, with basic medical training and with background check completed
- (2) Local law enforcement, private security company
- (3) Additional support staff as necessary
- (4) American Red Cross and other voluntary organizations active in disasters (VOAD)
- (5) Private sector, nongovernmental organizations (NGOs)

Based on training, these personnel can fill the following roles within the shelter, depending on size and needs:

- (1) Shelter manager or shelter task force leader
- (2) Assistant manager or assistant shelter task force leader

E.2.4.2 For safety and security, background checks should be conducted on all personnel working in the shelter.

Table E.2.2 General Considerations for Shelter Site Selection

Category	Criteria	Definition
Size and location	Suitable size	This refers to the general area, refuge area, and population capacity of the site.
Size and location	Accessibility	This refers to the ease of getting to the shelter from the affected area.
Size and location	Proximity to evacuation zones	The shelter should be evenly distributed so that citizens can arrive there quickly before and after disaster. Sites should be outside designated evacuation zones and impervious to cascade or secondary events.
Size and location	Infrastructure conditions	Shelter areas should have electrical infrastructure, water supply, evacuation roads, and sewage discharge. Have a structural engineer evaluate the facility and rate its ability to withstand local risk conditions.
Size and location	Site drainage	Drainage of surface water is a key criterion especially when considering the potential for rising water.
Size and location	Soil permeability	Swift absorption of surface water by the soil is an important factor in site selection.
Size and location	Physical layout	This refers to both the general area and effective refuge area of the site.
Size and location	Physical layout	The space must be suitable for cohabitational or colocational animal sheltering.
Disaster risk reduction	Suitable distance from hazardous areas	The shelter should be far away from anything dangerous such as structures subject to collapse, flammable and explosive substances, hazardous chemicals, radioactive substances, high-voltage transmission lines, and secondary hazards.
Disaster risk reduction	Geological hazards	When planning for shelter locations, be aware of seismic fault lines and areas prone to earthquake, landslide, collapse, debris flow, soil liquefaction, ground depression, and so on.
Disaster risk reduction	Land slope	Steep land slopes are considered to have a high risk of geo hazards; those at less severe angles are regarded as more stable and secure.
Disaster risk reduction	Elevation	Shelter data collection should indicate the shelter's aboveground elevation and surge zone so that if heavy rains, floods, or mudflow are expected, the shelter will not be selected for use for that event.
Disaster risk reduction	Building protection standards	Any building selected for use as an evacuation shelter should be in compliance with all local building and fire codes. Exceptions might be necessary but only after evaluation of each facility by the AHJ.
Disaster risk reduction	Early warning availability	There should be a suitable early warning system for cascading and secondary disasters.
Relief and rescue facilities	Water supply	The shelter should have water facilities that can supply water appropriate for drinking, domestic use, and fire protection.
Relief and rescue facilities	Suitable distance from medical centers	The shelter should be minimally capable of providing basic medical services. If possible, the site should be located near a medical center.
Relief and rescue facilities	Proximity to relief services	The shelter should be located so that they can receive relief items and are within coverage areas of essential services, i.e., fire and emergency services.

(continues)

△ **Table E.2.2** *Continued*

Category	Criteria	Definition
Relief and rescue facilities	Communication service	There are identifiable marking and guide signs and communication facilities such as telephones, radios, and so forth.
Feasibility	Economic consideration	The selected site generally must be economically justifiable for the cost of establishment and costs after establishment.
Feasibility	Use agreements	Agreements to use each shelter area should be prearranged and approved.
Environmental aspects	Environmental consideration	This criterion denotes seasonal variations and any related environmental hazards and diseases.
Environmental aspects	Ecological recovery	The site should not be located in an area that is ecologically or environmentally protected.
Social aspects	Culture, tradition, and composition of population groups	The sheltering program and services should respect the religious and cultural requirements of diverse populations.
Social aspects	Public opinion	This means consulting local stakeholders to avoid or limit conflict over the location of the shelter site.

△ **E.2.5 Shelter Manager's Responsibilities.** The shelter manager should ensure that shelter guests have access to information on the status of response operations, damage assessments, and re-entry to damaged areas, as well as availability of disaster relief programs and services, and so on.

The shelter manager should ensure partner organizations are provided access to shelter facilities (as space permits) to offer shelter guests opportunities to receive disaster relief programs (e.g., registration for disaster relief services, distribution of relief items, and access to computers and mobile devices to facilitate reunification).

The responsibilities of the shelter manager are as follows:

- (1) To oversee all shelter operations, which **should** include the following:
 - (a) Facility management
 - (b) Registration
 - (c) Security and building access control
 - (d) Parking and traffic control
 - (e) Public information, public affairs, and media relations
 - (f) Dormitory management
 - (g) Food service
 - (h) Public, medical, and mental health services
 - (i) Spiritual care
 - (j) Children's area
 - (k) Animal sheltering liaison
 - (l) Entertainment and recreation
 - (m) Information technology
 - (n) Recovery information and resident messaging
 - (o) Family reunification
 - (p) Janitorial
 - (q) Building maintenance and engineering
 - (r) Logistical support and dock management
 - (s) Distribution of goods
 - (t) Donations management
 - (u) Volunteer management
 - (v) Private sector coordination
 - (w) Laundry service
 - (x) Transportation services for shelter guests
 - (y) Communication services
 - (z) Building and service accessibility
- (2) To manage the staff of shelter workers
- (3) To coordinate with partner agencies in the shelter and solicit input on initial shelter physical setup and ongoing expectations
- (4) To conduct a staff meeting at the shelter at the beginning of each shift with representatives from all agencies that includes the following:
 - (a) Orientation and tour of the shelter
 - (b) Discussion of issues from the previous shift
 - (c) Discussion of objectives for the oncoming shift
 - (d) Staffing assignments
- (5) To maintain an accurate accounting of all inventory, including the following:
 - (a) Specifically requisitioned items such as light plants, generators, TVs, golf carts
 - (b) Each item at demobilization
 - (c) Inventory needed for proper reimbursement at event closure
- (6) To make the guests' stay at the shelter as stress-free as possible
- (7) To provide humane animal care if collocated or cohabitational animal sheltering is part of shelter operation, or if service or assistance animals are housed at the shelter (*see Annex H*)

See *Sheltering Guidance Aid and Shelter Staffing Matrix*, *Mega-Shelter Planning Guide*, the *FEMA Shelter Field Guide*, and other shelter operations information at www.nationalmasscarestrat-egy.org/sheltering

SHELTER SITE PLANNING CHECKLIST

NAME OF FACILITY		ADDRESS OF FACILITY		SITE MAIN PHONE NO.	
SCHOOL DISTRICT IF APPLICABLE		NAME AND TITLE OR PERSON IN CHARGE		PERSON IN CHARGE PHONE NUMBER	
MANAGEMENT-SITE DIRECTOR'S OFFICE LOCATION (ROOM NO.)		SITE DIRECTOR OFFICE COMPUTER		SITE DIRECTOR'S OFFICE PHONE NO.	
SECURITY-SECURITY DIRECTOR'S OFFICE LOCATION (ROOM NO.)		SECURITY DIRECTOR OFFICE COMPUTER		SECURITY DIRECTOR'S OFFICE PHONE NO.	
DESCRIPTION OF FACILITY & NO. BUILDINGS, BOUNDARY STREETS, ETC.					
SCHOOL DISTRICT POLICE ON SITE (INCLUDE NUMBER ON DUTY)					
1. BACKUP	2. SECURITY CAMERAS	3. CLOSED CIRCUIT TELEVISION SYSTEM	4. PUBLIC ADDRESS SYSTEM	5. NO. OF PHONE LINES INTO FACILITY	
COMMENTS: INCLUDE FUEL CAPACITY OF GENERATOR, LOCATION OF CAMERAS, LOCATION OF PHONE JACKS, ETC.					
COMPUTERS AVAILABLE INCLUDE NUMBERS, LOCATIONS, AND INTERNET CONNECTIVITY, LAB (ROOM NO.)					
ARE BUILDING DIAGRAMS AVAILABLE?					
<input type="checkbox"/> YES <input type="checkbox"/> NO					
PUBLIC PARKING LOT: (LOCATION, NO. OF LOTS, NO. OF SPACES)					
PUBLIC ENTRANCE					
INTAKE SCREENING/TRIAGE (LOCATION)					
PUBLIC QUEUING LINE:					

▲ FIGURE E.2.2(a) Sample Shelter Site Planning Checklist.

MEDS. DISPENSING STATIONS PLACEMENT (LOCATION) INCLUDE ROOM NUMBER
PUBLIC EXIT
RESTROOMS (PUBLIC) NO. OF MALE/FEMALE/ACCESSIBLE (ARE OUTDOOR PORTABLES NEEDED?)
STAFF AND VOLUNTEER PARKING LOT: (NO. OF SPACES)
STAFF AND VOLUNTEER ENTRANCE
RESTROOMS (STAFF & VOLUNTEERS)
MEAL DELIVERY ENTRANCE
CAFETERIA FOR VOLUNTEERS
CHILD/ELDER CARE AREA FOR VOLUNTEERS (ROOM NO.)
LOADING DOCK OR SUPPLY DELIVERY AREA/ENTRANCE
SUPPLY STORAGE AND SECURE AREA
WALK-IN COOLER (LOCATION)
MEDIA STAGING AREA
EMERGENCY AMBULANCE EVACUATION POINT
HELIPAD LOCATION
RESTRICTIONS

FIGURE E.2.2(a) *Continued*

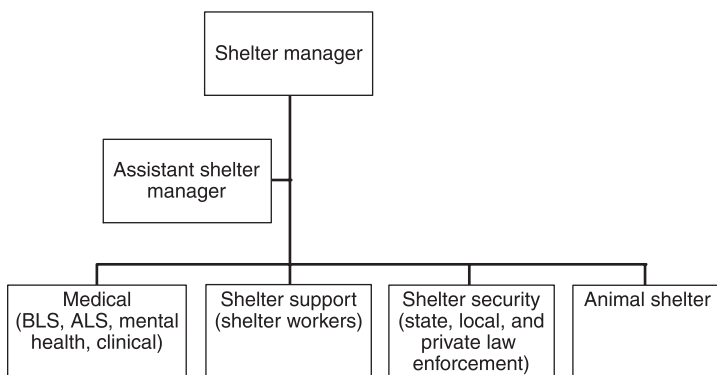
SAMPLE EQUIPMENT CHECKLIST

[illegible]

FIGURE E.2.2(b) Sample Equipment Checklist.

School Shelter List		Date	Name
	Name	Phone Number	Remarks
Address			
School District			
School Capacity			
School District Contact			
School Dist Security Contact			
School Dist Facilities Contact			
SAPD			
RED CROSS			
Metro Health			
DCI			
SAVOAD (volunteers)			
Private security			
Other			
Number of showers			
Number of Showers-Handi-cap accessible			
Number of restrooms			
Need for paper products			
Who will provide paper products			
Custodian service Yes/No ?			
Cafeteria			
Gym HVAC ?			
Parking Spots?#			
Security issues			
Accessible building ?			
Number of accessible restrooms			
Number of accessible showers			
Number of accessible port-a-potties			
HVAC adequate			
HVAC programmed 24/7			
Water quality, flushed ?			
Hot water operating ? yes/no			
Pest problems / flies / ants / rodents ?			
Tables and chairs Yes/No Needs			
Tables and chairs provided by ?			
Other furniture needed			
Number of portable showers needed			
Number of handi-cap showers needed			
Location for portable showers			
240 V hook up for showers yes/no			
Water access for showers yes/no ?			
Drains for showers? Gravity flow			
Washer / dryer needs			

▲ FIGURE E.2.2(c) Sample School Evaluation List.



▲ FIGURE E.2.3 Shelter Organization.

▲ **E.2.6 Sheltering Activation.** Activating a shelter should include the following:

- (1) Activation of a shelter manager/assistant manager.
- (2) Check-ins at the emergency operation center (EOC) with the shelter branch director.
- (3) Organizing for the pickup of radios, cell phone(s) and charger(s), laptop(s), air card(s), and any special instructions or information from the shelter branch director.
- (4) Receiving the shelter location assignment along with shelter binder.
- (5) Receiving and reviewing the incident action plan (IAP).
- (6) Preparing for arrival of guests.
 - (a) Opening the building
 - (b) Conducting a walkthrough of the inside and outside of the building to assess accessibility and any needed temporary modifications
 - (c) Reviewing or creating site and floor plan
 - (d) Cleaning, setup costs, and so forth
- (7) Beginning the development of a list of contacts for the facility (i.e., shelter).
- (8) When push packs are not going to be used, ordering supplies as soon as the jurisdiction determines a shelter is needed. The push pack inventory (see E.2.7) will give an idea of the first things to order.
- (9) Reviewing the shelter binder as follows:
 - (a) Reviewing the facility site plan, floor plan
 - (b) Setting up sign-in sheets for responders and outside agencies
 - (c) Setting up inventory sheets for demobilization tracking
 - (d) Setting up evacuee registration forms
 - (e) Having on-hand information for functional needs support services (FNSS) and child-friendly policies (see Annex G)

E.2.7 Supplies.

▲ **E.2.7.1 Prepackaged Supplies.** Prepackaged supplies are supplies designated for opening of a shelter and can include the following:

- (1) Maintenance items (e.g., trash cans, trash bags, brooms, and so forth)
- (2) Dry-erase boards, poster board
- (3) Signage (e.g., rules, bus routes)
- (4) Fans, buckets, ice chests
- (5) Two-wheel dolly

- (6) Folding table(s)
- (7) Folding chairs
- (8) Pallet jack
- (9) Baby products (e.g., diapers, bottles, formula, baby food, and so forth)
- (10) Water for powdered baby formula
- (11) Toilet paper, facial tissue, cots for use by shelter manager and personnel
- (12) Feminine products
- (13) Three storage containers
- (14) Office supplies (e.g., folders, paper, pens, batteries, and so forth)
- (15) Fax/copy/scanner
- (16) Emergency medical supplies
- (17) Food service gloves
- (18) Identification wrist bands, registration forms
- (19) Animal care supplies
- (20) Durable medical equipment such as manual wheelchairs, walkers, and shower benches
- (21) Consumable medical supplies

E.2.8 Shelter Management Checklist for Health Departments.

Figure E.2.8 is a checklist for items required by most health departments.

E.2.9 During-Incident Risk Assessment. Hazard incidents that occur over extended time frames, such as hurricanes, some floods, and winter storms, can present changing conditions that require re-evaluation of the risk in real-time, and require subsequent potential changes to decisions on which sheltering facilities to close and which should remain open. For example, a sheltering facility initially considered safe for an anticipated modest flood event on a nearby river may no longer be appropriate if the flood crest forecast increases significantly. Resources for monitoring current and forecast conditions for various hazards are provided in Annex O, *Shelter Safety Resources for During-Incident Risk Assessment*.

E.2.10 During-Incident Condition Assessment. The performance of the shelter facility should be monitored during the incident. If damage occurs, it may be necessary to move to another part of the shelter facility during the incident or even evacuate to a different shelter.

