



Public Input No. 128-NFPA 1600-2017 [Global Input]

Annex L Social Media in Emergency Management

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

L.1 Introduction. **Social media has a strong and increasingly important influence on emergency/crisis management. Social media's emergence has fundamentally changed the way emergency management and business continuity is approached in both the public and private sectors. When disasters occur, many people look to social media for their initial source of information. The public also routinely turns to social media to obtain real-time updates during emergencies and to share experiential data about the disaster in the form of text, pictures, and video. It has also become an efficient way of sharing information between disaster relief and government organizations and citizens on the ground during times of emergencies.**

While social media allows for greater situational awareness for emergency responders, it also holds many challenges for emergency managers. Despite these challenges, there are several cases of social media being used successfully in disasters.

L.2 Case Studies and Evolution of Social Media in Emergency Management. **After almost every major incident since the 2001 terrorist attacks, emergency responders have cited communications and information-sharing failures as a major factor impacting response efforts. The Indian Ocean Tsunami in 2004 is one of the deadliest disasters on record. It was covered by just about every major media outlet imaginable, yet it occurred before the modern era of social media. Facebook, founded in 2004, was just beginning to emerge into the social media icon it has now become. When Hurricane Katrina devastated the U.S. Gulf Coast in 2005, Twitter, founded in 2006, did not exist to provide breaking news updates or eyewitness accounts as events unfolded.**

The Haiti earthquake in 2010 may be the seminal event that changed how social media is used in disasters. Social media was evolving in the years preceding the event, but the scale and emotional appeal of that disaster created the right environment for it to blossom into an effective emergency communication tool.

Perhaps one of the best examples showcasing the benefits of social media during times of disaster took place after the Joplin, Missouri tornadoes in 2011. Through the use of Facebook, volunteers created a "Joplin Tornado Information" page. Over the course of several weeks, volunteers monitored and updated the page around the clock. Ultimately, the page served as a credible source of information for the community, first responders and family members desperate to learn about the well-being of victims. Information was shared on mass sheltering, resource requests, family needs, and volunteer inquiries.

Immediately after the Boston Marathon bombings in 2013, nearly 1/4 of Americans reportedly looked to Facebook, Twitter and other social networking sites for information, according to The Pew Research Center. During the search for the two suspects, traditional media outlets and social media sites both hindered and assisted with the ultimate capture of one surviving suspect.

Since each disaster is different it creates complications as a result of rapid information exchange. It can both improve disaster response and allow affected communities to provide information to responders and media outlets. Researchers, emergency management, and communications experts have concluded that creating a social media strategy in advance is a crucial component of effective emergency planning. The challenge however, is that many emergency managers recognize the power of social media but may not have the resources to use it effectively in an emergency.

The addition of this Annex L is intended to provide additional guidance specifically related to Chapters 4, 5, and 6 in this standard. The following represents the necessary information to prepare for, respond to and recover from disruptive events through the inclusion of a viable social media strategy and capability into their emergency and business continuity planning process. Information is divided into three common emergency management areas, and is presented with a stated purpose and key considerations.

L.3 Planning. The emergence and reliance on social media has fundamentally changed the way we prepare for and manage disasters and emergencies. Traditional methods should not be abandoned, but rather supplemented with social media. Key planning considerations include, but are not limited to the following:

- (1) **Establish Governance** - Top management should review the social media recommendations and authorize appropriate resources for implementation. The entity should review whether it has, or needs to develop, a social media policy stipulating who may use social media channels on behalf of the entity. The entity should ensure senior leadership understands and endorses the use of social media by the identified individuals because these individuals will be speaking on behalf of the entity.
- (2) **Identify Resources** - If the entity has a communications, public relations (PR), or public information officer (PIO) department, begin with this team because they might already have the necessary capability and appropriate channels established. The entity should leverage the process and individuals who control the entity's social media channels for use during an emergency. If no team is currently in place, the entity should form a team of employees and stakeholders who already use social media with the goal of developing a process for implementing social media to distribute emergency information. The entity should ensure any existing communications, PR, or PIO team is fully integrated into the planning process.
- (3) **Outline Roles and Responsibilities** – Considerations should include the following:
 - (a) Let employees know ahead of time what is expected of them during an emergency
 - (b) Consider staffing requirements before an emergency and train where necessary
 - (c) On-the-job training and experience before an emergency is key
 - (d) Develop policy for all staff working inside the EOC and response (personal vs official use of social media)
 - (e) Maintain a network of SM personnel within your organization and among other related organizations
- (4) **Define Activities** - The entity should identify the most popular platforms for the stakeholders that are trying to be reached. (There are many platforms; it is not realistic to expect the entity will be able to stay abreast of more than a handful.) Individuals designated to use social media on behalf of the entity should develop competence in the opportunities and limitations of each of the social media platforms in use. Related activities include the following:
 - (a) Identify objectives your organization will try to achieve through its use of social media
 - (b) Consider levels of activation and what extent your organization will engage in social media and in what context this level may change during different phases of an emergency (e.g., Level 1 – monitor only, Level 2 – monitor and respond to select posts, Level 3...)
 - (c) Evaluate current social media presence before disaster strikes, so community members know where to look for information during the response and recovery phases of a disaster. During non-disaster periods, emergency management professionals should explore how they can use social media outlets like Twitter, blogs, Flickr, Facebook, Instagram and YouTube to deliver emergency preparedness and prevention information.
 - (d) Use of social media management tools (HootSuite, Tweetdeck)
 - (e) The entity should consider developing standardized messages or templates for rapid use.
 - (f) Decide in advance what your organization will/won't respond to
 - (g) Content strategy outlining what types of information will be shared and how often (if applicable)
 - (h) Any formal links your organization will make with other related organizations (including guidance on how information will be shared between organizations and who has authority to do what)
- (5) **Develop Capabilities** - Determine which social media platforms will be primary and which platforms will be secondary for the following:
 - (1) Evacuation, including shelter-in-place

- (2) Mass sheltering
- (3) Re-entry, re-opening, or return to business as usual
- (4) Office/building closures or delayed openings
- (1) While automatic callback tools are often only used during emergencies, social media channels are meant to be used to build rapport, trust, credibility and followers. They should be used regularly to be relevant. The entity should ensure individuals responsible for social media communication are sufficiently trained not only in the use of the channels they will be using but also on the nuances of how the use of these tools might need to change during an emergency. The entity should ensure there is a clear process for approval. The entity should determine what incoming information and sources will be retransmitted and linked. The entity should identify the frequency of review to keep information fresh.
- (2) The entity should practice during exercises and testing.

L.4 Response. The effectiveness of an entity's response to a disaster or emergency is directly linked to their level of effort during the planning process. If you are not telling your story on social media, someone else may be telling it for you. When there is a comprehensive planning process entities can provide an efficient and effective response and have better control over dissemination of information. Response (and recovery) considerations may include the following:

- (1) **Staffing Needs – Evaluate the following throughout response and recovery processes:**
 - (a) The entity should identify the need for additional staff during an emergency.
 - (b) To actively engage, resourcing levels will be high (24/7) – need a devoted SM team
 - (c) Ensure level of engagement doesn't exceed available resources
 - (d) Scale your use of social to the size of your team
 - (e) Consider shift changes
 - (f) Ensure back-up personnel are trained and ready to stand in
- (2) **Communications – One advantage that social media has over the others is that it is more of a two-way channel. Understandably, social media is highly effective at reaching people who stay tuned in, or periodically check in, to their social media accounts throughout the day. But social media's value may even be greater as an inbound communications channel, where organizations can use it to learn more about what is happening during an event in real time. Below are best practices that an entity should consider adopting:**
 - (a) Implement strategies and perform activities as outlined during the planning phase
 - (b) Verify sources and information prior to release
 - (c) Use plain language, facts, and a re-assuring tone
 - (d) Refer to an official source whenever possible
 - (e) Don't disparage other organizations or agencies
 - (f) Monitor the timeline and balance frequency of posts (too few vs too many)
 - (g) Use the social media and emergency management hashtag (aka #smem). The hashtag is likely the most popular means of categorizing content on social media.
 - (h) Avoid speculation and rumors; correct false information
 - (i) Like other emergency communications channels — landlines, mobile, email, etc. — social networking has its strengths and limitations. Some people prefer to communicate on one channel, while other people prefer to communicate on another. Using multiple channels both increases the chances of reaching everyone; it also increases the chances that you'll actually influence the behavior from more of the people you do reach.
 - (j) Consider multi-language social media posts
 - (k) Look for ways to integrate disparate data sources
 - (l) Monitor the conversation on social media channels

- (m) Many mass-notification systems push volumes of information out to people, which might not be the most effective way to communicate with residents during a disaster.
 - (n) Remember that just as emergency responders can monitor social media to get a better view of a situation, people intent on taking advantage of the situation can do the same.
- (3) Force Multipliers – Look for ways to supplement limited resources through the following:
- (1) Where feasible, partner with other related organizations
 - (2) Take advantage of local or international volunteers (if appropriate), particularly for monitoring and gathering info during response phase ie. Virtual Operations Support Teams or VOST
 - (1) Measure and refine – Perform a de-brief or post-mortem to identify lessons learned, planning gaps, and/or process improvements.

L.5 Exercises and Testing. Social media tools allow emergency managers to disseminate information to wider audiences, interact with the public, monitor social media networks to get a better sense of what's happening on the ground during a crisis, get better situational awareness, and improve collaboration for sharing information during an emergency and sharing of best practices and lessons learned. Whether or not social media is part of your advanced emergency planning, it almost certainly will be part of the communications occurring during your emergencies from now on.

However, without on-going testing of and training in the use of these tools their effectiveness during an actual emergency or disaster may be limited. The following are recommended practices to maintain proficiency levels of team members responsible for executing an entities social media strategy:

- Update crisis, emergency, business continuity and disaster recovery, and other plans as appropriate
- Stay current on social media best practices by reading white papers, and attending external training and webinars
- Include a social media component in any emergency response training conducted
- Include components of your social media strategy in exercises, simulations, and other testing
- Use results of exercises and tests to improve the entity's overall response plan, particularly as it relates to integration of social media

Additional Proposed Changes

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
Social_Media_EM.docx	Proposed social media annex	

Statement of Problem and Substantiation for Public Input

Social media has a strong and increasingly important influence on emergency/crisis management. Social media's emergence has fundamentally changed the way emergency management and business continuity is approached in both the public and private sectors. The addition of this proposed annex will provide guidance for practitioners in both the public and private sector who are responsible for emergency/crisis management or business continuity/continuity of operations.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<u>Public Input No. 127-NFPA 1600-2017 [New Section after 3.3.28]</u>	Definition related to proposed annex

Submitter Information Verification

Submitter Full Name: Brian Strong

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Submittal Date: Thu Jan 05 20:39:28 EST 2017

Committee Statement

Resolution: [FR-82-NFPA 1600-2017](#)

Statement: New material with graphics and information to be added to annex to improve clarity to chapter.

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- Use results of exercises and tests to improve the entity's overall response plan, particularly as it relates to integration of social media



Public Input No. 80-NFPA 1600-2017 [Chapter 1 [Title Only]]

NFPA 1600: Standard on Crisis Management/Disaster/Emergency Management and Business Continuity/Continuity of Operations Programs

Administration

Statement of Problem and Substantiation for Public Input

Inserting the words "Crisis Management" into the TITLE of the STANDARD to acknowledge that this is the overarching standard on Crisis Management programs as well.

Submitter Information Verification

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Submittal Date: Mon Jan 02 13:31:00 EST 2017

Committee Statement

Resolution: FR-34-NFPA 1600-2017

Statement: The TC agrees to revise the title of the document to acknowledge the revises made to the main document as well as making the title as clear and concise as possible.



Public Input No. 127-NFPA 1600-2017 [New Section after 3.3.28]

Social Media

Forms of electronic communication (such as Web sites) through which people create online communities to share information, ideas, personal messages, etc.

Statement of Problem and Substantiation for Public Input

Due to addition of a new annex solely devoted to social media in emergency management a social media definition has been included.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
Public Input No. 128-NFPA 1600-2017 [Global Input]	

Submitter Information Verification

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Submittal Date: Thu Jan 05 20:32:31 EST 2017

Committee Statement

Resolution: [FR-16-NFPA 1600-2017](#)

Statement: Committee moved to accept this definition since the term in used in section 6.5.5 noting that this means of communication is popular, relevant and viable. Additionally, with the addition new annex devoted to social media in emergency management a social media has been included in this document.



Public Input No. 121-NFPA 1600-2017 [New Section after 4.1]

[Add a new section 4.8](#)

Self-Certification

The entity may claim that its programs comply with the Standard only when it has consulted with local stakeholders such as emergency management agencies, local nonprofit or nongovernmental emergency preparedness organizations and determined that the program is integrated and consistent with local emergency response plans, incident command plans, and local emergency preparedness plans and policies. Once this has been accomplished, is documented and the entity has conducted an internal review or audit of its programs in light of this Standard, the entity may self-certify that it is in compliance with this Standard.

Statement of Problem and Substantiation for Public Input

Demonstrating compliance with the Standard to stakeholders and others is currently problematic. Numerous state statutes and the FEMA PS-Prep program anticipate that self-certification or declaration of conformity are useful; however, this normally involves some sort of third-party verification or audit. As these state statutes often include specific legal liability limitation benefits associated with compliance, it is important to have some practical means of self-certification of compliance as an alternative to very expensive external audits. There have also been recent regulatory changes applicable to hazardous waste generators and facilities that are subject to the Risk Management Plan requirements of the Clean Air Act that anticipate self-certification to preparedness standards in cooperation with local responders, emergency managers and local emergency planning committees. Utilization of the Standard would be an ideal means by which an entity could demonstrate regulatory compliance and provide a standards-based context for emergency preparedness programs with local agencies or organizations.

Submitter Information Verification

Submitter Full Name: Timothy Gablehouse
Organization: CO Emer Prep Partnership Inc
Street Address:
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Submittal Date: Thu Jan 05 16:21:34 EST 2017

Committee Statement

Resolution: The committee rejected the submittal based on the wording including compliance with terminology for a standard. The TC also believes the intent of the revision would be confusing and not applicable in the private sector. TC suggested modification of revision and possibly moving it to annex material but not sure which section.



Public Input No. 70-NFPA 1600-2016 [New Section after 4.2]

TITLE OF NEW CONTENT 4.2 Performance Objectives

Type your content here ...Insert entire section 5.5 Performance Objectives as "new" 4.2 and make numbering changes to the succeeding sections of Chapter 4 (4.3 Program Coordinator; 4.4 Program Committee and so forth).

Statement of Problem and Substantiation for Public Input

In the current version of the Standard, development of performance objectives for the program sits in Chapter 5, Planning and Design but it would fit better in Chapter 4, Program Management following Leadership and Commitment.

Submitter Information Verification

Submitter Full Name: Pete Brewster

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Submission Date: Thu Dec 29 08:51:59 EST 2016

Committee Statement

Resolution: [FR-2-NFPA 1600-2017](#)

Statement: TC agrees with submitter, that the performance objective section is more appropriate in chapter 4 rather than in chapter 5. New material with graphics and information to be added to annex to improve clarity to chapter.



Public Input No. 120-NFPA 1600-2017 [New Section after 4.5]

TITLE OF NEW CONTENT

Add a new section 4.5.4

The entity shall determine if local government agencies, nonprofit or nongovernmental organizations have adopted relevant local emergency response, preparedness and resiliency policies, programs or training efforts.

Statement of Problem and Substantiation for Public Input

We are seeing more and more locally based programs on preparedness and resiliency that depend upon the participation of local businesses and other entities. Frequently these programs have excellent concepts that are well suited to development of programs under this Standard. In any event, these groups are key stakeholders and need to be consulted.

Submitter Information Verification

Submitter Full Name: Timothy Gablehouse
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Submittal Date: Thu Jan 05 16:16:41 EST 2017

Committee Statement

Resolution: FR-35-NFPA 1600-2017

Statement: The TC agrees with the submitter, but believes this revision is annex material for 4.3.3. The material did not involve laws or authorities, but rather spoke to additional community resources that should be considered in developing the program, which is the committee's responsibility. There is existing text for A.4.3.3 and the revision should be added at the end.



Public Input No. 122-NFPA 1600-2017 [New Section after 5.1]

TITLE OF NEW CONTENT

Add a new section 5.1.7

The entity shall seek out local government emergency management agencies, or local nonprofit or nongovernmental emergency preparedness organizations to include as stakeholders in the planning process. Examples of the latter clasification are local emergency planning committees organized under the Emergency Planning and Community Right-to-Know Act or APELL coordinating groups as described in Annex H.

Statement of Problem and Substantiation for Public Input

As many of the local government agencies or local emergency planning committees are volunteers, it is much easier for an entity wishing to follow the Standard to identify them as stakeholders.

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Submittal Date: Thu Jan 05 16:27:56 EST 2017

Committee Statement

Resolution: [FR-82-NFPA 1600-2017](#)
Statement: New material with graphics and information to be added to annex to improve clarity to chapter.



Public Input No. 77-NFPA 1600-2017 [New Section after 5.1.5]

Crisis Management

The majority of incidents that affect life, health, and safety are the purview of emergency response. A plan for returning to normal operation following a business disruption is the focus of business continuity/continuity of operations. The goal of crisis management is to minimize disruption and to influence the outcome of the crisis. The crisis management team, which is led by senior management, is responsible for the broad strategic decisions that affect the entity's reputation and for the long-term consequences of a severe incident.

Crises can create issues or threaten consequences that can disrupt the entity's ability to do business. They are best mitigated by proactively addressing such issues before they have escalated to a crisis. Recognizing the signs of a potential crisis and proactively addressing the issue(s) can help mitigate any damage to the reputation and finances of the entity.

When activated, the crisis management team is the ultimate authority on the entity's response to the crisis. The crisis management team's primary function is to identify, evaluate, and manage the strategic issues that impact the entity without becoming involved in the details of the on-site emergency response actions. The crisis management team focuses on forecasting consequences of the incident and is responsible for keeping other senior managers and executives informed of current and anticipated response activities as well as formulating long-term strategic response plans.

Crisis management activities can include the following:

- (1) Acting as a clearinghouse for all information ?
- (2) Coordinating corporate support to the site of the incident ?
- (3) Coordinating the response activities of a business group ?and corporate functional departments ?
- (4) Coordinating the implementation of business continuity/ ?continuity of operations or disaster recovery plans and management of business resumption issues stemming from an incident ?
- (5) Supporting executives in crisis management activities ?

The crisis management team should address:

- (1) Consequences of operational and business disruptions ?
- (2) Implications of media, community, and government ?relationships ?
- (3) Concerns about inter- and intra-organizational ramifications ?
- (4) Impacts on strategic plans ?
- (5) Consequences for labor and contractor relations ?
- (6) Legal and financial liability ?
- (7) Insurance implications ?
- (8) Environmental issues ?
- (9) Impacts on international relations ?
- (10) Potential for industry-wide concerns ?

The roles and responsibilities of the crisis management team can include the following:

- (1) Communicate with board of directors ?
- (2) Define corporate policy ?
- (3) Commit corporate assets ?
- (4) Provide overall management and direction ?
- (5) Set strategic direction of crisis response ?

Statement of Problem and Substantiation for Public Input

This is meant to be a place-holder for the work the crisis management task group is working on. It is clear to the group that additional distinction is necessary between what is meant by a crisis management program as opposed to emergency management and business continuity. The text inserted here is currently explanatory text from Annex A. I am open to including this section as part of the "Implementation" chapter rather than the "Planning" chapter.

Submitter Information Verification

Submitter Full Name: Jo Robertson
Organization: Capital One
Affiliation: NFPA 1600 Technical Committee member, on behalf of the Crisis Management Task Group
Street Address:
City:
State:
Zip:
Submission Date: Mon Jan 02 13:15:13 EST 2017

Committee Statement

Resolution: [FR-82-NFPA 1600-2017](#)

Statement: New material with graphics and information to be added to annex to improve clarity to chapter.



Public Input No. 71-NFPA 1600-2016 [New Section after 5.2]

TITLE OF NEW CONTENT 5.2 Common Plan Requirements

Insert entire section 6.1 Common Plan Requirements (from the current version of the Standard) to Chapter 5, section 5.2 and make changes to the numbering of each succeeding section of Chapter 5 (5.3 Risk Assessment; 5.4 Business Impact Analysis and so forth).

Statement of Problem and Substantiation for Public Input

Common Plan Requirements should sit with the section, Planning and Design, following the Planning and Design Process.

Submitter Information Verification

Submitter Full Name: Pete Brewster

Organization: US Department of Veterans Affa

Street Address:

City:

State:

Zip:

Submittal Date: Thu Dec 29 09:03:04 EST 2016

Committee Statement

Resolution: TC rejected as the comment was addressed by another motion that was accepted.



Public Input No. 36-NFPA 1600-2016 [Section No. 5.2.2.1]

A large, empty rectangular box with a thin border, intended for public input or comments.

5.2.2.1

Hazards to be evaluated shall include the following:

- (1) Geological:
 - (a) Earthquake
 - (b) Landslide, mudslide, subsidence
 - (c) Tsunami
 - (d) Volcano
- (2) Meteorological:
 - (a) Drought
 - (b) Extreme temperatures (hot, cold)
 - (c) Famine
 - (d) Flood, flash flood, seiche, tidal surge
 - (e) Geomagnetic storm
 - (f) Lightning
 - (g) Snow, ice, hail, sleet, avalanche
 - (h) Wildland fire
 - (i) Windstorm, tropical cyclone, hurricane, tornado, water spout, dust storm, sandstorm
- (3) Biological:
 - (a) Food-borne illnesses
 - (b)* Infectious/communicable/pandemic diseases
- (4) Accidental human-caused:
 - (a) Building/structure collapse
 - (b)* Entrapment
 - (c) Explosion/fire
 - (d) Fuel/resource shortage
 - (e)* Hazardous material spill or release
 - (f) Equipment failure
 - (g) Nuclear reactor incident
 - (h) Radiological incident
 - (i) * Transportation incident
 - (j) Unavailability of essential employee(s)
 - (k)* Water control structure failure
 - (l) Misinformation
- (5) Intentional human-caused:
 - (a) Incendiary fire
 - (b) Bomb threat
 - (c) Demonstrations/civil disturbance/riot/insurrection
 - (d) Discrimination/harassment
 - (e) Disinformation
 - (f) Kidnapping/hostage
 - (g) Acts of war
 - (h) Missing person

(i) * Cyber security incidents

A.5.2.2.1(5)(i)

(6)

Virus, worm, hacking, Trojan horse, botnets, phishing, spyware, malware, or denial of service.

