



National Fire Protection Association

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MEETING AGENDA
High Rise Building Safety Advisory Committee
(HRB-SAC)

April 2-3, 2013
Miami, Florida

1. **Call to Order.** Call the meeting to order by Chair, Jim Quiter, at 8:00 am EST. on Tuesday, April 2, 2013.
2. **Introduction of Attendees.** For a current committee roster. **See pg. 02.**
3. **Review of Agenda.**
4. **Approval of Minutes.** Approve the minutes of the 2013 February 28 meeting. **See pg. 03.**
5. **Status of NFPA 1/101/5000 and the development of Public Comments.**
6. **Review draft and edits of EAP Guide.**
7. **Presentation on Porsche Tower project (3:30 pm, Tuesday).**
8. **Other Business.**
 - **Stair Monitoring Task Group**
 - **Building Surveys (C.Jennings)**
9. **Next Meeting.**
10. **Adjournment.**

Address List No Phone

03/26/2013
Kristin Bigda
HRB-TAC

High Rise Building Safety Advisory Committee

James R. Quiter Chair Arup 560 Mission Street, Floor 7 San Francisco, CA 94105 Safety to Life Correlating Committee	SE 9/30/2004 HRB-TAC	Geoff Craighead Principal Universal Protection Service 1551 North Tustin Avenue, Suite 650 Santa Ana, CA 92705	SE 7/19/2005 HRB-TAC
Jon D. Magnusson Principal Magnusson Klemencic Associates 1301 Fifth Avenue, Suite 3200 Seattle, WA 98101-2699 National Council of Structural Engineers Assns.	SE 9/30/2004 HRB-TAC	John P. Miller Principal Los Angeles City Fire Department Battalion 17 "A" Platoon 200 North Main Street Los Angeles, CA 90012	L 4/22/2005 HRB-TAC
Jack J. Murphy Principal Fire Safety Directors Association of Greater New York 236 Overlook Avenue Leonia, NJ 07605-1519 Fire Safety Directors Association of Greater New York	U 9/30/2004 HRB-TAC	Steven M. Nilles Principal Goetsch Partners 224 South Michigan, Floor 17 Chicago, IL 60604 Council on Tall Buildings & Urban Habitat	SE 9/30/2004 HRB-TAC
Jake Pauls Principal Jake Pauls Consulting Services in Building Use & Safety 12507 Winexburg Manor Drive, Suite 201 Silver Spring, MD 20906 American Public Health Association	C 9/30/2004 HRB-TAC	Sally Regenhard Principal The Skyscraper Safety Campaign 131 East 237 Street PO Box 70 Woodlawn, NY 10470 Alternate: Charles R. Jennings	C 9/30/2004 HRB-TAC
James P. Shea Principal Tishman Speyer 45 Rockefeller Plaza New York, NY 10111	U 3/1/2011 HRB-TAC	William A. Stewart Principal 873 Whitney Drive Mississauga, ON L4Y 1E6 Canada Metropolitan Fire Chiefs-IAFC/NFPA	E 3/19/2007 HRB-TAC
Charles R. Jennings Alternate John Jay College of Criminal Justice City University of New York 229 Nelson Avenue Peekskill, NY 10566 The Skyscraper Safety Campaign Principal: Sally Regenhard	C 12/1/2006 HRB-TAC	Kristin Bigda Staff Liaison National Fire Protection Association 1 Batterymarch Park Quincy, MA 02169-7471	6/29/2007 HRB-TAC



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MEETING MINUTES
High Rise Building Safety Advisory Committee

February 28, 2013
Teleconference/Web Meeting

1. **Call to Order.** The teleconference meeting was called to order by Acting Chair, Geoff Craighead, at 3:00 pm EST. on Thursday, February 28, 2013. Chair Jim Quiter was unable to attend the meeting.
2. **Attendance.**

The following committee members were in attendance:

NAME	COMPANY
Kristin Bigda, Staff	NFPA
Geoff Craighead, Principal	Universal Protection Service
Jon Magnusson, Principal	Magnusson Klemencic Associates – Rep. National Council of Structural Engineers Association
John Miller, Principal	Los Angeles City Fire Department
Jack Murphy, Principal	Fire Safety Directors Association of Greater New York
Jake Pauls, Principal	Jake Pauls Consulting Services in Building Use and Safety – Rep. American Public Health Association
James Shea, Principal	Tishman Speyer

Committee Members not in attendance:

NAME	COMPANY
Steven Nilles, Principal	Goettsch Partners – Rep. Council on Tall Buildings and Urban Habitat
James Quiter, Chair	Arup
Sally Regenhart/Charles Jennings	The Skyscraper Safety Campaign
William Stewart, Principal	Metropolitan Fire Chiefs-IAFC/NFPA

3. **Review of Agenda.** K. Bigda reviewed the meeting agenda with the committee.