For winter storm shelters, FEMA P-957, *Snow Load Safety Guide*, provides information on warning signs of overstress conditions during a snow incident and actions that should be taken before, during, and after a snow incident.

SHELTER MANAGEMENT CHECKLIST

Food

Source of food: ☐ On site ☐ Catered ☐ Donated
 Supply: ☐ Safe ☐ Adequate
 Food temperature: <41°F (5°C) _____ ≥ 140°F (60°C) _____
 Food reheating temperature: _____ °F (_____ °C)
 Hand-washing facilities provided: ☐ Yes ☐ No
 Gloves: ☐ Yes ☐ No Utensils: ☐ Yes ☐ No Gloves and utensils used: ☐ Yes ☐ No
 Dishwashing: Wash _____ Rinse _____ Sanitize _____

Water

Type: ☐ Public ☐ Private ☐ Temporary ☐ Deionized ☐ Not applicable
 Trained operator on duty: ☐ Yes ☐ No
 System operating: ☐ Yes ☐ No
 Adequate safe supply of 4 gal (15 L) per person per day: ☐ Yes ☐ No
 Microbial and chemical tests conducted: ☐ Yes ☐ No
 Disinfectant level measurement:
 Well flooded? ☐ Yes ☐ No ☐ Not applicable
 Well repaired and disinfected? ☐ Yes ☐ No ☐ Not applicable
 Water being boiled or treated? ☐ Yes ☐ No ☐ Not applicable

Sanitation

Type: ☐ Sewerage ☐ Septic tank ☐ Portable
 Number of toilets: _____ Number in use: _____
 Toilets cleaned and disinfected: ☐ Yes ☐ No

Hand washing

Hand washing stations (indicate number): _____
 Hand sanitizers available: ☐ Yes ☐ No

Shelter

Structural integrity: _____
 Protection from the elements: _____
 Secure facility: _____
 Bedding: _____
 Temperature: _____ °F (_____ °C)
 Ventilation: ☐ Yes ☐ No
 Overcrowded [<38 ft (23.5 m²) per person]: _____
 Free of hazards: _____
 Showers, bathing facilities (indicate number): _____
 Housekeeping: _____

Solid waste

Waste collection: _____
 Waste storage: _____
 Waste disposal: _____
 Timely removal: _____

Human or animal remains

Adequate storage or disposition: _____

Disease vectors

Infestations: _____
 Uncontrolled animal populations: _____
 Control measures: _____

Disease control

Reports of any disease: _____

FIGURE E.2.8 Sample Shelter Management Checklist.

E.2.11 Post-Incident Condition Assessment. If the shelter experiences damage during the incident, the condition of the shelter facility should be re-evaluated prior to subsequent shelter occupancy. For example, if a pre-identified shelter is located in an area experiencing significant ground shaking during an earthquake, a condition assessment should be conducted prior to use to ascertain that the building is still safe for occupancy and is capable of resisting possible aftershocks.

Methodologies for post-earthquake safety evaluation of buildings are provided in ATC-20, *Procedures for Post-earthquake Safety Evaluation of Buildings*. Additional guidance for concrete masonry and wall buildings is available in FEMA 306, *Evaluation of Earthquake Damaged Concrete and Masonry Wall Buildings: Basic*; FEMA 307, *Evaluation of Earthquake Damaged Concrete and Masonry Wall Buildings: Technical Resources*; and guidance for welded steel moment-frame buildings is available in FEMA 352, *Recommended Post-earthquake Evaluation and Repair Criteria for Welded Steel Moment-Frame Buildings*.

Methodologies for safety evaluation of buildings following windstorms and floods are provided in ATC-45, *Safety Evaluation of Buildings after Wind Storms and Floods*, and may be needed when continued occupancy of the sheltering facility in the post-incident period is desired.

E.3 Existing Buildings Outside of Hazard Area.

E.3.1 General. This section provides guidance for consideration of building safety in the selection of resilient sheltering facilities, including guidance for identification of existing buildings. Application of this guidance can typically require input from one or more building safety professionals (e.g., building and fire officials, architects, engineers). Large communities may have such professionals on staff in building, planning, public works, and other departments. Small and rural communities can rely on county or state-level agencies or contracts with the private sector for building safety-related services.

This section is intended to help state and local government officials and interested citizens by providing information needed to identify resilient sheltering facilities while considering the hazards that may pose a risk to the facility and its occupants. Sheltering and refuge facilities located outside of the hazard area are ideal but not always feasible depending on the size of the population to be sheltered, the magnitude and reach of the hazard, available transportation, geography, population density, and other factors. Therefore, the entity should be knowledgeable of all the potential hazards for each location and the options available for each hazard.

E.3.1.1 Recommendations for Selection of Existing Buildings. When evaluating a site as a potential sheltering facility location, the entity should utilize the skill sets of other agencies and employees within the government if needed. For example, when selecting a building as a potential sheltering facility, the structural safety of the building should be evaluated. Even if the building is located outside of the disaster-affected area, it may be used to shelter potentially thousands of occupants and should meet minimum building code requirements that require protection from other hazards. While the entity may not have the architectural or engineering background to make such a determination, there are other resources available to provide solutions. The building department, public works department, or city engineer or architect on staff may be able to help the entity perform this task. Other resources, such as

architects or engineers on contract or county or state resources, may also be helpful.

E.3.2 Risk and Condition Assessments. Paragraphs E.2.9 through E.2.11 provide guidance on pre-, during-, and post-event assessments broadly applicable to any hazard. Hazard-specific guidance on these assessments is provided in E.4.4.

E.3.2.1 Pre-Incident Risk Assessment. A risk assessment should be conducted when performing pre-incident planning considerations for identification of resilient sheltering facilities as required in 5.6.4(3). A risk assessment consists of three components, assessment of hazards, vulnerabilities, and impacts. Hazard assessments should consider the likely incidents for which the potential facility may be opened. Potential shelter facilities should then be evaluated for their ability to resist the relevant hazards through a vulnerability assessment. Risk is then determined considering the hazards, vulnerabilities, and associated impacts. Figure E.3.2.1 provides general guidance for hazard assessments.

E.4 Existing Buildings Inside of Hazard Area.

E.4.1 General. This section provides guidance for consideration of building safety in the selection of resilient sheltering facilities, including guidance for identification of existing buildings. Application of this guidance can typically require input from one or more building safety professionals (e.g., building and fire officials, architects, engineers). Large communities may have such professionals on staff in building, planning, public works, and other departments. Small and rural communities can rely on county or state-level agencies or contracts with the private sector for building safety-related services.

This section is intended to help state and local government officials and interested citizens by providing information needed to identify resilient sheltering facilities while considering the hazards that may pose a risk to the facility and its occupants. Sheltering and refuge facilities located outside of the hazard area are ideal but not always feasible depending on the size of the population to be sheltered, the magnitude and reach of the hazard, available transportation, geography, population density, and other factors. Therefore the entity should be knowledgeable of all the potential hazards for each location and the options available for each hazard.

E.4.1.1 Recommendations for Selection of Existing Buildings. When evaluating a site as a potential sheltering facility location, the entity should utilize the skill sets of other agencies and employees within the government if needed. For example, when selecting a building as a potential sheltering facility, the structural safety of the building should be evaluated. Even if the building is located outside of the disaster affected area, it may be used to shelter potentially thousands of occupants and should meet minimum building code requirements that require protection from other hazards. While the entity may not have the architectural or engineering background to make such a determination, there are other resources available to provide solutions. The building department, public works department, or city engineer or architect on staff may be able to help the entity perform this task. Other resources, such as architects or engineers on contract, or county or state resources may also be helpful.

Summary for Consideration of Building Safety in Selection of Resilient Sheltering Facilities

Documentation and Assessment Form

Potential Sheltering Facility Description

Building name: _____

Phone number: _____

Address: _____

Description: _____

Owner/operator's name: _____

Owner/operator's contact information: _____

Notes: _____

Geographic Information

Latitude: _____

Longitude: _____

Elevation: _____

In flood plain: ☐ Yes ☐ No

Landward extent of storm surge: ☐ Yes ☐ No

Construction

Materials: _____

Number of stories: _____

Windows impact resistant: ☐ Yes ☐ No

Windows shutter protected: ☐ Yes ☐ No

Building plans available: ☐ Yes ☐ No

Design Information (if available): _____

Building code and year: _____

Risk category: _____

Seismic design information: _____

Roof snow load: _____

Design wind speed: _____

Additional Notes

Requirements for All Sheltering Facilities (NFPA 1616, Section 5.6.5)

To be completed by the authority having jurisdiction or an approved special inspector.

Name: _____ Title: _____ Date: _____

Address: _____

Email: _____ Phone: _____

- ☐ Facility is appropriate for use as a temporary shelter facility for the applicable hazards and conforms to the applicable structural, fire safety, means of egress, accessibility, light, ventilation and sanitary requirements to ensure public health, safety and general welfare.

Comments:

E.4.2 Considerations for Shelter Exposure to the Hazard Incident. The location of the shelter and time frame of shelter operations with respect to the location and timing of the hazard incident has implications for shelter assessment and selection.

E.4.3 Risk and Condition Assessments. Section E.2 provides guidance on pre-, during-, and post-event assessments broadly applicable to any hazard. Hazard-specific guidance on these assessments is provided in E.4.4.

E.4.3.1 Pre-Incident Risk Assessment. A risk assessment should be conducted when performing pre-incident planning considerations for identification of resilient sheltering facilities as required in 5.6.4(3). A risk assessment consists of three components: assessment of hazards, vulnerabilities, and impacts. Hazard assessments should consider the likely incidents for which the potential facility may be opened. Potential shelter facilities should then be evaluated for their ability to resist the relevant hazards through a vulnerability assessment. Risk is then determined considering the hazards, vulnerabilities, and associated impacts. Figure E.3.2.1 provides general guidance for hazard assessments.

E.4.4 Additional Assessment and Selection Considerations. This section provides additional hazard-specific guidance for risk and condition assessments.

E.4.4.1 Tornado. Tornadoes typically occur with minimal warning, on the order of minutes or at most tens of minutes. Evacuation is not generally viable. Sheltering-in-place or sheltering in nearby buildings or facilities is required. Safer options include using storm shelters designed and constructed to meet the ICC 500 standard's tornado requirements, or using tornado safe rooms designed and constructed to meet guidelines in either FEMA P-361, *Safe Rooms for Tornadoes and Hurricanes: Guidance for Community and Residential Safe Rooms*, or P-320, *Taking Shelter from the Storm: Building a Safe Room for Your Home or Small Business*. Additional information on community safe rooms, including examples and case studies, is available from FEMA at <https://www.fema.gov/safe-room-resources>.

If tornado storm shelters or safe rooms are not nearby, best available refuge areas can be utilized. Guidance on selection of best available refuge areas can be found in FEMA P-431, *Tornado Protection: Selecting Refuge Area in Buildings*. For more information on facility design documentation and assessment as it relates to tornados, see Figure E.4.4.1.

E.4.4.2 Hurricanes. Hurricanes and tropical storms typically occur with advanced warning. When using shelters, the safer options are storm shelters designed and constructed to meet the ICC 500 standard's hurricane requirements, or using hurricane safe rooms designed and constructed to meet either FEMA P-361 or P-320 guidelines. Additional information on community safe rooms, including examples and case studies, is available from FEMA at www.fema.gov/safe-room-resources.

If hurricane storm shelters or safe rooms are not available, assessments should be conducted to evaluate other buildings for suitability as hurricane shelters. Guidance on performing such assessments is available in ARC 4496, *Standards for Hurricane Evacuation Shelter Selection*, and State of Florida guidelines, *Division of Emergency Management Statewide Emergency Shelter Plan*. Additional information on hurricane shelter assessments and retrofits of existing buildings to meet hurricane shelter criteria is available on the Florida Division of Emergency Management

Hurricane Shelter and Critical Facilities web site at www.floridadisaster.org/response/engineers/index.htm. For more information on facility design documentation and assessment as it relates to hurricanes, see Figure E.4.4.2.

E.4.4.3 Tsunami. Tsunami warning times can range from a few minutes to several hours. If it is not possible to evacuate the area likely to be inundated, use of a tsunami vertical evacuation refuge is the next best option. FEMA P-646A, *Vertical Evacuation from Tsunamis: A Guide for Community Officials* presents information on how vertical evacuation guidance can be used and encouraged at the state and local levels. This publication is meant to help state and local government officials and interested citizens by providing the information they would need to address the tsunami hazard in their community. Chapter 3 of FEMA P-646A, "Planning," provides guidance on vulnerability assessments, as well as other decision-making tools. Chapter 4 has details on the "Use of Existing Structures" as potential vertical evacuation facilities. In the case where the only feasible vertical evacuation is using a specially designed and constructed structure built to resist both tsunami and earthquake loads, FEMA P-646A refers the reader to its companion guide FEMA P-646, *Guidelines for Design of Structures for Vertical Evacuation from Tsunamis*. For more information on facility design documentation and assessment as it relates to tsunamis, see Figure E.4.4.3.

E.4.4.4 Snow and Winter Storms. Winter storms bring large snowfall amounts that can cause collapse of building roofs. FEMA P-957 provides guidance on building evaluation for snow load safety, preventive measures to take before the snow season, and actions that should be taken before, during, and after a snow event. For more information on facility design documentation and assessment as it relates to winter storms, see Figure E.4.4.4.

E.4.4.5 Flood. Coastal, riverine, and other inland flooding can occur with little or no warning, as in the case of flash floods, or with weeks of warning. Because flood warning time can affect shelter operations, shelter programs should be designed and managed to accommodate a variety of floods and associated flood warning times. Whenever possible, shelters should be designated in areas located outside of mapped special flood hazard areas on FEMA's Flood Insurance Rate Maps (FIRMs). (To view a FIRM for a specific area, visit www.msc.fema.gov. More information about how to read a FIRM is at www.msc.fema.gov/portal/howto)

Local real-time flood conditions and flood forecasts from emergency management should also be considered before shelters are opened, which is especially important when flooding is predicted to exceed the mapped floodplain in the area. For example, flooding on large rivers is often due to a rapid snowmelt in outlying areas of the river's watershed. Locations farther downstream may have days or weeks of warning to conduct evacuations. In addition to choosing shelter locations outside of mapped special flood hazard areas, the specific flood forecasts for the coming event should be considered.

The following resources may be useful for shelter decisions involving flood: USGS Current Water Data, NWS River Observations, NWS River Forecasts, USACE flood predictions, NOAA's SLOSH Display Program, and NOAA storm surge forecasts.

Shelter Design Documentation and Assessment

Pre-Event Assessment

Was the building designed as a tornado safe room (per FEMA P-361) or tornado shelter (per ICC 500)?

☐ FEMA P-361, *Safe Rooms for Tornadoes and Hurricanes*

☐ ICC 500, *Standard for the Design and Construction of Storm Shelters*

If so, are the operable components in good working order? ☐ Yes ☐ No

☐ Are all operable components functional (e.g., impact resistant doors and shutters)?