(7)

Product defect or contamination

(a) Robbery/theft/fraud

(b) Strike or labor dispute

(c) Suspicious package

(d)* Terrorism

(e) Vandalism/sabotage

(f) Workplace/school/university violence

(8) Technological:

(a)* Hardware, software, and network connectivity interruption, disruption, or failure

(b)* Utility interruption, disruption, or failure

Statement of Problem and Substantiation for Public Input

Mis-numbered annexes

Submitter Information Verification

Submitter Full Name: Joseph Jones

Organization: City of Aurora Illinois

Affiliation: Committee Member

Street Address:

City:

State:

Zip:

Submittal Date: Tue Nov 22 17:07:51 EST 2016

Committee Statement

Resolution: The TC could not find the misnumbering.



Public Input No. 51-NFPA 1600-2016 [Section No. 5.4.5]

5.4.5* Agreements.

The need for mutual aid/assistance or partnership agreements shall be determined; if needed, agreements shall be established and documented.

Statement of Problem and Substantiation for Public Input

Manual o fstyle does not allow for sentence structure like this one.

Submitter Information Verification

Submitter Full Name: Joseph Jones

Organization: City of Aurora, Illinois

Affiliation: Committe member

Street Address:

City:

State:

Zip:

Submittal Date: Wed Dec 28 16:39:47 EST 2016

Committee Statement

Resolution: The TC feels that both determination and documentation should be included in this paragraph, rather than split the statement between 5.4.5 (determination) and 6.9.1.2(14) (documentation).



Public Input No. 73-NFPA 1600-2016 [New Section after 5.5]

Move existing 5.5 to 4.2

No changes to text

Statement of Problem and Substantiation for Public Input

See Public Input 70

Submitter Information Verification

Submitter Full Name: Pete Brewster

Organization: US Department of Veterans Affa

Street Address:

City:

State:

Zip:

Submittal Date: Thu Dec 29 09:21:54 EST 2016

Committee Statement

Resolution: [FR-2-NFPA 1600-2017](#)

Statement: TC agrees with submitter, that the performance objective section is more appropriate in chapter 4 rather than in chapter 5. New material with graphics and information to be added to annex to improve clarity to chapter.



Public Input No. 74-NFPA 1600-2016 [New Section after 5.5]

Insert existing section 6.2 to 6.10 (titles and text) here as 5.5 through 5.12

No changes to text

Statement of Problem and Substantiation for Public Input

The content that currently sits in 6.2 through 6.10 is oriented around planning, not implementation.

Submitter Information Verification

Submitter Full Name: Pete Brewster

Organization: US Department of Veterans Affa

Street Address:

City:

State:

Zip:

Submittal Date: Thu Dec 29 09:25:51 EST 2016

Committee Statement

Resolution: The committee chose to reject these public comments as these items as the committee agrees that these belong in the standard under implementation, not under planning.



Public Input No. 52-NFPA 1600-2016 [Section No. 5.5.2]

5.5.2

The performance objectives shall address the results of the ~~hazard identification, risk assessment, and business impact analysis~~ which identifies the hazards, assess the vulnerabilities, and analyzes the impacts of the mission of the entity .

Statement of Problem and Substantiation for Public Input

Sentence structure change realigns the definition of risk assessment in NFPA 1600

Submitter Information Verification

Submitter Full Name: Joseph Jones
Organization: City of Aurora, Illinois
Affiliation: Committee member
Street Address:
City:
State:
Zip:
Submittal Date: Wed Dec 28 16:43:30 EST 2016

Committee Statement

Resolution: The TC believes that by deleting the words “hazard identification” and “business impact analysis” weakens the document because these activities provide significant input for the development of plans and capabilities. The suggested additional words confuse the subject.



Public Input No. 75-NFPA 1600-2016 [Chapter 6]

Chapter 6 Implementation

6.1 Common Plan Requirements. (This section moves to 5.2)

6.1.1 * _

Plans shall address the health and safety of personnel.

6.1.2

Plans shall identify and document the following:

- (1) Assumptions made during the planning process
- (2) Functional roles and responsibilities of internal and external entities
- (3) Lines of authority
- (4) The process for delegation of authority
- (5) Lines of succession for the entity
- (6) Liaisons to external entities
- (7) Logistics support and resource requirements

6.1.3 * _

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

6.1.4 * _

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

6.2 Prevention. (This section and all remaining sections move to 5.5-5.12)

6.2.1 * _

The entity shall develop a strategy to prevent an incident that threatens life, property, operations, information, and the environment.

6.2.2 * _

The prevention strategy shall be kept current using the information collection and intelligence techniques.

6.2.3

The prevention strategy shall be based on the results of hazard identification and risk assessment, an analysis of impacts, program constraints, operational experience, and a cost-benefit analysis.

6.2.4

The entity shall have a process to monitor the identified hazards and adjust the level of preventive measures to be commensurate with the risk.

6.3 Mitigation.

6.3.1 * _

The entity shall develop and implement a mitigation strategy that includes measures to be taken to limit or control the consequences, extent, or severity of an incident that cannot be prevented.

6.3.2 * _

The mitigation strategy shall be based on the results of hazard identification and risk assessment, an analysis of impacts, program constraints, operational experience, and cost-benefit analysis.

6.3.3

The mitigation strategy shall include interim and long-term actions to reduce vulnerabilities.

6.4 Crisis Communications and Public Information.

6.4.1 * _ _

The entity shall develop a plan and procedures to disseminate information to and respond to requests for information from the following audiences before, during, and after an incident:

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

6.4.2 * _ _

The entity shall establish and maintain a crisis communications or public information capability that includes the following:

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

6.5 Warning, Notifications, and Communications.

6.5.1 * _ _

The entity shall determine its warning, notification, and communications needs.

6.5.2 * _ _

Warning, notification, and communications systems shall be reliable, redundant, and interoperable.

6.5.3 * _ _

Emergency warning, notification, and communications protocols and procedures shall be developed, tested, and used to alert stakeholders potentially at risk from an actual or impending incident.

6.5.4

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

6.5.5 * _ _

Information shall be disseminated through the media, social media, or other means as determined by the entity to be the most effective.

6.6 Operational Procedures.

6.6.1

The entity shall develop, coordinate, and implement operational procedures to support the program.

6.6.2

Procedures shall be established and implemented for response to and recovery from the impacts of hazards identified in 5.2.2.

6.6.3 * _ _

Procedures shall provide for life safety, property conservation, incident stabilization, continuity, and protection of the environment under the jurisdiction of the entity.

6.6.4

Procedures shall include the following:

- (1) Control of access to the area affected by the incident
- (2) Identification of personnel engaged in activities at the incident
- (3) Accounting for personnel engaged in incident activities
- (4) Mobilization and demobilization of resources

6.6.5

Procedures shall allow for concurrent activities of response, continuity, recovery, and mitigation.

6.7 Incident Management.**6.7.1** * _

The entity shall develop an incident management system to direct, control, and coordinate response, continuity, and recovery operations.

6.7.1.1 * _ Emergency Operations Centers (EOCs).**6.7.1.1.1** * _

The entity shall establish primary and alternate EOCs capable of managing response, continuity, and recovery operations.

6.7.1.1.2 * _

The EOCs shall be permitted to be physical or virtual.

6.7.1.1.3

On activation of an EOC, communications and coordination shall be established between incident command and the EOC.

6.7.2

The incident management system shall describe specific entity roles, titles, and responsibilities for each incident management function.

6.7.3 * _

The entity shall establish procedures and policies for coordinating prevention, mitigation, preparedness, response, continuity, and recovery activities.

6.7.4

The entity shall coordinate the activities specified in 6.7.3 with stakeholders.

6.7.5

Procedures shall include a situation analysis that incorporates a damage assessment and a needs assessment to identify resources to support activities.

6.7.6 * _

Emergency operations/response shall be guided by an incident action plan or management by objectives.

6.7.7

Resource management shall include the following tasks:

- (1) Establishing processes for describing, taking inventory of, requesting, and tracking resources
- (2) Resource typing or categorizing by size, capacity, capability, and skill
- (3) Mobilizing and demobilizing resources in accordance with the established IMS
- (4) Conducting contingency planning for resource deficiencies

6.7.8

A current inventory of internal and external resources shall be maintained.

6.7.9

Donations of human resources, equipment, material, and facilities shall be managed.

6.8 Emergency Operations/Response Plan.**6.8.1** * _

Emergency operations/response plans shall define responsibilities for carrying out specific actions in an emergency.

6.8.2 *

The plan shall identify actions to be taken to protect people, including people with disabilities and other access and functional needs, information, property, operations, the environment, and the entity.

6.8.3 *

The plan shall identify actions for incident stabilization.

6.8.4

The plan shall include the following:

- (1) Protective actions for life safety in accordance with 6.8.2.
- (2) Warning, notifications, and communication in accordance with Section 6.5.
- (3) Crisis communication and public information in accordance with Section 6.4
- (4) Resource management in accordance with 6.7.7
- (5) Donation management in accordance with 6.7.9

6.9 * Continuity and Recovery.**6.9.1** Continuity.**6.9.1.1**

Continuity plans shall include strategies to continue critical and time-sensitive processes and as identified in the BIA.

6.9.1.2 *

Continuity plans shall identify and document the following:

- (1) Stakeholders that need to be notified
- (2) Processes that must be maintained
- (3) Roles and responsibilities of the individuals implementing the continuity strategies
- (4) Procedures for activating the plan, including authority for plan activation
- (5) Critical and time-sensitive technology, application systems, and information
- (6) Security of information
- (7) Alternative work sites
- (8) Workaround procedures
- (9) Vital records
- (10) Contact lists
- (11) Required personnel
- (12) Vendors and contractors supporting continuity
- (13) Resources for continued operations
- (14) Mutual aid or partnership agreements
- (15) Activities to return critical and time-sensitive processes to the original state

6.9.1.3

Continuity plans shall be designed to meet the RTO and RPO.

6.9.1.4

Continuity plans shall address supply chain disruption.

6.9.2 Recovery.**6.9.2.1**

Recovery plans shall provide for restoration of processes, technology, information, services, resources, facilities, programs, and infrastructure.

6.9.2.2 *

Recovery plans shall document the following:

- (1) Damage assessment
- (2) Coordination of the restoration, rebuilding, and replacement of facilities, infrastructure, materials, equipment, tools, vendors, and suppliers
- (3) Restoration of the supply chain
- (4) Continuation of communications with stakeholders
- (5) Recovery of critical and time-sensitive processes, technology, systems, applications, and information
- (6) Roles and responsibilities of the individuals implementing the recovery strategies,
- (7) Internal and external (vendors and contractors) personnel who can support the implementation of recovery strategies and contractual needs
- (8) Adequate controls to prevent the corruption or unlawful access to the entity's data during recovery
- (9) Compliance with regulations that would become applicable during the recovery
- (10) Maintenance of pre-incident controls

6.10 Employee Assistance and Support.**6.10.1** *

The entity shall develop a strategy for employee assistance and support that includes the following:

- (1)* Communications procedures
- (2)* Contact information, including emergency contact outside the anticipated hazard area
- (3) Accounting for persons affected, displaced, or injured by the incident
- (4) Temporary, short-term, or long-term housing and feeding and care of those displaced by an incident
- (5) Mental health and physical well-being of individuals affected by the incident
- (6) Pre-incident and post-incident awareness

6.10.2

The strategy shall be flexible for use in all incidents.

6.10.3 * _ _

The entity shall promote family preparedness education and training for employees.

New section titles for Chapter 6, Implementation are as follows. Component text for each section will be developed through Task Group.

6.1 Incident Recognition

6.2 Notifications and Activation

6.3 Mobilization

6.4 Incident Management

6.4.1 Prevention

6.4.2 Protection

6.4.3 Damage Assessment

6.4.4 Crisis Communications

6.4.5 Continuity

6.4.6 Health and Social Services

6.4.7 Infrastructure

6.4.8 Supply Chain

6.4.9 Housing

6.5 Demobilization and Return to Readiness

Statement of Problem and Substantiation for Public Input

The content in Chapter 6, Implementation in the current version of the Standard relates to planning prior to an event occurs. The intent of a Chapter on Implementation is managing the impacts of the hazard(s). New section titles have been provided as placeholders for section text to be developed by task Group.

Submitter Information Verification

Submitter Full Name: Pete Brewster

Organization: US Department of Veterans Affa

Street Address:

City:

State:

Zip:

Submittal Date: Thu Dec 29 09:31:02 EST 2016

Committee Statement

Resolution: The committee chose to reject these public comments as these items as the committee agrees that these belong in the standard under implementation, not under planning.



Public Input No. 72-NFPA 1600-2016 [New Section after 6.1]

Move entire section 6.1 to 5.2

No changes to content

Statement of Problem and Substantiation for Public Input

See Public Input 71

Submitter Information Verification

Submitter Full Name: Pete Brewster

Organization: US Department of Veterans Affa

Street Address:

City:

State:

Zip:

Submittal Date: Thu Dec 29 09:19:00 EST 2016

Committee Statement

Resolution: The committee chose to reject these public comments as these items as the committee agrees that these belong in the standard under implementation, not under planning.



Public Input No. 53-NFPA 1600-2016 [Section No. 6.1.2]

6.1.2

Plans shall identify and document the following:

- (1) Assumptions made during the planning process
- (2) Functional roles and responsibilities of ~~internal and external entities~~ with in the entity.
- (3) Lines of authority
- (4) The process for delegation of authority
- (5) Lines of succession for the entity
- (6) Liaisons to external entities
- (7) Logistics support and resource requirements

Statement of Problem and Substantiation for Public Input

Inconsistent use of entities

Submitter Information Verification

Submitter Full Name: Joseph Jones

Organization: City of Aurora, Illinois

Affiliation: Committee member

Street Address:

City:

State:

Zip:

Submittal Date: Wed Dec 28 16:48:22 EST 2016

Committee Statement

Resolution: TC notes that understanding the functional roles and responsibilities of the external entities is important in the context of (6) Liaisons to external entities.



Public Input No. 54-NFPA 1600-2016 [Section No. 6.2.3]

6.2.3

The ~~prevention-mitigation~~ strategy shall be based on the results of ~~hazard identification and~~ risk assessment, ~~an analysis of impacts,~~ _ program constraints, operational experience, and a cost-benefit analysis.

Statement of Problem and Substantiation for Public Input

Risk assessment as we use the term includes hazard identification and impact analysis

Submitter Information Verification

Submitter Full Name: Joseph Jones
Organization: City of Aurora, Illinois
Affiliation: Committee member
Street Address:
City:
State:
Zip:
Submittal Date: Wed Dec 28 16:52:45 EST 2016

Committee Statement

Resolution: The TC believes that by deleting the words "hazard identification" and "business impact analysis" weakens the document because these activities provide significant input for the development of plans and capabilities. The suggested additional word confuses the subject.



Public Input No. 55-NFPA 1600-2016 [Section No. 6.3.2]

6.3.2*

The mitigation strategy shall be based on the results of ~~hazard identification and~~ of risk assessment, an analysis of impacts, program constraints, operational experience, and cost-benefit analysis.

Statement of Problem and Substantiation for Public Input

Risk assessment as we use the term includes hazard identification and impact analysis

Submitter Information Verification

Submitter Full Name: Joseph Jones
Organization: City of Aurora, Illinois
Affiliation: Committee member
Street Address:
City:
State:
Zip:
Submittal Date: Wed Dec 28 16:56:08 EST 2016

Committee Statement

Resolution: The TC believes that by deleting the words "hazard identification" weakens the document because these activities provide significant input for the development of plans and capabilities.



Public Input No. 78-NFPA 1600-2017 [New Section after 6.4]

Crisis Communications

A.6.4.1 The crisis communications plan should include a pre-established structure and process for gathering and disseminating emergency or crisis information to both internal and external stakeholders. The communications plan should identify not only key stakeholders but also who on the communications team is responsible for tailoring and communicating appropriate information to each stakeholder group before, during, and after an incident. Formal awareness initiatives should be established in advance of an emergency with the intention of reaching populations that could be impacted by a risk or hazard. A means of collecting inquiries and responding to concerns from the public also should be incorporated into the process to better ensure a two-way dialogue. This can be done through pamphlets, web sites, social media, community meetings, newsletters, and other means.

A.6.4.2 The entity should create a basic communications structure that is flexible enough to expand and contract to fit the needs of the situation. Communications activities should be coordinated not only among the various communications functions that have been activated but also with the site team and response entity.

A joint information center (JIC) can be established during incident operations to support the coordination and dissemination of critical emergency as well as public affairs information from all communications operations related to the incident, including federal, state, local, and tribal public information officers (PIOs) as well as private entity or corporate communications staff. The JIC can be physical or virtual.

A.6.4.2(1) Stakeholder liaisons and others tasked with communications responsibilities should coordinate information through a central communications hub to ensure an organized, integrated, and coordinated mechanism for the delivery of understandable, timely, accurate, and consistent information to all parties. Information or tools that can be prepared in advance, such as pre-scripted information bullets or template press releases, can help speed the release of information. Similarly, narrowing the time between when information becomes known and when it is approved for release to the public can be a critical factor in shaping public opinion.

Statement of Problem and Substantiation for Public Input

This is meant to be a placeholder for the work the Crisis Communications Task Group is doing. The inserted wording is currently from Annex A. It is clear to the group that additional explanatory material is needed but exact wording for the updates have yet to be worked out.

Submitter Information Verification

Submitter Full Name: Jo Robertson
Organization: Capital One
Affiliation: NFPA 1600 Technical Committee member, on behalf of the Task Group on crisis communications
Street Address:
City:
State:
Zip:
Submittal Date: Mon Jan 02 13:24:25 EST 2017

Committee Statement

Resolution: The material was inserted as a temporary placeholder but the task group on Crisis Management and Crisis Communication agreed that no new material was warranted.



Public Input No. 79-NFPA 1600-2017 [New Section after 6.5]

Crisis Communications

A.6.5.1 The entity should determine warning, notification, and communications needs based on the hazards and potential impacts identified during the risk assessment and the capabilities required to execute response, crisis communications, continuity, and recovery plans, procedures, and public education/emergency information programs.

Warning systems can include fire alarm, emergency voice communication, public address, mass notification, social media, and other systems designed to warn building occupants, people on a campus, or citizens in the community that there is a threat or hazard and to take protective action. Notification systems are used to alert members of response, continuity, and recovery teams as well as external resources (public emergency services), regulators, management, and so forth. Communications needs include two-way radio systems, and wired and wire? less voice and data communications, among other systems.

A.6.5.2 Since warning, notification, and communications systems must be immediately available and functional to warn persons potentially at risk, to alert persons to respond, and to enable communications between responders, reliability of systems and equipment is critically important. Redundancy in systems and equipment provides assurance that essential warnings, notifications, and communications can be made. Systems and equipment must be interoperable to ensure that responders are able to communicate effectively during an incident. Also see 3.3.18, Interoperability.

A.6.5.3 The entity should identify the circumstances requiring? emergency communication and the stakeholders that would?need to be warned. Protocols defining the circumstances and? procedures for implementing communications should be established in advance, tested, and maintained. Scripting templates for likely message content and identification of the best communication mechanisms in advance reduce the time necessary to communicate and enhance the effectiveness of messages.

Stakeholders will vary depending on the entity. Typical stakeholders for many entities include the media, government, customers, employees and their families, vendors, suppliers, community, visitors, and investors.

A.6.5.5 A common format for gathering pertinent information (inbound messaging) and disseminating information (outbound messaging) is recommended. Use of social media can provide a distinct advantage to both inbound and outbound messaging, and should be considered a basic form of communication with external and internal audiences.

Statement of Problem and Substantiation for Public Input

This is meant to be a temporary place-holder for the work the Task Group on crisis communications is doing. Although the task group believes additional material is necessary, the proposed wording has not yet been completed. This wording is taken from Annex A to serve as a placeholder for that work.

Submitter Information Verification

Submitter Full Name: Jo Robertson

Organization: Capital One

Affiliation: NFPA 1600 Technical Committee, on behalf of the task group on Crisis Communications

Street Address:

City:

State:

Zip:

Submission Date: Mon Jan 02 13:27:39 EST 2017

Committee Statement

Resolution: The material was inserted as a temporary placeholder but the task group on Crisis Management and Crisis Communication agreed that no new material was warranted.



Public Input No. 40-NFPA 1600-2016 [Section No. 6.6.5]

6.6.5

Procedures shall allow for concurrent activities of to direct, control, and coordinate response, continuity, recovery operations , and mitigation.

Statement of Problem and Substantiation for Public Input

To make this section similar to 6.7.1

Submitter Information Verification

Submitter Full Name: Joseph Jones

Organization: City of Aurora, Illinois

Street Address:

City:

State:

Zip:

Submission Date: Sun Dec 18 18:07:07 EST 2016

Committee Statement

Resolution: The committee rejected this PI on the based on the fact that the committee did not feel that this change because the requested change did not add clarity to the document. The intent of the change is already in the document.



