

Developing Emergency Action Plans for All-Hazard Emergencies in High Rise Apartment Buildings

By
The High Rise Building Safety Advisory Committee

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FORWARD

The management of building occupants within high-rise apartment buildings is the primary concern during emergencies. While procedures for fire evacuation have been developed and adopted by major fire and emergency services throughout North America, there remains considerable variation in practice in the field.

With the increased recognition of the need to prepare and respond to fire and non-fire emergencies, such as medical, extreme weather, domestic violence, and utility disruptions in high-rise apartment environments, the traditional building fire safety plan and organization are a logical starting point. In fact, advisory committee members recommend utilizing a single, integrated plan to assist building management and emergency responders in an all-hazard approach to building emergencies.

We understand that there must be close coordination between local emergency services and building management in the development and implementation of an all-hazard emergency action plan (EAP). We hope that this information will be useful to building management, building occupants, and emergency services as they move toward incorporating an all-hazard approach into their existing fire-centric plans.

This information was developed by the High-Rise Building Safety Advisory Committee and is based in part on materials from various jurisdictions in response to the need for guidance in preparing staff and building occupants to deal with emergencies in high-rise apartment buildings. It is not intended to be all encompassing and was not created in accordance with the Regulations governing NFPA Standards, but rather is intended to provide the criteria and the minimum information necessary to integrate proper evacuation components into a comprehensive evacuation planning strategy appropriate for building occupants of a high-rise apartment building.

The NFPA High-Rise Building Safety Advisory Committee was appointed by the NFPA Standards Council to identify existing needs and emerging issues within high-rise buildings; identify ways NFPA can provide leadership on such issues; and ensure that the NFPA codes and standards process includes current subject matter on high-rise building safety, emerging technologies, and other matters that affect those who work in, live in, or operate high-rise buildings.

This information is available in a free, downloadable format from the NFPA website, www.nfpa.org/highrise.

High-Rise Building Safety Advisory Committee, 2017

STATEMENT OF PURPOSE

Today's safety standards, such as NFPA 101[®], *Life Safety Code*[®], require the presence of an emergency action plan (EAP) for all new and most existing high-rise buildings. Applicable to high-rise apartment buildings, this information recommends that the authority having jurisdiction (AHJ) adopt standards, procedures, and requirements in developing an EAP to address suitable responses for building occupants of any high-rise apartment building, including evacuations necessitated by human-made incidents or natural disasters, either within the facility or in the adjacent area, and other emergencies or the threat thereof.

This information was designed to assist in the development of high-rise apartment emergency planning and should be used by all individuals when writing or approving EAPs, conducting training in high-rise buildings, or providing all required documentation. It contains guidance for developing the following:

- (1) [Responsibilities and competencies](#) for the following: (AHJ), owner, employees, fire life safety director, deputy fire life safety director, building emergency response team, floor wardens, building occupants
- (2) [Description of building fire protection features](#)
- (3) [Suggested responses to all-hazard building emergencies](#), including human-caused, building-caused, natural disasters, and weather-related emergencies
- (4) [Building occupant response strategies](#), including remaining in place, relocating within the building, and evacuating floors or an entire building with special consideration for people with disabilities
- (5) [Distribution of the EAP and building occupant instructions](#)
- (6) [Building occupant behavior](#)
- (7) [Drills, exercises, and building occupant evacuation](#)
- (8) [Reviewing and updating the EAP](#)

OVERVIEW

Emergency action plans (EAPs) define the roles of building occupants and building employees in an all-hazard emergency. Training methods should be detailed as well as evacuation and communication methods during an emergency. Creating and maintaining a strong EAP benefits building owners, building occupants, building management, employees, jurisdictional authorities, and first responders. This guide specifically addresses EAPs for high-rise apartment buildings.

NFPA 101[®], *Life Safety Code*[®], provides the minimum fire and life safety requirements for both new and existing apartment buildings and should be referenced when developing an EAP. An effective EAP utilizes only the minimum required building fire safety equipment and systems while considering occupant characteristics, building configuration and occupancy, and potential hazards to develop an appropriate response strategy.

Requirements for building occupants with disabilities should be incorporated into an EAP and should include a current list of names and usual locations of building occupants who have voluntarily, in writing, self-identified their need for assistance and the type of aid required to exit the building during an emergency. The EAP should include the number of personnel needed to assist these building occupants during an emergency evacuation or fire drill.

All building occupants should be instructed annually on the procedures to be followed in case of a fire or other emergency. These instructions should be made available to all new building occupants when assuming occupancy in the building. Documentation of the building occupant instructions should be maintained by the building owner for inspection by the authority having jurisdiction (AHJ). Building occupants should also participate in mandatory drills.

Every owner and manager of a high-rise apartment building should, in cooperation with the AHJ, establish, implement, maintain, and update an EAP for the building. Every building occupant should possess the current material relevant to occupants. Emergency instructions should be provided annually to each dwelling unit to indicate the location of alarms, egress paths, and actions to be taken, both in response to a fire in the dwelling unit and in response to the sounding of the alarm system. After being approved by the AHJ, the emergency evacuation plan, procedures, and signage should be posted. Evacuation signs should be located in every elevator lobby, adjacent to doorways leading to exit stairs, and in other conspicuous floor locations as required by the AHJ. All plans, procedures, and signs should be properly maintained.

Copies of the approved EAP should be filed in the management office of the building and the plan should be readily available to the building staff, building occupants, and emergency responders at all times.

Contrary to an office environment, human behavior in residential occupancies is largely dictated by individual decisions. In the absence of public address messages or other information regarding the nature and location of an emergency, building occupants will evaluate conditions based on readily available cues (e.g., looking out windows, checking the hallway for smoke, or calling others in the building for information).

In many buildings, the decision by building occupants to evacuate will likely be made without direct instruction from building management or emergency services. Household structure and physical ability will also influence the decision to evacuate. Because of the inherent compartmentation of high-rise buildings, remaining in place is almost always an appropriate decision.

Therefore, it is important that building occupants be provided with education and support to enable them to negotiate decision making in the critical minutes between the beginning of an emergency and arrival of emergency services.

Section 1

DEFINITIONS

1.1* All-Hazard Emergency. Events that require implementation of a building's EAP to help provide for the safety of the building occupants.

1.2 Assembly Area. A designated safe area outside the impacted building where building occupants can remain temporarily to await instructions or assistance during an emergency evacuation.

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

1.4* Building Emergency Response Team (BERT). The individuals identified in an EAP as responsible for the implementation of the plan, including, but not limited to, the fire life safety director (FLSD), the deputy fire and life safety director (DFLSD), floor wardens, deputy floor wardens, and members of the Life Safety Response Team.

1.5 Building Occupants. All persons in the building, including dwelling-unit tenants, building personnel, and visitors.

1.6 Closing Device. A means of closing a door from a partially or fully opened position.

1.7 Competent Person. A person who is qualified by education, training, and experience and who is provided with the necessary instructions to be able to carry out the required life safety task(s) for, or respond to threats to, the building and its occupants.

1.8 Condominium. A type of housing, usually attached, where the units are owned by individuals and where common areas and the private land it sits on, including any amenities such as swimming pools and clubhouses, is community owned and managed by the condominium association.

1.9* Deputy Fire and Life Safety Director (DFLSD). A competent person designated by the owner to perform the duties of the position. *(See also 1.7, Competent Person, and 1.25, Owner.)*

1.10 Drill. An exercise involving a credible simulated emergency that requires personnel to perform emergency response operations for the purpose of evaluating the effectiveness of the training and education programs and the competence of personnel in performing required response duties and functions. [1081, 2018]

1.11 Dwelling Unit. One or more rooms arranged for complete, independent housekeeping purposes with space for eating, living, and sleeping; facilities for cooking; and provisions for sanitation. [*101*, 2018]

1.12 EAP Drill. A training exercise by which life safety staff are familiarized with and practice the procedures for remaining-in-place, in-building relocation, partial evacuation, or total evacuation, in accordance with an EAP.

1.13 Emergency Action Plan (EAP). A plan of designated actions by employers, employees, and other building occupants to provide for their safety from fire and other emergencies.

1.14 Emergency Command Center (ECC). The principal attended or unattended location where the status of the detection, alarm communications, and control systems is displayed and from which the system(s) can be manually controlled.

1.15 Evacuation. The withdrawal of occupants from a building. [*101*, 2018]

1.16 Fire Life Safety Director (FLSD). A competent person designated by the owner to perform the duties of the position. (*See also 1.7, Competent Person, and 1.25, Owner.*)

1.17 Fire Protection System. Any fire alarm device or system or fire-extinguishing device or system, or combination thereof, that is designed and installed for detecting, controlling, or extinguishing a fire or otherwise alerting occupants, or the fire department, or both, that a fire has occurred. [*1*, 2018]

1.18 Floor Warden. A building staff member, tenant, or resident volunteer trained to perform assigned duties on a building floor in the event of an emergency.

1.19 High-Rise Building. A building where the floor of an occupiable story is greater than 75 ft (23 m) above the lowest level of fire department vehicle access. [*101*, 2018]

1.20 Hoarding. Collecting or keeping large amounts of various items in the home due to strong urges to save them or distress experienced when discarding them.

1.21 In-Building Relocation. The controlled movement of building occupants from an endangered area of a building to a relocation area within the same building, as designated by the AHJ, in response to an all-hazard emergency.