☐ Yes ☐ No

If the building is not a tornado safe room or tornado shelter, describe the assessment.

☐ FEMA P-431, *Tornado Protection: Selecting Refuge Areas in Buildings*

☐ Other Assessment. Describe:

Pre-Event Assessment Results

☐ Facility can be used as a tornado shelter or best available refuge area.

Limitations/Comments:

Post-Event Assessment

☐ ATC-45, *Field Manual: Safety Evaluation of Buildings after Wind Storms and Floods*

☐ Other Assessment. Describe:

Post-Event Assessment Results

☐ Facility can be used as a tornado best available refuge area.

☐ Facility can be used as a post-event shelter.

Limitations/Comments:

Shelter Design Documentation and Assessment

Pre-Event Assessment

Was the building designed as a hurricane safe room (per FEMA P-361) or hurricane shelter (per ICC 500)?

- ☐ FEMA P-361, *Safe Rooms for Tornadoes and Hurricanes*
- ☐ ICC 500, *Standard for the Design and Construction of Storm Shelters*

If so, are the operable components in good working order? ☐ Yes ☐ No

☐ Are all operable components functional (e.g., impact resistant doors and shutters)?

If the building is not a hurricane safe room or hurricane shelter, describe the assessment.

- ☐ ARC 4496 Assessment, *Standards for Hurricane Evacuation Shelter Selection*
- ☐ Other Assessment. Describe:

Pre-Event Assessment Results

☐ Facility can be used as a hurricane evacuation shelter.

Limitations/Comments:

During-Event Assessment

- ☐ USGS flood alerts, <http://water.usgs.gov/floods>
- ☐ NOAA storm surge forecasts, www.nhc.noaa.gov/surge
- ☐ NOAA hurricane information, www.nhc.noaa.gov
- ☐ Monitor hurricane progress
- ☐ Monitor building structure
- ☐ Other Assessment. Describe:

Post-Event Assessment

- ☐ ATC-45, *Field Manual: Safety Evaluation of Buildings after Wind Storms and Floods*
- ☐ Other Assessment. Describe:

Post-Event Assessment Results

- ☐ Facility can be used as a hurricane evacuation shelter.
- ☐ Facility can be used as a post-event shelter.

Shelter Design Documentation and Assessment

Pre-Event Assessment

Was the facility designed using FEMA P-646 Guidelines? ☐ Yes ☐ No

If so, are the operable components in good working order? ☐ Yes ☐ No

If not, describe the assessment.

☐ FEMA P-646, *Guidelines for Design of Structures for Vertical Evacuation from Tsunamis*

☐ Other Assessment. Describe:

Pre-Event Assessment Results

☐ Facility can be used as a tsunami evacuation shelter.

Limitations/Comments:

During-Event Assessment

☐ NOAA Tsunami Warning Center, www.tsunami.gov

☐ Pacific Tsunami Warning Center, <http://ptwc.weather.gov>

☐ Other Assessment. Describe:

Post-Event Assessment

☐ FEMA P-646, *Guidelines for Design of Structures for Vertical Evacuation from Tsunamis*

☐ ATC-20, *Field Manual: Post-earthquake Safety Evaluation of Buildings*

☐ ATC-45, *Field Manual: Safety Evaluation of Buildings after Wind Storms and Floods*

☐ Other Assessment. Describe:

Post-Event Assessment Results

☐ Facility can be used as a tsunami evacuation shelter.

☐ Facility can be used as a post-event shelter.

Limitations/Comments:

Shelter Design Documentation and Assessment

Pre-Event Assessment

Identify the type of assessment conducted:

☐ FEMA P-957, *Snow Load Safety Guide*

☐ Other Assessment. Describe:

Pre-Event Assessment Results

☐ Facility can be used as a snow and winter storm evacuation shelter.

Limitations/Comments:

During-Event Assessment

☐ Monitor storm progress and forecasts

☐ Monitor building structure reactions and accumulation of ice and snow
(see FEMA P-957)

☐ Other Assessment. Describe:

Post-Event Assessment

☐ FEMA P-957, *Snow Load Safety Guide*

☐ Other Assessment. Describe:

Post-Event Assessment Results

☐ Facility can be used as a snow and winter storm evacuation shelter.

☐ Facility can be used as a post-event shelter.

Limitations/Comments:

Additional information on flood hazard assessment is available from FEMA Flood Insurance Studies (FISs) and nonregulatory flood risk products. Information on making critical facilities safe from flooding can be found in FEMA 543, *Design Guide for Improving Critical Facility Safety from Flooding and High Winds*.

If no suitable shelter can be identified outside of the mapped flood hazard area, shelters within the flood hazard area may be used, provided certain factors are considered:

- (1) Shelters subject to wave action and high velocity flow should be avoided.
- (2) Preference should be given to shelters subject to shallow flooding and ponding (low flood velocities).
- (3) Shelters should be selected so that road access to and from shelters is available during flooding.
- (4) Shelters should be configured such that shelter space and support areas are above the flood elevation designated for critical and essential facilities by building codes and standards.
- (5) Preference should be given to shelters where power, water, wastewater, and other utilities necessary for shelter operations will be available.
- (6) Shelters should be capable of resisting flood loads and conditions to which they will be subject.

More information on design requirements for shelters can be found in the American Society of Civil Engineers standards ASCE/SEI 7, *Minimum Design Loads for Building and Other Structures*, and ASCE/SEI 24, *Flood Resistant Design and Construction*. Both of these standards identify buildings used as designated emergency shelters as the highest risk because they are essential for emergency response and recovery. Additionally, if a shelter is located in a flooded area, it is important to make sure that building remains accessible and operational. Occupants, emergency vehicles, and vehicles bringing supplies should be able to access the building during flooding conditions; if the roads surrounding the shelter are inaccessible, then the location is not suitable. Power, water, and wastewater service should be functional during conditions of flooding. For more information on facility design documentation and assessment as it relates to floods, see Figure E.4.4.5.

△ E.4.4.6 Earthquake. Guidance on conducting pre-event risk assessments for earthquakes is available in ASCE 41, *Seismic Evaluation and Retrofit of Existing Buildings*, and FEMA P-58-1, *Seismic Performance Assessment of Buildings*. Additional information on assessment of buildings to resist earthquakes is available from FEMA at www.fema.gov/earthquake-publications-building-designers-managers-and-regulators. For more information on facility design documentation and assessment as it relates to earthquakes, see Figure E.4.4.6.

E.5 New Construction Planning.

E.5.1 General. This section provides guidance for consideration of building safety in the construction of new buildings. Application of this guidance will typically require input from one or more building safety professionals (e.g., building and fire officials, architects, engineers). Large communities may have such professionals on staff, in building, planning, public works, and other departments. Small and rural communities often do not have this technical expertise in-house and rely on county or state-level agencies or contracts with the private sector for building safety-related services.

E.5.1.1 Recommendations for Construction of New, Resilient Sheltering Facilities. New sheltering facilities should be designed and constructed addressing the requirements of the building codes and guidance documents intended for all applicable hazards for which the sheltering facility would be used. The International Building Code (IBC) and its referenced standards (e.g., ASCE/SEI 7, ASCE/SEI 24, ICC 500), contain provisions that will provide structures with hazard resistance. Furthermore, Table 1604.5 in the IBC identifies that designated sheltering facilities are Risk Category IV structures, which have enhanced hazard resistance.

For new construction of facilities to be used as shelters, any local code provisions that remove or weaken the disaster-resistant provisions of the building code should be avoided. State and local jurisdictions may have requirements that are more stringent than the disaster-resistant provisions of the codes.

Shelter Design Documentation and Assessment

Pre-Event Assessment

Identify flood hazard:

☐ FEMA Flood Insurance Rate Maps (FIRMs)

Flood Zone _____ Base Flood Elevation (BFE) _____

Datum _____ 500 Year Flood Elevation (if available) _____

☐ Other Assessment. Describe:

If the facility is exposed to flooding:

a) Assess the flood hazard vulnerability, including elevations of relevant parts of the shelter facility (make sure to use or convert to the same datum as above):

b) Assess the building's resistance to flooding (see Annex O for resources):

Pre-Event Assessment Results

☐ Facility can be used as a flood evacuation shelter.

Limitations/Comments:

During-Event Assessment

- ☐ USGS current water data
 - ☐ USGS flood predictions
 - ☐ NWS river observations and river forecasts
 - ☐ USACE flood predictions
 - ☐ NOAA storm surge forecasts
 - ☐ Monitor storm progress
 - ☐ Monitor building structure and flood levels with respect to the occupied area elevation
 - ☐ Other Assessment. Describe:
-

Post-Event Assessment

- ☐ ATC-45, *Field Manual: Safety Evaluation of Buildings after Wind Storms and Floods*
 - ☐ Other Assessment. Describe:
-

Post-Event Assessment Results

- ☐ Facility can be used as a flood evacuation shelter.
- ☐ Facility can be used as a post-event shelter.

Limitations/Comments:

Shelter Design Documentation and Assessment

Pre-Event Assessment

Identify the type of assessment conducted:

- ☐ ASCE 41, *Seismic Evaluation and Retrofit of Existing Buildings*
- ☐ FEMA P-58, *Seismic Performance Assessment of Buildings*
- ☐ Other Assessment. Describe:

Pre-Event Assessment Results

- ☐ Facility can potentially be used as a post-event earthquake shelter.

Limitations/Comments:

During-Event Assessment (Aftershock Considerations)

- ☐ USGS National Earthquake Information Center,
<http://earthquake.usgs.gov/earthquakes/map>
- ☐ USGS Aftershock Forecast, <http://earthquake.usgs.gov/earthquakes/step/explain.php>
- ☐ Other Assessment. Describe:

Post-Event Assessment

- ☐ ATC-20, *Field Manual: Post-earthquake Safety Evaluation of Buildings*
- ☐ FEMA 306, *Evaluation of Earthquake Damaged Concrete and Masonry Wall Buildings*
- ☐ FEMA 307, *Evaluation of Earthquake Damaged Concrete and Masonry Wall Buildings valuation of Earthquake Damaged Concrete and Masonry Wall Buildings*
- ☐ FEMA 352, *Recommended Post-earthquake Evaluation and Repair Criteria for Welded Steel Moment-Frame Buildings*
- ☐ Other Assessment. Describe:

Post-Event Assessment Results

- ☐ Facility can be used as a post-event earthquake shelter.

Limitations/Comments:

- ☐ Other Hazard. Describe:

Assessment Methodology and Results:

Annex F Re-entry Requirements Analysis

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

F.1 Re-entry Program Management.

F.1.1 Following an evacuation, residents and business operators of a community will want to return as quickly as possible.

F.1.2 Authority to allow re-entry should be made under existing authorities.

F.1.3 The AHJ should determine the minimum conditions that should be in place prior to approving re-entry. The decision by local authorities to allow return to the evacuated area should be based on the results of a safety assessment, plus a determination that the infrastructure and support services are sufficient to support the returning population.

F.2 Planning.

F.2.1 Performance Objective. The performance measure would be to reduce the per capita time to repopulate the evacuated area.

F.2.2 The goals of re-entry operations are to ensure the safety and security of the returning population.

F.2.3 Planning assumptions should be in place as triggers for re-entry and short-term recovery efforts.

F.2.4 Re-entry plans should be coordinated with other applicable recovery plans to include utility restoration, debris management, building inspections, and security plans.

F.2.5 Re-entry plans should identify hazards and risks associated with the re-entry, short-term recovery, and possible mitigation opportunities.

F.2.6 Re-entry plans should identify as a minimum which utilities and services (public and private) must be in place prior to the start of re-entry.

F.2.7 Re-entry plans should identify which special use occupancies could need specific criteria consideration prior to allowing re-entry.

F.2.8 Re-entry plans should identify clearly defined roles and responsibilities for individuals, local government, private sector services, and state or regional authorities (airports, rail systems).

F.2.9 Re-entry resources should be identified to include sourcing and funding.

F.2.10 Re-entry plans should include communications models to address order of re-entry and providing information to media sources.

F.2.11 Re-entry routes should be identified and communicated.

F.2.12 Re-entry processes (phases and required identification) should be communicated.

F.2.13 Re-entry plans should include a hotline for unmet needs.

F.3 Implementation.

F.3.1 The re-entry management team should be established as soon as possible following an evacuation and be deployed prior to initiating the phased re-entry of emergency responders, essential employees of businesses, and the general return of the population.

F.3.2 There is likely to be some flexibility with respect to timing of the re-entry. The re-entry planning might be more influenced by the evacuees' preferences, weather, travel conditions, and host community needs (e.g., an arena might be booked for a large event; therefore, evacuees must relocate).

F.3.3 Prior to initiating re-entry, the safety of the evacuated community should be determined, including confirming that any impacts from the hazard that prompted the evacuation have been mitigated. Weather should be monitored for conditions that could result in secondary or cascading events (e.g., mudslide due to heavy rain after wildland fires).

F.3.4 Prior to initiating the general return of the population, infrastructure assessment including access via roads and bridges, utility services (electric, natural gas, potable water, sewage, communications), public services (law enforcement, emergency medical services, fire/rescue, building and health inspection, mail delivery, social support organizations) and other essential services (hospital, pharmacy, food, gasoline, building repair suppliers) are sufficient.

F.3.5 One or more recovery support centers should be considered.

F.3.6 Insurance needs should be addressed during implementation.

F.3.7 Consideration for curfews should be identified.

F.4 Training and Education. The re-entry plan should be included in ongoing training and education for decision-makers and field personnel.

F.5 Exercises. The re-entry plan should be periodically exercised.

F.6 Maintenance and Improvement. The re-entry plan should include a method to incorporate lessons learned and results of an after action report into further plan revisions. See Table F.6.

Table F.6 Re-entry Requirements Analysis

Legislative Authority/Legal Issues	
Authority to allow re-entry into evacuated areas	<p>Is re-entry being conducted as part of a “local state of emergency” or other emergency act provisions?</p> <p>If not, under what authority will re-entry activities be operating?</p> <p>Who has the authority to allow re-entry into evacuated areas?</p> <p>How is authority exercised?</p> <p>Are there legislative requirements that need to be met prior to allowing re-entry?</p>
Conditions or circumstances that should be in place prior to approving re-entry	<p>What conditions such as: level of certainty that the area will not need to be re-evacuated, the ability to effectively manage re-entry, services required to be operational are in place prior to re-entry, etc.?</p> <p>Are triggers identified?</p>
Legal issues to be considered	<p>Are all legal requirements addressed prior to and during re-entry?</p> <p>Should your local or regional legal counsel be consulted prior to re-entry?</p> <p>Is there adequate documentation leading up to and during re-entry?</p>
Developing the Re-entry Plan	
Planning assumptions	Does the re-entry plan identify assumptions for re-entry?
Operationalizing re-entry plan with other plans	Is the re-entry plan integrated with other plans such as debris management plans, security plans, etc.?
Hazard identification and risk assessment	Does the re-entry plan identify hazards, and assess the risks associated with re-entry, and provide acceptable mitigation strategies?
Utilities and services required to be functioning prior to re-entry	<p>What utilities and services are required to be operational for re-entry to begin? (water, power, sanitary, fire and rescue response, policing, etc.)</p> <p>Note: Depending on circumstances, utilities might not need to be functioning or only partially functioning to allow for re-entry. However, it would need to be identified who can return without fully functioning utilities, such as nursing homes, residential homes, hospitals, etc.</p>
Special requirements for re-entry for some occupancies	Special situations can have certain requirements that need to be in place prior to re-entry of those occupancies, such as nursing homes, hospitals, prisons, etc. These might require all utilities be operational and/or specially trained personnel to accompany residents of these occupancies.
Resource analysis	<p>What resources will be required to adequately facilitate re-entry?</p> <p>Where will the resources come from?</p> <p>Who will cover the costs?</p>
Roles and responsibilities assigned to agencies and individuals	Have roles and responsibilities been clearly defined and assigned/accepted?