Public Input No. 42-NFPA 1600-2016 [Section No. 6.6.5]

6.6.5

Procedures shall allow for concurrent activities of response control , response, continuity, recovery operations , and mitigation.

Statement of Problem and Substantiation for Public Input

To make consistency with 6.7.1

Submitter Information Verification

Submitter Full Name: Joseph Jones

Organization: City of Aurora, Illinois

Street Address:

City:

State:

Zip:

Submission Date: Sun Dec 18 18:18:46 EST 2016

Committee Statement

Resolution: The committee rejected this PI on the based on the fact that the committee did not feel that this change because the requested change did not add clarity to the document. The intent of the change is already in the document.



Public Input No. 41-NFPA 1600-2016 [Section No. 6.7.1 [Excluding any Sub-Sections]]

The entity shall develop an incident management system to direct, control, and coordinate response, continuity, and recovery operations and mitigation .

Statement of Problem and Substantiation for Public Input

To make section similar to 6.6.5

Submitter Information Verification

Submitter Full Name: Joseph Jones

Organization: City of Aurora, Illinois

Street Address:

City:

State:

Zip:

Submittal Date: Sun Dec 18 18:12:12 EST 2016

Committee Statement

Resolution: The committee rejected this PI on the based on the fact that the committee did not feel that this change because the requested change did not add clarity to the document. The intent of the change is already in the document.



Public Input No. 123-NFPA 1600-2017 [New Section after 6.7.1.1.1]

TITLE OF NEW CONTENT

Add a new section 6.7.1.1.1.1

The entity shall participate in business or private sector emergency operations centers if made available by state or local government emergency management agencies, or local nonprofit or nongovernmental emergency preparedness organizations.

Statement of Problem and Substantiation for Public Input

Many of the locally based emergency preparedness agencies or organizations view the existence and operation of business emergency operation centers as a key part of their mission. There is a great potential benefit to any entity seeking to establish a program under the Standard that can be obtained from participation in the BEOCs. They are normally well integrated with all of the emergency preparedness functions in the community and facilitate rapid and accurate communication among stakeholders. They also promote resource sharing and situational awareness among the stakeholders that will benefit entities and their employees. If such a group exists, it will allow entities to avoid duplication of these activities.

Submitter Information Verification

Submitter Full Name: Timothy Gablehouse
Organization: CO Emer Prep Partnership Inc
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jan 05 16:32:06 EST 2017

Committee Statement

Resolution: [FR-36-NFPA 1600-2017](#)

Statement: The committee felt that the section was not needed and that the annex section A.6.7.1.1 adequately

addresses the problem statement. While the TC agrees with the submitter, but the TC believes that this

should only be annex material to 6.7.1.1.1.

Many of the locally based emergency preparedness agencies or organizations view the existence and operation of business emergency operation centers as a key part of their mission. There is a great potential benefit to any entity seeking to establish a program under the Standard that can be obtained from participation in the BEOCs. They are normally well integrated with all of the emergency preparedness functions in the community and facilitate rapid and accurate communication among stakeholders. They also promote resource sharing and situational awareness among the stakeholders

that will benefit entities and their employees. If such a group exists, it will allow entities to avoid

duplication of these activities.



Public Input No. 43-NFPA 1600-2016 [Section No. 6.7.1.1.1]

6.7.1.1.1*

The entity shall establish primary and alternate EOCs capable of ~~managing response, direct control,~~ coordinated response, continuity, and recovery operations and mitigation .

Statement of Problem and Substantiation for Public Input

To maintain consistency with 6.6.5 and 6.7.1

Submitter Information Verification

Submitter Full Name: Joseph Jones

Organization: City of Aurora, Illinois

Street Address:

City:

State:

Zip:

Submission Date: Sun Dec 18 18:24:45 EST 2016

Committee Statement

Resolution: The committee rejected this PI on the based on the fact that the committee did not feel that this change because the requested change did not add clarity to the document. The intent of the change is already in the document.



Public Input No. 44-NFPA 1600-2016 [Section No. 6.7.7]

6.7.7

Resource management shall include the following tasks:

- (1) Establishing processes for describing, taking inventory of, requesting, and tracking resources
- (2) Resource typing or categorizing by size, capacity, capability, and skill
- (3) Mobilizing and demobilizing resources in accordance with the established Incident Management Systems (IMS)
- (4) Conducting contingency planning for resource deficiencies

Statement of Problem and Substantiation for Public Input

Links the acronym to IMS and Incident Management System

Submitter Information Verification

Submitter Full Name: Joseph Jones

Organization: City of Aurora, Illinois

Street Address:

City:

State:

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Submittal Date: Sun Dec 18 18:27:52 EST 2016

Committee Statement

Resolution: This is a Manual of Style (MOS) issue and can't be revised.



Public Input No. 45-NFPA 1600-2016 [Section No. 6.9.1.1]

6.9.1.1

Continuity plans shall include strategies to continue critical and time-sensitive processes and as identified in the business impact analysis (BIA).

Statement of Problem and Substantiation for Public Input

Links the acronym (BIA) to business impact analysis

Submitter Information Verification

Submitter Full Name: Joseph Jones

Organization: City of Aurora, Illinois

Street Address:

City:

State:

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Submittal Date: Sun Dec 18 18:30:21 EST 2016

Committee Statement

Resolution: This is a Manual of Style (MOS) issue and can't be revised.



Public Input No. 56-NFPA 1600-2016 [Section No. 6.9.1.3]

6.9.1.3

Continuity plans shall be designed to meet the RTO (Recovery Time Objective) and RPO (Recover Point Objectives).

Statement of Problem and Substantiation for Public Input

Use of an acronym without linking to the meaning , NFPA 1600

Submitter Information Verification

Submitter Full Name: Joseph Jones

Organization: City of Aurora, Illinois

Affiliation: Committee member

Street Address:

City:

State:

Zip:

Submittal Date: Wed Dec 28 16:58:46 EST 2016

Committee Statement

Resolution: This is a Manual of Style (MOS) issue and can't be revised.



Public Input No. 37-NFPA 1600-2016 [Section No. 8.4.1]

8.4.1

Exercises shall evaluate program plans, procedures, training, and entity capabilities and individual competenceis to identify opportunities for improvement.

Statement of Problem and Substantiation for Public Input

Provides for more clarification

Submitter Information Verification

Submitter Full Name: Joseph Jones

Organization: City of Aurora, Illinois

Street Address:

City:

State:

Zip:

Submittal Date: Sun Dec 18 17:17:28 EST 2016

Committee Statement

Resolution: The TC believes this is too prescriptive.



Public Input No. 38-NFPA 1600-2016 [Section No. 8.5.1]

8.5.1

Exercises and tests shall be conducted on the frequency needed to establish- and- , assess, and maintain required capabilities entity capabilities and individual competencies .

Statement of Problem and Substantiation for Public Input

Provides more clarification

Submitter Information Verification

Submitter Full Name: Joseph Jones

Organization: City of Aurora, Illinois

Street Address:

City:

State:

Zip:

Submittal Date: Sun Dec 18 17:22:18 EST 2016

Committee Statement

Resolution: The TC believes this is too prescriptive.



Public Input No. 34-NFPA 1600-2016 [Section No. 9.1.3]

9.1.3

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

- (1) Regulations
- (2) Hazards and potential impacts
- (3) Resource availability or capability
- (4) Entity's organization
- (5)* Funding changes

Infrastructure,

A.9.1.3(5)

Many emergency management entities and programs in public, private, and nonprofit sectors are supported in part by grants from government entities or private sources. A change in grant assistance could materially impact the entity's program, necessitating an evaluation of the program.

- (6) Infrastructure, including technology environment
Economic
- (7) Economic and geographic stability
Entity
- (8) Entity operations
Critical
- (9) Critical suppliers

Statement of Problem and Substantiation for Public Input

Correction of the numbering

Submitter Information Verification

Submitter Full Name: Joseph Jones
Organization: City of Aurora Illinois
Affiliation: MFPA 1600 Committee member
Street Address:
City:
State:
Zip:
Submission Date: Tue Nov 22 16:41:04 EST 2016

Committee Statement

Resolution: The TC believes these revisions already exist within the document.



Public Input No. 1-NFPA 1600-2016 [New Section after A.1.2]

NFPA 1616 Standard on Mass Evacuation and Sheltering is built upon an integrated program for Disaster/Emergency Management and Business Continuity as described in NFPA 1600.

Additional Proposed Changes

<u>File Name</u>	<u>Description</u> <u>Approved</u>
1600_PC_26.pdf	1600_PC_26

Statement of Problem and Substantiation for Public Input

This Public Input appeared as "Reject but Hold" in the (F2015 cycle) Second Draft Report.

The TC wishes to recognize this document but because it is in the process of being drafting regulations do not allow for it to be referenced at this time. The TC is holding this PC for the next edition.

Submitter Information Verification

Submitter Full Name: TC ON EMB-AAA

Organization: TC on Emergency Management and Business Continuity

Street Address:

City:

State:

Zip:

Submittal Date: Wed Apr 06 11:14:07 EDT 2016

Committee Statement

Resolution: [FR-24-NFPA 1600-2017](#)

Statement: The TC recognizes the commitment to including the resiliency factor with the document.



Public Comment No. 26-NFPA 1600-2014 [New Section after A.1.2]

TITLE OF NEW CONTENT

NFPA 1616 Standard on Mass Evacuation and Sheltering is built upon an integrated program for Disaster/Emergency Management and Business Continuity as described in NFPA 1600.

Statement of Problem and Substantiation for Public Comment

NFPA 1616 Standard on Mass Evacuation and Sheltering is built upon a program as described in NFPA 1600.

Related Item

Public Input No. 25-NFPA 1600-2013 [New Section after 6.9.2]

Submitter Information Verification

Submitter Full Name: Dean Larson

Organization: Larson Performance Consulting

Street Address:

City:

State:

Zip:

Submission Date: Fri Oct 24 19:03:50 EDT 2014

Committee Statement

Committee Action: Rejected but held

Resolution: The TC wishes to recognize this document but because it is in the process of being drafting regulations do not allow for it to be referenced at this time. The TC is holding this PC for the next edition.

Copyright Assignment

I, Dean Larson, hereby irrevocably grant and assign to the National Fire Protection Association (NFPA) all and full rights in copyright in this Public Comment (including both the Proposed Change and the Statement of Problem and Substantiation). I understand and intend that I acquire no rights, including rights as a joint author, in any publication of the NFPA in which this Public Comment in this or another similar or derivative form is used. I hereby warrant that I am the author of this Public Comment and that I have full power and authority to enter into this copyright assignment.

By checking this box I affirm that I am Dean Larson, and I agree to be legally bound by the above Copyright Assignment and the terms and conditions contained therein. I understand and intend that, by checking this box, I am creating an electronic signature that will, upon my submission of this form, have the same legal force and effect as a handwritten signature



Public Input No. 20-NFPA 1600-2016 [New Section after A.3.3.17]

A.3.3.19 Mitigation

The term *mitigation*, with its focus on the impact of a hazard, encompasses the structural and non-structural approaches taken to eliminate or limit a hazard's presence; peoples' exposure; or interactions with people, property, and the environment. The emphasis on sustained actions to reduce long-term risk differentiates mitigation from those tasks that are required to survive an emergency safely.

Statement of Problem and Substantiation for Public Input

I believe that additional background is needed to fully support the term mitigation and how it is used throughout the NFPA 1600. This proposed explanatory information supports and strengthens the strategies listed further on in A.6.3.1.

Submitter Information Verification

Submitter Full Name: Charles Biggs
Organization: Private Consultant Contractor
Street Address:
City:
State:
Zip:
Submittal Date: Tue Apr 26 14:02:06 EDT 2016

Committee Statement

Resolution: [FR-17-NFPA 1600-2017](#)

Statement: The TC agrees with the submitter that additional background information is needed to fully support the term mitigation and how it is used throughout the NFPA 1600. This proposed explanatory information supports and strengthens the strategies listed further on in A.6.3.1.



Public Input No. 25-NFPA 1600-2016 [Section No. A.3.3.25]

A.3.3.25 Response.

The term *response* refers to the actions taken by an entity to an incident or event. Actions can include activities, tasks, programs, and systems to protect life safety, meet basic human needs, preserve operational capability, and protect property and the environment.

An incident response can include protective actions for life safety (evacuation, shelter-in-place, and lockdown run, hide, fight), conducting damage assessment, initiating recovery strategies, and any other measures necessary to bring an entity to a more stable status.

(NFPA 1600 should either state a generic plan for active killer/workplace violence should be included or reference the DHS program Run, Hide, Fight. Lockdown is only one portion of an appropriate response and is no longer best practice on it's own.) This should be carried over into any other portions where Lockdown is included.

Statement of Problem and Substantiation for Public Input

Lockdown alone is no longer best practice.

Submitter Information Verification

Submitter Full Name: Chance Kness

Organization: Clinton County EMA

Street Address:

City:

State:

Zip:

Submittal Date: Fri Jul 01 11:44:53 EDT 2016

Committee Statement

Resolution: [FR-29-NFPA 1600-2017](#)

Statement: TC revised this definition to reflect the new crisis management considerations.



Public Input No. 118-NFPA 1600-2017 [Section No. A.4.2]

A.4.2

It is not the intent of this standard to restrict the users to the title *program coordinator*. It is recognized that different entities use various forms and names for the person who performs the program coordinator functions identified in the standard. Examples of titles are *emergency manager* (for the public sector), and *business continuity/continuity of operations manager* (for the private and nonprofit sectors). A written position description should be provided.

Certification programs for emergency managers and business continuity/continuity of operations professionals can be found in the DRII *Professional Practices for Business Continuity Practitioners* and through FEMA's Emergency Management Institute and the Certified Emergency Manager (CEM) program administered by International Association of Emergency Managers (IAEM).

I propose the establishment of minimum professional qualifications for individual charged with overseeing the management framework of developing, implementing, administering, evaluating and maintaining the emergency management programs to provide professional portability. The standard should describe the job performance requirements (in measureable terms) necessary to function as a Program Coordinator to ensure the greatest consistency and performance while allowing professional portability .

Statement of Problem and Substantiation for Public Input

Describing the job performance requirements (in measureable terms) is necessary to define the professional qualification as a Program Coordinator in Emergency Management. This would provide the basis for user agencies and organizations to test and certify individuals in this position.

Submitter Information Verification

Submitter Full Name: Lee Newsome

Organization: Emergency Response Educators & Consultants, Inc.

Affiliation: None

Street Address:

City:

State:

Zip:

Submittal Date: Wed Jan 04 21:42:14 EST 2017

Committee Statement

Resolution: Job performance requirements are already defined for related positions in various organizations and the addition of this PI item adds confusion with lack of agreed upon value as part of NFPA 1600's goals.



Public Input No. 39-NFPA 1600-2016 [Section No. A.5.2.2.1(6)(a)]

A.5.2.2.1(6)(a)

Outages, data corruption, deletion, loss of (Internet or intranet), loss of electronic data interchange or ecommerce, loss of domain name server (DNS), interdependencies, direct physical loss, vulnerability exploitation, loss of encryption, or improper system use by employee.

_____ (b) *Utility interruption, disruption, or failure

Statement of Problem and Substantiation for Public Input

Provides for clarification

Submitter Information Verification

Submitter Full Name: Joseph Jones

Organization: City of Aurora, Illinois

Street Address:

City:

State:

Zip:

Submittal Date: Sun Dec 18 17:49:57 EST 2016

Committee Statement

Resolution: The committee rejected this PI on the based on the fact that the committee did not feel that this change because the requested change did not add clarity to the document. A.5.2.2.1 (6) lists utilities specifically and another reference is not necessary.



Public Input No. 31-NFPA 1600-2016 [New Section after A.8.5]

TITLE OF NEW CONTENT

8.5.1

Exercises and tests shall be conducted on the frequency needed to establish, assess, and maintain required entity capabilities and individual competencies.

Statement of Problem and Substantiation for Public Input

Needs to be fixed in the 2019 Edition

Submitter Information Verification

Submitter Full Name: Joseph Jones

Organization: City of Aurora Illinois

Affiliation: NFPA 1600 Committee member

Street Address:

City:

State:

Zip:

Submittal Date: Tue Nov 22 16:31:50 EST 2016

Committee Statement

Resolution: The committee rejected this PI on the based on the fact that the committee did not feel that this change because the requested change did not add clarity to the document. The intent of the change is already in the document.



Public Input No. 57-NFPA 1600-2016 [Section No. A.9.2]

A.9.2

The corrective action process should follow a review of the program or follow an actual event or exercise to identify program deficiencies and take necessary corrective actions to address such deficiencies. The corrective action program should include techniques to manage the capabilities improvement process. The corrective action program should begin following the “after-action” discussion/critique of the incident or exercise or should take place during the incident if a lengthy or extended event is being managed. During the evaluation process, deficiencies that require improvement should be identified. Process deficiencies should be identified within one or more of the program elements found in this standard.

Corrective actions should be identified by the following:

- (1) Changes to regulations, policy, plans, or procedures
- (2) Additions or modifications to facilities, systems, or equipment
- (3) Results of exercises and testing
- (4) After-action reviews of actual incidents
- (5) The same process should be used for planned events, exercises, and incidents.

A task group should be assigned to each identified area of noted deficiency to develop the necessary actions for improvement, and a time schedule for development of the necessary corrective action should be established.

The task group should take the following actions:

- (1) Develop options for appropriate corrective action
- (2) Make recommendations for a preferred option
- (3) Develop an implementation plan, including training if required
- (4) Ensure that during the next exercise the corrective actions are evaluated to determine if the corrective actions have been successful

The entity should establish a process to identify the root cause of the deficiencies noted. The entity also should establish a change management process (i.e., a process involving all sectors of an entity's operations in which changes to the operations are reflected in the plan and, vice versa, changes in the plan are reflected in the entity's operations).

Statement of Problem and Substantiation for Public Input

To ensure consistency in the corrective process

Submitter Information Verification

Submitter Full Name: Joseph Jones
Organization: City of Aurora, Illinois
Affiliation: Committee member
Street Address:
City:
State:
Zip:
Submittal Date: Wed Dec 28 17:17:15 EST 2016

Committee Statement

Resolution: The TC believes the added language offered is actually the in the first sentence of the sentence of section A.9.2 so there is no need for the added sentence.



Public Input No. 32-NFPA 1600-2016 [Section No. B.1]

A large, empty rectangular box with a thin black border, occupying most of the page. This area is typically used for submitting public input or comments.

B.1

Table B.1 shows a self-assessment tool that is intended to assist entities in determining conformity with the requirements of *NFPA 1600*. The table includes a list of hazards from Annex A and also repeats text from the body of the standard where needed to make the self-assessment tool more user friendly. Users of this self-assessment tool can indicate conformity, ~~partial conformity~~, or nonconformity as well as evidence of conformity, corrective action, task assignment, a schedule for action, or other information in the Comments column.