1.22 In-Building Relocation Area (INBRA). A designated area, approved by the AHJ, within a building to which building occupants can be relocated in accordance with the EAP.

1.23 Incident Commander (IC). The individual responsible for all incident activities, including the development of strategies and tactics and the ordering and release of resources. [*472*, 2018]

1.24 Neighboring Buildings. Buildings subject to the provisions of an EAP that are located on either side of a city street, unless separated by a barrier to movement, such as a restricted access roadway, railway, and so forth.

1.25 Owner. The person or group who legally possesses the building(s) and/or property.

1.25.1* Owner, Condominium Association. An association that governs the policies of the condominium project, allocates expenses for maintenance, and collects the monthly, quarterly, or annual association fees that each owner pays for insurance and building and community maintenance.

1.25.2* Owner, Co-operative (Co-op) Association. A legal entity, usually a corporation, that owns real estate consisting of one or more residential buildings; it is one type of housing tenure.

1.26 Partial Building Evacuation. The emptying of some, but not all, building occupants in response to an all-hazard emergency as designated by the AHJ.

1.27 Personal Emergency Evacuation Plan. An individual's evaluation of his or her own evacuation capabilities and the effect on building evacuation.

1.28* Private First Responder. Any personnel incorporated into the EAP employed or authorized by a building owner to handle an emergency incident by providing direction and assistance prior to the arrival of emergency responders and approved by the fire department or AHJ.

1.29 Remain-in-Place (Shelter-in-Place). The directing of building occupants to remain inside the building, at their residence, in a heightened state of readiness and alertness, and in which there is no evacuation of building occupants in response to an all-hazard emergency as designated by the AHJ.

1.30* Service Animal. An animal that is individually trained to work or perform tasks for people with disabilities.

1.31 Situation Awareness. The perception of the elements in the environment within a volume of time and space, the comprehension of their meaning, and the projection of their status in the near future. [101, 2018]

1.32* Situation Status Report. Updated information regarding the emergency situation that is provided to building occupants at regular intervals.

1.33 Total Building Evacuation. The emptying of all building occupants in response to an all-hazard emergency.

Section 2

RESPONSIBILITIES

2.1* General.

The emergency action plan (EAP) should identify and describe the responsibilities and expectations of all parties involved with, and impacted by, the development and execution of an EAP. These parties include, but are not limited to, the following:

- (1) Authority having jurisdiction (AHJ)
- (2) Owner and employees
- (3) Fire life safety director (FLSD) and deputy fire life safety director (DFLSD)
- (4) Building emergency response team (BERT)
- (5) Floor wardens
- (6) Building occupants

2.2 Authority Having Jurisdiction (AHJ).

2.2.1 The AHJ should review the EAP and may request additional information be incorporated.

2.2.2 The AHJ should determine the minimum qualifications and training requirements for the FLSD and DFLSD, including certification, recertification, examination, and knowledge of the building. (*See Section 2.4.*)

2.3 Owner.

2.3.1 General.

2.3.1.1 The owner of a building should have an EAP prepared, and it should be reviewed and amended not less than annually.

2.3.1.2 Any changes or updates to an EAP, including essential building personnel and emergency contact telephone numbers, should be submitted by the owner to the local fire department or AHJ within 10 days of the change.

2.3.2 Change of Ownership or Management.

2.3.2.1 The EAP should be provided to new owners within 10 days of ownership change.

2.3.2.2 New owners should submit all changes and updates, including changes to essential building personnel and emergency contact telephone numbers, to the local fire department or AHJ within 10 days of receiving the EAP.

2.3.3 The ultimate responsibilities for fire and life safety rest with the building owner.

2.3.4 Appointment of Building Emergency Response Team (BERT).

2.3.4.1 The owner of a building should designate an FLSD who is responsible for training staff and executing the EAP.

2.3.4.2 As appropriate for the building, or per the requirements of the local AHJ, the building owner can appoint a BERT consisting of additional team members to respond to an all-hazard emergency. Team members and their responsibilities, duties, and qualifications should be listed in the EAP.

2.3.4.3 Owners should, in cooperation with the FLSD, consider whether a Floor Warden program for the building is viable. Building representatives could solicit residents on an annual basis and encourage participation. (See [Annex C.](#))

2.3.4.4 Resident volunteers are recommended for residential buildings that do not have building management or security staff on-site.

2.3.4.5 Appointment of BERT members should be adjusted based on the specific needs of the building and its occupants. Appointment requirements for the BERT should consider typical staffing of the building, the specific occupancy, building height, and occupants.

2.3.5 Emergency Command Center (ECC).

2.3.5.1 At a minimum, the building owner should maintain the following items at the building's ECC to assist the FLSD, DFLSD, and first responders:

- (1) A site data collection card in the format set forth in Annex D of NFPA 1620 (see [Annex E](#))
- (2) Master keys to the building
- (3) Current as-built drawings, including:
 - (a) Floor layout
 - (b) Fire wall separations
 - (c) Stair locations and configuration
 - (d) Sprinkler and standpipe risers
 - (e) Fire extinguishing systems

- (f) HVAC zones
- (g) Electrical
- (h) Plumbing
- (4) Fire pump locations
- (5) Location of building occupants with disabilities

2.3.5.2 The pre-incident building information cards should also be submitted electronically to the local AHJ.

2.3.6 EAP Plan Filing, Acceptance, Training, and Recordkeeping.

2.3.6.1 The building owner should file an EAP with the AHJ and obtain approval from the AHJ.

2.3.6.2 Instructions should be made available and provided to all new building occupants upon preoccupancy inspection or within a time period determined by the AHJ.

2.3.6.3 Distribution of Materials.

2.3.6.3.1 The building owner should distribute educational materials and conduct EAP drills in accordance with the EAP provisions.

2.3.6.3.2 All building emergency response personnel tasked with assisting evacuation of building occupants should receive the necessary training and resources to carry out the evacuation.

2.3.6.4 The building owner should maintain up-to-date records in accordance with the provisions of the EAP.

2.4 Fire Life Safety Director (FLSD) and Deputy Fire and Life Safety Director (DFLSD).

2.4.1 General. The FLSD and DFLSD should be designated and trained in a manner approved by the AHJ.

2.4.2 Duties.

2.4.2.1 Under the authority of the building owner, the FLSD is responsible for the establishment, implementation, and maintenance of the EAP; annual emergency drills; training; and all documentation required by the EAP.

2.4.2.2* In buildings with a fire alarm voice communication system, the FLSD should communicate the nature of the emergency to building occupants with specific instructions prior to arrival of the fire department. (*See [Section 6.3.](#)*)

2.4.2.3 The FLSD/DFLSD should be a liaison with the responding Incident Commander (IC) as follows:

- (1) Establish a working location at the ECC
- (2) Attend pre-planning meetings with local authorities as needed
- (3) Provide input on the building's resources
- (4) Brief the IC on the current situation
- (5) Cooperate with the IC and ECC staff
- (6) Oversee the well-being and safety of the life safety staff assigned to the incident
- (7) Advise the IC of any special building or occupant needs or requirements

2.4.2.4 The FLSD/DFLSD should be responsible for the training of building emergency response staff, as appropriate.

2.5* Floor Wardens.

2.5.1 Where assigned, floor wardens should be an identified resident/occupant on that floor or an employee of the building owner or manager.

2.5.2 Where assigned, each floor of a building should be under the direction of a designated floor warden for the evacuation of building occupants in the event of fire or other emergency.

2.6 Building Emergency Response Team (BERT).

2.6.1 The EAP should identify members of the BERT. The BERT can consist of the following persons, where assigned:

- (1) Building property manager
- (2) Chief engineer
- (3) Elevator mechanic
- (4) Director of security
- (5) Other assigned building personnel
- (6) Persons assigned to assist building occupants evacuate who require special assistance

2.6.2* All BERT members should receive training identified in the EAP from the FLSD.

2.6.3 BERT members should perform their designated assignments as set forth in the EAP or as directed by the FLSD.

2.6.4 BERT members should report to designated locations set forth in the EAP or as directed by the FLSD. They should be prepared to undertake their designated assignments during an all-hazard emergency.

2.7 Building Occupants.

2.7.1 General.

2.7.1.1 Building occupants should comply with the directions of the FLSD, Floor Warden, or, upon arrival, the fire department.

2.7.1.2 Building occupants should familiarize themselves with occupant-specific requirements or responsibilities outlined in the building EAP.

2.7.1.3 Building occupants should familiarize themselves with the building's fire and life safety equipment and systems as described in Section 4.

2.7.1.4 Building occupants should monitor the effectiveness of door-closing devices on the entrance doors of dwelling units. If any doors do not close or latch properly, building occupants should contact building maintenance staff for repair or replacement.

2.7.1.5 Building occupants should participate in EAP drills or request an exemption from the FLSD if participation in an EAP drill might cause injury or serious hardship.

2.7.2 Reporting.

2.7.2.1 Building occupants should be encouraged to report any incident or suspicious activity that could affect the health, safety, or security of any building occupant or damage to building property.

2.7.2.2* Building occupants should be encouraged to report any impairments of the building fire protection and life safety systems to building maintenance staff.