(continues)

Table F.6 *Continued*

Re-entry communication strategy to inform community regarding re-entry	Is a communications strategy in place for the re-entry? Is the re-entry phased? If so who can return when and by what routes?
Access routes	Have access routes been verified and communicated?
Full scale or phased re-entry	Has the timing been planned and communicated for either full-scale or phased re-entry?
Need for identification and what will be acceptable documentation	What identification will be required for residents, business owners, and employees? Who will view identification and approve entry?
Documentation process regarding who has/has not returned	Is there a mechanism in place to track who has returned and who has not returned?
Who do community members call for assistance once back in their community	Is there a helpline for community members to call for assistance when they return? What services will be offered?
Implementing the Re-entry Plan	Implementation
Use of re-entry teams (can be in advance of re-entry timing)	Is a re-entry team in place for implementation?
Resources to assist meeting needs of community (might need to establish community support centers — i.e., building/electrical/plumbing/gas/fire inspectors, mental health specialists, medical specialists, as well as basic supplies to assist such as bottled water, work gloves, dust masks, etc.)	Is there a recovery center/support center in place for community members to assist with inspections, permitting, public health, materials, etc.?
Assessment teams and situation reporting	Are assessment teams in place for situational awareness?
Law enforcement	Is law enforcement in place for re-entry?
Emergency response within the re-entry areas	Is emergency response available in re-entry areas?
Use of curfews	Is there a need for curfews? Will they be enforced community-wide?
Working with insurance firms	Is there a plan in place to work with insurance companies?
Demobilizing the Re-entry Plan	Re-entry De-mob
Identify who has authority to demobilize re-entry plan	Is there statutory authority to authorize demobilization of the re-entry plan?
What criteria needs to be met to determine that re-entry is complete?	What triggers are identified? Is there a process/procedure for an after action report (AAR) for community partners? Is there a process/procedure in place to authorize revision of the re-entry plan based on the outcome of the AAR?

Annex G Persons With Disabilities and Other Access and Functional Needs

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

G.1 Introduction. The term *functional and access needs* is a large umbrella to cover multiple categories of individuals that will require additional planning and resources to assist in the evacuation process for these individuals. For detailed information on the definitions of disabilities and access and functional needs, refer to the Americans with Disabilities Act (ADA), 1990; U.S. Health and Human Services (HHS), Pandemic and All Hazards Preparedness Act (PAHPA), 2006; Centers for Disease Control and Prevention (CDC), 2004; and the National Response Frame Work (NRF).

When determining evacuation of functional and access needs populations, the following information should be considered. Persons with disabilities and other access and functional needs are an important and significant part of the overall population. According to the 2000 U.S. census, there are close to 50 million persons with disabilities and other access and functional needs, which is approximately 17 percent of the total population in the United States. It is estimated that, of the 50 million who have identified themselves as having a disability, 28 percent are 65 years and over. According to the Federal Interagency Forum on Aging Related Statistics, in 2003 there were 36 million people 65 years and older in the United States.

The ADA defines disability in specific terms. Some types of disabilities (includes age spectrum from pediatric to geriatric) are as follows:

- (1) Physical (e.g., severe arthritis, spinal cord injuries, people who use wheelchairs, people with multiple sclerosis)
- (2) Sensory (e.g., people who are blind, deaf, hard of hearing)
- (3) Cognitive (e.g., people with mental illness, learning disabilities, developmental disabilities)

Some persons with disabilities and other access and functional needs can have co-existing disabilities. For example, there might be a person in a wheelchair who also has a cognitive disability.

G.2 Identification of Persons with Disabilities and Other Access and Functional Needs. Federal and state organizations active in disaster management have identified the importance of including vulnerable populations in the local government's pre-disaster planning. Local emergency managers utilize a variety of methodologies to identify and prepare for vulnerable populations in their emergency planning, which can result in inconsistencies and shortcomings or gaps from one community to another.

G.2.1 Categories. Several factors contributing to access and functional needs must be considered during pre-disaster planning, including the following:

- (1) Health factors
 - (a) Sensory, physical, mental, behavioral, and developmental disabilities
 - (b) Specialty care, including dialysis and dependency on community-based life-saving technology
 - (c) Pharmacological dependency
 - (d) Pregnancy
 - (e) Severe food allergies

- (2) Economic factors
 - (a) Migrant status
 - (b) "Latchkey kids"
 - (c) Unemployment
 - (d) Displacement
 - (e) Welfare status
 - (f) Single-parent families
 - (g) Transportation disadvantages
- (3) Social factors
 - (a) Infants and children
 - (b) Veterans
 - (c) Homeless adults, families, juveniles
 - (d) People affected by domestic violence
 - (e) Religious affiliation
 - (f) Ethnic background
- (4) Linguistic factors
 - (a) Limited or no proficiency in non-native language
 - (b) Limited or no reading ability

G.3 Considerations for Persons with Disabilities and Other Access and Functional Needs.

G.3.1 Before an Evacuation Is Ordered. To make sure that persons with disabilities and others with access and functional needs are considered, the entity charged with pre-disaster planning should take the following steps before an evacuation is ordered:

- (1) Keep several copies of an up-to-date contact list of service partners in a readily available, central, and virtual location.
- (2) Practice. Standard practice calls for at least one live and one tabletop exercise each year. It is far easier to evacuate during an emergency if evacuation drills are part of the regular planning and operations.
- (3) Ensure that staff contact information is up-to-date and easily accessible to those who need it. Having a centralized and web-based timetable and staff schedule is an excellent way to keep everyone synchronized and in the right place at the right time. Use social media (Facebook, Twitter, etc.) to help keep everyone updated.
- (4) Conduct a hazard vulnerability assessment (HVA) to identify all possible emergency scenarios and the appropriate resources and actions needed for evacuation versus shelter-in-place. (Tornadoes are an example of a shelter-in-place scenario.)
- (5) Look for appropriate alternative accommodations that can address the specific needs of persons with access or functional needs, since general population evacuation centers might not meet the physical and emotional needs of this population, provide housing for service animals, or provide family or support persons.
- (6) Evaluate the supplies and medications that will be needed for this population.
- (7) Consider the emotional needs of this population to mitigate anxiety and resistance.
- (8) The recommended practice for hospitals and nursing homes is a defend-in-place plan. Work proactively with local hospitals and nursing homes to identify backup plans for facilities that are forced to evacuate during an emergency.
- (9) Appoint and train volunteer coordinators. Untrained volunteers from the community will invariably show up to help. This valuable resource needs a trained and prepared coordinator.

- (10) Consider the needs of **persons** with disabilities and other access and functional needs when evaluating mass notification technology.
- (11) Consider implementing a 2-1-1 line in your community. The national 2-1-1 initiative seeks to reserve those three digits nationwide as a quick, easy-to-remember telephone number for finding human services answers and to connect callers with health and human services in their community, including information on shelters and help on recovering from a disaster. (For information on 2-1-1, go to www.211.org.)
- (12) Create a campaign to help **persons** with disabilities and others with access and functional needs create personal action plans.
- (13) Ensure that emergency notification is appropriate and access for persons who might need assistance (e.g., texts, audible messages, pictographs, translation).

G.3.1.1 Personal Action Plan. Create a public campaign to increase awareness of the importance of a personal action plan:

- (1) Make a list of emergency phone numbers and give a copy to your friends, parents, partner/spouse, and children.
- (2) Make sure someone in your family knows how to access appropriate emergency web sites.
- (3) Make an evacuation plan for leaving your home/residence, neighborhood, or city. You should also try to develop a phone tree so every member of your family can contact one person.
- (4) Because prescriptions are often written for a short period of time, make sure you have a small emergency supply. Diabetics and others with chronic illnesses might find that they do not have enough medicine for a shelter experience.
- (5) Think about care for your pet(s). Pets might or might not be allowed in a disaster shelter. Make sure your pets wear tags that indicate your name and home address and that you have recent photos of them. Explore emergency foster care options with local animal shelters.
- (6) Know the warning signals, mass notification system, and/or emergency broadcast system in your area. If you live with family members, make note of the following guidelines:
 - (a) Emphasize that the safety of your family is primary. They should not move to another location until they know it is safe to do so. Be aware that falling trees and electric lines can make walking dangerous.
 - (b) Develop a backup plan for how your children will get home from school or day care if you are unable to leave work/school.
 - (c) Ask relatives or friends to care for your young family members with functional needs, elderly family members or those needing extra assistance, and/or pets, and remember to inform all concerned about these arrangements (make arrangements with a few different individuals in case the other person has a conflict and cannot take care of your children or elderly family members in an emergency).
 - (d) Talk to your children so they are prepared but not scared. Give them small tasks so they feel that they are contributing.
 - (e) Choose two meeting places for your family: right outside your house or apartment and outside the neighborhood. Everyone should know the locations and have a time frame for arrival. If communication is not possible, establish a protocol for waiting at a predetermined location.

- (f) Develop an action plan for how you will evacuate family members who cannot walk or need extra assistance. Consider contacting the local department of health or local emergency preparedness agency to pre-register for evacuation assistance.
- (g) Go over your family's emergency plan once a year so everyone knows what to do and is up-to-date on any changes (are the meeting locations accessible throughout the year?).

G.3.1.2 Pack an Emergency Supply Kit. Keep an emergency supply kit at home and at work or in your car. A backpack or duffle bag works well.

Consider including the following in your kit:

- (1) Three-day supply of water and non-perishable food (one gallon per person per day, canned goods, crackers, snack bars, etc.). Pack a can opener, fork, spoon, sharp knife, and cup
- (2) Special supplies (baby items, medications, extra eyeglasses, medical equipment, plastic bags for documents and sanitation, cell phone chargers, photos of pets and family members, etc.)
- (3) Sanitation supplies (toilet paper, toothbrush, soap, antibacterial wipes, etc.)
- (4) Fully stocked first aid kit. Kit should include quality bandages (one large pad), triple antibiotic ointment, antifungal ointment, eye drops, packaged wipes, Tylenol/acetaminophen or other analgesic, saline solution, tape, burn ointment, tweezers, small magnifying glass, and needle and thread
- (5) Battery powered AM/FM radio
- (6) Flashlight
- (7) Extra batteries for radio and flashlight
- (8) Copies of important documents (driver's license or ID, passport/visa, birth certificates, phone numbers, etc.) in a waterproof case or bag
- (9) Cash, and/or credit card, phone cards
- (10) Keys to your home and car
- (11) Blanket
- (12) Map (can be useful when explaining directions)
- (13) Change of clothes and shoes (make sure they are weather appropriate)
- (14) Permanent marker (in case you need to leave a message somewhere)

G.3.2 After an Evacuation Has Been Ordered. **persons** with disabilities and other access and functional needs often need assistance to evacuate.

Δ G.3.2.1 General Guidelines. Following is a list of general guidelines for assisting **persons** with disabilities and other access and functional needs:

- (1) Do not use elevators unless authorized to do so. Elevators could fail during a fire or a major earthquake.
- (2) If the situation is life threatening, call 9-1-1.
- (3) Identify volunteers and family members who can check on and assist **persons** with disabilities and other access and functional needs during an evacuation.
- (4) Attempt a rescue evacuation only if you have had rescue training or the person is in immediate danger and cannot wait for professional assistance.

- (5) Before assisting or attempting to rescue someone with an access or functional need, ask how you can help. Ask the person how he or she can best be assisted or moved and whether there are any special considerations or items that the person needs.
- (6) An individual with the access or functional need knows best what he or she needs, so ask for advice before lifting or moving the individual.
- (7) Take extra time when communicating with people who are deaf, hard of hearing, or speech impaired. Individuals with autism and autistic spectrum disorder might also need extra time for communication.
- (8) Never separate **persons** with disabilities and other access and functional needs from personal assistive aids (e.g., wheelchairs, canes, hearing aids, medications, special diet food, urinary supplies, service animals).
- (9) Durable medical equipment might not be working after a disaster occurs, or it might be insufficient for emergency circumstances.
- (10) Some individuals with emotional, developmental, and functional needs might be too unsettled to respond appropriately to instructions and directions, such as a public address announcement to evacuate a building. Some special and functional needs individuals might need to be in a quiet place for a while to regain their composure; others might even hide from rescue workers.
- (11) Some individuals with significant mental or learning special and functional needs or second-language speakers might not understand the significance of “Keep Out” signs and barricade tape.
- (12) For more information, see NFPA *Emergency Evacuation Planning Guide for People with Disabilities*.

G.3.2.2 Visual Impairment. The following is a list of guidelines for assisting people who are blind or have low vision:

- (1) Give oral instructions about the safest route or direction using estimated distances and directional terms.
- (2) Do not grasp the arm of a person who is blind or has low vision. Ask if he or she would like to hold onto your arm as you exit, especially if there is debris or a crowd.
- (3) Give other oral instructions or information (e.g., “Elevators cannot be used.”).

G.3.2.3 Hearing Loss. The following is a list of guidelines for assisting people who are deaf or hard of hearing:

- (1) Get the attention of a person who is deaf or hard of hearing by touch and eye contact, such as tapping on the shoulder or waving your hand. Clearly state the problem. Gestures and pointing are helpful, but be prepared to write a brief statement if the person does not seem to understand.
- (2) Offer visual instructions about the safest route or direction by pointing toward exits or evacuation maps.
- (3) Ask the individual what type of assistance they require.

▲ G.3.2.4 People Who Have a Mobility Disability. The following is a list of guidelines for assisting people with mobility-related disabilities:

- (1) One should ask the person with a mobility-related disability what, if any, type of assistance is needed.
- (2) Assumptions about the ability of a person with a mobility-related disability should not be made.
- (3) It might be necessary to help clear an exit route of debris (if possible) so that the person with a disability

and other access/functional needs can move out or to a safe area.