Table B.1 Self-Assessment Tool for Conformity with the 2016 Edition of *NFPA 1600*

<u>NFPA 1600 Program Elements</u>	<u>Conforming</u>	<u>Nonconforming</u>	<u>Comments</u>
<u>Chapter 4 Program Management</u>			
<u>4.1* Leadership and Commitment.</u>			
<u>4.1.1</u> The entity leadership shall demonstrate commitment to the program to prevent, mitigate the consequences of, prepare for, respond to, maintain continuity during, and recover from incidents.			
<u>4.1.2</u> The leadership commitment shall include the following:			
(1) Support the development, implementation, and maintenance of the program			
(2) Provide necessary resources to support the program			
(3) Ensure the program is reviewed and evaluated as needed to ensure program effectiveness			
(4) Support corrective action to address program deficiencies			
<u>4.1.3</u> The entity shall adhere to policies, execute plans, and follow procedures developed to support the program.			
<u>4.2* Program Coordinator.</u> The program coordinator shall be appointed by the entity's leadership and authorized to develop, implement, administer, evaluate, and maintain the program.			
<u>4.3 Program Committee.</u>			
<u>4.3.1*</u> A program committee shall be established by the entity in accordance with its policy.			
<u>4.3.2</u> The program committee shall provide input and/or assist in the coordination of the preparation, development, implementation, evaluation, and maintenance of the program.			
<u>4.3.3*</u> The program committee shall include the program coordinator and others who have the expertise, the knowledge of the entity, and the capability to identify resources from all key functional areas within the entity and shall solicit applicable external representation.			
<u>4.4 Program Administration.</u>			
<u>4.4.1</u> The entity shall have a documented program that includes the following:			
(1) Executive policy, including vision, mission statement, roles, and responsibilities, and enabling authority			
(2)* Program scope, goals, performance, objectives, and metrics for program evaluation			
(3)* Applicable authorities, legislation, regulations, and industry codes of practice as required by Section 4.5			
(4) Program budget and schedule, including milestones			

<u>NFPA 1600 Program Elements</u>	<u>Conforming</u>	<u>Nonconforming</u>	<u>Comments</u>
<u>(5) Program plans and procedures that include the following:</u>			
<u>(a) Anticipated cost</u>			
<u>(b) Priority</u>			
<u>(c) Resources required</u>			
<u>(6) Records management practices as required by Section 4.7</u>			
<u>(7) Management of change</u>			
<u>4.4.2 The program shall include the requirements specified in Chapters 4 through 9, the scope of which shall be determined through an "all-hazards" approach and the risk assessment.</u>			
<u>4.4.3* Program requirements shall be applicable to preparedness including the planning, implementation, assessment, and maintenance of programs for prevention, mitigation, response, continuity, and recovery.</u>			
<u>4.5 Laws and Authorities.</u>			
<u>4.5.1 The program shall comply with applicable legislation, policies, regulatory requirements, and directives.</u>			
<u>4.5.2 The entity shall establish, maintain, and document procedure(s) to comply with applicable legislation, policies, regulatory requirements, and directives.</u>			
<u>4.5.3* The entity shall implement a strategy for addressing the need for revisions to legislation, regulations, directives, policies, and industry codes of practice.</u>			
<u>4.6 Finance and Administration.</u>			
<u>4.6.1 The entity shall develop finance and administrative procedures to support the program before, during, and after an incident.</u>			
<u>4.6.2* There shall be a responsive finance and administrative framework that does the following:</u>			
<u>(1) Complies with the entity's program requirements</u>			
<u>(2) Is uniquely linked to response, continuity, and recovery operations</u>			
<u>(3) Provides for maximum flexibility to expeditiously request, receive, manage, and apply funds in a nonemergency environment and in emergency situations to ensure the timely delivery of assistance</u>			
<u>4.6.3 Procedures shall be created and maintained for expediting fiscal decisions in accordance with established authorization levels, accounting principles, governance requirements, and fiscal policy.</u>			
<u>4.6.4 Finance and administrative procedures shall include the following:</u>			
<u>(1) Responsibilities for program finance authority, including reporting relationships to the program coordinator</u>			
<u>(2)* Program procurement procedures</u>			
<u>(3) Payroll</u>			

<u>NFPA 1600 Program Elements</u>	<u>Conforming</u>	<u>Nonconforming</u>	<u>Comments</u>
<u>(4)* Accounting systems to track and document costs</u>			
<u>(5) Management of funding from external sources</u>			
<u>(6) Crisis management procedures that coordinate authorization levels and appropriate control measures</u>			
<u>(7) Documenting financial expenditures incurred as a result of an incident and for compiling claims for future cost recovery</u>			
<u>(8) Identifying and accessing alternative funding sources</u>			
<u>(9) Managing budgeted and specially appropriated funds</u>			
<u>4.7* Records Management.</u>			
<u>4.7.1</u> The entity shall develop, implement, and manage a records management program to ensure that records are available to the entity.			
<u>4.7.2</u> The program shall include the following:			
<u>(1) Identification of records (hard copy or electronic) vital to continue the operations of the entity</u>			
<u>(2) Backup of records on a frequency necessary to meet program goals and objectives</u>			
<u>(3) Validation of the integrity of records backup</u>			
<u>(4) Implementation of procedures to store, retrieve, and recover records onsite or offsite</u>			
<u>(5) Protection of records</u>			
<u>(6) Implementation of a record review process</u>			
<u>(7) Procedures coordinating records access</u>			
<u>Chapter 5 Planning</u>			
<u>5.1 Planning and Design Process.</u>			
<u>5.1.1*</u> The program shall follow a planning process that develops strategies, plans, and required capabilities to execute the program.			
<u>5.1.2</u> Strategic planning shall define the entity's vision, mission, and goals of the program.			
<u>5.1.3</u> A risk assessment and a business impact analysis (BIA) shall develop information to prepare prevention and mitigation strategies.			
<u>5.1.4</u> A risk assessment, a BIA, and a resource needs assessment shall develop information to prepare emergency operations/response, crisis communications, continuity, and recovery plans.			
<u>5.1.5*</u> Crisis management planning shall address an event, or series of events, that severely impacts or has the potential to severely impact an entity's operations, reputation, market share, ability to do business, or relationships with key stakeholders.			
<u>5.1.6</u> The entity shall include key stakeholders in the planning process.			
<u>5.2* Risk Assessment.</u>			
<u>5.2.1</u> The entity shall conduct a risk assessment.			
<u>5.2.2</u> The entity shall identify hazards and monitor those hazards and the likelihood and severity of their occurrence over time.			

<u>NFPA 1600 Program Elements</u>	<u>Conforming</u>	<u>Nonconforming</u>	<u>Comments</u>
<u>5.2.2.1 Hazards to be evaluated shall include the following:</u>			
<u>(1) Geological:</u>			
<u>(a) Earthquake</u>			
<u>(b) Landslide, mudslide, subsidence</u>			
<u>(c) Tsunami</u>			
<u>(d) Volcano</u>			
<u>(2) Meteorological:</u>			
<u>(a) Drought</u>			
<u>(b) Extreme temperatures (hot, cold)</u>			
<u>(c) Famine</u>			
<u>(d) Flood, flash flood, seiche, tidal surge</u>			
<u>(e) Geomagnetic storm</u>			
<u>(f) Lightning</u>			
<u>(g) Snow, ice, hail, sleet, avalanche</u>			
<u>(h) Wildland fire</u>			
<u>(i) Windstorm, tropical cyclone, hurricane, tornado, water spout, dust storm, sandstorm</u>			
<u>(3) Biological:</u>			
<u>(a) Food-borne illnesses</u>			
<u>(b)* Infectious/communicable/pandemic diseases</u>			
<u>(4) Accidental human-caused:</u>			
<u>(a) Building/structure collapse</u>			
<u>(b)* Entrapment</u>			
<u>(c) Explosion/fire</u>			
<u>(d) Fuel/resource shortage</u>			
<u>(e)* Hazardous material spill or release</u>			
<u>(f) Equipment failure</u>			
<u>(g) Nuclear reactor incident</u>			
<u>(h) Radiological incident</u>			
<u>(i)* Transportation incident</u>			
<u>(j) Unavailability of essential employee(s)</u>			
<u>(k)* Water control structure failure</u>			
<u>(l) Misinformation</u>			
<u>(5) Intentional human-caused:</u>			
<u>(a) Incendiary fire</u>			
<u>(b) Bomb threat</u>			
<u>(c) Demonstrations/civil disturbance/riot/insurrection</u>			
<u>(d) Discrimination/harassment</u>			
<u>(e) Disinformation</u>			
<u>(f) Kidnapping/hostage</u>			
<u>(g) Acts of war</u>			
<u>(h) Missing person</u>			
<u>(i)* Cyber security incidents</u>			

<u>NFPA 1600 Program Elements</u>	<u>Conforming</u>	<u>Nonconforming</u>	<u>Comments</u>
<u>(j) Product defect or contamination</u>			
<u>(k) Robbery/theft/fraud</u>			
<u>(l) Strike or labor dispute</u>			
<u>(m) Suspicious package</u>			
<u>(n)* Terrorism</u>			
<u>(o) Vandalism/sabotage</u>			
<u>(p) Workplace/school/university violence</u>			
<u>(6) Technological:</u>			
<u>(a)* Hardware, software, and network connectivity interruption, disruption, or failure</u>			
<u>(b)* Utility interruption, disruption, or failure</u>			
<u>5.2.2.2* The vulnerability of people, property, operations, the environment, the entity, and the supply chain operations shall be identified, evaluated, and monitored.</u>			
<u>5.2.3 The entity shall conduct an analysis of the impacts of the hazards identified in 5.2.2 on the following:</u>			
<u>(1) Health and safety of persons in the affected area</u>			
<u>(2) Health and safety of personnel responding to the incident</u>			
<u>(3) Security of information</u>			
<u>(4)* Continuity of operations</u>			
<u>(5) Continuity of government</u>			
<u>(6)* Property, facilities, assets, and critical infrastructure</u>			
<u>(7) Delivery of the entity's services</u>			
<u>(8) Supply chain</u>			
<u>(9) Environment</u>			
<u>(10)* Economic and financial conditions</u>			
<u>(11) Legislated, regulatory, and contractual obligations</u>			
<u>(12) Reputation of or confidence in the entity</u>			
<u>(13) Work and labor arrangements</u>			
<u>5.2.4 The risk assessment shall include an analysis of the escalation of impacts over time.</u>			
<u>5.2.5* The analysis shall evaluate the potential effects of regional, national, or international incidents that could have cascading impacts.</u>			
<u>5.2.6 The risk assessment shall evaluate the adequacy of existing prevention and mitigation strategies.</u>			
<u>5.3 Business Impact Analysis (BIA).</u>			
<u>5.3.1 The entity shall conduct a BIA that includes an assessment of how a disruption could affect an entity's operations, reputation, and market share, ability to do business, or relationships with key stakeholders and identifies the resources and capabilities that might be needed to manage the disruptions.</u>			
<u>5.3.1.1* The BIA shall identify processes that are required for the entity to perform its mission.</u>			
<u>5.3.1.2* The BIA shall identify the following resources that enable the processes:</u>			

<u>NFPA 1600 Program Elements</u>	<u>Conforming</u>	<u>Nonconforming</u>	<u>Comments</u>
<u>(1) Personnel</u>			
<u>(2) Equipment</u>			
<u>(3) Infrastructure</u>			
<u>(4) Technology</u>			
<u>(5) Information</u>			
<u>(6) Supply chain</u>			
<u>5.3.2*</u> <u>The BIA shall evaluate the following:</u>			
<u>(1) Dependencies</u>			
<u>(2) Single-source and sole-source suppliers</u>			
<u>(3) Single points of failure</u>			
<u>(4) Potential qualitative and quantitative impacts from a disruption to the resources in 5.3.1.2</u>			
<u>5.3.2.1*</u> <u>The BIA shall determine the point in time [recovery time objective (RTO)] when the impacts of the disruption become unacceptable to the entity.</u>			
<u>5.3.3*</u> <u>The BIA shall identify the acceptable amount of data loss for physical and electronic records to identify the recovery point objective (RPO).</u>			
<u>5.3.4*</u> <u>The BIA shall identify gaps between the RTOs and RPOs and demonstrated capabilities.</u>			
<u>5.3.5*</u> <u>The BIA shall be used in the development of continuity and recovery strategies and plans.</u>			
<u>5.3.6*</u> <u>The BIA shall identify critical supply chains, including those exposed to domestic and international risks, and the timeframe within which those operations become critical to the entity.</u>			
<u>5.4 Resource Needs Assessment.</u>			
<u>5.4.1*</u> <u>The entity shall conduct a resource needs assessment based on the hazards identified in Section 5.2 and the business impact analysis in Section 5.3.</u>			
<u>5.4.2</u> <u>The resource needs assessment shall include the following:</u>			
<u>(1)* Human resources, equipment, training, facilities, funding, expert knowledge, materials, technology, information, intelligence, and the time frames within which they will be needed</u>			
<u>(2) Quantity, response time, capability, limitations, cost, and liabilities</u>			
<u>5.4.3*</u> <u>The entity shall establish procedures to locate, acquire, store, distribute, maintain, test, and account for services, human resources, equipment, and materials procured or donated to support the program.</u>			
<u>5.4.4</u> <u>Facilities capable of supporting response, continuity, and recovery operations shall be identified.</u>			
<u>5.4.5*</u> <u>The need for mutual aid/assistance or partnership agreements shall be determined; if needed, agreements shall be established and documented.</u>			
<u>5.5 Performance Objectives.</u>			

<u>NFPA 1600 Program Elements</u>	<u>Conforming</u>	<u>Nonconforming</u>	<u>Comments</u>
<u>5.5.1*</u> The entity shall establish performance objectives for the program in accordance with Chapter 4 and the elements in Chapters 5 through 9.			
<u>5.5.2</u> The performance objectives shall address the results of the hazard identification, risk assessment, and business impact analysis.			
<u>5.5.3</u> Performance objectives shall be developed by the entity to address both short-term and long-term needs.			
<u>5.5.4*</u> The entity shall define the terms <i>short term</i> and <i>long term</i> .			
<u>Chapter 6 Implementation</u>			
<u>6.1 Common Plan Requirements.</u>			
<u>6.1.1*</u> Plans shall address the health and safety of personnel.			
<u>6.1.2</u> Plans shall identify and document the following:			
<u>(1) Assumptions made during the planning process</u>			
<u>(2) Functional roles and responsibilities of internal and external entities</u>			
<u>(3) Lines of authority</u>			
<u>(4) The process for delegation of authority</u>			
<u>(5) Lines of succession for the entity</u>			
<u>(6) Liaisons to external entities</u>			
<u>(7) Logistics support and resource requirements</u>			
<u>6.1.3*</u> Plans shall be individual, integrated into a single plan document, or a combination of the two.			
<u>6.1.4*</u> The entity shall make sections of the plans available to those assigned specific tasks and responsibilities therein and to key stakeholders as required.			
<u>6.2 Prevention.</u>			
<u>6.2.1*</u> The entity shall develop a strategy to prevent an incident that threatens life, property, operations, information, and the environment.			
<u>6.2.2*</u> The prevention strategy shall be kept current using the information collection and intelligence techniques.			
<u>6.2.3</u> The prevention strategy shall be based on the results of hazard identification and risk assessment, an analysis of impacts, program constraints, operational experience, and cost-benefit analysis.			
<u>6.2.4</u> The entity shall have a process to monitor the identified hazards and adjust the level of preventive measures to be commensurate with the risk.			
<u>6.3 Mitigation.</u>			
<u>6.3.1*</u> The entity shall develop and implement a mitigation strategy that includes measures to be taken to limit or control the consequences, extent, or severity of an incident that cannot be prevented.			
<u>6.3.2*</u> The mitigation strategy shall be based on the results of hazard identification and risk assessment, an analysis of impacts, program constraints, operational experience, and cost-benefit analysis.			

<u>NFPA 1600 Program Elements</u>	<u>Conforming</u>	<u>Nonconforming</u>	<u>Comments</u>
<u>6.3.3</u> The mitigation strategy shall include interim and long-term actions to reduce vulnerabilities.			
<u>6.4 Crisis Communications and Public Information.</u>			
<u>6.4.1*</u> The entity shall develop a plan and procedures to disseminate information to and respond to requests for information from the following audiences before, during, and after an incident: (1) Internal audiences, including employees			
(2) External audiences, including the media, access and functional needs population, and other stakeholders			
<u>6.4.2*</u> The entity shall establish and maintain a crisis communications or public information capability that includes the following: (1)* Central contact facility or communications hub			
(2) Physical or virtual information center			
(3) System for gathering, monitoring, and disseminating information			
(4) Procedures for developing and delivering coordinated messages			
(5) Protocol to clear information for release			
<u>6.5 Warning, Notifications, and Communications.</u>			
<u>6.5.1*</u> The entity shall determine its warning, notification, and communications needs.			
<u>6.5.2*</u> Warning, notification, and communications systems shall be reliable, redundant, and interoperable.			
<u>6.5.3*</u> Emergency warning, notification, and communications protocols and procedures shall be developed, tested, and used to alert stakeholders potentially at risk from an actual or impending incident.			
<u>6.5.4</u> Procedures shall include issuing warnings through authorized agencies if required by law as well as the use of prescribed information bulletins or templates.			
<u>6.5.5*</u> Information shall be disseminated through the media, social media, or other means as determined by the entity to be the most effective.			
<u>6.6 Operational Procedures.</u>			
<u>6.6.1</u> The entity shall develop, coordinate, and implement operational procedures to support the program.			
<u>6.6.2</u> Procedures shall be established and implemented for response to and recovery from the impacts of hazards identified in 5.2.2.			
<u>6.6.3*</u> Procedures shall provide for life safety, property conservation, incident stabilization, continuity, and protection of the environment under the jurisdiction of the entity.			
<u>6.6.4</u> Procedures shall include the following: (1) Control of access to the area affected by the incident			
(2) Identification of personnel engaged in activities at the incident			
(3) Accounting for personnel engaged in incident activities			

<u>NFPA 1600 Program Elements</u>	<u>Conforming</u>	<u>Nonconforming</u>	<u>Comments</u>
<u>(4) Mobilization and demobilization of resources</u>			
<u>6.6.5 Procedures shall allow for concurrent activities of response, continuity, recovery, and mitigation.</u>			
<u>6.7 Incident Management.</u>			
<u>6.7.1* The entity shall develop an incident management system to direct, control, and coordinate response, continuity, and recovery operations.</u>			
<u>6.7.1.1* Emergency Operations Centers (EOCs).</u>			
<u>6.7.1.1.1* The entity shall establish primary and alternate EOCs capable of managing response, continuity, and recovery operations.</u>			
<u>6.7.1.1.2* The EOCs shall be permitted to be physical or virtual.</u>			
<u>6.7.1.1.3 On activation of an EOC, communications and coordination shall be established between incident command and the EOC.</u>			
<u>6.7.2 The incident management system shall describe specific entity roles, titles, and responsibilities for each incident management function.</u>			
<u>6.7.3* The entity shall establish procedures and policies for coordinating prevention, mitigation, preparedness, response, continuity, and recovery activities.</u>			
<u>6.7.4 The entity shall coordinate the activities specified in 6.7.3 with stakeholders.</u>			
<u>6.7.5 Procedures shall include a situation analysis that incorporates a damage assessment and a needs assessment to identify resources to support activities.</u>			
<u>6.7.6* Emergency operations/response shall be guided by an incident action plan or management by objectives.</u>			
<u>6.7.7 Resource management shall include the following tasks:</u>			
<u>(1) Establishing processes for describing, taking inventory of, requesting, and tracking resources</u>			
<u>(2) Resource typing or categorizing by size, capacity, capability, and skill</u>			
<u>(3) Mobilizing and demobilizing resources in accordance with the established IMS</u>			
<u>(4) Conducting contingency planning for resource deficiencies</u>			
<u>6.7.8 A current inventory of internal and external resources shall be maintained.</u>			
<u>6.7.9 Donations of human resources, equipment, material, and facilities shall be managed.</u>			
<u>6.8 Emergency Operations/Response Plan.</u>			
<u>6.8.1* Emergency operations/response plans shall define responsibilities for carrying out specific actions in an emergency.</u>			
<u>6.8.2* The plan shall identify actions to be taken to protect people, including people with disabilities and others access and functional needs, information, property, operations, the environment, and the entity.</u>			

<u>NFPA 1600 Program Elements</u>	<u>Conforming</u>	<u>Nonconforming</u>	<u>Comments</u>
<u>6.8.3*</u> The plan shall identify actions for incident stabilization.			
<u>6.8.4</u> The plan shall include the following:			
(1) Protective actions for life safety in accordance with <u>6.8.2</u>			
(2) Warning, notifications, and communication in accordance with <u>Section 6.5</u>			
(3) Crisis communication and public information in accordance with <u>Section 6.4</u>			
(4) Resource management in accordance with <u>6.7.7</u>			
(5) Donation management in accordance with <u>6.7.9</u>			
<u>6.9* Continuity and Recovery.</u>			
<u>6.9.1 Continuity.</u>			
<u>6.9.1.1</u> Continuity plans shall include strategies to continue critical and time-sensitive processes and as identified in the BIA.			
<u>6.9.1.2</u> Continuity plans shall identify and document the following:			
(1) Stakeholders that need to be notified			
(2) Processes that must be maintained			
(3) Roles and responsibilities of the individuals implementing the continuity strategies			
(4) Procedures for activating the plan, including authority for plan activation			
(5) Critical and time-sensitive technology, application systems, and information			
(6) Security of information			
(7) Alternative work sites			
(8) Workaround procedures			
(9) Vital records			
(10) Contact lists			
(11) Required personnel			
(12) Vendors and contractors supporting continuity			
(13) Resources for continued operations			
(14) Mutual aid or partnership agreements			
(15) Activities to return critical and time-sensitive processes to the original state			
<u>6.9.1.3</u> Continuity plans shall be designed to meet the RTO and RPO.			
<u>6.9.1.4</u> Continuity plans shall address supply chain disruption.			
<u>6.9.2 Recovery.</u>			
<u>6.9.2.1</u> Recovery plans shall provide for restoration of processes, technology, information, services, resources, facilities, programs, and infrastructure.			
<u>6.9.2.2</u> Recovery plans shall document the following:			
(1) Damage assessment			

<u>NFPA 1600 Program Elements</u>	<u>Conforming</u>	<u>Nonconforming</u>	<u>Comments</u>
<u>(2) Coordination of the restoration, rebuilding, and replacement of facilities, infrastructure, materials, equipment, tools, vendors, and suppliers</u>			
<u>(3) Restoration of the supply chain</u>			
<u>(4) Continuation of communications with stakeholders</u>			
<u>(5) Recovery of critical and time-sensitive processes, technology, systems, applications, and information</u>			
<u>(6) Roles and responsibilities of the individuals implementing the recovery strategies,</u>			
<u>(7) Internal and external (vendors and contractors) personnel who can support the implementation of recovery strategies and contractual needs</u>			
<u>(8) Adequate controls to prevent the corruption or unlawful access to the entity's data during recovery</u>			
<u>(9) Compliance with regulations that would become applicable during the recovery</u>			
<u>(10) Maintenance of pre-incident controls</u>			
<u>6.10 Employee Assistance and Support.</u>			
<u>6.10.1*</u> The entity shall develop a strategy for employee assistance and support that includes the following:			
<u>(1)* Communications procedures</u>			
<u>(2)* Contact information, including emergency contact outside the anticipated hazard area</u>			
<u>(3) Accounting for persons affected, displaced, or injured by the incident</u>			
<u>(4) Temporary, short-term, or long-term housing and feeding and care of those displaced by an incident</u>			
<u>(5) Mental health and physical well-being of individuals affected by the incident</u>			
<u>(6) Pre-incident and post-incident awareness</u>			
<u>6.10.2</u> The strategy shall be flexible for use in all incidents.			
<u>6.10.3*</u> The entity shall promote family preparedness education and training for employees.			
<u>Chapter 7 Training and Education</u>			
<u>7.1* Curriculum.</u> The entity shall develop and implement a competency-based training and education curriculum that supports all employees who have a role in the program.			
<u>7.2 Goal of Curriculum.</u> The goal of the curriculum shall be to create awareness and enhance the knowledge, skills, and abilities required to implement, support, and maintain the program.			
<u>7.3 Scope and Frequency of Instruction.</u> The scope of the curriculum and the frequency of instruction shall be identified.			
<u>7.4 Incident Management System Training.</u> Personnel shall be trained in the entity's incident management system (IMS) and other components of the program to the level of their involvement.			