Section 3

BUILDING FIRE PROTECTION FEATURES

3.1 Building Systems and Equipment.

3.1.1 Information about fire protection systems and equipment should be identified in the emergency action plan (EAP) only as it applies to the specific building. The information should include, but not be limited to, the following:

(1) For the building emergency response team (BERT), as follows:

- (a) Emergency command center (ECC)
- (b) Fire protection systems
- (c) Fire alarm annunciator panel, including the following:
 - i. Smoke detector
 - ii. Duct detector
 - iii. Fail-safe door (i.e., stairwell door latch)
 - iv. Smoke control system (i.e., HVAC)
 - v. Fire extinguishing system
 - vi. Water flow device (e.g., sprinkler)
 - vii. Trouble alarm
 - viii. Supervisor alarm
- (d) Fire alarm central monitoring station
- (e) Fire pump(s)
- (f) Sprinkler/standpipe systems
- (g) Fire alarm central monitoring station
- (h) Emergency generator equipment
- (i) Emergency lighting
- (j) Utility service main shut-off locations/tools required
- (k) Fire department lock box
- (l) Information specific to the stairwells

(2) For Building Occupants as follows:

- (a) Fire alarm, voice/communication system or public address systems
- (b) Manual fire alarm pull stations
- (c) Smoke detector
- (d) Fire extinguisher
- (e) Elevator information
- (f) Stairwells, including the following:
 - i. Identification (e.g., stair-A, north stair, and so on)
 - ii. Termination (e.g., exit discharge at street level)
 - iii. Locked stairwell doors (e.g., stairwell side of door/fail-safe door latch)
 - iv. Locked door areas
- (g) Self-closing door devices for dwelling unit doors and fire doors
- (h) Evacuation information, including the following:
 - i. Fire emergency
 - ii. All-Hazard Emergency (non-fire)

3.1.2 The EAP should set forth the actions to be taken in the event of any evacuation, including, but not limited to, those in regard to the following building components or systems:

- (1) Access to and egress from the building, including entrances, exits, and stairwells
- (2) Elevator operation when deemed safe to use, under the direction of the Fire Life Safety Director (FLSD) or fire department
- (3) Ventilation system operation, including air-handling equipment; heating, ventilation, and air conditioning equipment; and smoke-management systems
- (4) Windows that are operable
- (5) Interior doors, including apartment doors, stairwell doors, and corridor fire doors
- (6) Electrical, natural gas, steam, and other utility operations
- (7) Fuel oil storage systems and associated pumps and piping

3.1.3 Information and instructions should detail the orientation, operation, and any other particular information about specific systems. Answers to the following questions should be provided:

- (1) Where are they located?
- (2) How are they activated (e.g., manually or electronically)?
- (3) How long will the system (e.g., fuel) last?
- (4) What other systems, if any, are affected?

3.2 Building Occupants/Tenants.

3.2.1 Building occupants should be provided with building-specific safety information and guidelines concerning what will happen during an emergency. Items should include, but not be limited to, the following:

- (1) Fire alarm system functions and manual pull station operations, where present
- (2) Public address functions/abilities
- (3) Fire/life safety features and those systems/devices unique to the occupancy or particular floor
- (4) Evacuation methods, routes, and procedures
- (5) Designated building areas of refuge or outside safe refuge areas, which could include individual apartment balconies

3.2.2 Information referred to in 3.2.1 can include, but is not limited to, the following:

- (1) Manual pull station locations
- (2) Fire extinguisher locations
- (3) Fire alarm notification methods (e.g., speakers/audible devices throughout, floor specific, and so on)
- (4) Action building occupants should take upon fire alarm activation

3.2.3 All printed information and instructions should explain operations of, and any other particulars about, that specific system.

3.2.4* The following instructions should be provided to the building occupants:

- (1) What to do if a fire alarm activates
- (2) What to do if you are trapped
- (3) What to do if you discover a fire or smoke condition

- (4) How to identify other types of all-hazard emergencies (non-fire) that building occupants could be confronted with, such as power utility outages, bomb threats, natural disasters and weather-related emergencies, medical emergencies, and so on.

Section 4

SUGGESTED RESPONSES TO ALL-HAZARD BUILDING EMERGENCIES

4.1 General.

In addition to a fire emergency, emergency action plans (EAPs) should consider human-caused threats, building incidents, and natural disasters that could impact the life safety of building occupants.

4.1.1 Human-Caused Incidents. Human-caused incidents include, but are not limited to, the following:

- (1) Active shooter
- (2) Bombs and bomb threats
- (3) Weapons of mass destruction, including the following:
 - (a) Chemical
 - (b) Biological
 - (c) Radiological/nuclear
- (4) Domestic violence

4.1.2 Building Incidents. Building incidents include, but are not limited to, the following:

- (1) Building system failures
- (2) Elevator malfunctions
- (3) Emergency power system failures
- (4) Flooded areas
- (5) Medical emergency
- (6) Utility disruptions such as gas, electric, steam, and water

4.1.3 Natural Disasters and Weather-Related Emergencies. Natural disasters and weather-related emergencies include, but are not limited to, the following:

- (1) Earthquakes
- (2) Hurricanes
- (3) Tornadoes

- (4) Tsunamis
- (5) Volcanoes
- (6) Flash flooding
- (7) Snow and ice storms
- (8) Extreme heat

4.2 Specific Procedures.

The authority having jurisdiction (AHJ) or local emergency response organizations should be contacted for assistance with specific procedures relative to emergency protocols for the incidents listed in 4.1.1 through 4.1.3. Common protocols should include notifying the proper authorities, such as 911 (or local emergency number), the Fire Life Safety Director (FLSD), and building management.

Section 5

BUILDING OCCUPANT RESPONSE STRATEGIES

5.1 General.

5.1.1 Timely and accurate communication with building occupants during emergencies can help avoid apprehension and reinforce the perceived reliability of the Building Emergency Response Team (BERT). Causes of false alarms and other system activations should be explained to building occupants.

5.1.2 The emergency action plan (EAP) should include plans for how and when emergency and evacuation information will be provided to building occupants so they have adequate time to react to the emergency situation.

5.1.3 The EAP should detail the appropriate evacuation strategies for each potential hazard.

5.1.4 The evacuation of building occupants via building exit stairs should be monitored to facilitate management of egress capacity, including prioritization of egress for those building occupants in greatest danger.

5.2 All-Hazard Evacuations.

5.2.1* Remain-in-Place (No Evacuation). The remain-in-place provisions of the EAP should be based on an analysis of the circumstances in which such action would best provide for the safety of building occupants and the manner in which that action could best be implemented in the building.

5.2.2 In-Building Relocation.

5.2.2.1 The in-building relocation provisions of the EAP should be based on an analysis of the circumstances in which such action would best provide for the safety of building occupants and the manner in which that action could best be implemented in the building.

5.2.2.2 Where used as part of the building's evacuation strategy, the EAP should contain the following steps for a relocation area within the building:

- (1) Identify the number of dwelling units on each floor.
- (2) Designate the area to which building occupants should be relocated and identify the following:
 - (a) The type of area (such as an interior office, a conference room, a file room, and so on)
 - (b) The floor and the relocation area's exact location on that floor

- (c) The type of protection the area offers
 - (d) The maximum number of building occupants each relocation area can accommodate
 - (e) Whether the area affords access to water, lavatories, or other facilities, and equipment or supplies, including prepositioned equipment or supplies
- (3) Designate the route by which building occupants would be directed to the relocation area, if such areas are on a different floor, identify the stairwells and elevators to be utilized and their occupant capacity.
- (4) Identify the actions to be taken with respect to building components or systems in the event of an in-building relocation, including the building locations and types of systems.

5.2.3 Floor Evacuation and Building Evacuation.

5.2.3.1 The evacuation provisions of the EAP should be based on an analysis of the circumstances in which such action would provide for the safety of building occupants.

5.2.3.2* The EAP should identify the safest and most efficient means of evacuating persons from the building or designated floors or areas thereof. Priority should be given to building occupants on floors or other areas of the building most at risk of harm. The designation of exit routes should avoid congestion that would delay the movement of those with priority. The EAP should also ensure that prioritization is actually accomplished.

5.2.3.3 The EAP should encompass the following steps for both partial and total building evacuations:

- (1) Identify the number of dwelling units on each floor, including an estimate of the number of building occupants, if any, on a typical day.
- (2) Identify the location of exits, stairwells, and elevators (where appropriate), and determine their occupant capacity.
- (3) Identify the actions to be taken with respect to building components or systems in the event of a partial or total evacuation, including the building locations and types of systems.

5.2.3.4 The EAP should designate the following:

- (1) Primary exit routes for evacuation of each floor or other area of the building and alternative exit routes in the event that the primary routes cannot be used
- (2) Whether building occupants will be directed to leave the area by any safe means, except in circumstances that preclude such action (such as contamination) or directed to one or more assembly areas that have the following characteristics and provisions:

- (a) Are at a safe distance from the building — preferably a distance from the building not less than the height of the building
- (b) Are sufficient in number and size to accommodate the building occupants that will be assigned to report to such assembly areas
- (c) Allow for the continuous movement of building occupants away from the building to their assembly areas
- (d) Provide alternative locations in case the preferred assembly areas have been compromised
- (e) Have procedures by which building management, in conjunction with emergency responders, can account for the building occupants after a partial or total evacuation has been completed

5.2.4 Accommodations for Persons with Disabilities.

5.2.4.1* The EAP should have procedures in place to address the evacuation of building occupants with disabilities that could impact their ability to evacuate, including, but not limited to, the following:

- (1) Mobility impairments, such as the following:
 - (a) Wheelchair use
 - (b) Ambulatory mobility disabilities
 - (c) Respiratory impairments
- (2) Vision impairments
- (3) Hearing impairments
- (4) Speech impairments
- (5) Cognitive impairments

5.2.4.2 The EAP should be developed to accommodate persons with disabilities in accordance with NFPA's *Emergency Evacuation Planning Guide for People with Disabilities*.