4. **Approval of Minutes.** The minutes of the 2012 December 5 meeting were approved with no modifications.
5. **EAP Guide.** The current draft of the EAP guide was reviewed. See attachment **A** for a list of action items and notes from the review. K. Bigda will update and distribute another version (clean, changes will be shown in line) of the draft prior to the April meeting. Any additional edits should be sent to K. Bigda prior to the meeting. All committee members should arrive at the April meeting with completed action items and any additional feedback necessary to complete the draft at that time.
6. **Other Business.**
 - **Status of NFPA 1/101/5000** – Public Comment closing date for NFPA 1, 101, and 5000 is May 4, 2013. The Committee will be developing public comments at the April 2013 meeting. K. Bigda will review the results of the First Draft meetings and flag any issues related to high rise buildings that may be of interest to the Committee.
 - **Video Monitoring.** The video monitoring (“stair monitoring”) task group met in early January. K. Bigda and R. Solomon met with NFPA staff regarding the current NFPA requirements that would affect/relate to the stair monitoring provisions. It was briefly mentioned that the task group and NFPA staff recommend language should be proposed for the inclusion in NFPA 5000. This will be discussed further at the April 2013 meeting and public comments will be drafted as necessary.
 - **Building Surveys.** C. Jennings will discuss and present the results of the high-rise building surveys that were conducted in NYC after Hurricane Sandy at the April 2013 meeting of the Committee.
 - **HRB-SAC Site.** Members of the Committee may view all committee information at <http://ecommittee.nfpa.org>. This is the same site that has been used in the past. Committee members should K. Bigda if they are unable to access the site.
7. **Next Meeting.** The next meeting will be held April 2-3, 2013 in Miami, Florida.
8. **Adjournment.** The meeting was adjourned at 4:45 EST by Acting Chair Geoff Craighead.

Meeting Minutes Prepared By:



Kristin Bigda, NFPA Staff

ATTACHMENT A

EAP Review Notes

- Does document address “all hazards?”
 - Minimize threat for “all hazards”
 - Do we say this clearly in the Statement of Purpose?
 - What are our objectives? What types of hazards do we guarantee protection from?
 - See language in NFPA 5000 addressing hazards that may be outside of the protection of the Code:
 - **4.2.1* General.** The protection methods of this *Code* are based on the hazards associated with fire and other events that have comparable impact on a building and its occupancy.
A.4.2.1 Protection against certain terrorist acts will generally require protection methods beyond those required by this *Code*. In such situations, preparation of a risk assessment might be appropriate for buildings at special risk such as:
 - (1) Buildings more than 420 ft (128 m) in height above grade plane with an occupant load greater than 5000.
 - (2) Buildings and other structures with an occupant load greater than 10,000.
 - (3) Buildings and other structures deemed by the AHJ to be at higher than normal risk of being subjected to acts characterized as terrorist threats. Where appropriate, the risk assessment should be performed by one or more individuals with expertise in risk characterization for accidental and intentional hazards including terrorism threat and vulnerability assessment. The assessment should be conducted in a manner that reflects generally accepted principles for risk and analysis and that conforms to industry guidelines for identifying and characterizing terrorism threats and evaluating vulnerability to extreme loads and events. Thorough documentation should accompany the assessment and should identify all assumptions, information sources, calculations, analyses, and referenced guidelines. Where appropriate, the assessment report and the documentation accompanying the report should be provided to the authority having jurisdiction (AHJ). Where appropriate, an independent review of the assessment and the accompanying documentation should be performed by one or more individuals possessing expertise in risk characterization for accidental and intentional hazards. These peer reviews should focus on the assumptions and methods of analysis used and on the findings. Where appropriate, peer reviewers should submit written reports to the AHJ. Where appropriate, risks identified in the assessment should be mitigated.
- People with Disabilities
 - Add language regarding including people with disabilities in planning process
 - Verify RESNA terminology “stair decent device?”
- AHJ Certification/training
 - Ensure language is flexible for various jurisdictions
 - Consistency within the community
 - Set of expectations for AHJ training/cert
 - G. Craighead to send language for Section 2.3.5
- Section 5
 - Preparation of EAP should not be based on ill-conceived concepts/misunderstanding of human behavior
 - K.Bigda to re-write section with references to NFPA/SFPE expert sources
- Section 6
 - Evacuation drills
 - Do not need as frequently
 - K. Bigda to attempt language
- Section 8

- o Work with J. Murphy to further revise
- o Life Safety Evaluation in Chapter 12/13 of NFPA 101 as example?