- (4) People with mobility disabilities who cannot exit should move to a safe area to wait for assistance from first responders. Safe areas might include the following:
 - (a) Most enclosed stairwells
 - (b) An office with the door shut that is a good distance from the hazard (and away from falling debris in the case of earthquakes)
 - (c) Designated waiting areas, usually on the upper floors of a building
- (5) Notify **first responders** immediately about any people remaining in a building and their locations.
- (6) **First responders** will decide whether people are safe where they are and will evacuate them as necessary. Fire fighters might determine that it is safe to override the rule against using elevators.
- (7) If people are in immediate danger and cannot be moved to a safe area to wait for assistance, it might be necessary to evacuate them using an evacuation chair or a carry technique. On the ground floor of some buildings is an evacuation cabinet containing an evacuation chair.
- (8) Evacuating persons who use wheelchairs for mobility should be in accordance with the building evacuation plan.
- (9) Evacuating an access and functional needs population or injured persons without assistance should be considered a last resort. Consider the options and the risks of injuring yourself and others in an evacuation attempt. Do not make an emergency situation worse. Evacuation is difficult and uncomfortable for both the rescuers and the people being assisted. Some people have conditions that can be aggravated or triggered if they are moved incorrectly. Remember that environmental conditions (smoke, debris, loss of electricity) will complicate evacuation efforts.
- (10) Wheeled mobility devices aren’t limited to wheelchairs and scooters.
- (11) Devices such as Segways and adaptive tricycles can be considered a wheeled mobility device when used by a person with a disability.
- (12) Ensure that all evacuees, including those using mobility devices, move along with the normal evacuation flow.

G.3.2.5 Power Outage. If an outage occurs during the day and people with access or functional needs choose to wait in the building for electricity to be restored, assist them by suggesting they move near a window where there might be access to natural light and better cell phone service. Power outage plans should include people who rely on power for their technology and medical devices.

G.3.3 Volunteers. The following guidelines are general and might not apply in every circumstance:

- (1) Invite people to volunteer ahead of time to assist individuals with access and functional needs in an emergency.
- (2) If volunteers are not available, designate someone to assist who is willing to accept the responsibility. The jurisdiction should provide on-the-job training for working with **persons** with disabilities and other access and functional needs, and children and owners and their animals.
- (3) Two or more trained volunteers, if available, should be assigned to assist on each floor of a building where evacuees will normally be found.

- (4) Volunteers should always ask **persons** with disabilities and other access and functional needs how they can help before attempting any rescue technique or giving assistance. A volunteer should ask the person how he/she can best be assisted or moved and if there are any special considerations or items that need to come with that person.
- (5) Before attempting an evacuation, volunteers and the people being assisted should discuss how any lifting will be done and where they are being evacuated to.
- (6) Volunteers should be trained in proper lifting techniques (e.g., bending the knees, keeping the back straight, holding the person close before lifting, and using leg muscles to lift) to avoid injury to their backs. The evacuee should be asked to give permission if an evacuation chair or similar device is being considered as an aid in an evacuation. When using such devices, rescuers must make sure the person is secured properly, use caution on stairs, and rest at landings if necessary.
- (7) Certain lifts might need to be modified depending on the needs of the evacuee's access and functional needs.

G.4 Summary. Prepare building owners and managers to know the needs of their building occupants. Prepare them ahead of time for emergency evacuations and defend-in-place scenarios. Train staff, faculty, and students to be aware of the needs of **persons** with disabilities and other access and functional needs and how to offer assistance. Hold evacuation drills in which occupants participate and evaluate drills to identify areas that need improvement. Plans must cover regular working hours, after hours, and weekends.

Everyone needs to take responsibility for preparing for emergencies. **persons** with disabilities and other access and functional needs and their family members or support persons should be encouraged to consider what they would do during an incident and the additional steps they need to take to be prepared.

Annex H Animals

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

H.1 Addressing Animal Issues in Disaster. Animals can impact public health and safety during disasters. Past disasters have shown that people will refuse to evacuate or will attempt to re-enter unsafe areas to retrieve animals left behind. As such, animals cannot be considered independently of response requirements associated with human populations. Entities active in disaster management have identified the importance of integrating animal response in the pre-disaster planning undertaken by local government.

H.2 Planning Considerations for Animal Evacuation/Re-entry and Sheltering.

H.2.1 Emergency managers should assess and plan for the full range of animal issues in their community. This will ensure that the jurisdiction is equipped to comprehensively address human and animal issues and take steps to mitigate vulnerabilities.

Animals left behind during an evacuation will require care and can cause cascading effects within the incident.

H.2.2 During an incident, to the extent practical, animal evacuation and sheltering should be conducted in conjunction with

human evacuation and sheltering efforts; animals should be sheltered near their owners. When possible, owners should provide food, water, husbandry, and exercise for their animals while they are in emergency shelters. However, emergency managers must be prepared to support the care and husbandry needs of animals during evacuation and sheltering when the owner is unable to do so.

H.2.3 Service and assistance animals are not pets and should not be separated from **persons** with disabilities and other access and functional needs. These animals should be permitted anywhere the public goes. Entities should allow these animals to accompany their owners during mass evacuation, sheltering, and re-entry. Entities should research the legal protections afforded to these animals and their owners and plan appropriately for their management and care.

H.2.4 Planning Considerations.

H.2.4.1 The emergency operations plan should provide background information and context as follows:

- (1) Estimate the community's animal population and plan for the potential evacuation and sheltering support needs of animal populations within the jurisdiction.
- (2) Develop strategies and process for evacuation, shelter, and care of animals, including pets and service and assistance animals.
- (3) Integrate the animal services activities into the incident command system, ensure interoperable communications, and record situational assessment reporting of animal services provided.
- (4) Define authorities, roles, responsibilities, and capabilities of animal response partners and stakeholders for the various types of animals.
- (5) Partner with new and existing animal care partners and businesses. Most animal and agriculture emergency response resources and assets are owned or controlled by the private sector and nongovernmental organizations. Veterinarians, farmers, animal control agencies and humane organizations, breeders, wildlife rehabilitators, and others make up the animal infrastructure within a community. Many jurisdictions have integrated animal response capabilities, such as animal response teams, veterinary medical reserve corps, or similarly named entities.
- (6) Appoint a coordinator for animal disaster services from the animal control agency or local community.
- (7) Identify, train, and equip local animal emergency services managers and animal response teams.
- (8) Keep an up-to-date contact list of animal service partners (animal control agencies, community animal shelters and humane organizations, veterinarians, pet boarding facilities, and pet supply businesses) in a readily available location.
- (9) Address how veterinary medical care will be provided for triage and treatment of injuries, illness, decontamination, disease prevention, and, when necessary, euthanasia.
- (10) Address management of fractious or dangerous animals and protocols to address animal bites or injuries to humans or other animals and animal quarantine.
- (11) Utilize mutual aid and donated goods to address resource deficiencies.
- (12) Plan for management of spontaneous influx of donated materials and resources.

I.1.1 Evacuation. Organized, phased, and supervised dispersal of people from dangerous or potentially dangerous areas.

I.1.2 Mandatory or Directed Evacuation. This is a warning to persons within the designated area that an imminent threat to life and property exists and individuals must evacuate in accordance with the instructions of the local officials.

I.1.3 Spontaneous Evacuation. Residents or citizens in the threatened areas observe an emergency event or receive unofficial word of an actual or perceived threat and without receiving instructions to do so, elect to evacuate the area. Their movement, means, and direction of travel is unorganized and unsupervised.

I.1.4 Voluntary Evacuation. This is a warning to persons within a designated area that a threat to life and property exists or is likely to exist in the immediate future. Individuals issued this type of warning or order are not required to evacuate; however, it would be to their advantage to do so.

I.2 Authorization to Issue Mandatory Evacuation Declaration. The AHJ is the entity that should declare a local emergency, disaster, or mandatory evacuation.

I.3 Filing of Declaration. Any declaration of a mandatory evacuation by the jurisdiction should be made available through general publicity and other acceptable means of public communication of said declaration to the affected population. In case where mandatory evacuation is ordered there are issues to be considered.

I.4 Emergency Evacuation Checklist. It is essential that the affected population quickly and safely evacuate the area in the event of an order. It is important to conduct drills on a regular basis so that staff will learn and remember what they are supposed to do. The following checklist can be used to develop an evacuation plan or evaluate the adequacy of an existing plan.

- (1) Is there a written evacuation plan for the community?
- (2) Have the citizens been trained on the plan?
- (3) Is there an evacuation map?
- (4) Have there been drills conducted?
- (5) Are there procedures in place to assist person with a disability and other access/functional needs leave the affected area?
- (6) Is the plan reviewed and updated annually?

I.5 Term of Declaration. (Sample or Recommended Language). (This language is extracted from Chapter 166A, North Carolina Emergency Management Act, Article 1, North Carolina Emergency Management Act of 2012.)

Part 5. Additional Powers During States of Emergency.
§ 166A-19.30. Additional powers of the Governor during state of emergency.

(a) In addition to any other powers conferred upon the Governor by law, during a gubernatorial or legislative declared state of emergency, the Governor shall have the following powers:

(1) To utilize all available State resources as reasonably necessary to cope with an emergency, including the transfer and direction of personnel or functions of State agencies or units thereof for the purpose of performing or facilitating emergency services.

(2) To take such action and give such directions to State and local law enforcement officers and agencies as may be reasonable and necessary for the purpose of securing compliance with the provisions of this Article and with the orders, rules, and regulations made pursuant thereto.

Power of municipalities and counties to enact ordinances to deal with states of emergency.

(a) Authority to Enact Prohibitions and Restrictions. - The governing body of any municipality or county may enact ordinances designed to permit the imposition of prohibitions and restrictions within the emergency area during a state of emergency declared pursuant to G.S. 166A-19.22. Authority to impose by declaration prohibitions and restrictions under this section, and to impose those prohibitions and restrictions at a particular time as appropriate, may be delegated by ordinance to the mayor of a municipality or to the chair of the board of county commissioners of a county.

I.6 Powers. Upon the issuance of the mandatory evacuation declaration, the AHJ can exercise powers.

I.7 Enforcement of Orders. If “mandatory evacuation order law” is adopted then it is recommended that other rules/regulations/laws be considered for enforcement of the order.

- (1) The members of the police department and such other law enforcement and peace officers as might be authorized by the AHJ are further authorized and directed to enforce the orders, rules, and regulations made or issued pursuant mandatory evacuation.
- (2) During the period of a declared mandatory evacuation, a person cannot:

I.8 Authority to Enter a Property. In cases where mandatory evacuation laws are adopted there should be laws that would allow public safety employees or agents of the government to enter private property for the purpose of dealing with an emergency.

Annex J Emergency Communication: Public Alerts and Warnings

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

J.1 Emergency Communication. AHJs should develop uniform procedures for clear, consistent, recognizable, and accurate communications that include alerts and warnings, to enable safe, effective, and timely responses among individuals, organizations, and communities in the path of storms that have the potential to create tornadoes, as well as other types of emergencies, including the following:

- (1) Standardized audible, visual, and even tactile alert signals
- (2) Clear, consistent, recognizable, and accurate warning messages, including guidance on message content and length
- (3) Accurate and consistent dissemination of alerts and warning messages via multiple sources (e.g., NOAA, emergency managers, the media, health care, businesses, education systems) and multiple technology types (e.g., sirens, public address systems, television, radio, NOAA weather radio, mobile devices, the Internet, social media)

The procedures should also include alert and message examples/templates for different types of disasters, sources, and technologies; guidance on frequency of dissemination; and

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The procedures should also include alert and message examples/templates for different types of disasters, sources, and technologies; guidance on frequency of dissemination; and

appropriate timing for the dissemination of information (i.e., initial communication versus follow-up).

First responders, emergency managers, the National Weather Service (NWS), and the media should develop a joint plan and take steps to make sure that accurate and consistent emergency alert and warning information is communicated in a timely manner to enhance the situational awareness of community residents, visitors, and emergency responders affected by an event. Especially important is the inclusion of guidance on both alert and warning information. Alerts, such as the activation of outdoor sirens, are meant to grab people's attention, whereas warnings provide information on the nature of the emergency and what actions people should take. The provision of warning information along with alerts enhances the public's understanding of why the alert is occurring.

Annex K Social Media Support

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

Δ K.1 General. Rapid, reliable, redundant communications are a critical factor in effective and efficient mass evacuation, sheltering, and re-entry.

Social media has grown, not only as another major channel for broadcasting emergency communication to the public, but also as a means of conversing and engaging with the public as a whole community before, during, and after emergencies.

K.2 Social Media Planning. Purpose: Develop a structure and process for integrating social media into Sections 5.8 and 5.9.

- (1) If the entity has a communications, public relations (PR), or public information officer (PIO) department, begin with this team because they might already have the necessary capability and appropriate channels established. The entity should leverage the process and individuals who control the entity's social media channels for use during an emergency. If no team is currently in place, the entity should form a team of employees and stakeholders who already use social media with the goal of developing a process for implementing social media to distribute emergency information. The entity should ensure any existing communications, PR, or PIO team is fully integrated into the planning process.
- (2) Top management should review the social media recommendations and authorize appropriate resources for implementation. The entity should review whether it has, or needs to develop, a social media policy stipulating who may use social media channels on behalf of the entity. The entity should ensure senior leadership understands and endorses the use of social media by the identified individuals because these individuals will be speaking on behalf of the entity.
- (3) The entity should identify the most popular platforms for the stakeholders that are trying to be reached. (There are many platforms; it is not realistic to expect the entity will be able to stay abreast of more than a handful.) Individuals designated to use social media on behalf of the entity should develop competence in the opportunities and limitations of each of the social media platforms in use.
- (4) Determine which social media platforms will be primary and which platforms will be secondary for the following:
 - (a) Evacuation, including shelter-in-place

- (b) Mass sheltering
- (c) Re-entry

- (5) The entity should consider developing standardized messages or templates for rapid use.
- (6) While automatic callback tools are often only used during emergencies, social media channels are meant to be used to build rapport, trust, credibility and followers. They should be used regularly to be relevant. The entity should ensure individuals responsible for social media communication are sufficiently trained not only in the use of the channels they will be using but also on the nuances of how the use of these tools might need to change during an emergency. The entity should ensure there is a clear process for approval. The entity should determine what incoming information and sources will be retransmitted and linked. The entity should identify the frequency of review to keep information fresh. The entity should identify the need for additional staff during an emergency.
- (7) The entity should practice during exercises and tests.

Annex L Just-in-Time Training Support

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

Δ L.1 Just-in-Time Training. Execution of a successful mass evacuation, sheltering, and re-entry operation will require training — training ready for presentation before the evacuation order is issued. The purpose of the just-in-time training (JITT) is to support mass evacuation, sheltering, and re-entry management of risk.

L.2 Role of Instructional Systems Design. All training should be designed, developed, presented, and evaluated using an instructional systems design (ISD). Several models or approaches can be used. It is recommended that experienced instructional designers complete the process.

L.3 Risk-based Training. The environment of JITT involved with mass evacuation, sheltering, and re-entry should be based on risk management. The first step in managing risk is to identify the hazards that could potentially cause harm as part of the analysis step in the ISD process. Job hazard analysis (JHA) is a tool to identify hazards.