5.2.4.3 Development and review of the EAP should include participation by representatives of the five major disability groups (i.e., mobility impairments, vision impairments, hearing impairments, speech impairments, and cognitive impairments), who are occupants of the building. If no building occupants within one or more categories are available, a member(s) of the local community with the relevant disability should be asked to participate.

5.2.4.4 The EAP should provide for the secure storage in the ECC of copies of all the information listed in the chart in Annex D, including, but not limited to, all personal emergency evacuation plans completed by individuals with a disability for all spaces in a facility that those individuals commonly use. The chart in Annex D should include the primary floor location for each regular building occupant who has voluntarily self-identified as needing assistance and the type of assistance he or she needs to safely evacuate.

5.2.4.5 To assist first responders with the needs of individuals in emergency situations, the building owner should develop a residential directory of residents with a disability for a pre-event emergency or during an emergency event and provide such a directory to first responders in a secured fire responder box as required by the authority having jurisdiction (AHJ).

5.2.4.6* The list should include the following information:

- (1) Name
- (2) Floor and dwelling-unit number
- (3) Phone number
- (4) Type of disability
- (5) Type of assistance required
- (6) Assistance monitor
- (7) Expected duration of assistance needed

5.2.5 Building Reoccupation.

5.2.5.1 The EAP should include means of reoccupying the building after clearance from the AHJ and the Fire Life Safety Director (FLSD). The plan might need to include phased reoccupation consistent with building configuration and capacities.

5.2.5.2 During an emergency evacuation, the FLSD should track what units/apartments and floors have been evacuated at the ECC and provide situational awareness to first responders upon their arrival at the building.

Section 6

DISTRIBUTION OF INFORMATION

6.1 Emergency Action Plan (EAP) Distribution.

The completed EAP should consist of separate files, which are distributed to the appropriate parties with their applicable information. Building staff, floor wardens, and building residents should all be provided with a copy containing the information pertinent to their needs.

6.2 Building Occupant Instructions.

Building occupant instructions should contain applicable emergency contact information, what to do in case of an emergency, and evacuation procedures.

6.3 Additional Building Occupant Instructions.

In consultation with the authority having jurisdiction (AHJ), additional building occupant instructions should be posted on the inside of the main dwelling-unit door. The following is a sample of additional building occupant instructions:

- **IF THE FIRE IS IN YOUR APARTMENT:**
 - Get everyone out—stay low as you go.
 - Close all doors as you leave.
 - Alert people on your floor by knocking on doors on your way out.
 - Call 911 once it is safe to do so.
 - DO NOT USE THE ELEVATOR
 - Use the safest and most accessible stairwell to exit.
- **IF THE FIRE IS NOT IN YOUR APARTMENT AND YOU CANNOT GET OUT:**
 - Call 911 and give the 911 operator your building's address, your apartment number, number of apartment occupants, and a description of conditions in your apartment. Firefighters will be directed to your location.
 - Stay inside rather than entering a smoke-filled corridor. If the fire is on the floor below your apartment you could be caught by rising heat and smoke in the stairwells. If the fire is above your apartment there is less danger in leaving, but also less of a reason to leave as the smoke and heat is above you.
 - Keep the corridor door CLOSED.
 - Seal the corridor door with duct tape or a wet cloth. Seal wall or ceiling ventilator vents and any other openings where smoke can enter.

- Unless flames or smoke are coming from below, open the windows a few inches at top and bottom. **DO NOT BREAK GLASS**, the windows might need to be closed later.
- Turn off air-conditioners.

6.4 Real-Time Communication.

Residents should be advised about where to find information for an anticipated weather-related emergency and an emergency that might be occurring via the following:

- (1) Social media/radio/TV
- (2) Building voice announcements or communications

6.5 Building Information Card (BIC).

6.5.1 A BIC similar to those shown in Annex E should be contained in the EAP.

6.5.2 A multilevel dwelling unit, such as a duplex or triplex, should indicate access to the other floor(s) as going up, down, or both on the BIC.

6.5.3 Identification of the dwelling-unit entry door should also be indicated at the floor level no more than 6 in. (153 mm) off the floor on the door or immediately near the door frame to assist firefighters with search and rescue operations.

6.6 Emergency Contact Information.

6.6.1 The EAP should provide emergency contact information for all of the following:

- (1) Fire/paramedics
- (2) Police
- (3) Fire Life Safety Director (FLSD)
- (4) Security (on- and off-site)
- (5) Emergency command center (ECC), if applicable
- (6) Building owner/manager/home owner association
- (7) Engineering/maintenance
- (8) Fire alarm central monitoring company
- (9) Fire protection system maintenance companies
- (10) Other contacts as applicable

6.6.2* Primary and secondary emergency contact information should be provided (e.g., landline and cell phone contact information) and emergency contact information that changes during specific times of day should be identified.

Section 7

BUILDING OCCUPANT BEHAVIOR

7.1 Behaviors in Emergencies.

Behaviors in emergency situations can be understood as logical attempts to deal with a complex, rapidly changing situation in which minimal information as to how to act is available. The leadership provided by a Fire Life Safety Director (FLSD) and a well-prepared Building Emergency Response Team (BERT) are effective mechanisms for dealing with emergency situations.

7.2 External Resources.

Reference documents should be consulted during the planning for crowd management and the behavior of building occupants under fire and emergency conditions. One or both of the following resources should be used when planning for the management of occupants in a building:

- (1) NFPA's *Fire Protection Handbook*, 20th edition, Section 4, "Human Factors in Emergencies"
- (2) *SFPE Handbook of Fire Protection Engineering*, 4th edition, Sections 3-11 and 3-12

7.3 Hoarding.

The emergency action plan (EAP) should address or recognize the control of unusually large fire loads that could be present as a result of hoarding.

7.4 Demographics.

The EAP should consider the characteristics of the building occupants, including, but not limited to, primary languages, culture, and age.

Section 8

EMERGENCY ACTION PLAN (EAP) DRILLS, EXERCISES, AND BUILDING OCCUPANT EDUCATION

8.1* General.

The building owner should conduct EAP drills on a regular basis, and in accordance with the recommendations of this section, to familiarize building occupants with the various procedures for total evacuation, partial evacuation, in-building relocation, and remain-in-place, and the reasons for implementing each type of action.

8.2 Types.

8.2.1 Instructional.

8.2.1.1 Instructional exercises should serve to familiarize building occupants with the requirements and procedures of the EAP by means of informational sessions approved by the Fire Life Safety Director (FLSD) and can include the use of video presentations, on-line learning programs, or other training methods.

8.2.1.2 Informational sessions should address implementation of the EAP during regular business hours and at times when Floor Wardens and other EAP staff may be absent from the building.

8.2.1.3 Informational sessions should be conducted by any qualified person and at any appropriate location, including, but not limited to, stairwell entrances and in-building relocation areas when Floor Wardens and other EAP staff are unavailable.

8.2.2 Stairwell Familiarization. Stairwell exercises serve to familiarize building occupants with the process of in-building relocation and building evacuation via the building's stairwells. A stairwell familiarization exercise should have building occupants enter a building stairwell and then be escorted down several levels, during which time stairwell safety features and safe evacuation procedures should be reviewed.

8.2.3 Evaluation. Tests should be conducted to evaluate the preparedness and capabilities of building occupants and life safety staff (e.g., via fire drills). Where available, stair monitoring system video recordings, especially of occupant use of exit stairs, should be used to assess performance and attain realistic expectations of what can be accomplished in an actual emergency.

8.3 Frequency.

8.3.1* It is important that the Building Emergency Response Team (BERT) and all building occupants are aware of and understand what they need to do in case of an emergency. The necessary number and type of EAP drills to be conducted for a building will vary based upon the authority having jurisdiction (AHJ) and the type of building.

8.3.2 The building owner and the AHJ should jointly determine the efficacy of full-building or partial-building evacuation drills.

8.4 Participation.

All building occupants present on the affected floors at the time the EAP drill is conducted, including visitors, should participate in the drill.

8.5 Conduct of Drills.

EAP drills can be conducted in conjunction with fire drills or as required by the AHJ, provided drills highlight the differences between responses needed for each drill.

8.6* EAP Tabletop Exercise.

8.6.1 A tabletop exercise/training drill that simulates an EAP all-hazard emergency incident should be conducted annually by the building owner. A tabletop exercise held in an informal, stress-free environment should help elicit constructive discussion as participants examine and resolve problems based on existing types of all-hazard emergencies and identify where the EAP needs to be refined.

8.6.2 FEMA's *Unit 5: The Tabletop Exercise* is a good reference to use during the planning and conducting of a tabletop exercise.

8.6.3 Format.

8.6.3.1 The tabletop exercise should begin with the reading of a short narrative that sets the stage for the imaginary disaster. The facilitator then stimulates discussion by either or both of the following two approaches:

- (1) Problem statement to various participants, either individually or by agencies
- (2) Simulated messages, which are more specific than problem statements

8.6.3.2 Participants then discuss the action they might take in response to the problem statement or simulated message. In either instance, introduction of the problem should generate a discussion that focuses on roles, plans and coordination, the effect of the incident on other agencies, and so on.

8.6.4 Roles.

8.6.4.1 Facilitator. A facilitator should lead the tabletop discussion, decide who gets a message, call on others to respond, ask questions, and guide the participants toward sound decisions.