<u>NFPA 1600 Program Elements</u>	<u>Conforming</u>	<u>Nonconforming</u>	<u>Comments</u>
7.5 Recordkeeping. <u>Records of training and education shall be maintained as specified in Section 4.7.</u>			
7.6 Regulatory and Program Requirements. <u>The curriculum shall comply with applicable regulatory and program requirements.</u>			
7.7* Public Education. <u>A public education program shall be implemented to communicate the following:</u>			
<u>(1) Potential hazard impacts</u>			
<u>(2) Preparedness information</u>			
<u>(3) Information needed to develop a preparedness plan</u>			
Chapter 8 Exercises and Tests			
8.1 Program Evaluation.			
8.1.1 <u>The entity shall evaluate program plans, procedures, training, and capabilities and promote continuous improvement through periodic exercises and tests.</u>			
8.1.2 <u>The entity shall evaluate the program based on post-incident analyses, lessons learned, and operational performance in accordance with Chapter 9.</u>			
8.1.3 <u>Exercises and tests shall be documented.</u>			
8.2* Exercise and Test Methodology.			
8.2.1 <u>Exercises shall provide a standardized methodology to practice procedures and interact with other entities (internal and external) in a controlled setting.</u>			
8.2.2 <u>Exercises shall be designed to assess the maturity of program plans, procedures, and strategies.</u>			
8.2.3 <u>Tests shall be designed to demonstrate capabilities.</u>			
8.3* Design of Exercises and Tests. <u>Exercises shall be designed to do the following:</u>			
<u>(1) Ensure the safety of people, property, operations, and the environment involved in the exercise or test</u>			
<u>(2) Evaluate the program</u>			
<u>(3) Identify planning and procedural deficiencies</u>			
<u>(4) Test or validate recently changed procedures or plans</u>			
<u>(5) Clarify roles and responsibilities</u>			
<u>(6) Obtain participant feedback and recommendations for program improvement</u>			
<u>(7) Measure improvement compared to performance objectives</u>			
<u>(8)* Improve coordination between internal and external teams and entities</u>			
<u>(9) Validate training and education</u>			
<u>(10) Increase awareness and understanding of hazards and the potential impact of hazards on the entity</u>			
<u>(11) Identify additional resources and assess the capabilities of existing resources, including personnel and equipment needed for effective response and recovery</u>			
<u>(12) Assess the ability of the team to identify, assess, and manage an incident</u>			

<u>NFPA 1600 Program Elements</u>	<u>Conforming</u>	<u>Nonconforming</u>	<u>Comments</u>
<u>(13) Practice the deployment of teams and resources to manage an incident</u>			
<u>(14) Improve individual performance</u>			
<u>8.4* Exercise and Test Evaluation.</u>			
<u>8.4.1 Exercises shall evaluate program plans, procedures, training, and capabilities to identify opportunities for improvement.</u>			
<u>8.4.2 Tests shall be evaluated as either pass or fail.</u>			
<u>8.5* Frequency.</u>			
<u>8.5.1 Exercises and tests shall be conducted on the frequency needed to establish and maintain required capabilities.</u>			
<u>Chapter 9 Program Maintenance and Improvement</u>			
<u>9.1* Program Reviews.</u> The entity shall maintain and improve the program by evaluating its policies, program, procedures, and capabilities using performance objectives.			
<u>9.1.1*</u> The entity shall improve effectiveness of the program through evaluation of the implementation of changes resulting from preventive and corrective action.			
<u>9.1.2*</u> Evaluations shall be conducted on a regularly scheduled basis and when the situation changes to challenge the effectiveness of the existing program.			
<u>9.1.3</u> The program shall be re-evaluated when a change in any of the following impacts the entity's program:			
<u>(1) Regulations</u>			
<u>(2) Hazards and potential impacts</u>			
<u>(3) Resource availability or capability</u>			
<u>(4) Entity's organization</u>			
<u>(5)* Funding changes</u>			
<u>(6) Infrastructure, including technology environment</u>			
<u>(7) Economic and geographic stability</u>			
<u>(8) Entity operations</u>			
<u>(9) Critical suppliers</u>			
<u>9.1.4</u> Reviews shall include post-incident analyses, reviews of lessons learned, and reviews of program performance.			
<u>9.1.5</u> The entity shall maintain records of its reviews and evaluations, in accordance with the records management practices developed under Section 4.7.			
<u>9.1.6</u> Documentation, records, and reports shall be provided to management for review and follow-up.			
<u>9.2* Corrective Action.</u>			
<u>9.2.1*</u> The entity shall establish a corrective action process.			
<u>9.2.2*</u> The entity shall take corrective action on deficiencies identified.			
<u>9.3 Continuous Improvement.</u> The entity shall effect continuous improvement of the program through the use			

<u>NFPA 1600 Program Elements</u>	<u>Conforming</u>	<u>Nonconforming</u>	<u>Comments</u>
<u>of program reviews and the corrective action process.</u>			

Statement of Problem and Substantiation for Public Input

Needs to be fixed in the 2019 Edition

Submitter Information Verification

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Submittal Date: Tue Nov 22 16:36:00 EST 2016

Committee Statement

Resolution: [FR-8-NFPA 1600-2017](#)

Statement: The TC agrees with revision but that "partial conforming" can be addressed by use of the "comments" section of the worksheet. Also, the checklist is revamped for a more definitive assessment evaluation tool.



Public Input No. 46-NFPA 1600-2016 [Section No. G.1]

G.1 Development.

An internal assessment of the development, implementation, and progress made in an emergency management and business continuity/continuity of operations program is an important part of an entity's growth and success. The entity should consider the benefits of developing a documented method to conduct an assessment ~~that tracks~~, similar to the example provided in *Annex B Self-Assessment for Conformity with NFPA 1600, 2016 Edition*, that also tracks the program's continuous improvement and progress. This can be done through a "maturity model" or other form of internal metrics the entity has adopted and committed to monitoring for tracking progress through a defined time period. By quantifying progress through a scalable method, the entity can also benefit by documenting its efforts when responding to an internal or external audit process. This form of continuous improvement allows the entity to set goals (short term through long term), track progress, and eliminate waste in cost and effort while monitoring present state through future state. This also helps in justifying expenses and substantiating the need for capital, personnel, and other process components that can help to improve implementation of an emergency management and business continuity/continuity of operations program. Internal metrics can be monitored over a defined time period (e.g., semiannual or annual) and cross-compared with other divisions, departments, or sectors of the entity.

A specific method of applying a self-assessment and maturity model can include:

- Defining the key concepts of the maturity model;
- Defining the elements of each concept;
- Providing the guidelines and minimum requirements for each element;
- Defining a method for the entity to conduct a scoring process to record its compliance with the model;
and
- Implementing a method to distribute the model, train the participants, gather results and prepare a summary to all interested parties.

Best practices, lessons learned, and other criteria discovered during the assessment can be shared throughout, resulting in process improvement for the entire entity.

There are multiple approaches to evaluating the maturity of an emergency management and business continuity/continuity of operations program, and multiple models have been published. Consideration should be given to providing guidelines and minimum requirements for each item being evaluated by the entity, so that the assessment is applied accurately and effectively. Regardless of the approach selected, a continued focus on a quantifiable process and its use throughout all levels of the entity will provide maximum benefits for the entity.

Statement of Problem and Substantiation for Public Input

Additional guidance in implementing these informational elements. These changes help bring this Annex up to date with developments in the use of maturity models to measure program performance through continuous improvement efforts.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
Public Input No. 47-NFPA 1600-2016 [New Section after G.2]	

Submitter Information Verification

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Submittal Date: Tue Dec 27 17:08:45 EST 2016

Committee Statement

Resolution: [FR-9-NFPA 1600-2017](#)

Statement: The TC agrees with submitter that additional guidance in implementing these informational elements. These changes help bring this Annex up to date with developments in the use of maturity models to measure program performance through continuous improvement efforts.



Public Input No. 47-NFPA 1600-2016 [New Section after G.2]

G.2.3

The Business Continuity Maturity Model® (BCMM®) is a free open access tool created to assist entities of all sizes perform self-assessments and assist in improving their ability to recover from a disruption.

The BCMM® provides a consistent, objective means for evaluating an entity's state of preparedness, including evaluation criteria in 8 critical competencies across 6 maturity levels. The 6 levels are Self-Governed, Departmental, Cooperative, Standards Compliant, Integrated, and Synergistic. These competencies address business continuity program considerations including, but not limited to the traditional areas of business recovery, security management, incident management and technology recovery.

Statement of Problem and Substantiation for Public Input

This change helps improve the currency of information provided in this section. The proposed change reflects inclusion of one of the most widely used tools for measuring and improving program performance and resiliency.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
Public Input No. 46-NFPA 1600-2016 [Section No. G.1]	
Public Input No. 48-NFPA 1600-2016 [New Section after G.2]	

Submitter Information Verification

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Submittal Date: Tue Dec 27 17:26:06 EST 2016

Committee Statement

Resolution: [FR-10-NFPA 1600-2017](#)

Statement: The TC agrees with submitter that this change helps improve the currency of information provided in this section. The proposed change reflects inclusion of one of the most widely used tools for measuring and improving program performance and resiliency.



Public Input No. 48-NFPA 1600-2016 [New Section after G.2]

G.2.4

Capabilities Assessment - Resiliency and Recoverability (CARR)TM. The CARR (developed by Deloitte Advisory), is a comprehensive yet flexible model used to assess an organization's current state capabilities. The CARR utilizes an industry specific view of the requirements and leading practices around resiliency and recoverability, including appropriate regulatory, industry standards and other unique requirements of an organization.

The framework includes the following major resilience program areas, which can be further tailored for alignment with the organization and existing industry best practices. A series of controls or questions have been developed for each program component, which can be used to determine the organization's level of maturity in each program area.

- **Program Management** – effective program management, adherence to program policies and having a strong governance model greatly increases the program's sustainability
- **Risk Assessment** – identification and evaluation of threats and risks in order to determine the appropriate likelihood of occurrence, potential impact and risks to the organization
- **Impact Analysis** – identification of processes critical to the continuity of business and potential impacts that unavailability of such processes could have
- **Resiliency Availability / Recovery Strategies** – recovery strategies and solutions developed to meet availability and recoverability requirements established during the impact analysis
- **Plan Development & Validation** – documentation of the actions and resources necessary to achieve the objectives of the recovery strategies as well as the verification with all key parties to determine that plans are comprehensive, reasonable, and actionable
- **Business Continuity & Disaster Recovery** – combination of all BCM program areas as it relates to business continuity and disaster recovery (i.e., ability to continue operations and provide technology infrastructure)
- **Crisis Management & Emergency Response** – combination of all BCM program areas as it relates to crisis management and emergency response (i.e., ability to respond to adverse, novel events and protect employees and assets).
- **Resource Acquisition & Implementation** – prioritization of identified recovery strategies based on consideration of both implementation requirements and anticipated value of realizing the strategies
- **Training & Awareness** – programs to educate general employees about BCM and to make certain those with recovery responsibilities are knowledgeable in their roles
- **Exercising & Testing** – validity of recovery, plans, and capabilities through periodic exercises, such as tabletop and functional exercises
- **Continuous Improvement / Quality Assurance** – planned reviews to keep the program up to date with changing business and regulatory requirements

For each component, the CARR describes the attributes of five maturity level continuum positions of a BCM program, from "Non-existent" to "Optimized". The model provides a means for calculating the placement, or score, of the current state along the continuum. The maturity rating descriptions are as follows:

- **0 – Non-existent:** Complete lack of any recognizable processes or strategies
- **1 – Initial or Ad Hoc:** There is evidence that the enterprise has recognized that the issues exist and need to be addressed. There are however, no standardized documented processes; instead, there are ad hoc approaches that tend to be applied on an individual or case-by-case basis. The overall approach to management is disorganized.
- **2 – Repeatable & Intuitive:** Processes have developed to the stage where similar procedures are followed by different people when developing BCM/DR documentation. Procedures have been standardized and documented, however there is no formal training or communication or testing of BCM/DR procedures. There is a high degree of reliance on the knowledge of individuals and

therefore, errors are likely.

- **3 – Managed & Measurable:** Management monitors and measures compliance with procedures and takes action where processes appear not to be working effectively. Processes are under constant improvement and provide good practice. Testing is performed with a "silo-ed" approach without including internal/external dependencies.
- **4 – Optimized:** Processes have been refined to a level of good practice, based on the results of continuous improvement and maturity modeling with business continuity standards and practices. Cross functional coordination has led to development of upstream and downstream integration of BC/DR plans to improve resilience and recovery in the event of a business disruption.

Depending on the needs of the organization, the CARR framework can easily be tailored to add additional layers of complexity and analysis. For example, weighting can be assigned to program areas based on organizational priorities.

Statement of Problem and Substantiation for Public Input

Suggested by a member of the task group assigned to review this Annex, the change provides for inclusion of an assessment tool and methodology used by a leading management consulting firm.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
Public Input No. 47-NFPA 1600-2016 [New Section after G.2]	

Submitter Information Verification

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Committee Statement

Resolution: The TC can't accept this revision. NFPA (and specifically in this case the NFPA 1600 Committee) cannot promote or condone use of a single company or their product, there for the reference to the tool/model in this public input must be rejected to stay within the requirements of the regulations.



Public Input No. 124-NFPA 1600-2017 [New Section after H.1]

TITLE OF NEW CONTENT

Add the following language before the list of elements in ANNEX H:

The APELL process is being practiced in other places within the United States and worldwide. The National Association of SARA Title III Program Officials (NASTTPO) has encouraged the use of the APELL Handbook as a guide for local emergency planning committees. The newest version of the handbook, issued in October 2015, emphasizes the use of metrics based upon gap analysis of capabilities to support strategic planning by communities as they seek to improve their preparedness and resilience capabilities. The gap analysis approach is equally applicable to entities seeking to improve their preparedness and planning capabilities under this Standard and will assist in managers in the performance of the activities outlined in Chapter 9.

A key aspect of the gap analysis is the concept of a "vision of success". Put simply, this concept is designed to have communities thinking long-range in terms of the preparedness and capabilities outcomes they would like to achieve. It is an aspirational view of the future that helps to drive strategic planning and short-term progress. The same concept can be used by entities following this Standard to promote and measure continuous improvement.

Statement of Problem and Substantiation for Public Input

This change is necessary to reflect the latest edition of the APELL Handbook.

Submitter Information Verification

Submitter Full Name: Timothy Gablehouse
Organization: CO Emer Prep Partnership Inc
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jan 05 16:34:45 EST 2017

Committee Statement

Resolution: [FR-12-NFPA 1600-2017](#)
Statement: The TC agrees that these changes are necessary to reflect the latest edition of the APELL Handbook.



Public Input No. 126-NFPA 1600-2017 [Section No. H.1]

A large, empty rectangular box with a thin border, intended for public input or comments.

H.1

Awareness and Preparedness for Emergencies at the Local Level (APELL) consists of a series of programs developed in 1988 under the leadership of the United Nations Environmental Programme (UNEP) with the cooperation of multiple entities, including the U.S. EPA, in response to the Union Carbide gas leak in Bhopal, India, in December 1984. APELL is a multistakeholder dialogue tool that establishes adequate coordination and communication in situations in which the public might be affected by accidents and disasters.

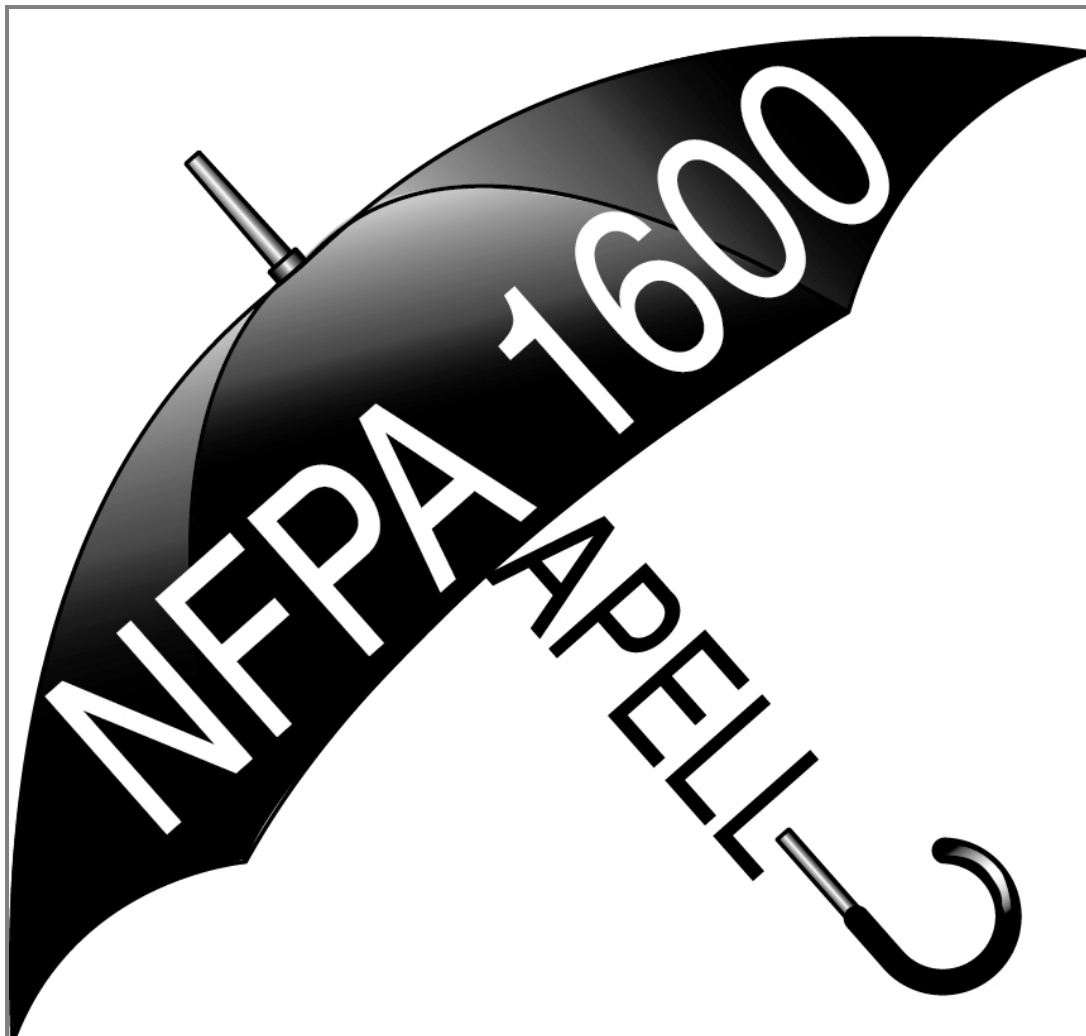
The APELL program was successfully used to implement *NFPA 1600*, a standard developed to define a program for the integration of emergency management and business continuity/continuity of operations, and applicable to the private, public, and not-for-profit sectors.

The APELL program for technological hazards was implemented in 1996 in Bahia Blanca, Argentina, a city located in the southeast of the province of Buenos Aires, by the Atlantic Ocean. The city, with a population of over 300,000, is an important seaport whose harbor reaches a depth of 40 ft (12 m). The name Bahía Blanca, which means "White Bay," comes from the typical color of the salt covering the soil surrounding the shores.

The need for the APELL program in Bahia Blanca is reinforced by a review of the number and amounts of hazardous chemicals produced each year. The industrial complex is made up of three types of industry:

- (1) Petroleum industry, with an installed capacity of 4 million tons a year, producing ethanol, petrol, naphtha, GLP, fuel oil, gas oil, gasoline, asphalt, and kerosene
- (2) Petrochemical industry, with an installed capacity of 3.4 million tons a year, producing ethylene, VCM, PVC, polyethylene, urea, and pure ammonia
- (3) Chemical industry, with an installed capacity of 350,000 tons a year, producing chlorine and caustic soda

Figure H.1 Relationship of APELL to NFPA 1600.



Due to the success of implementing APELL and *NFPA 1600* (refer to Figure H.1) in Bahia Blanca, Argentina, the Local Emergency Planning Committee (LEPC) in Lake County, Indiana has adopted the same integrated approach to enhance the interaction among industries, local government, and the public as required under Superfund Amendments and Reauthorization Act (SARA) Title III. Lake County is located on the southern shore of Lake Michigan and has a heavy industrial concentration of steel, oil, and chemicals, a similar set of hazards as faced by Bahia Blanca. The LEPC is recommending a county ordinance to ensure implementation. Other counties in Indiana are exploring the advantages of using the APELL/*NFPA 1600* approach.

APELL process implementation consists of 10 steps:

- ~~Identify the emergency response participants and establish their roles, resources, and concerns.~~
- ~~Evaluate the hazards and risks that might result in emergency situations in the community.~~
- ~~Have participants review their own emergency response plans for adequacy relative to a coordinated response.~~
- ~~Identify the required response tasks not covered by existing plans.~~
- ~~Match the Step 4 tasks to the resources available from the identified participants.~~
- ~~Make changes necessary to improve existing plans and integrate existing plans into an overall community plan and gain agreement.~~
- ~~Commit an integrated community plan to writing and get approvals from the local government.~~
- ~~Educate participating groups about the integrated plan and ensure that all responders are trained.~~
- ~~Establish procedures for periodic testing, review, and updating of the plan.~~
~~Educate the general community on the integrated emergency response plan~~

Element 1 - Identify Participants and Establish their Roles

Element 2 - Evaluate Risks

Element 3 - Review Existing Capabilities and Emergency Plans - Identify Gaps

Element 4 - Create the Vision of Success

Element 5 - Making Progress toward the Vision of Success

Element 6 - Make Changes in Existing Emergency Plans and Integrate into Overall Community Preparedness Plan

Element 7 - Obtain Endorsement from Government Authorities

Element 8 - Implement Community Preparedness Plans through Communicating, Educating and Training Community Members

Element 9 - Establish Procedures for Periodic Testing, Review and Updating of the Plans

Element 10 - Maintain APELL through Continuous Improvement

Each of these Elements is illustrated through examples and desired outcomes in the Handbook .