101 465 SAF-MEA
(7.15 (New))

Submitter: James R. Quiter, Arup

Recommendation: Add a new section to read:

7.15 Situation Awareness of Means of Egress Usage.

7.15.1* For new high rise buildings having an Emergency Command Center, in accordance with 11.8.6, and serving an occupant load of 4,000 or more persons, monitoring of exit stair usage shall be provided in accordance with 7.15.2 and 7.15.3.

7.15.2* Approved occupant flow monitoring equipment or video monitoring equipment shall be provided at the exit stair flight immediately adjacent to exit stair discharge doors to enable real-time, remote monitoring, by building management staff and fire service personnel, of all egress and ingress flows on the exit stair flight.

7.15.3* Approved monitoring equipment similar to that installed in accordance with 7.15.1 shall be provided for higher-story exit stair flights, at building height intervals not exceeding 5 stories, so that descent and ascent flows on the stairs can be remotely monitored by building management staff and fire service personnel.

Substantiation: The addition of 7.15.1 through 7.15.3 provide additions to the current provision of the code that have the potential to help the fire service, other fire safety personnel and building management to effectively monitor and manage egress during an emergency in a building. The use of equipment that would provide real time data to building command centers could lead to better direction of building evacuations and provide the ability for the command center to see conditions throughout the building. This would allow building officials and the fire service to observe if an egress route has become untenable and where they can most effectively redistribute occupants in the building. The High Rise Building Safety Advisory Committee (HRB-SAC) felt that while this language would provide the ability to better manage and control egress through real-time management, at this time it is only feasible for it to be included in new high rise buildings with occupant loads of over 4000.

One may see it as an invasion of privacy to install video equipment in the stairwells. However, in a report, "Public Perceptions of High-rise Building Safety and Emergency Evacuation Procedures" completed in 2007 for HRB-SAC by the Fire Protection Research Foundation, an independent, non-profit organization, it was found that very few persons have concern over privacy issues if their exit stairwells were equipped with video cameras. A summary of this finding is copied below. When asked about their level of concern over privacy issues if the exit stairwells in their building were equipped with video cameras to permit monitoring of stairwells during evacuations, about nine out of ten respondents (89 percent) reported they would not be concerned at all. Of the remaining, 7 percent reported they would be somewhat concerned and 3 percent would be very concerned.

Clearly, the topic of improving situation awareness of what happens in exit stairs during an evacuation is seen as an important topic and one worthy of new attention in the Code. Also, for the fire protection engineering profession, the need to replace the current technology of people movement in evacuations is getting widespread attention internationally because of the still unknown impact (thus far and forthcoming) of major demographic changes affecting people's body size, body mass and fitness generally—all of which has profound effects on speed, flow and density during evacuations, especially in high-population buildings addressed in this proposal. The profession has to see this proposal plus the comments from NFPA HRB-SAC and me as working to its benefit as well as to the benefit of real-time situation awareness which has been a major factor in many fire incidents as well as other disasters.

The proposed Annex notes, submitted via additional public inputs provide background demonstrating that not only is use of videos very feasible and cost effective; it is very important to achieving life safety in larger buildings—through effective management of egress, especially in a more-complex, post-9/11, safety and security context. Situation awareness is the most important feature of effective responses to emergencies. Situation awareness allows people impacted most directly by an emergency event, or managing the facility, or responding to the event (as with fire services) to make the most appropriate decisions on activities to mitigate the dangers of the event for themselves and others.