8.6.4.2 Participants. Depending on the objective, the tabletop exercise could involve many people or agencies, including anyone who can learn from or contribute to the discussion as planned, or all agencies with a policy, planning, or response role. Participants should respond to simulated messages or problem statements as they would in a real emergency.

8.6.5 Facilities, Time, and Frequency.

8.6.5.1 Facilities. The exercise should be conducted in an area such as a large conference room where all participants can sit around a table. The use of maps, charts, and packets of materials can enhance the exercise.

8.6.5.2 Time. The exercise should take 1 to 2 hours but can go longer.

8.6.5.3 Frequency. The exercise should be conducted at least annually or at the direction of the AHJ.

Section 9

REVIEWING AND UPDATING THE EMERGENCY ACTION PLAN (EAP)

9.1 Review.

The EAP should be reviewed and updated every 5 years or when required by the authority having jurisdiction (AHJ).

9.2 Updates.

In addition to the recommended reviews (*see [Section 8.3](#)*), the EAP should be reviewed and updated at times when any of the following conditions or events occur:

- (1) Building alterations or renovations
- (2) Modifications to floor plans or associated building drawings
- (3) Significant changes to building occupancy classification or tenancy

Annex A

A.1.1 All-Hazard Emergency. Such events can be due to natural forces, including earthquakes, wind-related hazards (e.g., hurricanes, tornadoes, windstorms), fire-related hazards (e.g., community-scale fires in the wildland-urban interface, building fires), and water-related hazards (e.g., storm surge, flood, tsunami); to human-made hazards (such as those accidental, criminal, or terrorist in nature); or to a declaration of emergency by a lawful authority. Often, a fire emergency might be addressed separately from other hazards. The all-hazard approach addresses events encompassing human-made emergencies and natural/weather-related emergencies. Fire is included in the approach addressed by this document, but can also be treated as a separate hazard for building emergency planning.

A.1.4 Building Emergency Response Team (BERT). The BERT is useful during evacuation and is needed to deal with a wide range of emergency and nonemergency issues.

A.1.9 Deputy Fire Life Safety Director (DFLSD). An EAP could call for more than one DFLSD for a building.

A.1.25.1 Owner, Condominium Association. All owners of the condominiums are members of the association.

A.1.25.2 Owner, Co-operative (Co-op) Association. Housing cooperatives are a distinctive form of home ownership that have many characteristics that differ from other residential arrangements such as single-family ownership, condominiums, and renting.

A.1.28 Private First Responder. Private first responders include, but are not limited to, fire life safety director (FLSD), deputy fire life safety director (DFLSD), floor warden, civilian emergency response team (CERT), and BERT.

A.1.30 Service Animal. Examples of such work or tasks include guiding people who are visually impaired, alerting people who are hearing impaired, pulling a wheelchair, alerting and protecting a person who is having a seizure, reminding a person with cognitive or intellectual disability to take prescribed medications, calming a person with post-traumatic stress disorder (PTSD) during an anxiety attack, or performing other duties. Service animals are working animals, not pets. The work or task an animal has been trained to provide must be directly related to the person's disability. Dogs whose sole function is to provide comfort or emotional support do not qualify as service animals under the Americans with Disabilities Act (ADA).

A.1.32 Situation Status Report. Reports should be made every 15 to 20 minutes or as directed by the Incident Commander (IC).

A.2.1 It is recognized that there is a wide range of operations and management of residential buildings. Sections 2.2 through 2.7 contain recommendations for responsibilities assuming that there is an organized and available team to assist. At a minimum, the following should be provided:

- (1) Designation of a person or person(s) responsible for the emergency action plan (EAP)
- (2) A means of providing information to new tenants as well as periodic updates to existing tenants
- (3) Maintenance of fire safety systems

A.2.4.2.2 Instructions should be given for a particular type of emergency evacuation mode (e.g., “Police action,” “Unknown odor exterior to the building,” “At this time we are shutting down the building’s air intake vent.”) (See [Annex B.](#))

A.2.5 Floor Wardens can be integral components of an EAP. Floor Wardens oversee the safe and complete evacuation or relocation of building occupants during a fire or other emergency or drill.

A.2.6.2 Such training should consist of not less than an initial 2-hour training session and an annual 1-hour refresher session thereafter.

A.2.7.2.2 Fire protection system impairments that should be reported include, but are not limited to, missing fire alarm components, malfunctioning smoke detectors or carbon monoxide devices, or defective door closers.

A.3.2.4 For example, the following action items may be outlined for a building occupant if they hear or see the fire alarm:

- (1) Remain in your dwelling unit unless in direct danger, it is often the safest location. Follow the instructions provided by the authorities.
- (2) Feel the top of the door first before opening, when leaving a room; do not open doors that feel hot. Close all doors behind you but do not lock them.
- (3) Do not return to your dwelling unit for any personal items if you leave.
- (4) Stay low if smoke is present. The best quality of air is near the floor.
- (5) Do not use elevators.
- (6) If evacuating, proceed to the safe refuge area located at (*insert location*)

A.5.2.1 Generally, except in the immediate vicinity of a fire or other localized event, the normal and reasonable response strategy is to remain-in-place pending a need to act. See Section 6.3 for recommendations pertaining to occupant instructions during remain-in-place procedures.

A.5.2.3.2 Giving the fire floor or the all-hazard emergency floor priority over all other floors would be an example of giving priority to floors with building occupants at the most risk of harm. An example of ensuring prioritization is actually accomplished would be the use of video systems in exit stairs that would allow monitoring from the emergency command center.

A.5.2.4.1 Building owners should be aware that some building occupants may have service animals that need to accompany the person they are assisting.

A.5.2.4.6 Some residents might not be comfortable with their names on the list of individuals needing assistance if they believe it is widely distributed throughout the building. The purpose of the information contained on this list is for emergency use only. This list should not be available to the public and should be accessible to authorized personnel only.

A.6.6.2 Other contact information that could be added includes the nearest hospital, a poison control center, any emergency maintenance personnel, and the elevator company.

A.8.1 The purpose of drills and exercises is to ensure all building occupants and the BERT are trained and comfortable with the correct procedures necessary to achieve safety of life and the joint testing of building emergency systems and staff duties.

A.8.3.1 At a minimum, EAP drills should be conducted as follows:

- (1) At least two EAP drills should be conducted annually for the first 2 years after the date of EAP acceptance, the first of which should be within 6 months of the acceptance date. A rotation of the EAP drills within the first 2-year period can include a drill for full-building evacuation, partial-building evacuation, in-building relocation, and remain-in-place to familiarize the building occupants with the various types of all-hazard emergency movement modes.
- (2) Beginning in the third year from the date of the EAP acceptance, an EAP drill should be conducted on each floor of the building at least once a year.

A.8.6 An EAP tabletop exercise is a simulated interactive exercise that helps to test the capacity of an organization to respond to a simulated event. The exercise tests multiple functions of an organization's operational plan. It is a coordinated response to a situation in a time-pressured, realistic simulation that involves several agencies. Participants will usually include building staff and public agencies. It may include building occupants.

Tabletop exercises lend themselves to low-stress discussion of coordination and policy. They provide a good environment for problem-solving coordination, as well as an opportunity to acquaint key public sector and response personnel with one another in their mutual responsibilities. Designed to encourage discussion and problem solving, the success of a tabletop exercise is largely measured by the group participation. A well-conducted tabletop exercise is good preparation for a function exercise.

A tabletop exercise focuses on the coordination, integration, and interaction of the organization's policies, procedures, roles, and responsibilities before, during, or after the simulated event. It emphasizes communication among the agencies participating in the exercise. This type of exercise requires more planning, preparation, and coordination than other types of exercises.

The value and the benefit of a tabletop exercise come from representatives from all the agency roles being brought together to participate in the exercise.

For additional information on tabletop exercises, refer to NFPA 1600[®], *Standard on Disaster/Emergency Management and Business Continuity Programs*[®], 2016 edition.

Annex B

SAMPLE TEXT FOR RESIDENTIAL BUILDINGS PUBLIC ADDRESS ANNOUNCEMENTS

B.1

We recommend the following public address announcements be printed and readily available at the emergency command center (ECC). Table B.1 contains a list of recommended nouns for stairs and elevator banks.¹

The following is an example of a public address (PA) announcement the fire service may use for a building evacuation:

“ATTENTION PLEASE, *(pause 5 seconds)* ATTENTION PLEASE, THIS IS THE *(name of town/city)* FIRE SERVICE.

WE ARE INVESTIGATING *(an activated smoke detector, an activated carbon monoxide detector, a report of a smoke condition, or a report of fire)* ON THE *(floor number)* FLOOR. IF YOU OBSERVE SMOKE OR FIRE ON YOUR FLOOR, PLEASE EVACUATE BY STAIRWAY *(name of designated evacuation stairway.)* ALL OTHERS SHOULD REMAIN IN PLACE AND STAND BY FOR FURTHER INSTRUCTIONS. ELEVATORS ARE OUT OF SERVICE.”

The following is an example of a PA announcement the fire service may use for a follow-up to a building evacuation where there is no problem:

“ATTENTION PLEASE . . . THIS IS THE *(name of town/city)* FIRE SERVICE.