The APELL process informs the community about the risks to which they are exposed and educates the community on how to react to accidents/disasters. The program promotes the coordination among representatives from the industry, local-level institutions, and the public. The APELL process includes the preparation of an integrated community preparedness plan, including preparing the community for early warnings of emergencies.

Other APELL programs have been produced for mining, port areas, multi-hazards, transportation, and tourism and are available at <http://www.apell.unep.eecentre.fr/scp/sp/.org/> and the current Handbook is available at http://apell.eecentre.org/Modules/GroupDetails/UploadFile/Handbook-V2.10.3-WEB-Compressed_latest.pdf

Statement of Problem and Substantiation for Public Input

These changes are necessary to reflect the latest edition of the APELL Handbook.

Submitter Information Verification

Submitter Full Name: Timothy Gablehouse
Organization: CO Emer Prep Partnership Inc
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jan 05 16:42:07 EST 2017

Committee Statement

Resolution: [FR-12-NFPA 1600-2017](#)

Statement: The TC agrees that these changes are necessary to reflect the latest edition of the APELL Handbook.



Public Input No. 49-NFPA 1600-2016 [Section No. H.1]

A large, empty rectangular box with a thin black border, intended for public input or comments.

H.1

Awareness and Preparedness for Emergencies at the Local Level (APELL) consists of a series of programs developed in 1988 under the leadership of the United Nations Environmental Programme (UNEP) with the cooperation of multiple entities, including the U.S. EPA, in response to the Union Carbide gas leak in Bhopal, India, in December 1984. APELL is a multistakeholder dialogue tool that establishes adequate coordination and communication in situations in which the public might be affected by accidents and disasters.

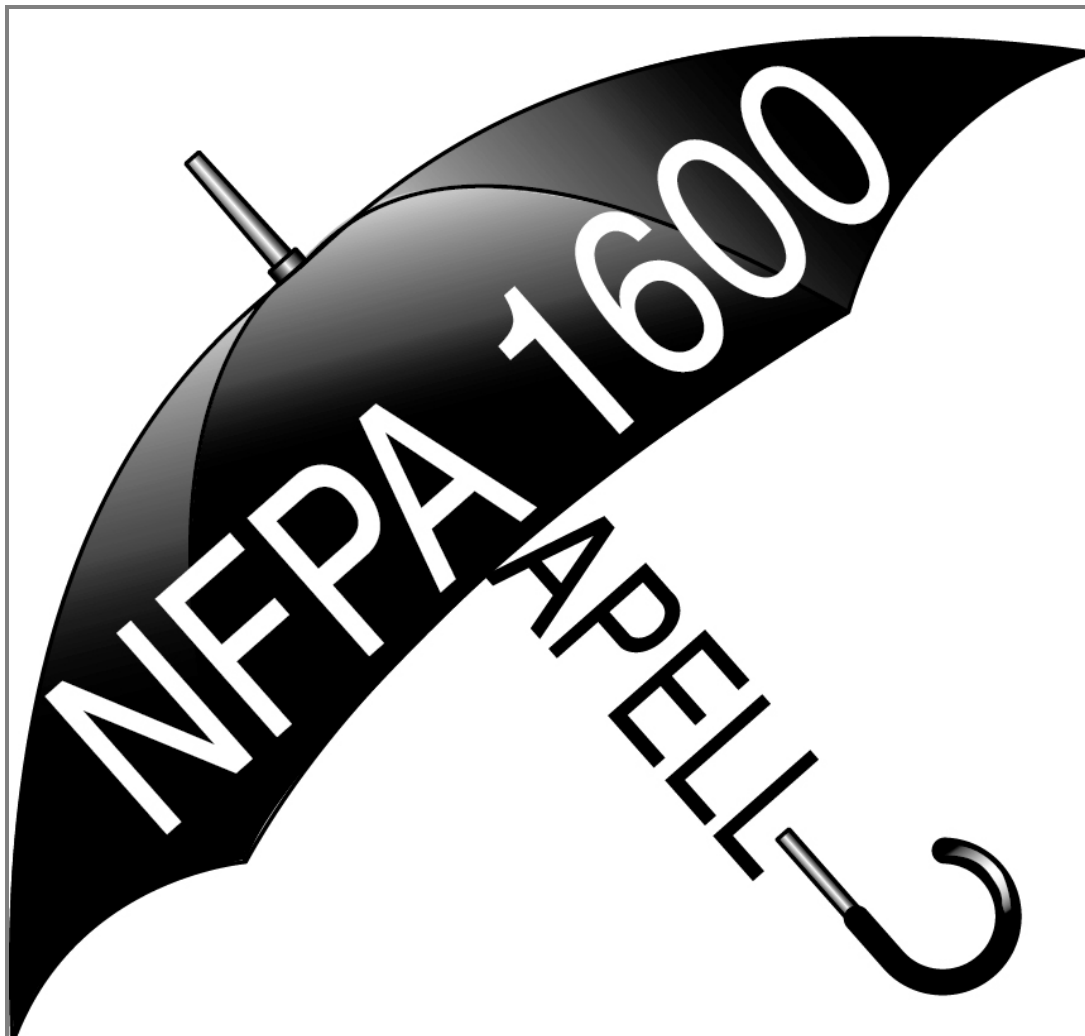
The APELL program was successfully used to implement *NFPA 1600*, a standard developed to define a program for the integration of emergency management and business continuity/continuity of operations, and applicable to the private, public, and not-for-profit sectors.

The APELL program for technological hazards was implemented in 1996 in Bahia Blanca, Argentina, a city located in the southeast of the province of Buenos Aires, by the Atlantic Ocean. The city, with a population of over 300,000, is an important seaport whose harbor reaches a depth of 40 ft (12 m). The name Bahía Blanca, which means "White Bay," comes from the typical color of the salt covering the soil surrounding the shores.

The need for the APELL program in Bahia Blanca is reinforced by a review of the number and amounts of hazardous chemicals produced each year. The industrial complex is made up of three types of industry:

- (1) Petroleum industry, with an installed capacity of 4 million tons a year, producing ethanol, petrol, naphtha, GLP, fuel oil, gas oil, gasoline, asphalt, and kerosene
- (2) Petrochemical industry, with an installed capacity of 3.4 million tons a year, producing ethylene, VCM, PVC, polyethylene, urea, and pure ammonia
- (3) Chemical industry, with an installed capacity of 350,000 tons a year, producing chlorine and caustic soda

Figure H.1 Relationship of APELL to NFPA 1600.



Due to the success of implementing APELL and *NFPA 1600* (refer to Figure H.1) in Bahia Blanca, Argentina, the Local Emergency Planning Committee (LEPC) in Lake County, Indiana has adopted the same integrated approach to enhance the interaction among industries, local government, and the public as required under Superfund Amendments and Reauthorization Act (SARA) Title III. Lake County is located on the southern shore of Lake Michigan and has a heavy industrial concentration of steel, oil, and chemicals, a similar set of hazards as faced by Bahia Blanca. The LEPC is recommending a county ordinance to ensure implementation. Other counties in Indiana are exploring the advantages of using the APELL/*NFPA 1600* approach.

APELL process implementation consists of 10 steps:

- (1) Identify the emergency response participants and establish their roles, resources, and concerns.
- (2) Evaluate the hazards and risks that might result in emergency situations in the community.
- (3) Have participants review their own emergency response plans for adequacy relative to a coordinated response.
- (4) Identify the required response tasks not covered by existing plans.
- (5) Match the Step 4 tasks to the resources available from the identified participants.
- (6) Make changes necessary to improve existing plans and integrate existing plans into an overall community plan and gain agreement.
- (7) Commit an integrated community plan to writing and get approvals from the local government.
- (8) Educate participating groups about the integrated plan and ensure that all responders are trained.
- (9) Establish procedures for periodic testing, review, and updating of the plan.
- (10) Educate the general community on the integrated emergency response plan.

The APELL process informs the community about the risks to which they are exposed and educates the community on how to react to accidents/disasters. The program promotes the coordination among representatives from the industry, local-level institutions, and the public. The APELL process includes the preparation of an integrated community preparedness plan, including preparing the community for early warnings of emergencies.

Other APELL programs have been produced for mining, port areas, multi-hazards, transportation, and tourism and are available at <http://www.unep.fr/scp/sp/> from the United Nations Environmental Programmes:

[APELL for Mining: Guidance for the Mining Industry in raising awareness and preparedness for Emergencies at local level \(Technical Report 41\)](#)

[TransAPELL: Guidance for Dangerous Goods Transport Emergency Planning in a Local Community.](#)

[APELL for Port Areas: Preparedness and REsponse to Chemical Accidents in Ports](#)

[APELL - Awareness and Preparedness for Emergencies at Local Level: A Process for Responding to Technological Accidents.](#)

[Disaster Risk Management for Coastal Tourism Destinations Responding to Climate Change - A Practical Guide for Decision Makers.](#)

[Assessing the Vulnerability of Local Communities to Disaster - An Interactive Guide and Methodology, Community Risk Profile Tool \(CRP\)](#)

[Management of Industrial Accident Prevention and Preparedness: A Training Resource Package.](#)

Statement of Problem and Substantiation for Public Input

Update to Annex

Submitter Information Verification

Submitter Full Name: Joseph Jones

Organization: City of Aurora, Illinois

Affiliation: Committee member

Street Address:

City:

State:

Zip:

Submittal Date: Wed Dec 28 16:21:55 EST 2016

Committee Statement

Resolution: The committee rejected this revision because it duplicated the changes adopted in 126-NFPA. In addition there were numerous spelling issues that made it difficult to confirm the listed references and also because the list of references was not complete.



Public Input No. 92-NFPA 1600-2017 [Chapter I [Title Only]]

Personal or Family Preparedness

Statement of Problem and Substantiation for Public Input

The standard is designed to be used by all types of organizations, companies, small businesses, etc. There are a significant number of individuals in the workforce that are individuals living alone. We are suggesting that the committee discuss and consider that "personal" be added to address those who do not have a family in their home.

Submitter Information Verification

Submitter Full Name: Virginia Stouffer

Organization: Aforethought Consulting, LLC

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jan 02 20:30:19 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 100-NFPA 1600-2017 [Section No. I.1]

I.1

Experts agree that during emergencies individuals are concerned first and foremost with the safety and well-being of their families. Employees are responsible for developing their personal and family preparedness plan. Family preparedness plans should include employee work emergency response, recovery assignments, and reporting locations.

Companies can help employees become better prepared by educating and training individuals to plan, understand, and implement the steps they need to take with regard to their families in the event of an emergency. The process must consider not just what it takes to be ready but also the elements that build capabilities to recover rapidly and improve resilience. An entity must plan for protective actions and recovery of individuals at a personal level before establishing recovery time objectives (RTOs) and dispensing duties.

The organizational plan should include adequate education and training to ensure that individuals are prepared, can communicate, and know their family's status in order to function with full effectiveness. The training and education provided to employees should include preparations needed for evacuating and sheltering their families, as well as provide information regarding the unique needs of people with disabilities and other access and functional needs. A plan must ~~ensure~~ insure employees and their families are prepared for self-sufficiency for a minimum of three (3) days.

Following the "Plan-Do-Check-Act" (PDCA) model, family preparedness actions can be aligned with whole community response and recovery actions.

Statement of Problem and Substantiation for Public Input

Based on the definition, we believe the word should be "insure" instead of "ensure"

Submitter Information Verification

Submitter Full Name: Virginia Stouffer

Organization: Aforethought Consulting, LLC

Street Address:

City:

State:

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Submittal Date: Mon Jan 02 20:58:58 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 102-NFPA 1600-2017 [Section No. I.1]

I.1

Experts agree that during emergencies individuals are concerned first and foremost with the safety and well-being of their families. Employees are responsible for developing their personal and family preparedness plan. ~~Family preparedness plans should include employee work emergency response, recovery assignments, and reporting locations.~~

Companies can help employees become better prepared by educating and training individuals to plan, understand, and implement the steps they need to take with regard to their families in the event of an emergency. The process must consider not just what it takes to be ready but also the elements that build capabilities to recover rapidly and improve resilience. An entity must plan for protective actions and recovery of individuals at a personal level before establishing recovery time objectives (RTOs) and dispensing duties.

The organizational plan should include adequate education and training to ensure that individuals are prepared, can communicate, and know their family's status in order to function with full effectiveness. The training and education provided to employees should include preparations needed for evacuating and sheltering their families, as well as provide information regarding the unique needs of people with disabilities and other access and functional needs. A plan must ensure employees and their families are prepared for self-sufficiency for a minimum of three (3) days.

Following the "Plan-Do-Check-Act" (PDCA) model, family preparedness actions can be aligned with whole community response and recovery actions.

Statement of Problem and Substantiation for Public Input

Removed last sentence in the paragraph that referred to "employee" recovery assignments and contact information since the paragraph subject is family preparedness.

Submitter Information Verification

Submitter Full Name: Virginia Stouffer

Organization: Aforethought Consulting, LLC

Street Address:

City:

State:

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Submission Date: Mon Jan 02 21:15:43 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 103-NFPA 1600-2017 [Section No. I.1]

I.1

Experts agree that during emergencies individuals are concerned first and foremost with the safety and well-being of their families. Employees are responsible for developing their personal and family preparedness plan. Family preparedness plans should include employee work emergency response, recovery assignments, and reporting locations.

Companies can help employees become better prepared by educating and training individuals to plan, understand, and implement the steps they need to take with regard to their families in the event of an emergency. The process must consider not just what it takes to be ready but also the elements that build capabilities to recover rapidly and improve resilience. An entity must plan for protective actions and recovery of individuals at a personal level before establishing recovery time objectives (RTOs) and dispensing duties.

The organizational plan should include adequate education and training to ensure that individuals are prepared, can communicate, and know their family's status in order to function with full effectiveness. The training and education provided to employees should include preparations needed for evacuating and sheltering their families, as well as provide information regarding the unique needs of people with disabilities and other access and functional needs. A plan must ensure employees and their families, including pets, are prepared for self-sufficiency for a minimum of three (3) days.

Following the "Plan-Do-Check-Act" (PDCA) model, family preparedness actions can be aligned with whole community response and recovery actions.

Statement of Problem and Substantiation for Public Input

Suggest that we add "including pets" to be sure the needs of the pets are considered in the planning.

Submitter Information Verification

Submitter Full Name: Virginia Stouffer
Organization: Aforethought Consulting, LLC
Street Address:
City:
State:
Zip:
Submission Date: Mon Jan 02 21:19:47 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)
Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 35-NFPA 1600-2016 [Section No. I.1]

I.1

Experts agree that during emergencies individuals are concerned first and foremost with the safety and well-being of their families. Employees are responsible for developing their personal and family preparedness plan. Family preparedness plans should include employee work emergency response, recovery assignments, and reporting locations.

Companies can help employees become better prepared by educating and training individuals to plan, understand, and implement the steps they need to take with regard to their families in the event of an emergency. The process must consider not just what it takes to be ready but also the elements that build capabilities to recover rapidly and improve resilience. An entity must plan for protective actions and recovery of individuals at a personal level before establishing recovery time objectives (RTOs) and dispensing duties.

The organizational plan should include adequate education and training to ensure that individuals are prepared, can communicate, and know their family's status in order to function with full effectiveness. The training and education provided to employees should include preparations needed for evacuating and sheltering their families, as well as provide information regarding the unique needs of people with disabilities and other access and functional needs. A plan must ensure employees and their families are prepared for self-sufficiency for a minimum of three (3) days.

Following the "Plan-Do-Check-Act" (PDCA) model, family preparedness actions can be aligned with whole community response and recovery actions.

Statement of Problem and Substantiation for Public Input

Duplicate word

Submitter Information Verification

Submitter Full Name: Joseph Jones
Organization: City of Aurora Illinois
Affiliation: NFPA 1600 Committee member
Street Address:
City:
State:
Zip:
Submittal Date: Tue Nov 22 17:03:13 EST 2016

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 81-NFPA 1600-2017 [Section No. I.1]

I.1

Experts agree that during emergencies individuals are concerned first and foremost with the safety and well-being of themselves and their families. Employees are responsible for developing their personal and family preparedness plan. Family preparedness plans should include employee work emergency response, recovery assignments, and reporting locations.

Companies can help employees become better prepared by educating and training individuals to plan, understand, and implement the steps they need to take with regard to their families in the event of an emergency. The process must consider not just what it takes to be ready but also the elements that build capabilities to recover rapidly and improve resilience. An entity must plan for protective actions and recovery of individuals at a personal level before establishing recovery time objectives (RTOs) and dispensing duties.

The organizational plan should include adequate education and training to ensure that individuals are prepared, can communicate, and know their family's status in order to function with full effectiveness. The training and education provided to employees should include preparations needed for evacuating and sheltering their families, as well as provide information regarding the unique needs of people with disabilities and other access and functional needs. A plan must ensure employees and their families are prepared for self-sufficiency for a minimum of three (3) days.

Following the "Plan-Do-Check-Act" (PDCA) model, family preparedness actions can be ~~be~~ aligned with whole community response and recovery actions.

Statement of Problem and Substantiation for Public Input

Removes duplicate word.

Adding "themselves and" maintains addressing both individuals as well as families.

Submitter Information Verification

Submitter Full Name: Virginia Stouffer

Organization: Aforethought Consulting, LLC

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jan 02 17:55:55 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 93-NFPA 1600-2017 [Section No. I.1]

I.1

Experts agree that during emergencies individuals are concerned first and foremost with the safety and well-being of themselves and their families. Employees are responsible for developing their personal and family preparedness plan. Family preparedness plans should include employee work emergency response, recovery assignments, and reporting locations.

Companies can help employees become better prepared by educating and training individuals to plan, understand, and implement the steps they need to take with regard to their families in the event of an emergency. The process must consider not just what it takes to be ready but also the elements that build capabilities to recover rapidly and improve resilience. An entity must plan for protective actions and recovery of individuals at a personal level before establishing recovery time objectives (RTOs) and dispensing duties.

The organizational plan should include adequate education and training to ensure that individuals are prepared, can communicate, and know their family's status in order to function with full effectiveness. The training and education provided to employees should include preparations needed for evacuating and sheltering their families, as well as provide information regarding the unique needs of people with disabilities and other access and functional needs. A plan must ensure employees and their families are prepared for self-sufficiency for a minimum of three (3) days.

Following the "Plan-Do-Check-Act" (PDCA) model, family preparedness actions can be aligned with whole community response and recovery actions.

Statement of Problem and Substantiation for Public Input

Adding "themselves and" maintains addressing both individuals as well as families.

Submitter Information Verification

Submitter Full Name: Virginia Stouffer

Organization: Aforethought Consulting, LLC

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jan 02 20:35:46 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 94-NFPA 1600-2017 [Section No. I.1]

I.1

Experts agree that during emergencies individuals are concerned first and foremost with the safety and well-being of their families. Employees are responsible for developing their personal and family preparedness plan. Family preparedness plans should include employee work emergency response, recovery assignments, and reporting locations.

~~Companies~~ Entities can help employees become better prepared by educating and training individuals to plan, understand, and implement the steps they need to take with regard to their families in the event of an emergency. The process must consider not just what it takes to be ready but also the elements that build capabilities to recover rapidly and improve resilience. An entity must plan for protective actions and recovery of individuals at a personal level before establishing recovery time objectives (RTOs) and dispensing duties.

The organizational plan should include adequate education and training to ensure that individuals are prepared, can communicate, and know their family's status in order to function with full effectiveness. The training and education provided to employees should include preparations needed for evacuating and sheltering their families, as well as provide information regarding the unique needs of people with disabilities and other access and functional needs. A plan must ensure employees and their families are prepared for self-sufficiency for a minimum of three (3) days.

Following the "Plan-Do-Check-Act" (PDCA) model, family preparedness actions can be aligned with whole community response and recovery actions.

Statement of Problem and Substantiation for Public Input

Suggest "Entities" instead of "Companies"

Submitter Information Verification

Submitter Full Name: Virginia Stouffer

Organization: Aforethought Consulting, LLC

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City:

State:

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Submittal Date: Mon Jan 02 20:37:56 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 95-NFPA 1600-2017 [Section No. I.1]

I.1

Experts agree that during emergencies individuals are concerned first and foremost with the safety and well-being of their families. Employees are responsible for developing their personal and family preparedness plan. Family preparedness plans should include employee work emergency response, recovery assignments, and reporting locations.

~~Companies~~ Organizations can help employees become better prepared by educating and training individuals to plan, understand, and implement the steps they need to take with regard to their families in the event of an emergency. The process must consider not just what it takes to be ready but also the elements that build capabilities to recover rapidly and improve resilience. An entity must plan for protective actions and recovery of individuals at a personal level before establishing recovery time objectives (RTOs) and dispensing duties.

The organizational plan should include adequate education and training to ensure that individuals are prepared, can communicate, and know their family's status in order to function with full effectiveness. The training and education provided to employees should include preparations needed for evacuating and sheltering their families, as well as provide information regarding the unique needs of people with disabilities and other access and functional needs. A plan must ensure employees and their families are prepared for self-sufficiency for a minimum of three (3) days.

Following the "Plan-Do-Check-Act" (PDCA) model, family preparedness actions can be aligned with whole community response and recovery actions.

Statement of Problem and Substantiation for Public Input

Suggest "Organizations" instead of "Companies"

Submitter Information Verification

Submitter Full Name: Virginia Stouffer
Organization: Aforethought Consulting, LLC
Street Address:
City:
State:
Zip:
Submittal Date: Mon Jan 02 20:39:08 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)
Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 96-NFPA 1600-2017 [Section No. I.1]

I.1

Experts agree that during emergencies individuals are concerned first and foremost with the safety and well-being of their families. Employees are responsible for developing their personal and family preparedness plan. Family preparedness plans should include employee work emergency response, recovery assignments, and reporting locations.