During emergencies, exit stairs provide a service that might be overwhelmed by demand. Constraints imposed by their limited capacity must be managed appropriately when many occupants are present, especially when there is a simultaneous egress demand from more than a few stories of a building. For example, in a building with 4,000 occupants and two exit stairs, even with a nominal width of 56 in. (1420 mm) each, a total evacuation could take a half hour or longer and such times would at least increase proportionately with larger occupant loads. Egress for especially

endangered occupants, for example those closer to a fire, as well as firefighter access to a fire, would be significantly hampered if usage of the limited stair capacity is not effectively managed. Such management requires accurate, realtime information of exit stair usage. Making such information available at the Emergency Command Center is critical. A secondary use of such information is in post-incident or post-drill evaluation for a particular building/event. A tertiary use of such information is for subsequent research on actual capabilities of building occupants and building means of egress systems generally in all large buildings. All three uses of such information have been badly served by typical capabilities of building monitoring systems that, while monitoring water flows for example, do not convey any information on what is happening in the critical exit stair system.

Increasingly, video camera systems are becoming less costly, smaller, producing better images even in low-light or no-light conditions, using less power, utilizing more-compact and efficient recording/memory systems, and capable of having video—and audio—data transmitted in ways that, until recently, were not even imagined, let alone generally available to typical consumers using a personal computer. Moreover, alternative technologies are being developed that could provide basic people movement data without reliance on video imaging.

It is recognized that both the need for, and capability of, monitoring means of egress usage will grow in the future. Thus an entirely new section is proposed for the means of egress chapter of the Code to provide a home for expanded treatment of the situation awareness issues in egress as well as appropriate Code requirements (perhaps soon referencing appropriate systems standards).

This public input was prepared by the NFPA High Rise Building Safety Advisory Committee. The HRB-SAC members are:

James Quiter (Chair), Arup
Geoff Craighead, Universal Protection Service
Jon Magnusson, National Council of Structural Engineers Associations
John Miller, Los Angeles City Fire Department
Jack Murphy, Fire Safety Directors Association of Greater New York
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Jake Pauls, American Public Health Association
Jim Shea, Tishman Speyer
William Stewart, Metropolitan Fire Chiefs-IAFC
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Charles Jennings (Alternate to Regenhard), The Skyscraper Safety Campaign
Kristin Bigda, NFPA Staff

HRB-SAC is an advisory committee established by the NFPA Standards Council to advise the association, and especially the association's technical committees, on all safety issues related to high rise buildings.

HRBSAC Ballot Results for This Public Input:

10 Eligible to vote

9 Affirmative Votes (C. Jennings for S. Regenhard)

1 Not Returned (S. Nilles)

Comment on Affirmative:

Shea, J: I agree that video monitoring could be a useful too. However, there are currently no systems sophisticated enough to allow for real time, building wide monitoring of each stair at each level of a high rise building. As such, I support the public input if proposal can be limited to monitoring stairwells at specific discharge points, namely bottom/lobby discharge or transfer/hold over floors.

Public Input Response:

The requirements for the proposed system include nothing relative to installation and maintenance so there is no assurance it will work in an emergency.

Nothing clarifies how the system is to operate. Is it constantly on? Is it intended to become activated automatically upon alarm system activation?

Reference to "higher story" is not understood.

Needs clarification with respect to compatibility with security systems and whether shared features are allowed.

Even if emergency personnel learn of a situation, like a bottleneck in a stair enclosure, it is not evident what personnel can do to change the bad situation. In other words, what is the benefit or payback for installing such a system? What situation is remedied?

Unclear what "serving an occupant load" means.

101 466 SAF-MEA
(A.7.15.1, A.7.15.2, and A.7.15.3)

Submitter: James R. Quiter, Arup

Recommendation: Add new sections to read:

A.7.15.1 Human factors (ergonomics) experts, familiar with building egress issues, utilize the following definition (from Mica Endsley) of 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." The experts note that this definition is especially appropriate for building fire events as it highlights the importance of not just making information available, but also the importance of understanding the significance of that information and predicting how events are likely to evolve. With video systems, real-time images of occupants' and emergency responders' presence and movement (or lack thereof) in exits, especially at multiple locations of the same exit stairway, can provide unique information about current and developing conditions to be taken into account in emergency management. NFEMA SB 30, "Fire Service Annunciator and Interface," as reproduced in an annex to NFPA 72, provides general guidelines for effective display of information within an Emergency Command Center. Video displays of images from exit stairways can be small LCD components (a couple of inches in dimension) situated appropriately within a graphic representation of the building (e.g., a vertical section) showing location of other safety systems and their status.