THE ALARM ON THE *(floor number)* FLOOR WAS CAUSED BY *(an activated smoke detector, an activated carbon monoxide detector, a report of a smoke condition, or a report of fire)*. THERE IS NO EMERGENCY, PLEASE RETURN TO YOUR NORMAL ACTIVITIES. THE FIRE SERVICES WILL BE LEAVING THE BUILDING SHORTLY. ELEVATORS WILL RETURN TO SERVICE SOON. THANK YOU FOR YOUR COOPERATION.”

The following is an example of a PA announcement the fire service may use for a follow-up to a building evacuation where there is a stable problem:

“ATTENTION PLEASE . . . THIS IS THE *(name of town/city)* FIRE SERVICE.
WE HAVE *(an activated smoke detector, an activated carbon monoxide detector, a report of a smoke condition, or a report of fire)* ON THE *(floor number)* FLOOR. WE ARE INVESTIGATING. THERE IS NO NEED TO EVACUATE AT THIS TIME.
STANDBY BY FOR MORE ANNOUNCEMENTS.”

The following is an example of a PA announcement the fire service may use for a follow-up to a building evacuation where there is an unstable problem:

“ATTENTION PLEASE . . . THIS IS THE *(name of town/city)* FIRE SERVICE.
WE HAVE *(an activated smoke detector, an activated carbon monoxide detector, a report of a smoke condition, or a report of fire)* ON THE *(floor number)* FLOOR.
WE ARE CONTROLLING THE SITUATION NOW. RESIDENTS OF THE *(floor number)* FLOOR SHOULD REMAIN IN THEIR UNITS. RESIDENTS OF THE *(floor number)* FLOORS SHOULD STAND BY FOR POSSIBLE EVACUATION VIA STAIRWAY *(name of designated evacuation stairway)*.
STANDBY BY FOR MORE ANNOUNCEMENTS.”

The following is an example of a PA announcement the Fire Life Safety Director (FLSD) may use for the activation/test of the fire alarm system:

ATTENTION!!! ATTENTION!!!
This is your Fire/Life Safety Director (FLSD).
We have received a **FIRE ALARM ACTIVATION** on the _____ floor(s).
It is currently being investigated.
We will inform you as soon as more information is available.
Will the Fire Warden for the _____ floor(s) please contact the FLSD via the Warden telephone?
REPEAT the Initial Announcement a Second Time
THEREAFTER REPEAT ANNOUNCEMENT AS NECESSARY

The following is an example of a PA announcement the FLSD may use for the request of a fire warden to a specific floor(s):

ATTENTION!!! ATTENTION!!!
This is your Fire/Life Safety Director.
Will the Fire Warden on the _____ floor(s) pick up the Warden Phone to receive important information?

REPEAT the Initial Announcement a Second Time
THEREAFTER REPEAT ANNOUNCEMENT AS NECESSARY

The following is an example of a PA announcement the FLSD may use for a continuing investigation. This announcement should be made approximately every three minutes from the initial alarm activation. This announcement could be to a specific floor(s) or a building all-call when necessary:

ATTENTION!!! ATTENTION!!!
This is your Fire/Life Safety Director.
We are continuing to investigate the **FIRE ALARM ACTIVATION** on the _____ floor(s).
We will inform you as soon as more information is available.

REPEAT the Initial Announcement a Second Time
THEREAFTER PROVIDE UPDATES EVERY THREE MINUTES

The following is an example of a PA announcement the FLSD may use for a fire/smoke condition. This could be to a specific floor(s) or a building all-call when necessary:

ATTENTION!!! ATTENTION!!!
This is your Fire/Life Safety Director (FLSD).
We have received a **FIRE ALARM** on the _____ floor(s).

At this time will the occupants on the _____ floor(s) evacuate to stair _____ (*name of designated evacuation stairway*). The next re-entry floor for an evacuation is floor _____.
Will the Fire Warden for the _____ floor(s) please contact the FLSD from the re-entry floor once the evacuation has been completed.

REPEAT the Initial Announcement a Second Time
THEREAFTER REPEAT ANNOUNCEMENT AS NECESSARY

The following is an example of a PA announcement the FLSD may use for the fire department's arrival at the building. This announcement could be to a specific floor(s) or a building all-call when necessary.

ATTENTION!!! ATTENTION!!!
This is your Fire/Life Safety Director.
As standard procedure, the Fire Department has arrived at the building to investigate the **FIRE ALARM ACTIVATION** on the _____ floor(s).
We will inform you as soon as more information is available.

REPEAT the Initial Announcement a Second Time
THEREAFTER REPEAT ANNOUNCEMENT AS NECESSARY

The following is an example of a PA announcement the FLSD may use for the evacuation of floor(s) by order of the fire department. This announcement is intended for a specific floor.

ATTENTION!!! ATTENTION!!!
This is your Fire/Life Safety Director (FLSD).
The Fire Department has ORDERED all occupants on the _____
floor(s)
to evacuate stair _____ (*name of designated evacuation stairway*). The next re-entry floor is:
_____.

Will the Fire Warden for the _____ floor(s) please contact the FLSD from the
re-entry floor once the evacuation has been completed.

REPEAT the Initial Announcement a Second Time
THEREAFTER REPEAT ANNOUNCEMENT AS NECESSARY

The following is an example of a PA announcement the FLSD may use to announce an all clear after the activation of the fire alarm system to the entire building:

ATTENTION!!! ATTENTION!!!
This is your Fire/Life Safety Director.
The fire alarm transmitted from the _____ floor(s) has been investigated and the area is safely
secure.
All personnel evacuated from floor(s) _____ may return to their work area.
The elevators are operating normally.

REPEAT the Initial Announcement a Second Time
THEREAFTER REPEAT ANNOUNCEMENT AS NECESSARY

The following is an example of a PA announcement the FLSD may use to announce fire alarm system testing to the entire building:

ATTENTION!!! ATTENTION!!!
This is your Fire/Life Safety Director.
We are **TESTING THE BUILDING FIRE ALARM SYSTEM** for approximately the next _____ minutes.
Please disregard any fire signal until further notified.
Thank you for your patience.

REPEAT the Initial Announcement a Second Time
THEREAFTER REPEAT ANNOUNCEMENT AS NECESSARY

The following is an example of a PA announcement the FLSD may use to announce the completion of the fire alarm system testing to the entire building:

ATTENTION!!! ATTENTION!!!
This is your Fire/Life Safety Director.
The **TESTING OF THE FIRE ALARM SYSTEM** is complete.
Thank you for your patience.

REPEAT the Initial Announcement a Second Time
THEREAFTER REPEAT ANNOUNCEMENT AS NECESSARY

The following is an example of a PA announcement the FLSD may use to request a fire warden to a specific floor:

ATTENTION!!! ATTENTION!!!
This is your Fire/Life Safety Director.
Will the Fire Warden on the _____ floor(s) please pick up the Warden Phone to receive important information?

REPEAT the Initial Announcement a Second Time
THEREAFTER REPEAT ANNOUNCEMENT AS NECESSARY

The following is an example of a PA announcement the FLSD may use to request a fire evacuation drill for a specific floor(s):

ATTENTION!!! ATTENTION!!!
This is your Fire/Life Safety Director.
We will be conducting a **FIRE EVACUATION DRILL** on the _____ floor(s) shortly.
At the sound of the alarm and flashing strobe lights,
please immediately leave your work area and follow the instructions of your Fire Warden.

REPEAT the Initial Announcement a Second Time
THEREAFTER REPEAT ANNOUNCEMENT AS NECESSARY

The following is an example of a PA announcement the FLSD may use to announce a bomb threat to the building. This announcement may be made to a specific floor(s) or to the entire building when necessary:

<p style="text-align: center;">ATTENTION!!! ATTENTION!!! This is your Fire/Life Safety Director (FLSD). The ____ (<i>Police, Security, Fire Department</i>) has asked us to implement a <u>FULL/PARTIAL BUILDING EVACUATION</u> for ALL or PARTIAL floor(s) _____. Use stair[s] ____ (<i>name of designated evacuation stairway</i>) _____, and evacuate to the _____ floor or street level.</p> <p style="text-align: center;">Will the Fire Warden for the _____ floor(s) please contact the FLSD from the re-entry floor or the Exterior Assembly Area once the evacuation has been completed.</p> <p style="text-align: center;">REPEAT the Initial Announcement a Second Time THEREAFTER REPEAT ANNOUNCEMENT AS NECESSARY</p>

The following is an example of a PA announcement the FLSD may use to announce an exterior bomb threat to the entire building:

<p style="text-align: center;">ATTENTION!!! ATTENTION!!! This is your Fire/Life Safety Director (FLSD). The ____ (<i>Police, Security, Fire Department</i>) has asked us to implement an <u>IN-BUILDING RELOCATION</u> procedure. At this time relocate to the interior core of the building and stay away from all exterior windows.</p> <p style="text-align: center;">Will the Fire Warden for the _____ floor(s) please contact the FLSD from the re-entry floor once the evacuation has been completed.</p> <p style="text-align: center;">REPEAT the Initial Announcement a Second Time THEREAFTER REPEAT ANNOUNCEMENT AS NECESSARY</p>

The following is an example of a PA announcement the FLSD may use to announce elevators are out of service to the entire building:

<p style="text-align: center;">ATTENTION!!! ATTENTION!!! This is your Fire/Life Safety Director. The <u>ELEVATOR SERVICE</u> to floors ____ in ELEVATOR BANK ____ has temporarily been interrupted. We will alert you as soon as service resumes. Thank you for your patience.</p> <p style="text-align: center;">REPEAT the Initial Announcement a Second Time THEREAFTER REPEAT ANNOUNCEMENT AS NECESSARY</p>
--

The following is an example of a PA announcement the FLSD may use to announce elevators are back in service to the entire building:

ATTENTION!!! ATTENTION!!!
This is your Fire/Life Safety Director.
The **ELEVATOR CARS** in **ELEVATOR BANK** ____ are back in service and operating normally.
Thank you for your patience.