Δ L.4 Job Hazard Analysis (JHA). Does the job have hazards that could injure or harm the health of the volunteer? If hazards exist, can you control the hazards, after you have completed a JHA? IF the hazards cannot be controlled, DO NOT DO THE JOB.

It is very important that this step not be skipped because someone assumes the job is safe. Often "office work" is assumed to have few hazards that will harm. — Note: the standard box of copy paper weighs 40 lb.

Caution: If your organization completes a JHA and identifies a certain job qualification during the analysis — for example, the "ability to lift 50 lb 10 times in 8 hours" — it is very important that you do not waive the requirement because a certain individual cannot perform in accordance with the requirement.

Often a professional in industrial hygiene or in loss control should be consulted on the proper controls identified during the JHA.

L.5 What is a JHA? A JHA is a procedure that helps integrate accepted hazard, health, and safety principles and practices into a particular task or job operation. In a JHA, each basic step of the job is to identify potential hazards and to recommend the safest way to do the job. Terms used to describe this procedure are JHA and job hazard breakdown. See Table L.5.

L.6 What Are the Benefits of Doing a Job Hazard Analysis? Initial benefits from developing a JHA will become clear in the preparation stage. The analysis process might identify previously undetected hazards and increase the job knowledge of those participating. Hazard and health awareness is raised, communication between workers and supervisors is improved, and acceptance of safe work procedures is promoted.

A JHA, or better still, a written work procedure based on it, can form the basis for regular contact between supervisors and volunteer workers. It can serve as a teaching and orientation aid for initial job training and as a briefing guide for infrequent jobs. It might be used as a standard for health and hazard inspections or observations. In particular, a JHA will assist in completing comprehensive accident investigations.

L.7 Four Basic Steps in JHA. Four basic stages in conducting a JHA are:

- (1) Selecting the job to be analyzed
- (2) Breaking the job down into a sequence of steps
- (3) Identifying potential hazards
- (4) Determining preventive measures to overcome these hazards

L.8 What Is Important to Know When "Selecting the Job"? Ideally, all jobs should be subjected to a JHA. In some cases there are practical constraints posed by the amount of time and effort required to do a JHA. The JHA to support just-in-time training for mass evacuation, sheltering, and re-entry must be conducted before the evacuation order is issued.

L.9 How Do I Break the Job into "Basic Steps"? After a job has been chosen for analysis, the next stage is to break the job into steps. A job step is defined as a segment of the operation necessary to advance the work.

Care must be taken not to make the steps too general. Missing specific steps and their associated hazards will not help. On the other hand, if they are too detailed, there will be too many steps. A rule of thumb is that most jobs can be described in less than ten steps. If more steps are required, you might want to divide the job into two segments, each with its separate JHA, or combine steps where appropriate. As an example, the job of changing a flat tire will be used in this document.

An important point to remember is to keep the steps in their correct sequence. Any step that is out of order might miss serious potential hazards or introduce hazards that do not actually exist.

Each step is recorded in sequence. Make notes about what is done rather than how it is done. Each item is started with an action verb.

This part of the analysis is usually prepared by knowing or watching a trained individual do the job. The job observer should have experienced and be capable in all parts of the job. To strengthen full co-operation and participation, the reason for the exercise must be clearly explained. The JHA is neither a "time and motion study" in disguise, nor an attempt to uncover individual unsafe acts. The job, not the individual, is being studied in an effort to make it safer by identifying hazards and making modifications to eliminate or reduce them.

The job should be observed during normal times and situations. For example, if a job is routinely done only at night, the JHA review should also be done at night. Similarly, only regular tools and equipment should be used. The only difference from normal operations is the fact that the worker is being observed.

When completed, the breakdown of steps should be discussed by all the participants (always including the worker) to make sure that all basic steps have been noted and are in the correct order.

L.10 How Do I "Identify Potential Hazards"? Once the basic steps have been recorded, potential hazards must be identified at each step. Based on observations of the job, knowledge of accident and injury causes, and personal experience, list the things that could go wrong at each step.

A second observation of the job being performed could be needed. Since the basic steps have already been recorded, more attention can now be focused on each potential hazard. At this stage, no attempt is made to solve any problems that might have been detected.

To help identify potential hazards, the job analyst can use questions such as these (this is not a complete list):

- (1) Can any body part get caught in or between objects?
- (2) Do tools, machines, or equipment present any hazards?
- (3) Can the worker make harmful contact with moving objects?
- (4) Can the worker slip, trip, or fall?
- (5) Can the worker suffer strain from lifting, pushing, or pulling?
- (6) Is the worker exposed to extreme heat or cold?
- (7) Is excessive noise or vibration a problem?
- (8) Is there a danger from falling objects?
- (9) Is lighting a problem?
- (10) Can weather conditions affect a hazard?
- (11) Is harmful radiation a possibility?
- (12) Can contact be made with hot, toxic, or caustic substances?
- (13) Are there dusts, fumes, mists, or vapors in the air?

Table L.5 Sample Form for Job Hazard Analysis Worksheet

Job Hazard Analysis Worksheet		
Job:		
Analysis By:	Reviewed By:	Approved By:
Date:	Date:	Date:
Sequence of Steps	Potential Accidents or Hazards	Preventive/Control Measures

Each step is recorded in sequence. Make notes about what is done rather than how it is done. Each item is started with an action verb. Table L.10 illustrates a format that can be used as a worksheet in preparing a JHA. Job steps are recorded in the left hand column.

Potential hazards are listed in the middle column of the worksheet, numbered to match the corresponding job step.

L.11 Hazard Control. The final stage in a JHA is to determine ways to eliminate or control the hazards identified. The generally accepted measures, in order of preference, are as follows.

L.11.1 Eliminate the Hazard: Use a Machine Guard. This is the most effective measure. These techniques should be used to eliminate the hazards:

- (1) Choose a different process
- (2) Modify an existing process
- (3) Substitute with less hazardous substance
- (4) Improve environment (ventilation)
- (5) Modify or change equipment or tools

L.11.2 Contain the Hazard. If the hazard cannot be eliminated, contact might be prevented by using enclosures, machine guards, worker booths, or similar devices.

L.11.3 Revise Work Procedures. Consideration might be given to modifying steps that are hazardous, changing the

sequence of steps, or adding additional steps (such as locking out energy sources).

L.11.4 Reduce the Exposure. These measures are the least effective and should only be used if no other solutions are possible. One way of minimizing exposure is to reduce the number of times the hazard is encountered. An example would be modifying machinery so that less maintenance is necessary. The use of appropriate personal protective equipment (PPE) might be required. To reduce the severity of an accident, emergency facilities, such as eyewash stations, might need to be provided.

In listing the preventive measures, do not use general statements such as “be careful” or “use caution”. Specific statements that describe both what action is to be taken and how it is to be performed are preferable. The recommended measures are listed in the right hand column of the worksheet, numbered to match the hazard in question. For example, see Table L.11.4.

L.12 Actions After the JHA Is Complete. The JHA including hazard control is completed, the design and development of JITT can proceed. For the hazards that cannot be eliminated, and the decision to increase the risk to personnel has been made, the design and development can be proceed with the identification of learning objectives for the JITT.

Table L.10 Partially Completed Sample Form for Sequencing Events, Potential Accidents/ Hazards, and Preventive Measures

Sequence of Events	Potential Accidents or Hazards	Preventive Measures
Park vehicle	a) Vehicle too close to passing traffic b) Vehicle on uneven, soft ground c) Vehicle could roll	
Remove spare and tool kit	a) Strain from lifting spare	
Pry off hub cap and loosen lug bolts (nuts)	a) Hub cap could pop off and hit you b) Lug wrench could slip	

Table L.11.4 Completed Sample Form for Sequencing Events, Potential Accidents/Hazards and Preventive Measures

Sequence of Events	Potential Accidents or Hazards	Preventive Measures
Park vehicle	a) Vehicle too close to passing traffic b) Vehicle on uneven, soft ground c) Vehicle could roll	a) Drive to area well clear of traffic. Turn on emergency flashers. b) Choose a firm, level parking area. c) Apply the parking brake; leave transmission in PARK; place blocks in front and back of the wheel diagonally opposite to the flat.
Remove spare and tool kit	a) Strain from lifting spare	a) Turn spare into upright position in the wheel well. Using your legs and standing as close as possible, lift spare out of truck and roll to flat tire.
Pry off hub cap and loosen lug bolts (nuts)	a) Hub cap could pop off and hit you b) Lug wrench could slip	a) Pry off hub cap using steady pressure. b) Use proper lug wrench; apply steady pressure slowly.

L.13 Learning Objectives. Learning objectives should be established for all elements in the JITT program and should be linked to human performance in controlling hazards. Without well-written learning objectives, measurement and evaluation of performance, when the performance is compared to criteria to determine if the performance meets expectations, are impossible. Learning objectives should contain the following three essential parts.

L.13.1 Performance. Specific identification of expected behavior that is observable and measurable. If the specific behavior is based on expected knowledge (cognitive process) or attitudes (emotions, feelings), indicator behaviors should be used, because knowledge and attitude performance objectives are not directly observable and, therefore, are not measurable. An indicator behavior is observable and is based on either cognitive or emotional processes.

L.13.2 Conditions. Specific identification of exact location, tools, the equipment used, and so forth that will be part of the observable, measurable behavior.

L.13.3 Criteria. Specific criteria that will be used to compare the observed behavior so that it can be determined if the learning objectives have been achieved.

The identified learning objectives will be the first step in designing and developing. The learning objectives should be grouped into logical groupings, usually called modules.

L.14 Options for JITT Training Presentation. The options for JITT might be limited; many accepted methods for presenting training will not be available during the activation of just-in-time training for mass evacuation, sheltering, and re-entry. The training must be designed and developed to be presented in an environment with extremely limited support resources. Therefore, the training should be designed and developed to be presented in an instructor-led (lecture) format. In addition, the training should be ready to be presented without electricity.

Annex M Mass Evacuation, Sheltering, and Re-entry Data Interoperability

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

M.1 General. Identify the data needed to define a shelter, its resources, facilities, guests, and necessary support personnel given the shelter capabilities.

Evacuation and sheltering data needs to be sufficient to support decisions and communications related to sheltering and evacuations.

M.2 Open Standards for Data Interoperability in Emergency Management. This annex will describe data interoperability in terms of the basic building blocks of information that are defined to support the exchange of data needed in emergency situations.

M.2.1 IPAWS Architecture. During an emergency, alert and warning officials need to provide the public with life-saving information quickly. The Integrated Public Alert and Warning System (IPAWS) is a modernization and integration of the nation's alert and warning infrastructure. IPAWS will integrate new and existing public alert and warning systems and technologies. Federal, state, territorial, tribal, and local government alert and warning systems will be able to integrate with the

national alert and warning infrastructure providing a broader range of message options and communications pathways for the delivery of alert and warning information to the American people before, during, and after a disaster. Examples of some systems are as follows:

- (1) Emergency Management Modernization Program (EM2P)
- (2) Department of the Army Pamphlet (DA-PAM) 525-27
- (3) Mass Warning and Notification (MWN)
- (4) Common Operating Picture
- (5) Joint FEMA IPAWS Special Interest Group

M.2.1.1 EM2P. EM2P is an acquisition program for the design, procurement, fielding, training, and lifecycle management of emergency management capabilities in support of army installations and their assigned soldiers, civilians, contractors, and family members.

The core capabilities offered by the program are as follows:

- (1) Mass Warning and Notification (MWN)
- (2) Enhanced-911
- (3) Common Operating Picture

M.2.1.2 DA-PAM 525-27.

- (1) Clarifies the scope, implementation, and execution of the Army Emergency Management Program
- (2) Guides the implementation of the recommendations and follow-on actions from the Fort Hood Report
- (3) Guides the National Incident Management System implementation at installations worldwide
- (4) Implements and supports National Response Framework guidance at all domestic installations
- (5) Guides the emergency planning process at installations worldwide
- (6) Provides organization, education, training, equipment, sustainment, exercise, and evaluation guidance for the Army Emergency Management Program
- (7) Guides the development of command, control, and communications capabilities
- (8) Guides the development of evacuation management and mass care capabilities
- (9) Details activities and operations across all phases of emergency management

M.2.1.3 Mass Warning and Notification (MWN). This emergency mass notification system is designed to provide mass warning and notification during a situations to warn a community with an accurate accountability of the circumstances and provide instruction. Examples of systems include the following:

- (1) Multi-modal
- (2) Network Alerting System (NAS)
- (3) Telephone Alerting System (TAS)
- (4) IPAWS-OPEN Ready
- (5) CAP compliant

M.2.1.4 Common Operating Picture (COP). The COP is the core to situational awareness capability to allow for decision making, action planning, and implementation. It is an application that supports response to situations and circumstances by collecting, sharing, and showing information. Examples of systems include the following:

- (1) Graphical Situational Awareness
- (2) IPAWS-OPEN ready

- (3) Emergency Data Exchange Language (EDXL)-Distribution Element (DE) compliant

M.2.1.5 Joint FEMA IPAWS-DOD Working Group. FEMA has developed a system that also recognizes joint working groups that could be coordinated under specific situations. Some include those listed as follows:

- (1) Special interest group
- (2) Pilot working group
- (3) Fort Bragg
- (4) Fort Drum
- (5) Meet monthly with army installation and local emergency managers
- (6) Provide concept of operations (CONOPS) on the usage of OASIS standards and IPAWS-OPEN web services
- (7) Extensive outreach effort
- (8) Army wide
- (9) Local government wide
- (10) Several local communities bordering military installations have yet to participate in IPAWS
- (11) OASIS

M.3 Organization for the Advancement of Structured Information Standards (OASIS). OASIS is a nonprofit consortium that drives the development, convergence, and adoption of open standards for the global information society.

OASIS promotes industry consensus and produces world-wide standards for security, Internet of Things, cloud computing, energy, content technologies, emergency management, and other areas. OASIS open standards offer the potential to lower cost, stimulate innovation, grow global markets, and protect the right of free choice of technology.

Members broadly represent the marketplace of public and private sector technology leaders, users, and influencers. The consortium has more than 5,000 participants representing over 600 organizations and individual members in more than 65 countries.

OASIS is distinguished by its transparent governance and operating procedures. Members themselves set the OASIS technical agenda, using a lightweight process expressly designed to promote industry consensus and unite disparate efforts. Completed work is ratified by open ballot. Governance is accountable and unrestricted. Officers of both the OASIS board of directors and technical advisory board are chosen by democratic election to serve 2-year terms. Consortium leadership is based on individual merit and is not tied to financial contribution, corporate standing, or special appointment.