A.7.15.2 Having video cameras positioned to capture images of the final flight of an exit stairway, just prior to the discharge doorway from the exit, provides information on the number and flow (in persons per minute for example) of the occupants, among other information, including access by responding firefighters using stairs if elevators are not available. It is not essential that the camera views and image resolution be sufficient to identify specific individuals. Depending on the context (including security applications), such specific-person identification might be essential, desirable, undesirable or forbidden. Digital pixilation of images is one method for resolving personal privacy concerns while still providing information useful for other purposes. Another method could involve having the camera positioned behind evacuating occupants so faces of evacuees are not visible. For postincident evaluation and analysis of egress performance, it is helpful to have image quality and camera angle such that individuals' lateral and front-to-back positions, relative to the stair width, are clear.

A.7.15.3 For example, a 14 story building would have cameras at the ground level (assuming this is the level of exit discharge), 6th floor, and 11th floor for each of the exit stairs. As well as providing a reasonable sampling of evacuee presence and movement within the exit stair system—information important for real-time situation awareness, a comparison of times at which particular individuals pass different cameras provides important data on evacuation movement speed and (indirectly) average occupant density, in addition to flow and number of evacuees overall.

Substantiation: The addition of 7.15.1 through 7.15.3 provide additions to the current provision of the code that have the potential to help the fire service, other fire safety personnel and building management to effectively monitor and manage egress during an emergency in a building. The use of equipment that would provide real time data to building command centers could lead to better direction of building evacuations and provide the ability for the command center to see conditions throughout the building. This would allow building officials and the fire service to observe if an egress route has become untenable and where they can most effectively redistribute occupants in the building. The High Rise Building Safety Advisory Committee (HRB-SAC) felt that while this language would provide the ability to better manage and control egress through real-time management, at this time it is only feasible for it to be included in new high rise buildings with occupant loads of over 4000.

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These proposed Annex notes, provide background demonstrating that not only is use of videos very feasible and cost effective; it is very important to achieving life safety in larger buildings—through effective management of egress, especially in a more-complex, post-9/11, safety and security context. Situation awareness is the most important feature of effective responses to emergencies. Situation awareness allows people impacted most directly by an emergency event, or managing the facility, or responding to the event (as with fire services) to make the most appropriate decisions on activities to mitigate the dangers of the event for themselves and others.

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Kristin Bigda, NFPA Staff

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HRBSAC Ballot Results for This Comment:

10 Eligible to vote

9 Affirmative Votes (C. Jennings for S. Regenhard)

1 Not Returned (S. Nilles)

Comment on Affirmative:

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Public Input Response:

Provisions for a new Section on situation awareness, as recommended by the same submitter, are not being added to the Code. Annex text cannot be added to a nonexistent section.

101 467 SAF-FUN
(Entire Document)

Submitter: James R. Quiter, Arup

Recommendation: Change "Emergency Plan" to "Emergency Action Plan" throughout the document. (NFPA 101, Life Safety Code).

Substantiation: The High Rise Building Safety Advisory Committee (HRB-SAC) recommends revising the term "emergency plan" to "emergency action plan". The term "emergency action plan" is consistent with that used by the industry as well as the fire service. The term "emergency action plan" is also consistent with the document currently being produced by HRB-SAC, titled "Guide for the Development of Emergency Action Plans for High Rise Buildings". Emergency action plans primarily describe the required actions and responsibilities of building occupants, staff and personnel during a fire emergency and other emergencies that may occur in a building. This includes fire drills, evacuation procedures and strategies, and the use and availability of fire protection systems. This public input was prepared by the NFPA High Rise Building Safety Advisory Committee. The HRB-SAC members are: James Quiter (Chair), Arup Geoff Craighead, Universal Protection Service Jon Magnusson, National Council of Structural Engineers Associations John Miller, Los Angeles City Fire Department Jack Murphy, Fire Safety Directors Association of Greater New York Steven Nilles, Council on Tall Buildings and Urban Habitat Jake Pauls, American Public Health Association Jim Shea, Tishman Speyer William Stewart, Metropolitan Fire Chiefs-IAFC Sally Regenhard, The Skyscraper Safety Campaign Charles Jennings (Alternate to Regenhard), The Skyscraper Safety Campaign Kristin Bigda, NFPA Staff HRB-SAC is an advisory committee established by the NFPA Standards Council to advise the association, and especially the association's technical committees, on all safety issues related to high rise buildings. HRBSAC Ballot Results for This Input: 10 Eligible to vote 9 Affirmative Votes (C. Jennings for S. Regenhard) 1 Not Returned (S. Nilles)

Public Input Response:
See FR102.