Companies can help employees become better prepared by educating and training individuals to plan, understand, and implement the steps they need to take with regard to preparing themselves and their families in the event of an emergency. The process must consider not just what it takes to be ready but also the elements that build capabilities to recover rapidly and improve resilience. An entity must plan for protective actions and recovery of individuals at a personal level before establishing recovery time objectives (RTOs) and dispensing duties.

The organizational plan should include adequate education and training to ensure that individuals are prepared, can communicate, and know their family's status in order to function with full effectiveness. The training and education provided to employees should include preparations needed for evacuating and sheltering their families, as well as provide information regarding the unique needs of people with disabilities and other access and functional needs. A plan must ensure employees and their families are prepared for self-sufficiency for a minimum of three (3) days.

Following the "Plan-Do-Check-Act" (PDCA) model, family preparedness actions can be aligned with whole community response and recovery actions.

Statement of Problem and Substantiation for Public Input

Added "preparing themselves and " to maintain addressing the individual too.

Submitter Information Verification

Submitter Full Name: Virginia Stouffer

Organization: Aforethought Consulting, LLC

Street Address:

City:

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Zip:

Submittal Date: Mon Jan 02 20:41:21 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 97-NFPA 1600-2017 [Section No. I.1]

I.1

Experts agree that during emergencies individuals are concerned first and foremost with the safety and well-being of their families. Employees are responsible for developing their personal and family preparedness plan. Family preparedness plans should include employee work emergency response, recovery assignments, and reporting locations.

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The organizational plan should include adequate education and training to ensure that individuals are prepared, can communicate, and know their family's status in order to function with full effectiveness. The training and education provided to employees should include preparations needed for evacuating and sheltering themselves and their families, as well as provide information regarding the unique needs of people with disabilities and other access and functional needs. A plan must ensure employees and their families are prepared for self-sufficiency for a minimum of three (3) days.

Following the "Plan-Do-Check-Act" (PDCA) model, family preparedness actions can be aligned with whole community response and recovery actions.

Statement of Problem and Substantiation for Public Input

Adding "themselves and " maintains addressing the individual too.

Submitter Information Verification

Submitter Full Name: Virginia Stouffer

Organization: Aforethought Consulting, LLC

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jan 02 20:43:54 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 98-NFPA 1600-2017 [Section No. I.1]

I.1

Experts agree that during emergencies individuals are concerned first and foremost with the safety and well-being of their families. Employees are responsible for developing their personal and family preparedness plan. Family preparedness plans should include employee work emergency response, recovery assignments, and reporting locations.

Companies can help employees become better prepared by educating and training individuals to plan, understand, and implement the steps they need to take with regard to their families in the event of an emergency. The process must consider not just what it takes to be ready but also the elements that build capabilities to recover rapidly and improve resilience. An entity must plan for protective actions and recovery of individuals at a personal level before establishing recovery time objectives (RTOs) and dispensing duties.

The organizational plan should include adequate education and training to ensure that individuals are prepared, can communicate, and know their family's status in order to function with full effectiveness. The training and education provided to employees should include preparations needed for evacuating and sheltering their families, as well as provide information regarding the unique needs of people with disabilities and other access and functional needs. A plan must ensure employees and their families are prepared for self-sufficiency for a minimum of three (3) days.

Following the "Plan-Do-Check-Act" (PDCA) model, individual or family preparedness actions can be aligned with whole community response and recovery actions.

Statement of Problem and Substantiation for Public Input

Added "individual or" maintains addressing the individual too.

Submitter Information Verification

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Submittal Date: Mon Jan 02 20:46:41 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 82-NFPA 1600-2017 [Section No. I.2.1]

I.2.1 Plan.

The entity should consider establishing a system to identify, document, communicate, measure, educate, and train employees on how to prepare themselves and their families in the event of an emergency.

The entity should consider implementing a program that educates and trains employees on how to be informed about family and community risks and vulnerabilities, as well as community response and recovery programs to determine family protective strategies and skills required for effective response in an emergency or disaster situation.

By taking personal preparedness measures, such as conducting a family risk assessment, and engaging in preparedness planning, individuals can develop plans and create readiness kits that will allow them to respond to an emergency with a greater level of confidence.

Public and private sector employees should be encouraged by the entity to make preparedness and resiliency a priority at home.

The entity should encourage their contractors to have a similar program for their employees.

Statement of Problem and Substantiation for Public Input

Correction to original sentence punctuation by removing a ",".

Submitter Information Verification

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Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)
Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 114-NFPA 1600-2017 [Section No. I.2.2.1]

I.2.2.1

The following categories of preparedness follow a national consensus on messaging about individual and family preparedness used by FEMA and other federal agencies as well as national nonprofit entities conducting preparedness training. The following categories of preparedness follow a national consensus on messaging about employee and family preparedness used by FEMA and other federal agencies as well as national nonprofit entities conducting preparedness training.

I.2.2.1.1 Risk Assessment.

Based on the individual's geography, living conditions, socio-economic status, including work and home-based roles and responsibilities, a risk assessment should guide individuals to prepare for natural disasters and emergencies that are most likely to occur in their location. Being prepared for these events will build resilience for unforeseen future emergencies.

I.2.2.1.2 Protective Actions, Alerts and Warnings.

Based on the hazards identified in the risk assessment, knowledge and skills to take the appropriate primary and alternative protective actions that will decrease vulnerability in an event; knowledge of local alerts and warning systems and plans for how to receive updated information during an emergency; knowledge of jurisdictions' and frequent locations' response plans (e.g., home, work, sports venues) including shelter and evacuation plans.

I.2.2.1.3 Family Preparedness Plan.

Designated rally locations if separated in an emergency, home fire escape plan, communication plan for when household members are separated or normal communications are disrupted (cell phones do not work), the unique needs for access and functional need individuals, emergency utility shutoff, shelter and evacuation plans for individuals based on their family preparedness plans and local jurisdiction emergency plans, emergency contact information. NFPA 1616 Standard for Mass Evacuation and Sheltering addresses the issues related to evacuation, sheltering, reentry needed for people with access and functional needs.

I.2.2.1.4 Recovery.

Plans for all types of emergencies. Both short- and long-term recovery strategies include determining living and transportation arrangements to be able to return to work. Therefore, communicating to employees how they can take advantage of government programs is vital. Employees should understand the roles of the centers that open for disaster recovery.

I.2.2.1.5 Disaster Resiliency Plans.

For separated families (child, elder, and home care), financial and personal records and management, manage shifted roles and responsibilities of an absent family member.

I.2.2.1.6 Response and Recovery Tools and Supplies to Support Protective Actions and Plans.

Survival kits for multiple locations and each household/family member, copies of identification and essential documents, contents of wallet, and medicine cabinet.

The following represents the vital information necessary to prepare for, respond to, and recover from an event. The vital information is divided into five basic information areas and is presented with its intended purpose and a recommended checklist of data components. (A list of resources can be found in Annex J.)

The entity and employee responsibility for safe-guarding information does not change during an event. All best practices established before an event should remain in place or equivalent new practices should be implemented.

I.2.2.1.6.1

Personal information is intended to provide the basic information needed to prove an individual's identity, provide key medical information to first responders, or to aid in the information needed to apply for disaster assistance relief. Personal information can include the following:

- (1) Family contact information
- (2) Date of birth
- (3) Birth place
- (4) Phone numbers
- (5) Social Security number
- (6) Passport number
- (7) Immunization records
- (8) Driver's license number
- (9) Other identification numbers
- (10) Email addresses
- (11) Passwords and PINs
- (12) Family medical information
- (13) Immediate medical concerns
- (14) Current medications (name, dosage, frequency)
- (15) Medical insurance provider information

I.2.2.1.6.2

Financial information is intended to help individuals rebuild their financial history and/or to make insurance claims following an emergency. Financial information can include the following:

- (1) Bank information: checking/savings accounts, safe deposit box, other
- (2) Investments: stocks, bonds, CDs, IRAs, 401K, pensions, brokerage and other accounts
- (3) Debts: credit cards, auto loans, student loans, other debts
- (4) Real property: home, rental, time share, senior housing, other
- (5) Personal property (major items): automobiles, motorcycles, boats, RVs, other
- (6) Personal property (minor items): furniture, jewelry, art, collectibles, other
- (7) Income sources: wages, bonuses, commissions, rent, leases, alimony, child support, other
- (8) Expenses: mortgage, electric, gas, water, cable, home phone, cellular, trash, pet care, other
- (9) Insurances: home, vehicle, renters, other
- (10) Tax record history: federal, state, business, estate, other

I.2.2.1.6.3

Emergency information is intended to help individuals and their families in preplanning emergency action steps specific to their geographic risks, communication methods, and assembling of disaster emergency kit resources. Emergency information can include the following:

- (1) Emergency communication methods:
 - (2) Emergency contacts (i.e., out-of-town, regional, primary, work, etc.)
 - (3) Other relevant contacts (employer, insurance agent, landlord, school, etc.)
 - (4) Virtual rallying point locations (Facebook, Twitter, and other social networks, etc.)
- (5) Shelter-in-place or prearranged alternative shelter locations:
 - (6) Evacuation plans and routes
 - (7) Rally point locations near the home (if the emergency is localized to the home or a few homes)
 - (8) Utility shutoff procedures
- (9) Disaster kit (home, work, car): First aid, go bag, food, and water
- (10) Geographical identification of risks (natural or manmade): Local emergency resources
- (11) Critical workplace information (What is my emergency response assignment? Where do I report? Who do I report to?):
 - (12) Workplace disaster assistance (i.e., benefits, employee assistance programs, policies, processes)
 - (13) Workplace roles and responsibilities
- (14) Emergency physical access information (secured areas, garage, pool, etc.)
- (15) Emergency technology access information (work files, voicemail, home files, etc.)
- (16) Location of spare keys
- (17) Wallet contents

I.2.2.1.6.4

Household information is intended to assist an alternative provider in assuming household responsibilities and/or family care at a moment's notice. Household information can include the following:

- (1) Household details:
 - (2) Security system
 - (3) Mail delivery
 - (4) Waste removal
 - (5) Water
 - (6) Contracted services
 - (7) Nonemergency utility controls
 - (8) Routine bill pay information: Type of bill, amount, account it is paid out of, due date, and payment method (check, automatic, online)
- (9) Child and elder care information:
 - (10) Emergency contact information
 - (11) Nicknames
 - (12) Physician information
 - (13) Access and functional considerations
- (14) Pet care:
 - (15) Breed and sex
 - (16) Markings
 - (17) Veterinarian
 - (18) Special considerations
 - (19) Vaccination dates
 - (20) Medical history
- (21) Household security:
 - (22) Online accounts (user names, passwords, and secret question answers)
 - (23) ATM card numbers
 - (24) Home alarms
 - (25) Gated community access codes
- (26) Other numbers that someone else might need to assume care of your household or family members

I.2.2.1.6.5

Legal information is intended to assist a household in rebuilding the critical legal family information and to provide critical legal information that might need to be conveyed (such as medical directives and final considerations). Legal information can include the following:

- (1) Legal service provider information
- (2) Marriage certificates
- (3) Divorce and custody court orders
- (4) Alimony and childcare court orders
- (5) Adoption papers
- (6) Wills and trusts
- (7) Birth, marriage, and death certificates
- (8) Powers of attorney and medical releases
- (9) Location of identification cards
- (10) Location of tax and financial records
- (11) Medical directives and final considerations

Additional Proposed Changes

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
NFPA_1600_-_PC_25.pdf	NFPA 1600 PC 25	

Statement of Problem and Substantiation for Public Input

NOTE: This Public Input appeared as "Reject but Hold" in Public Comment No. 25 of the F2015 Second Draft Report for NFPA 1600 and per the Regs. at 4.4.8.3.1

NFPA 1616 is based on an integrated program described in NFPA 1600. This sentence links to two standards.

Submitter Information Verification

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Submittal Date: Wed Jan 04 14:43:44 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Comment No. 25-NFPA 1600-2014 [Section No. I.2.2.1]

A large, empty rectangular box with a thin black border, intended for entering a public comment.

1.2.2.1

The following categories of preparedness follow a national consensus on messaging about individual and family preparedness used by FEMA and other federal agencies as well as national nonprofit organizations conducting preparedness training.

- (1) *Risk assessment.* Based on the individual's geography, living conditions, socio-economic status, including work and home-based roles and responsibilities, a risk assessment should guide individuals to prepare for natural disasters and emergencies that are most likely to occur in their location. Being prepared for these events will build resilience for unforeseen future emergencies.
- (2) *Protective Actions, Alerts and Warnings.* Based on the hazards identified in the risk assessment, knowledge and skills to take the appropriate primary and alternative protective actions that will decrease vulnerability in an event; knowledge of local alerts and warning systems and plans for how to receive updated information during an emergency; knowledge of jurisdictions' and frequent locations' response plans (e.g. home, work, sports venues) including shelter and evacuation plans.
- (3) *Family emergency plan.* Designated rally locations if separated in an emergency, home fire escape plan, communication plan for when household members are separated or normal communications are disrupted (e.g., the cell phones are out), the unique needs for disabled or special individuals, emergency utility shutoff, shelter and evacuation plans for individuals based on their frequent location plans and local jurisdiction emergency plans, emergency contact information. [NFPA 1616 Standard for Mass Evacuation and Sheltering addresses the issues related to evacuation, sheltering, reentry needed for people with access and functional needs](#)
- (4) *Recovery.* Plans for all types of emergencies (natural disaster, fire, death in family, insurance claims)
- (5) *Disaster resiliency plans.* For separated families (child, elder and home care), financial and personal records and management, manage shifted roles and responsibilities of an absent family member.
- (6) *Response and recovery tools and supplies to support protective actions and plans.* Survival kits for multiple locations and each household/family member, copies of identification and essential documents, contents of wallet, and medicine cabinet.

The following represents the vital information necessary in preparation for, response to, and recovery from an event. The vital information is divided into five basic information areas and is presented with its intended purpose and a recommended checklist of data components. *Note: A list of resources can be found in Annex J.* **Personal information** is intended to provide the basic information needed to prove an individual's identity, provide key medical information to first responders, or to aid in the information needed to apply for disaster assistance relief. Personal information can include the following:

- (1) Family contact information
- (2) Date of birth
- (3) Birth place
- (4) Phone numbers
- (5) Social Security number
- (6) Driver's license number
- (7) Other identification numbers
- (8) Email addresses
- (9) Passwords and PINs
- (10) Family medical information
- (11) Immediate medical concerns
- (12) Major health issues
- (13) Known allergies
- (14) Current medications (name, dosage, frequency)
- (15) Medical insurance provider information

Financial information is intended to help individuals rebuild their financial history and/or to make insurance claims following an emergency. Financial information can include the following:

- (1) Bank information: checking/savings accounts, safe deposit box, other

- (2) Investments: stocks, bonds, CDs, IRAs, 401K, pensions, brokerage and other accounts
- (3) Debts: credit cards, auto loans, student loans, other debts
- (4) Real property: home, rental, time share, senior housing, other
- (5) Personal property (major items): automobiles, motorcycles, boats, RVs, other
- (6) Personal property (minor items): furniture, jewelry, art, collectibles, other
- (7) Income sources: wages, bonuses, commissions, rent, leases, alimony, child support, other
- (8) Expenses: mortgage, electric, gas, water, cable, home phone, cellular, trash, pet care, other
- (9) Insurances: home, vehicle, renters, other
- (10) Tax record history: federal, state, business, estate, other

Emergency information is intended to help individuals and their families in pre-planning emergency action steps specific to their geographic risks, communication methods, and assembling of disaster emergency kit resources. Emergency information may include the following:

- (1) Emergency communication methods
 - (2) _ [Emergency contacts \(out-of-town, regional, primary, work, etc.\)](#)
 - (3) _ [Other relevant contacts \(employer, insurance agent, landlord, school, etc.\)](#)
 - (4) _ [Virtual rallying point locations \(Facebook, Myspace, Twitter, etc.\)](#)
- (5) Shelter-in-place or pre-arranged alternative shelter locations
 - (6) _ [Evacuation plans and routes](#)
 - (7) _ [Rally point locations near the home \(if the emergency is localized to the home or a few homes\)](#)
 - (8) _ [Utility shutoff procedures](#)
- (9) Disaster kit (home, work, car): First aid, go bag, food, and water
- (10) Geographical identification of risks (natural or man-made): Local emergency resources (CERT, Red Cross, 511, 211, etc.)
- (11) Critical workplace information (goes to Yes, But what do I do?)
 - (12) _ [Workplace disaster assistance \(benefits, policies, processes\)](#)
 - (13) _ [Workplace roles and responsibilities](#)
- (14) Emergency physical access information (secured areas, garage, pool, etc.)
- (15) Emergency technology access information (work files, voicemail, home files, etc.)
- (16) Location of spare keys
- (17) Wallet contents

Household information is intended to assist an alternative provider in assuming household responsibilities and/or family care at a moment's notice. Household information can include the following:

- (1) Household details
 - (2) _ [Security system](#)
 - (3) _ [Mail delivery](#)
 - (4) _ [Waste removal](#)
 - (5) _ [Watering](#)
 - (6) _ [Landscaping](#)
 - (7) _ [Housecleaning](#)

- (8) _ [Pool or spa](#)
- (9) _ [Water](#)
- (10) _ [Nonemergency utility controls](#)

- (11) Routine bill pay information: Type of bill, amount, account it is paid out of, due date, and payment method (check, automatic, online)
- (12) Child and elder care information
 - (13) _ [Emergency contact information](#)
 - (14) _ [Nicknames](#)
 - (15) _ [Physician information](#)
 - (16) _ [Special considerations](#)

- (17) Pet care
 - (18) _ [Breed and sex](#)
 - (19) _ [Markings](#)
 - (20) _ [Veterinarian](#)
 - (21) _ [Special considerations](#)
 - (22) _ [Vaccination dates](#)
 - (23) _ [Medical history](#)

- (24) Household security
 - (25) _ [Online accounts \(user names, passwords, and secret question answers\)](#)
 - (26) _ [ATM card numbers](#)
 - (27) _ [Home alarms](#)
 - (28) _ [Gated community access codes](#)
 - (29) _ [Other numbers that someone else might need to assume care of your household or family members](#)

Legal information is intended to assist a household in rebuilding the critical legal family information and to provide critical legal information that might need to be conveyed (such as medical directives and final considerations). Legal information can include the following:

- (1) Legal service provider information
- (2) Marriage certificates
- (3) Divorce and custody court orders
- (4) Alimony and childcare court orders
- (5) Adoption papers
- (6) Wills and trusts
- (7) Birth, marriage, and death certificates
- (8) Powers of attorney and medical releases
- (9) Location of identification cards
- (10) Location of tax and financial records
- (11) Medical directives and final considerations

Statement of Problem and Substantiation for Public Comment

NFPA 1616 is based on an integrated program described in NFPA 1600. This sentence links to two standards.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 21-NFPA 1600-2014 [Chapter J]	Addresses the issues for people with access and functional needs
<u>Related Item</u>	
Public Input No. 21-NFPA 1600-2013 [Chapter 7 [Title Only]]	

Submitter Information Verification

Submitter Full Name: Dean Larson
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Submittal Date: Fri Oct 24 18:54:45 EDT 2014

Committee Statement

Committee Action: Rejected but held
Resolution: The TC will hold until the next edition as the document referenced is not published at this date.

Copyright Assignment

I, Dean Larson, hereby irrevocably grant and assign to the National Fire Protection Association (NFPA) all and full rights in copyright in this Public Comment (including both the Proposed Change and the Statement of Problem and Substantiation). I understand and intend that I acquire no rights, including rights as a joint author, in any publication of the NFPA in which this Public Comment in this or another similar or derivative form is used. I hereby warrant that I am the author of this Public Comment and that I have full power and authority to enter into this copyright assignment.

By checking this box I affirm that I am Dean Larson, and I agree to be legally bound by the above Copyright Assignment and the terms and conditions contained therein. I understand and intend that, by checking this box, I am creating an electronic signature that will, upon my submission of this form, have the same legal force and effect as a handwritten signature



Public Input No. 50-NFPA 1600-2016 [Section No. I.2.2.1 [Excluding any Sub-Sections]]

The following categories of preparedness follow a national consensus on messaging about individual and family preparedness used by FEMA and other federal agencies as well as national nonprofit entities conducting preparedness training. ~~The following categories of preparedness follow a national consensus on messaging about employee and family preparedness used by FEMA and other federal agencies as well as national nonprofit entities conducting preparedness training.~~

Statement of Problem and Substantiation for Public Input

Duplicate sentence

Submitter Information Verification

Submitter Full Name: Joseph Jones
Organization: City of Aurora, Illinois
Affiliation: Committee member
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State:
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Submittal Date: Wed Dec 28 16:36:41 EST 2016

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)
Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 99-NFPA 1600-2017 [Section No. I.2.2.1 [Excluding any Sub-Sections]]

The following categories of preparedness follow a national consensus on messaging about individual and family preparedness used by FEMA and other federal agencies as well as national nonprofit entities conducting preparedness training. ~~The following categories of preparedness follow a national consensus on messaging about employee and family preparedness used by FEMA and other federal agencies as well as national nonprofit entities conducting preparedness training.~~

Statement of Problem and Substantiation for Public Input

Duplicate sentence deleted

Submitter Information Verification

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Submittal Date: Mon Jan 02 20:53:25 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)
Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 104-NFPA 1600-2017 [Section No. I.2.2.1.1]

I.2.2.1.1 Risk Assessment.

Based on the individual's geography, living conditions, socio-economic status, including work and home-based roles and responsibilities, a risk assessment should guide individuals to prepare for natural and manmade disasters and emergencies that are most likely to occur in their location. Being prepared for these events will build resilience for unforeseen future emergencies.