M.3.1 Emergency Data Exchange Language (EDXL). EDXL is a family of standards for alerting, data distribution, hospital availability, tracking emergency patients, tracking emergency clients, situation reporting, and resource messaging. These include the following:

- (1) Common Alerting Protocol (CAP) 1.2
- (2) EDXL Distribution Element (DE) 1.0, 2.0
- (3) Hospital Availability Exchange (HAVE) 1.0, 2.0
- (4) Tracking of Emergency Patients (EDXL-TEP) 1.1
- (5) Resource Messaging (RM) 1.0
- (6) Tracking of Emergency Clients (TEC) 1.0 (includes Google Person Finder Information Format 1.2)
- (7) Situational Reporting

Dissemination systems based on these standards include the following:

- (1) U.S. FEMA Integrated Public Alert and Warning System (IPAWS)
- (2) Google Public Alerts
- (3) Federated Internet Alerts (FIA)

Annex N List of Acronyms

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

N.1 Shelter-in-Place.

ACPH — air changes per hour

ALARA — as low as reasonably achievable

ANSI — American National Standards Institute

ASHRAE — American Society of Heating, Refrigeration, and Air-Conditioning Engineers

CSEPP — Chemical Stockpile Emergency Preparedness Program

EAS — Emergency Alert System

HVAC — heating, ventilation, and air conditioning

PADs — Protective action decisions

PARDOS — partial exposure calculation code (computer model)

PARs — Protective action recommendations

N.2 Evacuation.

ADA — Americans with Disabilities Act

AHJ — authority having jurisdiction

ALF — assisted living facilities

ARC — American Red Cross

ASL — above sea level

BFE — base flood elevation

CEMP — comprehensive emergency management plan

CF — critical facilities

CHHA — coastal high hazard area

DCA — Department of Community of Affairs

DFIRM — digital flood insurance rate map

EHPA — enhanced hurricane protection areas

EOC — emergency operations center

FDEM — Division of Emergency Management

FDOT — Florida Department of Transportation

FEMA — Federal Emergency Management Agency

FIRM — flood insurance rate map

FLUM — future land use map

FOUO — for official use only

GIS — Geographic Information System

Hazmat — hazardous material

HAZUS — Hazards United States	DHS — U.S. Department of Homeland Security
LEPC — local emergency planning committee	DME — durable medical equipment
LiDAR — light detection and ranging	DOJ — Department of Justice
LMS — local mitigation strategies	EMAC — Emergency Management Assistance Compact
MEOW — maximum envelope of water	EMD — emergency management director
MOM — maximum of maximums (or MEOWs)	EMS — emergency medical services
MPO — Metropolitan Planning Organization	EOC — emergency operations center
MSL — mean sea level	ESF — emergency support function
NFIP — National Flood Insurance Program	FEMA — Federal Emergency Management Agency
NGVD — National Geodetic Vertical Datum	FN — functional needs
NHC — National Hurricane Center	FNS — functional needs shelter
NOAA — National Oceanic and Atmospheric Administration	FNSS — functional needs support services
NWS — National Weather Service	HHS — Department of Health and Human Services
POD — point of distribution	HSEEP — Homeland Security Exercise and Evaluation Program
RES — regional evacuation study	HSPD — Homeland Security Presidential Directive
RPC — regional planning council	HSR — health service region
SAD — small area data	HUD — Department of Housing and Urban Development
SAR — search and rescue technical data report acronyms	ICU — intensive care unit
SEOC — State Emergency Operations Center	IV — intravenous
SpNS — special needs shelters	JIC — joint information center
TAZ — traffic analysis zones	JIS — joint information system
TEZ — traffic evacuation zones	LHD — local health department
USNG — United States National Grid	LMHA — local mental health authority
WFO — weather field office	LSC — Life Safety Code
WUI — Wildland Urban Interface	MCS — mass care and shelter
N.3 Sheltering.	MIST — medical incident support team
ADA — Americans with Disabilities Act	MOA — Memoranda of Agreement
ADAAA — Americans with Disabilities Act Amendments Act	MOC — medical operations center
ALS — advanced life support	MOU — Memorandum of Understanding
APS — Adult Protective Services	MVCC — medical volunteer coordinating committee
BCFS — Baptist Child & Family Services	NGO — nongovernmental organization
BLS — basic life support	NIMS — National Incident Management System
CCU — cardiac care unit	NIPP — National Infrastructure Protection Plan
CFR — Code of Federal Regulations	NRF — National Response Framework
CHCS — Center for Health Care Services	ONA — other needs assistance
CISM — critical incident stress management	PAS — personal assistance services
CMOC — catastrophic medical operations center	PCS — personal care site
CMS — consumable medical supplies	PICU — pediatric intensive care unit
CPS — Child Protective Services	PHIN — public health information network
DBH — Disaster Behavioral Health	PMT — project management team

REOC — regional emergency operations center
 RMOOC — regional medical operations center
 SEOC — state emergency operations center
 SIRS — state-initiated regional shelter(s)
 SNETS — Special Needs Evacuation Tracking System
 TAR — Transportation Assistance Registry
 USC — United States Code
 VOLAG — voluntary agency

N.4 Re-entry. (Reserved)

Annex O Informational References

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

NFPA 99, *Health Care Facilities Code*, 2018 edition.

NFPA 1250, *Recommended Practice in Fire and Emergency Service Organization Risk Management*, 2020 edition.

NFPA 1300, *Standard on Community Risk Assessment and Community Risk Reduction Plan Development*, 2020 edition.

NFPA 1730, *Standard on Organization and Deployment of Fire Prevention Inspection and Code Enforcement, Plan Review, Investigation, and Public Education Operations*, 2019 edition.

Emergency Evacuation Planning Guide for People with Disabilities.

N O.1.2 Other Publications.

N O.1.2.1 ADA Publications. Americans with Disabilities Act, U.S. Government Publishing Office, 732 North Capitol Street, NW, Washington, DC 20401-0001.

Americans with Disabilities Architectural Accessibility Guidelines, 2014.

Checklist for Emergency Shelters, July 2007.

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ASCE/SEI 7, *Minimum Design Loads for Building and Other Structures*, 2013.

ASCE/SEI 24, *Flood Resistant Design and Construction*, 2014.

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ATC-20, *Procedures for Post-Earthquake Safety Evaluation of Buildings*, 1997.

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N O.1.2.4 FEMA Publications. Federal Emergency Management Agency, U.S. Department of Homeland Security, 500 C Street, SW, Washington, DC 20472.

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FEMA P-58-1, *Seismic Performance Assessment of Buildings*, Vols. 1–3, 2012.

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FEMA P-361, *Safe Rooms for Tornadoes and Hurricanes: Guidance for Community and Residential Safe Rooms*, 3rd edition, 2015.

FEMA P-431, *Tornado Protection: Selecting Refuge Area in Buildings*, 2nd edition, 2009.

FEMA P-543, *Design Guide for Improving Critical Facility Safety from Flooding and High Winds*, 2007.

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FEMA P-957, *Snow Load Safety Guide*, 2013.

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Shelter Field Guide, FEMA P-785, www.nationalmasscarestrategy.org/wp-content/uploads/2015/10/Shelter-Field-Guide-508_f3.pdf.

N O.1.2.5 ICC Publications. International Code Council, 500 New Jersey Avenue, NW, 6th Floor, Washington, DC 20001.

ICC 500, *ICC/NSSA Standard for the Design and Construction of Storm Shelters*, 2014.

N O.1.2.6 NGA Publications. National Governors Association, Hall of the States, 444 North Capitol Street, Suite 267, Washington, DC 20001-1512, www.nga.org.

Governor's Guide to Mass Evacuation, 2018.

N O.1.2.7 National Mass Care Strategy Publications. www.nationalmasscarestrategy.org

Mega-Shelter Planning Guide, October, 2010.

Shelter Guidance Aid and Shelter Staffing Matrix, October 2010, www.nationalmasscarestrategy.org.

N O.1.2.8 Other Publications.

ARC 4496, *Standards for Hurricane Evacuation Shelter Selection*, 2012.

North Carolina Emergency Management Act, as amended.

Sheltering Guidance Aid and Shelter Staffing Matrix, 2010.

Statewide Emergency Shelter Plan, Florida, 2018, www.florida-disaster.org.

O.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.

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Assisting Persons with Disabilities during an Emergency.

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Emergency Management National Council on Disability, www.ncd.gov.

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National Dissemination Center for Children with Disabilities.

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Standards for Accessible Design, 2010.

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Shelter Facility Survey.

Shelter Fundamentals Fact Sheet.

Shelter Management Fact Book.

Sheltering Handbook, American Red Cross Mass Sheltering Guide.

Staff Shelter Handbook.

O.2.4 AVMA Publications. American Veterinary Medical Association, 1931 North Meacham Road, Suite 100, Schaumburg, IL 60173-4360, www.avma.org.

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AVMA Emergency Preparedness and Response Resources.

Δ O.2.5 CDC Publications. Centers for Disease Control and Prevention, 1600 Clifton Road, Atlanta, GA 30329-4027.

Emergency Preparedness for Older Adults, cdc.gov.

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Americans with Disabilities and Others with Access and Functional Needs Organizations.

Estimating Animal Numbers in an IND Incident.

FEMA 488, *Mitigation Assessment Team Report: Hurricane Charley in Florida*.

FEMA Flood Risk Products.

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Guidance on Planning for Integration of Functional Needs Support Services in General Population Shelters, November 2010.

National Response Framework (NRF), 2016.

People with Disabilities and Other Access and Functional Needs.

Pet and Animal Emergency Planning, www.ready.gov.

Planning for Integration of Functional Needs Support Services in General Population Shelters.

Δ O.2.7 NASAAEP Publications. National Alliance of State Animal and Agricultural Emergency Programs, 1843 Central Avenue, Box 193, Albany, NY 12205.

NASAAEP Best Practices in Animal Emergency Management (includes guidance on emergency animal sheltering, evacuation and transportation, and other animal emergency management topics).

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Commonly Used Sheltering Items & Services Listing Catalog (CUSI-SL), 2013.

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Emergency Support Function #6 (ESF6 Annex) Mass Care, Emergency Assistance, Temporary Housing and Human Services Annex, 2016.

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Index

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- A-**
- Administration**, Chap. 1
 - Application, 1.3
 - Purpose, 1.2
 - Scope, 1.1, A.1.1
- All-Hazards**
 - Definition, 3.3.1
- Animals**
 - Definition, 3.3.2
- Animals**, Annex H
 - Addressing Animal Issues in Disaster, H.1
 - Planning Considerations for Animal Evacuation/Re-entry and Sheltering, H.2
 - Planning Considerations, H.2.4
 - Community Preparedness, H.2.4.4
 - Evacuation and Re-entry, H.2.4.2
 - Shelter, H.2.4.3
 - Summary, H.3
- Approved**
 - Definition, 3.2.1, A.3.2.1
- Assistance Animal**
 - Definition, 3.3.3, A.3.3.3
- Authority Having Jurisdiction (AHJ)**
 - Definition, 3.2.2, A.3.2.2
- B-**
- Business Continuity**
 - Definition, 3.3.4, A.3.3.4
- C-**
- Capability**
 - Definition, 3.3.5
- Common**
 - Definition, 3.3.6
- Competence**
 - Definition, 3.3.7
- D-**
- Damage Assessment**
 - Definition, 3.3.8
- Definitions**, Chap. 3
- E-**
- Emergency Communication**
 - Definition, 3.3.9
- Emergency Communication: Public Alerts and Warnings**, Annex J
 - Emergency Communication, J.1
- Emergency Respite**
 - Definition, 3.3.10, A.3.3.10
- Entity**
- Evacuation**
- Evacuation Order**
- Evacuation Warning**
- Exercise**
- Exercises**, Chap. 8
- Explanatory Material**, Annex A
- F-**
- Implementation**, Chap. 6
- Incident**
- Informational References**, Annex O
- Interoperability**
- J-**
- Joint Information System (JIS)**
- Just-in-Time Training Support**, Annex L

- Just-in-Time Training, L.1
- Learning Objectives, L.13
 - Conditions, L.13.2
 - Criteria, L.13.3
 - Performance, L.13.1
- Options for JITT Training Presentation, L.14
- Risk-based Training, L.3
- Role of Instructional Systems Design, L.2
- What Are the Benefits of Doing a Job Hazard Analysis?, L.6
- What is a JHA?, L.5
- What Is Important to Know When "Selecting the Job"?, L.8

-L-

List of Acronyms, Annex N

- Evacuation, N.2
- Shelter-in-Place, N.1
- Sheltering, N.3

-M-

Mandatory Evacuation, Annex I

- Authority to Enter a Property, I.8
- Authorization to Issue Mandatory Evacuation Declaration, I.2
- Definitions, I.1
 - Evacuation, I.1.1
 - Mandatory or Directed Evacuation, I.1.2
 - Spontaneous Evacuation, I.1.3
 - Voluntary Evacuation, I.1.4
- Emergency Evacuation Checklist, I.4
- Enforcement of Orders, I.7
- Filing of Declaration, I.3
- Powers, I.6
- Term of Declaration. (Sample or Recommended Language), I.5

Mass

- Definition, 3.3.19

Mass Evacuation Requirements Analysis, Annex D

- Best Practice Concepts, D.1
- Categories, D.8
 - General Populations, D.8.2
 - Medical Condition Consideration, D.8.4
 - Medical Evacuation, D.8.3
 - Vulnerable Population, D.8.1
- Communications for Responders, D.9
- Communications with the Public, D.10
- Evacuation Planning Resources, D.15
- Mandatory Evacuation and People Who Refuse to Evacuate, D.14
- Persons with Disabilities and Others with Access and Functional Needs, D.6
- Population, D.5
- Risk Considerations, D.2
- Shelter-in-Place, D.4
- Speed of Onset, D.3
- Weather and Environmental Conditions, D.7

Mass Evacuation, Sheltering, and Re-entry Data Interoperability, Annex M

- General, M.1
- Open Standards for Data Interoperability in Emergency Management, M.2

- IPAWS Architecture, M.2.1
 - Common Operating Picture (COP), M.2.1.4
 - DA-PAM 525-27, M.2.1.2
 - EM2P, M.2.1.1
 - Joint FEMA IPAWS-DOD Working Group, M.2.1.5
 - Mass Warning and Notification (MWN), M.2.1.3
- Organization for the Advancement of Structured Information Standards (OASIS), M.3
 - Emergency Data Exchange Language (EDXL), M.3.1

Mass Evacuation, Sheltering, and Re-entry Program

Management, Chap. 4

- Finance and Administration, 4.8
- Laws and Authorities, 4.7
- Leadership and Commitment, 4.1
- Performance Objectives, 4.5
- Program Administration, 4.4
- Program Coordinator, 4.2, A.4.2
- Program Working Group, 4.3
- Records Management, 4.6