101 75 SAF-FUN
(2.1(2))

Submitter: Bill Galloway, Southern Regional Fire Code Development Committee

Recommendation: Revise to read:

2.1(2) Where the requirements of a referenced code or standard differ from the requirements of this Code, the requirements of this the more restrictive code or standard Code shall govern.

Substantiation: The way this Code statement is written, it sounds as if NFPA 101 governs over all other codes even if other codes are more restrictive. Whereas NFPA 101 is a 'life safety' code, other NFPA codes take in to account building protection which may have a more restrictive requirement.

An example:

101:42.8.1.6 Minimum Construction Requirements. (No requirements.) –which implies that as per NFPA 101 –any construction type that will withstand the load is acceptable as there are no requirements dictating fire resistance of the structure in NFPA 101.

88A: Chapter 4 –has specific construction type requirements based on fire resistance rating of structural members.

Public Input Response:

The change proposed by the submitter would have the effect of removing the decision making power of the AHJ by forcing compliance with the more restrictive provisions which might have the effect of having to work outside the intent of this Code. See 1.1.6 relative to "areas not addressed." See the first revision that makes change to the "No Requirement" entries of multiple provisions related to building construction within the occupancy chapters - a subject raised by the submitter. Also see the first revision to 4.4.2.3 which is being made to help clarify the issue.

101- Log #FR102 SAF-FUN
(Entire Document)

Final Action:

Submitter: Technical Committee Fundamentals

Recommendation: Globally replace the term "emergency plan" with the term "emergency action plan" throughout NFPA 101, *Life Safety Code*.

Statement: The term "emergency action plan" is consistent with that used by the industry as well as the fire service. The term "emergency action plan" is also consistent with the document currently being produced by the NFPA High Rise Building Safety Advisory Committee (HRB-SAC), titled "*Guide for the Development of Emergency Action Plans for High Rise Buildings*". Emergency action plans primarily describe the required actions and responsibilities of building occupants, staff and personnel during a fire emergency and other emergencies that may occur in a building. This includes fire drills, evacuation procedures and strategies, and the use and availability of fire protection systems.

The technical committee noted a total of 60 occurrences of the term "emergency plan" within 49 provisions of the Code (11 of which have two occurrences each). Each seems appropriate for changing to use the term "emergency action plan."

101- Log #FR104 SAF-FUN
(xx.1.6 Subsection of Various Chapters)

Final Action:

Submitter: Technical Committee Fundamentals

Recommendation: As a variation of the "Global Replace" concept:

(1) Replace the entry "(No requirements.)" with the entry "(Reserved.)" in 14.1.6, 15.1.6, 38.1.6, 39.1.6, 40.1.6 and 42.1.6.

(2) Replace the entry "(No special requirements.)" with the entry "(Reserved.)" in 26.1.6, 28.1.6, 29.1.6, 30.1.6, 31.1.6, 36.1.6 and 37.1.6.

Statement: The entries of "No requirements" and "No special requirements," in various occupancy chapter subsections __.1.6 related to Building Construction, mistakenly cause users to believe that if another code or standard referenced by NFPA 101 has construction requirements, such requirements need not be met. That is not the intent. The intent is that the document with the more "specific" requirement be met. See first revision to 4.4.2.3 which is being made to help clarify the issue.

101 468 SAF-FUN
(A.4.8.2.3 (New))

Submitter: James R. Quiter, Arup

Recommendation: Add a new section to read:

A.4.8.2.3 Emergency action plans are a critical component of assuring life safety in buildings. Life safety is the result of an interaction of technical and social systems within the building and in the community. Gathering information to evaluate the performance and effectiveness of emergency action plans is important for verifying system performance and as a basis for improvement. Such reports should be retained by the building and used to inform the process for revision of the building emergency action plan.

Following any drill or actual emergency or reported emergency occurring in the building, an after action report should be prepared by building management to document the function of the building's life safety hardware, procedures, and occupant emergency organization.

For ordinary drills and reported emergencies, a short form should be completed. The purpose of this short form is to identify areas of success and areas for improvement.