REPEAT the Initial Announcement a Second Time
THEREAFTER REPEAT ANNOUNCEMENT AS NECESSARY

The following is an example of a PA announcement the FLSD may use to communicate a public demonstration, construction, or police activity to the entire building:

ATTENTION!!! ATTENTION!!!
This is your Fire/Life Safety Director.
As a result of ____ (*e.g., Public Demonstration, Construction, Police Activity*), all personnel are advised that we have temporarily closed the exits at ____.
If you need to leave the building, please use the following exit(s): ____.
Thank you for your cooperation.

REPEAT the Initial Announcement a Second Time
THEREAFTER REPEAT ANNOUNCEMENT AS NECESSARY

The following is an example of a PA announcement the FLSD may use to initiate a full or partial building evacuation using all stairs and elevators. The announcement may be made to a specific floor(s) or building all-call when necessary:

ATTENTION!!! ATTENTION!!!
This is your Fire/Life Safety Director (FLSD).
The ____ (*Police, Security, Fire Department*) has requested that we implement a **FULL BUILDING EVACUATION Using all Stairs and Elevator Cars.**
Leave all personal belongings behind and follow the directions of your Fire Warden.

Floors _____ **ARE TO** use **STAIR-A**, as in Alpha, to the street level.
Floors _____ **ARE TO** use **STAIR-B**, as in Bravo, to the street level.

Floors _____ **ARE TO** use **ELEVATOR BANK** ____ to the street level.
Floors _____ **ARE TO** use **ELEVATOR BANK** ____ to the street level.

Will the Fire Warden for the _____ floor(s) please contact the FLSD from the Exterior Assembly Area once the evacuation has been completed.

REPEAT the Initial Announcement a Second Time
THEREAFTER REPEAT ANNOUNCEMENT AS NECESSARY

The following is an example of a PA announcement the FLSD may use to initiate a full or partial building evacuation using all stairs only. The announcement may be made to a specific floor(s) or building all-call when necessary:

ATTENTION!!! ATTENTION!!!
This is your Fire/Life Safety Director (FLSD).
The _____ (*Police, Security, Fire Department*) has requested that we implement a
FULL/PARTIAL BUILDING evacuation.

Please leave all personal belongings behind and follow the directions of your Fire Warden.

Floors _____ **ARE TO** use **STAIR-A**, as in Alpha, to the _____.
Floors _____ **ARE TO** use **STAIR-B**, as in Bravo, to the _____.
Floors _____ **ARE TO** use **STAIR-C**, as in Charlie, to the _____.

Will the Fire Warden for the _____ floor(s) please contact the FLSD from the
Exterior Assembly Area once the evacuation has been completed.

REPEAT the Initial Announcement a Second Time
THEREAFTER REPEAT ANNOUNCEMENT AS NECESSARY

The following is an example of a PA announcement the FLSD may use to initiate a full building evacuation using only the stair(s) leading directly onto a public way:

ATTENTION!!! ATTENTION!!!
This is your Fire/Life Safety Director (FLSD).
The _____ [*Police, Security, Fire Department*] has requested that
we implement a **FULL BUILDING** evacuation.
We will be evacuating all floors by using **Stair** _____ (*name of designated evacuation stairway*)
ONLY to the street level.

Will the Fire Warden for the _____ floor(s) please contact the FLSD from the
Exterior Assembly Area once the evacuation has been completed.

REPEAT the Initial Announcement a Second Time
THEREAFTER REPEAT ANNOUNCEMENT AS NECESSARY

The following is an example of a PA announcement the FLSD may use to initiate an in-building relocation:

ATTENTION!!! ATTENTION!!!
 This is your Fire/Life Safety Director.
 The _____ [*Police, Security, Fire Department*] has requested that we implement an
IN-BUILDING RELOCATION evacuation of floor(s) _____.

Floors _____ **ARE TO** use **STAIR-A**, as in Alpha, to the _____.
 Floors _____ **ARE TO** use **STAIR-B**, as in Bravo, to the _____.

Please leave all personal belongings behind and follow the directions of your Fire Warden.

REPEAT the Initial Announcement a Second Time
 THEREAFTER REPEAT ANNOUNCEMENT AS NECESSARY

The following is an example of a PA announcement the FLSD may use to inform building occupants to remain in place:

ATTENTION!!! ATTENTION!!!
 This is your Fire/Life Safety Director.
 The _____ [*Police, Security, Fire Department*] has requested that we implement a **REMAIN-
 IN-PLACE.**

Please stay-in-place on your floor.
 We will keep you apprised of the situation as we receive additional information.
 Thank you for your cooperation.

REPEAT the Initial Announcement a Second Time
 THEREAFTER REPEAT ANNOUNCEMENT AS NECESSARY

Table B.1 List of Stairs/Elevator Banks and Recommended Nouns

<u>Stair</u>		<u>Noun</u>		<u>Elevator Bank</u>		<u>Name</u>
A	as in	Alpha		A	as in	Alice
B	as in	Bravo		B	as in	Barbara
C	as in	Charlie		C	as in	Cheryl
D	as in	David		D	as in	Dana
E	as in	Edward		E	as in	Elizabeth
F	as in	Frank		F	as in	Frieda
G	as in	George		G	as in	Grace

¹ Manitou, Inc. Surrey Fire Service High-Rise Fire Service Study. Manitou, Inc. Peekskill, NY: December, 2008. <http://www.surrey.ca/files/SurreyHighRiseReport.pdf>.

Annex C

SAMPLE SOLICITATION LETTER FOR FLOOR WARDENS/DEPUTY FLOOR WARDENS

C.1

In a residential high-rise building, attempts should be made to identify a responsible person on each floor and designate that person as a floor warden. In cooperation with the fire safety director, floor wardens oversee and ensure safe and complete evacuation or relocation of building occupants during a fire or other emergency, or a fire drill. Deputy floor wardens can be designated for each floor and should assume floor warden duties when necessary. [See Figure C.1(a).]

Fire Safety Floor Warden Program Participation Letter
Date:
Dear Occupant/Resident:
Your safety during an emergency at (place building name here) is very important to (place name of building management here), therefore the Fire Safety Director (place name here) and Management Staff invite you to participate in your building's emergency preparedness Fire Safety Floor Warden Program. History has shown that planning, preparation and practice in conjunction with neighbors helping neighbors diminishes personal injury and property damage as a result of various types of emergencies.
(Place building management name here), your Fire Safety Director (place name of Fire Safety Director here), invites you to become an active participant in our fire safety program by joining our Fire Safety Floor Warden Team.
The main duty of the Fire Safety Floor Warden/Deputy Floor Warden is to ensure complete evacuation or relocation of all occupants/residents of their floor during emergencies.
Fire Safety Floor Wardens (and Deputy Floor Wardens) will be trained in high-rise emergency procedures and working with the Fire Safety Director of the building and the fire department during emergencies. All Fire Safety Floor Wardens (and Deputy Fire Safety Floor Wardens) will gain vital knowledge on the location of stairwells and other high-rise building life safety features, as well as how to operate fire alarm activation stations and the overall evacuation of the building.
Please complete the attached "Fire Safety Floor Warden Program Registration Form" and return to the Fire Safety Director in the management office by (place date here). You will be advised of the training and annual fire drill dates in the future.
Thank you in advance for your participation. If you have questions or concerns regarding the Fire Safety Floor Warden Program or this letter please feel free to call be at the telephone number below.
Sincerely,
(Place Fire Safety Director name and title here) (Place Building Address here)
Telephone number:

Figure C.1(a) Example of a Floor Warden Program Participation Letter.

Figure C.1(b) shows a form letter that can be utilized to solicit volunteers.

(Building Name and Address)

Fire Safety Floor Warden Program Registration Form
This form must be completed by all occupants 18 years and older

Date:

Print your full name:

Floor and unit number:

Telephone number:

I have read and understand the Fire Safety Floor Warden Participation letter dated (place date of letter here)

(Place an "X" next to all responses that apply)

Please designate me as a Fire Safety Floor Warden on floor number _____

Please designate me as a Deputy Fire Safety Floor Warden on floor number _____

Please designate me as a Fire Safety Floor Warden or Deputy Fire Safety Floor Warden on floor number _____

I decline to participate _____

Comments:

Signature of person indicated above: _____

Figure C.1(b) Example of a Volunteer Form Letter.

Annex D

SAMPLE LIST OF INDIVIDUALS NEEDING ASSISTANCE

D.1

Figure D.1 shows a sample form for listing individuals who self-identify as needing assistance during an emergency.

This page lists the individuals who have voluntarily self-identified as needing assistance during an emergency. Listed are: Name, Floor/Suite, Phone Number, Type of Assistance Required, Assistance Monitor, and if a temporary condition, the Expected Duration of the disability.

Disabilities that could impact a building occupant’s ability to evacuate, include, but are not limited to, the following: mobility impairments, vision impairments, hearing impairments, speech impairments, and cognitive impairments.

This information must be kept confidential and be provided only to authorized building personnel and, in the event of an emergency evacuation, to first responders upon their arrival at the building or as required by local law.