Mitigation

- Definition, 3.3.20

Mutual Aid/Assistance Agreement

- Definition, 3.3.21, A.3.3.21

-P-

People with Access and Functional Needs

- Definition, 3.3.22

Persons With Disabilities and Other Access and Functional Needs, Annex G

- Considerations for Persons with Disabilities and Other Access and Functional Needs, G.3
 - After an Evacuation Has Been Ordered, G.3.2
 - General Guidelines, G.3.2.1
 - Hearing Loss, G.3.2.3
 - People Who Have a Mobility Disability, G.3.2.4
 - Power Outage, G.3.2.5
 - Visual Impairment, G.3.2.2
 - Before an Evacuation Is Ordered, G.3.1
 - Pack an Emergency Supply Kit, G.3.1.2
 - Personal Action Plan, G.3.1.1
 - Volunteers, G.3.3
- Identification of Persons with Disabilities and Other Access and Functional Needs, G.2
 - Categories, G.2.1
- Introduction, G.1
- Summary, G.4

Planning, Chap. 5

- Communications and Public Information, 5.8
- Operational Procedure Planning, 5.10
- Plan Assumptions, 5.2
- Plan Format, 5.3, A.5.3
- Plan Requirements, 5.1
- Planning Process, 5.4
- Requirements Analysis, 5.6
- Resource Needs Assessment, 5.7
- Threat, Hazard Identification, and Risk Assessment, 5.5, A.5.5
- Warning, Notifications, and Communications, 5.9

Preparedness

Definition, 3.3.23

Prevention

Definition, 3.3.24, A.3.3.24

Program Maintenance and Improvement, Chap. 9

Continuous Improvement, 9.3

Corrective Actions, 9.2

Program Reviews, 9.1, A.9.1

-R-**Re-entry**

Definition, 3.3.26, A.3.3.26

Re-entry Requirements Analysis, Annex F

Exercises, F.5

Implementation, F.3

Maintenance and Improvement, F.6

Planning, F.2

Performance Objective, F.2.1

Re-entry Program Management, F.1

Training and Education, F.4

Recovery

Definition, 3.3.25, A.3.3.25

Referenced Publications, Chap. 2**Resource Management**

Definition, 3.3.27, A.3.3.27

Response

Definition, 3.3.28, A.3.3.28

Risk Assessment

Definition, 3.3.29

Risk Management of Mass Evacuation, Sheltering, and Re-entry, Annex C

Risk Management Consideration, C.1

-S-**Self-Assessment for Conformity with NFPA 1616**, Annex B**Service Animal**

Definition, 3.3.30, A.3.3.30

Shall

Definition, 3.2.3

Shelter

Definition, 3.3.31, A.3.3.31

Shelter-in-Place

Definition, 3.3.33

Sheltering

Definition, 3.3.32

Sheltering Requirements Analysis, Annex E

Existing Buildings Inside of Hazard Area, E.4

Additional Assessment and Selection Considerations, E.4.4

Earthquake, E.4.4.6

Flood, E.4.4.5

Hurricanes, E.4.4.2

Snow and Winter Storms, E.4.4.4

Tornado, E.4.4.1

Tsunami, E.4.4.3

Considerations for Shelter Exposure to the Hazard Incident, E.4.2

General, E.4.1

Recommendations for Selection of Existing Buildings, E.4.1.1

Risk and Condition Assessments, E.4.3

Pre-Incident Risk Assessment, E.4.3.1

Existing Buildings Outside of Hazard Area, E.3

General, E.3.1

Recommendations for Selection of Existing Buildings, E.3.1.1

Risk and Condition Assessments, E.3.2

Pre-Incident Risk Assessment, E.3.2.1

New Construction Planning, E.5

General, E.5.1

Recommendations for Construction of New, Resilient Sheltering Facilities, E.5.1.1

Shelter Management, E.2

Building Identification and Acquisition, E.2.2

During-Incident Condition Assessment, E.2.10

During-Incident Risk Assessment, E.2.9

Post-Incident Condition Assessment, E.2.11

Shelter Management Checklist for Health Departments, E.2.8

Shelter Manager's Responsibilities, E.2.5

Shelter Organization, E.2.3

Shelter Personnel, E.2.4

Sheltering Activation, E.2.6

Supplies, E.2.7

Prepackaged Supplies, E.2.7.1

Typical Shelter Planning and Organizational Cycle, E.2.1

Terminology, E.1

Best Available Refuge Areas, E.1.3

Hazard Area, E.1.5

Refuge of Last Resort (ROLR), E.1.6

Safe Room, E.1.2

Storm Shelter, E.1.1

Vertical Evacuation Refuge, E.1.4

Should

Definition, 3.2.4

Social Media Support, Annex K

General, K.1

Social Media Planning, K.2

Stakeholder(s)

Definition, 3.3.34

Standard

Definition, 3.2.5

-T-**Training and Education**, Chap. 7

Curriculum, 7.1

Goals of the Curriculum, 7.2

Public Education, 7.6, A.7.6

Record Keeping, 7.4

Regulatory and Program Requirements, 7.5

Scope and Frequency of Instruction, 7.3

Training Delivery, 7.7, A.7.7

-W-**Whole Community**

Definition, 3.3.35

Sequence of Events for the Standards Development Process

Once the current edition is published, a Standard is opened for Public Input.

Step 1 – Input Stage

- Input accepted from the public or other committees for consideration to develop the First Draft
- Technical Committee holds First Draft Meeting to revise Standard (23 weeks); Technical Committee(s) with Correlating Committee (10 weeks)
- Technical Committee ballots on First Draft (12 weeks); Technical Committee(s) with Correlating Committee (11 weeks)
- Correlating Committee First Draft Meeting (9 weeks)
- Correlating Committee ballots on First Draft (5 weeks)
- First Draft Report posted on the document information page

Step 2 – Comment Stage

- Public Comments accepted on First Draft (10 weeks) following posting of First Draft Report
- If Standard does not receive Public Comments and the Technical Committee chooses not to hold a Second Draft meeting, the Standard becomes a Consent Standard and is sent directly to the Standards Council for issuance (see Step 4) or
- Technical Committee holds Second Draft Meeting (21 weeks); Technical Committee(s) with Correlating Committee (7 weeks)
- Technical Committee ballots on Second Draft (11 weeks); Technical Committee(s) with Correlating Committee (10 weeks)
- Correlating Committee Second Draft Meeting (9 weeks)
- Correlating Committee ballots on Second Draft (8 weeks)
- Second Draft Report posted on the document information page

Step 3 – NFPA Technical Meeting

- Notice of Intent to Make a Motion (NITMAM) accepted (5 weeks) following the posting of Second Draft Report
- NITMAMs are reviewed and valid motions are certified by the Motions Committee for presentation at the NFPA Technical Meeting
- NFPA membership meets each June at the NFPA Technical Meeting to act on Standards with “Certified Amending Motions” (certified NITMAMs)
- Committee(s) vote on any successful amendments to the Technical Committee Reports made by the NFPA membership at the NFPA Technical Meeting

Step 4 – Council Appeals and Issuance of Standard

- Notification of intent to file an appeal to the Standards Council on Technical Meeting action must be filed within 20 days of the NFPA Technical Meeting
- Standards Council decides, based on all evidence, whether to issue the standard or to take other action

Notes:

1. Time periods are approximate; refer to published schedules for actual dates.
2. Annual revision cycle documents with certified amending motions take approximately 101 weeks to complete.
3. Fall revision cycle documents receiving certified amending motions take approximately 141 weeks to complete.

Committee Membership Classifications^{1,2,3,4}

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

1. M *Manufacturer*: A representative of a maker or marketer of a product, assembly, or system, or portion thereof, that is affected by the standard.
2. U *User*: A representative of an entity that is subject to the provisions of the standard or that voluntarily uses the standard.
3. IM *Installer/Maintainer*: A representative of an entity that is in the business of installing or maintaining a product, assembly, or system affected by the standard.
4. L *Labor*: A labor representative or employee concerned with safety in the workplace.
5. RT *Applied Research/Testing Laboratory*: A representative of an independent testing laboratory or independent applied research organization that promulgates and/or enforces standards.
6. E *Enforcing Authority*: A representative of an agency or an organization that promulgates and/or enforces standards.
7. I *Insurance*: A representative of an insurance company, broker, agent, bureau, or inspection agency.
8. C *Consumer*: A person who is or represents the ultimate purchaser of a product, system, or service affected by the standard, but who is not included in (2).
9. SE *Special Expert*: A person not representing (1) through (8) and who has special expertise in the scope of the standard or portion thereof.

NOTE 1: “Standard” connotes code, standard, recommended practice, or guide.

NOTE 2: A representative includes an employee.

NOTE 3: While these classifications will be used by the Standards Council to achieve a balance for Technical Committees, the Standards Council may determine that new classifications of member or unique interests need representation in order to foster the best possible Committee deliberations on any project. In this connection, the Standards Council may make such appointments as it deems appropriate in the public interest, such as the classification of “Utilities” in the National Electrical Code Committee.

NOTE 4: Representatives of subsidiaries of any group are generally considered to have the same classification as the parent organization.

Submitting Public Input / Public Comment Through the Online Submission System

Following publication of the current edition of an NFPA standard, the development of the next edition begins and the standard is open for Public Input.

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- Choose the link “The next edition of this standard is now open for Public Input.” You will be asked to sign in or create a free online account with NFPA before using this system.
- Follow the online instructions to submit your Public Input (see www.nfpa.org/publicinput for detailed instructions).
- Once a Public Input is saved or submitted in the system, it can be located on the “My Profile” page by selecting the “My Public Inputs/Comments/NITMAMs” section.

Submit a Public Comment

Once the First Draft Report becomes available there is a Public Comment period. Any objections or further related changes to the content of the First Draft must be submitted at the Comment Stage. To submit a Public Comment follow the same steps as previously explained for the submission of Public Input.

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Information on the NFPA Standards Development Process

I. Applicable Regulations. The primary rules governing the processing of NFPA standards (codes, standards, recommended practices, and guides) are the NFPA *Regulations Governing the Development of NFPA Standards (Regs)*. Other applicable rules include NFPA *Bylaws*, NFPA *Technical Meeting Convention Rules*, NFPA *Guide for the Conduct of Participants in the NFPA Standards Development Process*, and the NFPA *Regulations Governing Petitions to the Board of Directors from Decisions of the Standards Council*. Most of these rules and regulations are contained in the *NFPA Standards Directory*. For copies of the *Directory*, contact Codes and Standards Administration at NFPA headquarters; all these documents are also available on the NFPA website at “www.nfpa.org/regs.”

The following is general information on the NFPA process. All participants, however, should refer to the actual rules and regulations for a full understanding of this process and for the criteria that govern participation.

II. Technical Committee Report. The Technical Committee Report is defined as “the Report of the responsible Committee(s), in accordance with the Regulations, in preparation of a new or revised NFPA Standard.” The Technical Committee Report is in two parts and consists of the First Draft Report and the Second Draft Report. (See *Regs* at Section 1.4.)

III. Step 1: First Draft Report. The First Draft Report is defined as “Part one of the Technical Committee Report, which documents the Input Stage.” The First Draft Report consists of the First Draft, Public Input, Committee Input, Committee and Correlating Committee Statements, Correlating Notes, and Ballot Statements. (See *Regs* at 4.2.5.2 and Section 4.3.) Any objection to an action in the First Draft Report must be raised through the filing of an appropriate Comment for consideration in the Second Draft Report or the objection will be considered resolved. [See *Regs* at 4.3.1(b).]

IV. Step 2: Second Draft Report. The Second Draft Report is defined as “Part two of the Technical Committee Report, which documents the Comment Stage.” The Second Draft Report consists of the Second Draft, Public Comments with corresponding Committee Actions and Committee Statements, Correlating Notes and their respective Committee Statements, Committee Comments, Correlating Revisions, and Ballot Statements. (See *Regs* at 4.2.5.2 and Section 4.4.) The First Draft Report and the Second Draft Report together constitute the Technical Committee Report. Any outstanding objection following the Second Draft Report must be raised through an appropriate Amending Motion at the NFPA Technical Meeting or the objection will be considered resolved. [See *Regs* at 4.4.1(b).]

V. Step 3a: Action at NFPA Technical Meeting. Following the publication of the Second Draft Report, there is a period during which those wishing to make proper Amending Motions on the Technical Committee Reports must signal their intention by submitting a Notice of Intent to Make a Motion (NITMAM). (See *Regs* at 4.5.2.) Standards that receive notice of proper Amending Motions (Certified Amending Motions) will be presented for action at the annual June NFPA Technical Meeting. At the meeting, the NFPA membership can consider and act on these Certified Amending Motions as well as Follow-up Amending Motions, that is, motions that become necessary as a result of a previous successful Amending Motion. (See 4.5.3.2 through 4.5.3.6 and Table 1, Columns 1-3 of *Regs* for a summary of the available Amending Motions and who may make them.) Any outstanding objection following action at an NFPA Technical Meeting (and any further Technical Committee consideration following successful Amending Motions, see *Regs* at 4.5.3.7 through 4.6.5) must be raised through an appeal to the Standards Council or it will be considered to be resolved.

VI. Step 3b: Documents Forwarded Directly to the Council. Where no NITMAM is received and certified in accordance with the *Technical Meeting Convention Rules*, the standard is forwarded directly to the Standards Council for action on issuance. Objections are deemed to be resolved for these documents. (See *Regs* at 4.5.2.5.)

VII. Step 4a: Council Appeals. Anyone can appeal to the Standards Council concerning procedural or substantive matters related to the development, content, or issuance of any document of the NFPA or on matters within the purview of the authority of the Council, as established by the *Bylaws* and as determined by the Board of Directors. Such appeals must be in written form and filed with the Secretary of the Standards Council (see *Regs* at Section 1.6). Time constraints for filing an appeal must be in accordance with 1.6.2 of the *Regs*. Objections are deemed to be resolved if not pursued at this level.

VIII. Step 4b: Document Issuance. The Standards Council is the issuer of all documents (see Article 8 of *Bylaws*). The Council acts on the issuance of a document presented for action at an NFPA Technical Meeting within 75 days from the date of the recommendation from the NFPA Technical Meeting, unless this period is extended by the Council (see *Regs* at 4.7.2). For documents forwarded directly to the Standards Council, the Council acts on the issuance of the document at its next scheduled meeting, or at such other meeting as the Council may determine (see *Regs* at 4.5.2.5 and 4.7.4).

IX. Petitions to the Board of Directors. The Standards Council has been delegated the responsibility for the administration of the codes and standards development process and the issuance of documents. However, where extraordinary circumstances requiring the intervention of the Board of Directors exist, the Board of Directors may take any action necessary to fulfill its obligations to preserve the integrity of the codes and standards development process and to protect the interests of the NFPA. The rules for petitioning the Board of Directors can be found in the *Regulations Governing Petitions to the Board of Directors from Decisions of the Standards Council* and in Section 1.7 of the *Regs*.

X. For More Information. The program for the NFPA Technical Meeting (as well as the NFPA website as information becomes available) should be consulted for the date on which each report scheduled for consideration at the meeting will be presented. To view the First Draft Report and Second Draft Report as well as information on NFPA rules and for up-to-date information on schedules and deadlines for processing NFPA documents, check the NFPA website (www.nfpa.org/docinfo) or contact NFPA Codes & Standards Administration at (617) 984-7246.



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