For actual emergencies in the building, where there is major occupant movement, damage, or casualties, a long form should be used. The long form includes specific questions concerning the event, as well as performance of life safety systems. It also identifies improvements in areas such as training, maintenance, interaction with local emergency response organizations, or occupant management. The reports from these significant events shall be shared with the local emergency response organization.

Substantiation: Currently, the Code does not contain adequate guidance on after action reporting. As the proposed language states, emergency action plans are a critical component for assuring life safety in buildings. A lot of time, effort, and coordination is required to put together an emergency action plan that is specific to the building. Emergency action plans vary from building to building and address the specific characteristics and hazards of that particular building. Thus, it is important to have means in place to review these plans after emergencies and ensure they are working effectively and are updated where necessary.

This public input was prepared by the NFPA High Rise Building Safety Advisory Committee. The HRB-SAC members are:

James Quiter (Chair), Arup
Geoff Craighead, Universal Protection Service
Jon Magnusson, National Council of Structural Engineers Associations
John Miller, Los Angeles City Fire Department
Jack Murphy, Fire Safety Directors Association of Greater New York
Steven Nilles, Council on Tall Buildings and Urban Habitat
Jake Pauls, American Public Health Association
Jim Shea, Tishman Speyer
William Stewart, Metropolitan Fire Chiefs-IAFC
Sally Regenhard, The Skyscraper Safety Campaign
Charles Jennings (Alternate to Regenhard), The Skyscraper Safety Campaign
Kristin Bigda, NFPA Staff

HRB-SAC is an advisory committee established by the NFPA Standards Council to advise the association, and especially the association's technical committees, on all safety issues related to high rise buildings.

HRBSAC Ballot Results for This Comment:

10 Eligible to vote

9 Affirmative Votes (C. Jennings for S. Regenhard)

1 Not Returned (S. Nilles)

Public Input Response:

See FR129.

101 469 SAF-FUN
(A.4.8.2.1(3))

Submitter: James R. Quiter, Arup
Recommendation:

INSERT Table A.4.8.2.1(3) HERE

Substantiation: The table entry for "No Evacuation" is not accurate and is more appropriately and commonly referred to as "Shelter in Place". The table should be updated to reflect the commonly used terminology in the field.

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HRBSAC Ballot Results for This Comment:

10 Eligible to vote
9 Affirmative Votes (C. Jennings for S. Regenhard)
1 Not Returned (S. Nilles)

Public Input Response:

See separate first revision where Table A.4.8.2.1(3) is being revised.

Table A.4.8.2.1(3) Occupant Evacuation Strategies

	Managed Sequence	Unmanaged Sequence
Shelter in place (Remain-in-place) No-Evacuation	No-movement – Remain in place Shelter-In-Place upon direction	No-movement – Remain in place Shelter-In-Place per prior instruction
Partial Evacuation	Managed or controlled partial evacuation <ul style="list-style-type: none"> • In-building relocation on same floor • In-building relocation to different floors • Occupants of some floors leave building 	Unmanaged or uncontrolled partial evacuation
Total Evacuation	Managed or controlled total evacuation	Unmanaged or uncontrolled total evacuation

**Public Input No. 70-NFPA 1-2012 [Chapter NFPA]**

Change "Emergency Plan" to "Emergency Action Plan" throughout the document.

Statement of Problem and Substantiation for Public Input

The High Rise Building Safety Advisory Committee (HRB-SAC) recommends revising the term "emergency plan" to "emergency action plan". The term "emergency action plan" is consistent with that used by the industry as well as the fire service. The term "emergency action plan" is also consistent with the document currently being produced by HRB-SAC, titled "Guide for the Development of Emergency Action Plans for High Rise Buildings". Emergency action plans primarily describe the required actions and responsibilities of building occupants, staff and personnel during a fire emergency and other emergencies that may occur in a building. This includes fire drills, evacuation procedures and strategies, and the use and availability of fire protection systems.

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HRBSAC Ballot Results for This Public Input:

10 Eligible to vote
9 Affirmative Votes (C. Jennings for S. Regenhard)
1 Not Returned (S. Nilles)

Submitter Information Verification

Submitter Full Name: James Quiter
Organization: Arup
Submittal Date: Fri May 04 10:37:11 EDT 2012

Committee Statement

Resolution: The proposed revision is incorporated into all provisions not extracted from other documents via the following FRs: FR-73, FR-74, FR-75, FR-76, FR-77, and FR-78. Revisions to extract text must be submitted to the source document in accordance with NFPA's extract policy.

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