In the floor warden manual, the following list is restricted to only the persons in need on that floor.

List of Persons Who May Need Assistance

Name	Floor/Suite	Phone Number	Type of Assistance Required	Assistance Monitor	Expected Duration

It is important to remember that the persons in need of assistance must request such assistance in writing to the building’s floor warden.

Figure D.1 Sample Form for Listing Individuals Who May Need Assistance.

Annex E

SAMPLE SITE DATA CARD/BUILDING INFORMATION CARD

E.1

Figure E.1 shows an example of a site data collection card.

(FD Logo) **ANYTOWN FIRE DEPARTMENT PRE-INCIDENT PLAN
SITE DATA COLLECTION CARD**

Address: _____
 AKA Name: _____
 USNG #: _____
 Primary entrance / Side: _____ Secondary entrance / Side: _____
 Type of Occupancy: Assembly Business Education Factory High-Hazard
 Institution Mercantile Residential Storage Multi-Occupancy

FIREGROUND *(Exposures: If a building, give height, construction, and type of occupancy — A = attached / S = separate + distance)*
 Side-A (street) _____ Side-C (rear) _____
 Side-B (left) _____ Side-D (right) _____
 No. of stories: _____ Const. type: I II III IV V
 Length: _____ x Width _____ = _____ gpm per division

WATER SUPPLY — Urban/Suburban Area
 Fire hydrant locations: Primary: _____ Size of main: _____
 Secondary: _____ Size of main: _____
 Private: _____ Size of main: _____

Rural Area
 Main drafting water supply: Lake Pond River Pool
 Location: _____
 Water shuttle travel time (main water supply to portable water tanks): _____

Private Area Coverage
 Water tank capacity: _____
 Hydrant locations: Primary: _____ Secondary: _____

BUILDING FIRE PROTECTION SYSTEMS
 FDC connections: Sprinkler (SPKR.) Standpipe (STDP.) Combination Sprinkler/Standpipe (C) None
 FDC location(s): Side-A Side-B Side-C Side-D None
 Fire pump(s): Side _____ Division # _____ gpm _____ None
Sprinkler System: Wet Dry Deluge Pre-Action Limited Area (20 SPKR. Heads) None
 Full building Partial building If, partial location: Side _____ Division # _____
 Side _____ Division # _____ Side _____ Division # _____ Side _____ Division # _____
 OS&Y Valves: Side-A Side-B Side-C Side-D
Standpipe (STDP) & Hose System: Class I Class II Class III 2½–1½ connection None
 Standpipe Riser & Hose Connections: Stair ___ Stair ___ Stair ___ Corridor ___ Corridor ___ Rack ___
 STDP Riser Isolation Valves: Stair ___ Division # _____ Stair ___ Division # _____ Other ___ Division # _____
 OS&Y Valves: Side-A Side-B Side-C Side-D
Fire Extinguishing Systems: Clean Agent CO₂ Dry Chemical Halon Wet Chem. None
 Side _____ Division # _____ Side _____ Division # _____ Side _____ Division # _____
Fire Alarm System Main Panel Location: Division # _____ Side _____ None
 Remote FAS subpanel(s): Division # _____ Side _____ Division # _____ Side _____ None
Fire Wall(s): Division # _____ Side _____ Division # _____ Side _____ None
Fire Partition(s): Division # _____ Side _____ Division # _____ Side _____ None

Developing Emergency Action Plans for All-Hazard Emergencies in High Rise Apartment Buildings

LIFE SAFETY

Occupancy Load: Low Moderate High
Stair(s): Open Enclosed Side-A Side-B Side-C Side-D Center Core
 Exterior fire escape / stair: Side-A Side-B Side-C Side-D None
 Roof access off stair _____ Below grade off stair _____ Access stair levels: _____
Person(s) with Disability Location: _____ **Area(s) of Rescue Assistance:** _____

BUILDING DATA

Key box location: _____ **Side:** _____ None
Roofing Structural Members: Truss (Metal Wood / Light Heavyweight) Cold-formed galvanized steel
 Poured concrete / Re-bar Solid wood rafter Wooden T beams Steel T beams
Attic / cockloft access: Top floor (corridor area or interior room) **Side** _____ **Side** _____ None
Roof vent(s): Automatic Manual **Side** _____ **Side** _____ None
Flooring Structural Members: Truss (Metal Wood / Light Heavyweight) Cold-formed galvanized steel
 Poured concrete / Re-bar Solid wood joist Wooden T beams Steel T girder
Floor Decking: Concrete (pre-cast poured) Wood (plank plywood composition)
Basement: Full dimensions of building Partial **If partial, Side** _____ None
Basement Access: Interior: **Side** _____ Exterior: **Side** _____ None
Crawl Space Access: Interior: **Side** _____ Exterior: **Side** _____ None
Elevator Banks: **Elevator key location:** _____
 Elevator No. _____
 Floors Served _____
 Elevator Mach. Rm. Floors _____
Heating System: Electric Gas Oil Combination gas/oil Other: _____
Emergency Shut-Off: **Division #** _____ **Side** _____ **Roof level** _____ **Side** _____
Location: Within room Area On-unit **Side:** _____
Fuel tank location: Above ground Below ground **Division #:** _____ **Side:** _____ **Fuel tank capacity:** _____ None
HVAC Controls: **Division #** _____ **Side** _____ **Roof level** _____ **Side** _____ None
Division # _____ **Side** _____ **Division #** _____ **Side** _____ **Division #** _____ **Side** _____
Smoke Control System: **Purge:** _____ Automatic Manual None
Air in-take locations: **Division #** _____ **Roof level** _____ **Side** _____ None
Mechanical Equipment Rm. (MER) **Division #** _____ **Side** _____ **Division #** _____ **Side** _____ None
Utility Main Shut-Offs: **Emergency Generator:** _____ **Division #** _____ **Side** _____ None
ELECTRIC **Division #** _____ **Side** _____ **LP/GAS** **Division #** _____ **Side** _____ None
WATER **Division #** _____ **Side** _____ **NATURAL GAS** **Division #** _____ **Side** _____ None

HAZMAT

SDSs location: Level 'C' (low) Level 'B' (moderate) Level 'A' (high) None
Right To Know facility: Yes No **SARA facility:** Yes No
Hazmat locations: Interior **Division #** _____ **Side** _____ **Division #** _____ **Side** _____
 Exterior **Division #** _____ **Side** _____ **Division #** _____ **Side** _____

BUILDING EMERGENCY CONTACT INFORMATION

Emergency Contact Person(s)	Business Telephone	Mobile Telephone
Property Manager/Superintendent _____	_____	_____
Chief Engineer _____	_____	_____
Safety/Security Director _____	_____	_____

Date: _____ **Company #:** _____ **Officer:** _____ **Battalion No.:** _____

PRE-INCIDENT PLAN / BUILDING INFORMATION CARD — Detailed Information

No. of stories: A **whole number** represents the number of stories with a flat roof; a **whole number plus a half** ($\frac{1}{2}$) indicates the number of stories with a sloping/pitched roof. If all four sides of the building do not have the same equal number of stories indicate the sides of the building that have different division levels [e.g., Side-A (3)/Side-C (4).]

Building Construction Types

- I. **Fire-resistive:** Structural members, walls, columns, beams, and divisions are fire-rated 2–4 hours with noncombustible materials.
- II. **Noncombustible:** Metal frame, metal-clad, concrete-block with unprotected metal truss joist.
- III. **Ordinary/Combustible:** Exterior bearing walls are noncombustible, while the interior framing, roof, and divisions are constructed of wood or unprotected steel.
- IV. **Heavy timber:** The structural members are heavy wooden columns and beams. The construction materials are noncombustible.
- V. **Wood frame:** Balloon (vertical openings between exterior wall studs from basement level to attic) or platform construction (floor joist and assembly are placed on top of the exterior bearing wall studs).

L _____ **x** **W** _____ = the needed fire flow (**gpm**) per (div.) floor. — Multiply L x W then divide by 3 = to get total gpm per (div.) floor involvement (e.g., 100 ft x 30 ft = 3000 ft²; 3000 ft² ÷ 3 = 1000 gpm.)

- If less than a total floor reduce accordingly (e.g., 25% of the fire floor involved = 250 gpm).
- If more than one floor, increase the fire flow accordingly. For each exposure, add 50% of the 100% involvement figure.

Exposures: Describe the exposures to the four sides of the building. If the side is a structure, give type of occupancy, height, and whether the building is attached or separated by circling **A** if attached building or **S** if a separate building + the distance:

Side-A — Hoboken Avenue

Side-C — vacant lot

Side-B — garage / 1 story – **A**

Side-D — multi-family / 3 stories – **S** + 20 ft

Fire Protection System

Standpipe Classification

- **Class I** 2½ in. thread (fire fighter use)
- **Class II** 1½ in. thread (occupant use)
- **Class III** Combination 2½ in. thread with a 1½ in. reducer cap (fire fighter/occupant use)

Hazardous Materials:

- Right to Know (RTK) and/or Superfund Amendments and Reauthorization Act (SARA) facility. Rank hazmat levels A, B, or C so that they are compatible with standard hazardous materials incidents.
- **Other:** List small hazmat quantities on premises that are not covered by RTK or SARA (e.g., building maintenance shop – flammable/combustible liquids). If asbestos is present, verify with local hazmat team or building dept.

Figure E.1 Site Data Collection Card. [1620:Figure D.1(a)]