Statement of Problem and Substantiation for Public Input

Added "manmade" to cover disasters that are created by man

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Submittal Date: Mon Jan 02 21:21:58 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 58-NFPA 1600-2016 [Section No. I.2.2.1.1]

I.2.2.1.1 Risk Assessment.

Based on the individual's geography, living conditions, socio-economic status, including work and home-based roles and responsibilities, a risk assessment should guide individuals to prepare for natural disasters and emergencies that are most likely to occur in their location. Being prepared for these events will build resilience for unforeseen future emergencies. The results of the risk assessment completed by the entity should guide to support the preparing families.

Statement of Problem and Substantiation for Public Input

It does not seem realistic to expect families to complete a risk assessment.

Submitter Information Verification

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Submittal Date: Wed Dec 28 17:55:45 EST 2016

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 101-NFPA 1600-2017 [Section No. I.2.2.1.2]

I.2.2.1.2 Protective Actions, Alerts and Warnings.

Based on the hazards identified in the risk assessment, knowledge and skills to take the appropriate primary and alternative protective actions that will decrease vulnerability in an event; knowledge of local alerts and warning systems and plans for how to receive updated information during an emergency; knowledge of ~~jurisdictions'~~ the jurisdiction and frequent ~~locations'~~ response plans (e.g., location response plan such as home, work, sports venues), etc. including shelter and evacuation plans.

Statement of Problem and Substantiation for Public Input

We question the use of jurisdictions' and locations' and suggest it should be singular.

Submitter Information Verification

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Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)
Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 105-NFPA 1600-2017 [Section No. I.2.2.1.3]

I.2.2.1.3 Family Preparedness Plan.

Designated rally locations if separated in an emergency, home fire escape plan, communication plan for when household members are separated or normal communications are disrupted (cell phones do not work), the unique needs for access and functional need individuals, emergency utility shutoff, shelter and evacuation plans for individuals based on their family preparedness plans and local jurisdiction emergency plans, emergency contact information. Include an emergency contact who lives outside of the immediate area.

Statement of Problem and Substantiation for Public Input

Suggest that we include the need for a contact outside the immediate area.

Submitter Information Verification

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Submittal Date: Mon Jan 02 21:24:40 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)
Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 112-NFPA 1600-2017 [Section No. I.2.2.1.3]

I.2.2.1.3 Family Preparedness Plan.

Designated rally locations if separated in an emergency, home fire escape plan, communication plan for when household members are separated or normal communications are disrupted (cell phones do not work), the unique needs for access and functional need individuals, emergency utility shutoff, shelter and evacuation plans for individuals based on their family preparedness plans and local jurisdiction emergency plans, emergency contact information.

(The Task Group suggests that we should consider including some information from FEMA's CERT program either under this section or by adding a new section.)

Statement of Problem and Substantiation for Public Input

The Task Group would like the committee to provide input on the inclusion of FEMA's CERT program within Family Preparedness.

Submitter Information Verification

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Submission Date: Mon Jan 02 22:00:16 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)
Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 59-NFPA 1600-2016 [Section No. I.2.2.1.3]

I.2.2.1.3 Family Preparedness Plan.

Designated rally locations if separated in an emergency, home fire escape plan, communication plan for when household members are separated or normal communications are disrupted (cell phones do not work), the unique needs for access and functional need individuals, emergency utility shutoff, shelter and evacuation plans for individuals based on their family preparedness plans and local jurisdiction emergency plans, emergency contact information. [Ready .gov](#) and the American Red Cross have family preparedness planning guides available at no cost.

Statement of Problem and Substantiation for Public Input

Recommend including this sentence.

Submitter Information Verification

Submitter Full Name: Joseph Jones

Organization: City of Aurora, Illinois

Affiliation: Committee member

Street Address:

City:

State:

Zip:

Submission Date: Wed Dec 28 17:58:35 EST 2016

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 60-NFPA 1600-2016 [Section No. I.2.2.1.4]

I.2.2.1.4 Recovery.

Plans for all types of emergencies. Both short- and long-term recovery strategies include determining living and transportation arrangements to be able to return to work. Therefore, communicating to employees how they can take advantage of government programs is vital. Employees should understand the roles of the centers that open for disaster recovery. This should be part of the training program.

Statement of Problem and Substantiation for Public Input

Recommend added this sentence

Submitter Information Verification

Submitter Full Name: Joseph Jones

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Affiliation: Committee member

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City:

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Submittal Date: Wed Dec 28 18:00:53 EST 2016

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 61-NFPA 1600-2016 [Section No. I.2.2.1.6 [Excluding any Sub-Sections]]

Survival kits for multiple locations and each household/family member, copies of identification and essential documents, contents of wallet, and medicine cabinet.

The following represents the vital information necessary to prepare for, respond to, and recover from an event incident . The vital information is divided into five basic information areas and is presented with its intended purpose and a recommended checklist of data components. (A list of resources can be found in Annex J.)

~~The entity and employee responsibility for safe-guarding information does not change during an event. All best practices established before an event should remain in place or equivalent new practices should be implemented.~~

Statement of Problem and Substantiation for Public Input

Change to incident for continuity

Recommend removal of the last sentence, it does not belong in this annex.

Submitter Information Verification

Submitter Full Name: Joseph Jones

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Affiliation: Committee memeber

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Submittal Date: Wed Dec 28 18:14:40 EST 2016

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 83-NFPA 1600-2017 [Section No. I.2.2.1.6 [Excluding any Sub-Sections]]

Survival kits for multiple locations and each household/family member, copies of identification and essential documents, contents of wallet, and medicine cabinet.

The following represents the vital information necessary to prepare for, respond to, and recover from an event. The vital information is divided into five basic information areas and is presented with its intended purpose and a recommended checklist of data components. (A list of resources can be found in Annex J.)

The entity and employee responsibility for ~~safe-guarding~~ safeguarding information does not change during an event. All best practices established before an event should remain in place or equivalent new practices should be implemented.

Statement of Problem and Substantiation for Public Input

Checked Merriam Webster Dictionary and corrected form of word "safeguarding"

Submitter Information Verification

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Submittal Date: Mon Jan 02 18:02:09 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)
Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 85-NFPA 1600-2017 [Section No. I.2.2.1.6 [Excluding any Sub-Sections]]

Survival kits should be prepared for multiple locations and each household/family member, copies of identification and essential documents, contents of wallet, and medicine cabinet.

The following represents the vital information necessary to prepare for, respond to, and recover from an event. The vital information is divided into five basic information areas and is presented with its intended purpose and a recommended checklist of data components. (A list of resources can be found in Annex J.)

The entity and employee responsibility for safe-guarding information does not change during an event. All best practices established before an event should remain in place or equivalent new practices should be implemented.

Statement of Problem and Substantiation for Public Input

Added words "should be prepared" to clarify that the kits will need preparation

Submitter Information Verification

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Submittal Date: Mon Jan 02 18:07:29 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)
Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 86-NFPA 1600-2017 [Section No. I.2.2.1.6 [Excluding any Sub-Sections]]

Survival kits for multiple locations and each household/family member, to include copies of identification and essential documents, contents of wallet, and medicine cabinet.

The following represents the vital information necessary to prepare for, respond to, and recover from an event. The vital information is divided into five basic information areas and is presented with its intended purpose and a recommended checklist of data components. (A list of resources can be found in Annex J.)

The entity and employee responsibility for safe-guarding information does not change during an event. All best practices established before an event should remain in place or equivalent new practices should be implemented.

Statement of Problem and Substantiation for Public Input

Added words "to include" for sentence clarity

Submitter Information Verification

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Submittal Date: Mon Jan 02 18:08:38 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 62-NFPA 1600-2016 [Section No. I.2.2.1.6.1]

I.2.2.1.6.1

Personal information is intended to provide the basic information needed to prove an individual's identity, provide key medical information to first responders, or to aid in the information needed to apply for disaster assistance relief. Personal information can include the following:

- (1) Family contact information
- (2) Date of birth
- (3) Birth place
- (4) Phone numbers
- (5) Social Security number
- (6) Passport number
- (7) Immunization records
- (8) Driver's license number
- (9) Other identification numbers
- (10) Email addresses
- (11) Passwords and PINs
- (12) Family medical information, subject to HIPPA requirements
- (13) Immediate medical concerns, subject to HIPPA requirements
- (14) Current medications (name, dosage, frequency), subject to HIPPA requirements
- (15) Medical insurance provider information

Statement of Problem and Substantiation for Public Input

Add HIPPA language

Submitter Information Verification

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Submittal Date: Wed Dec 28 18:17:06 EST 2016

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 84-NFPA 1600-2017 [Section No. I.2.2.1.6.1]

I.2.2.1.6.1

Personal information is **Information**: This process is intended to provide the basic information needed to prove an individual's identity, provide key medical information to first responders, or to aid in the information needed to apply for disaster assistance relief. Personal information can include the following:

- (1) Family contact information
- (2) Date of birth
- (3) Birth place
- (4) Phone numbers
- (5) Social Security number
- (6) Passport number
- (7) Immunization records
- (8) Driver's license number
- (9) Other identification numbers
- (10) Email addresses
- (11) Passwords and PINs
- (12) Family medical information
- (13) Immediate medical concerns
- (14) Current medications (name, dosage, frequency)
- (15) Medical insurance provider information

Statement of Problem and Substantiation for Public Input

Capitalized "information" to create title for the sub section to make it easier for the reader to find when perusing the content; Added "This process" to create a proper sentence structure.

Submitter Information Verification

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Submittal Date: Mon Jan 02 18:05:59 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 106-NFPA 1600-2017 [Section No. I.2.2.1.6.2]

I.2.2.1.6.2

Financial information is intended to help individuals rebuild their financial history and/or to make insurance claims following an emergency. Financial information can include the following:

- (1) Bank information: checking/savings accounts, safe deposit box, other
- (2) Investments: stocks, bonds, CDs, IRAs, 401K, pensions, brokerage and other accounts
- (3) Debts: credit cards, auto loans, student loans, other debts
- (4) Real property: home, rental, time share, senior housing, other
- (5) Personal property (major items): automobiles, motorcycles, boats, RVs, other items of value
- (6) Personal property (minor items): furniture, jewelry, art, collectibles, other
- (7) Income sources: wages, bonuses, commissions, rent, leases, alimony, child support, other
- (8) Expenses: mortgage, electric, gas, water, cable, home phone, cellular, trash, pet care, other
- (9) Insurances: home, vehicle, renters, other
- (10) Tax record history: federal, state, business, estate, other

Statement of Problem and Substantiation for Public Input

Added "items of value" for clarification

Submitter Information Verification

Submitter Full Name: Virginia Stouffer
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Submittal Date: Mon Jan 02 21:28:58 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)
Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 107-NFPA 1600-2017 [Section No. I.2.2.1.6.2]

I.2.2.1.6.2

Financial information is intended to help individuals rebuild their financial history and/or to make insurance claims following an emergency. Financial information can include the following:

- (1) Bank information: checking/savings accounts, safe deposit box, other
- (2) Investments: stocks, bonds, CDs, IRAs, 401K, pensions, brokerage and other accounts
- (3) Debts: credit cards, auto loans, student loans, other debts
- (4) Real property: home, rental, time share, senior housing, other
- (5) Personal property (major items): automobiles, motorcycles, boats, RVs, other
- (6) Personal property (minor items): furniture, jewelry, art, collectibles, other
- (7) Income sources: wages, bonuses, commissions, rent, leases, alimony, child support, other
- (8) Expenses: mortgage, electric, gas, water, cable, home phone, cellular, trash, pet care, other
- (9) Insurances: home, vehicle, renters, other
- (10) Tax record history: federal, state, business, estate, other items of record

Statement of Problem and Substantiation for Public Input

Added "items of record" for clarification

Submitter Information Verification

Submitter Full Name: Virginia Stouffer
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Submittal Date: Mon Jan 02 21:31:16 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 63-NFPA 1600-2016 [Section No. I.2.2.1.6.2]

I.2.2.1.6.2

Financial information is intended to help individuals rebuild their financial history and/or to make insurance claims following an emergency. Financial information can include the following:

- (1) Bank information: checking/savings accounts, safe deposit box, other
- (2) Investments: stocks, bonds, CDs, IRAs, 401K, pensions, brokerage and other accounts
- (3) Debts: credit cards, auto loans, student loans, other debts
- (4) Real property: home, rental, time share, senior housing, other
- (5) Personal property (major items): automobiles, motorcycles, boats, RVs, other
- (6) Personal property (minor items): furniture, jewelry, art, collectibles, other
- (7) Income sources: wages, bonuses, commissions, rent, leases, alimony, child support, other
- (8) Expenses: mortgage, electric, gas, water, cable, home phone, cellular, trash, pet care, other
- (9) Insurances: home, vehicle, renters, other
- (10) Tax record history: federal, state, business, estate, other
- (11) Paper Checkbook

Statement of Problem and Substantiation for Public Input

Recommend addition of (11)

Submitter Information Verification

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Submittal Date: Wed Dec 28 18:19:38 EST 2016

Committee Statement

Resolution: FR-13-NFPA 1600-2017

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 87-NFPA 1600-2017 [Section No. I.2.2.1.6.2]

I.2.2.1.6.2

Financial information is **Information:** This process is intended to help individuals rebuild their financial history and/or to make insurance claims following an emergency. Financial information can include the following:

- (1) Bank information: checking/savings accounts, safe deposit box, other
- (2) Investments: stocks, bonds, CDs, IRAs, 401K, pensions, brokerage and other accounts
- (3) Debts: credit cards, auto loans, student loans, other debts
- (4) Real property: home, rental, time share, senior housing, other
- (5) Personal property (major items): automobiles, motorcycles, boats, RVs, other
- (6) Personal property (minor items): furniture, jewelry, art, collectibles, other
- (7) Income sources: wages, bonuses, commissions, rent, leases, alimony, child support, other
- (8) Expenses: mortgage, electric, gas, water, cable, home phone, cellular, trash, pet care, other
- (9) Insurances: home, vehicle, renters, other
- (10) Tax record history: federal, state, business, estate, other

Statement of Problem and Substantiation for Public Input

Capitalized "information" to create title and remain consistent in the format of previous sections. Added "This process" to create the proper sentence structure.

Submitter Information Verification

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Submittal Date: Mon Jan 02 18:27:07 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)
Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 108-NFPA 1600-2017 [Section No. I.2.2.1.6.3]

I.2.2.1.6.3

Emergency information is intended to help individuals and their families in preplanning emergency action steps specific to their geographic risks, communication methods, and assembling of disaster emergency kit resources. Emergency information can include the following:

- (1) Emergency communication methods:
 - (2) Emergency contacts (i.e., out-of-town, regional, primary, work, etc.)
 - (3) Other relevant contacts (employer, insurance agent, landlord, school, etc.)
 - (4) Virtual rallying point locations (Facebook, Twitter, and other social networks, etc.)
- (5) Shelter-in-place or prearranged alternative shelter locations:
 - (6) Evacuation plans and routes
 - (7) Rally point locations near the home (if the emergency is localized to the home or a few homes)
 - (8) Utility shutoff procedures
- (9) Disaster kit (home, work, car): First aid, go bag, food, pet food and water
- (10) Geographical identification of risks (natural or manmade): Local emergency resources
- (11) Critical workplace information (What is my emergency response assignment? Where do I report? Who do I report to?):
 - (12) Workplace disaster assistance (i.e., benefits, employee assistance programs, policies, processes)
 - (13) Workplace roles and responsibilities
- (14) Emergency physical access information (secured areas, garage, pool, etc.)
- (15) Emergency technology access information (work files, voicemail, home files, etc.)
- (16) Location of spare keys
- (17) Wallet contents

Statement of Problem and Substantiation for Public Input

Added "pet food" to ensure pets are included in the preparation

Submitter Information Verification

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Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 64-NFPA 1600-2016 [Section No. I.2.2.1.6.3]

I.2.2.1.6.3

Emergency information is intended to help individuals and their families in preplanning emergency action steps specific to their geographic risks, communication methods, and assembling of disaster emergency kit resources. Emergency information can include the following:

- (1) Emergency communication methods:
 - (2) Emergency contacts (i.e., out-of-town, regional, primary, work, etc.) Ensure your contacts are located far away from the incident impact area.
 - (3) Other relevant contacts (employer, insurance agent, landlord, school, etc.)
 - (4) Virtual rallying point locations (Facebook, Twitter, and other social networks, etc.)
- (5) Shelter-in-place or prearranged alternative shelter locations:
 - (6) Evacuation plans and routes
 - (7) Rally point locations near the home (if the emergency is localized to the home or a few homes)
 - (8) Utility shutoff procedures
- (9) Disaster kit (home, work, car): First aid, go bag, food, and water
- (10) Geographical identification of risks (natural or manmade): Local emergency resources
- (11) Critical workplace information (What is my emergency response assignment? Where do I report? Who do I report to?):
 - (12) Workplace disaster assistance (i.e., benefits, employee assistance programs, policies, processes)
 - (13) Workplace roles and responsibilities
- (14) Emergency physical access information (secured areas, garage, pool, etc.)
- (15) Emergency technology access information (work files, voicemail, home files, etc.)
- (16) Location of spare keys
- (17) Wallet contents

Statement of Problem and Substantiation for Public Input

Lessons learned from Hurricane Katrina and Sandy

Submitter Information Verification

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Submittal Date: Wed Dec 28 18:21:26 EST 2016

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 65-NFPA 1600-2016 [Section No. I.2.2.1.6.3]

I.2.2.1.6.3

Emergency information is intended to help individuals and their families in preplanning emergency action steps specific to their geographic risks, communication methods, and assembling of disaster emergency kit resources. Emergency information can include the following:

- (1) Emergency communication methods:
 - (2) Emergency contacts (i.e., out-of-town, regional, primary, work, etc.)
 - (3) Other relevant contacts (employer, insurance agent, landlord, school, etc.)
 - (4) Virtual rallying point locations (Facebook, Twitter, and other social networks, etc.)
- (5) Shelter-in-place or prearranged alternative shelter locations:
 - (6) Evacuation plans and routes
 - (7) Rally point locations near the home (if the emergency is localized to the home or a few homes)
 - (8) Utility shutoff procedures
 - (9) Shelter in Place should be part fo the family training program
- (10) Disaster kit (home, work, car): First aid, go bag, food, and water
- (11) Geographical identification of risks (natural or manmade): Local emergency resources
- (12) Critical workplace information (What is my emergency response assignment? Where do I report? Who do I report to?):
 - (13) Workplace disaster assistance (i.e., benefits, employee assistance programs, policies, processes)
 - (14) Workplace roles and responsibilities
- (15) Emergency physical access information (secured areas, garage, pool, etc.)
- (16) Emergency technology access information (work files, voicemail, home files, etc.)
- (17) Location of spare keys
- (18) Wallet contents

Statement of Problem and Substantiation for Public Input

Recommend adding section

Submitter Information Verification

Submitter Full Name: Joseph Jones
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Submittal Date: Wed Dec 28 18:26:49 EST 2016

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 66-NFPA 1600-2016 [Section No. I.2.2.1.6.3]

I.2.2.1.6.3

Emergency information is intended to help individuals and their families in preplanning emergency action steps specific to their geographic risks, communication methods, and assembling of disaster emergency kit resources. Emergency information can include the following:

- (1) Emergency communication methods:
 - (2) Emergency contacts (i.e., out-of-town, regional, primary, work, etc.)
 - (3) Other relevant contacts (employer, insurance agent, landlord, school, etc.)
 - (4) Virtual rallying point locations (Facebook, Twitter, and other social networks, etc.)
- (5) Shelter-in-place or prearranged alternative shelter locations:
 - (6) Evacuation plans and routes
 - (7) Rally point locations near the home (if the emergency is localized to the home or a few homes)
 - (8) Utility shutoff procedures
- (9) Disaster kit (home, work, car): First aid, go bag, food, and water
- (10) Geographical identification of risks (natural or manmade): Local emergency resources
- (11) Critical workplace information (What is my emergency response assignment? Where do I report? Who do I report to?):
 - (12) Workplace disaster assistance (i.e., benefits, employee assistance programs, policies, processes)
 - (13) Workplace roles and responsibilities
- (14) Emergency physical access information (secured areas, garage, pool, etc.)
- (15) Emergency technology access information (work files, voicemail, home files, etc.)
- (16) Location of spare keys
- (17) Wallet contents along with photo copies of wallet contents and passports.

Statement of Problem and Substantiation for Public Input

Recommend adding this section

Submitter Information Verification

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Affiliation: Committee member

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Submittal Date: Wed Dec 28 18:28:25 EST 2016

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 88-NFPA 1600-2017 [Section No. I.2.2.1.6.3]

I.2.2.1.6.3

Emergency information ~~is~~ **Information:** The preparation of emergency information is intended to help individuals and their families in preplanning emergency action steps specific to their geographic risks, communication methods, and assembling of disaster emergency kit resources. Emergency information can include the following:

- (1) Emergency communication methods:
 - (2) [Emergency contacts \(i.e., out-of-town, regional, primary, work, etc.\)](#)
 - (3) [Other relevant contacts \(employer, insurance agent, landlord, school, etc.\)](#)
 - (4) [Virtual rallying point locations \(Facebook, Twitter, and other social networks, etc.\)](#)
- (5) Shelter-in-place or prearranged alternative shelter locations:
 - (6) [Evacuation plans and routes](#)
 - (7) [Rally point locations near the home \(if the emergency is localized to the home or a few homes\)](#)
 - (8) [Utility shutoff procedures](#)
- (9) Disaster kit (home, work, car): First aid, go bag, food, and water
- (10) Geographical identification of risks (natural or manmade): Local emergency resources
- (11) Critical workplace information (What is my emergency response assignment? Where do I report? Who do I report to?):
 - (12) [Workplace disaster assistance \(i.e., benefits, employee assistance programs, policies, processes\)](#)
 - (13) [Workplace roles and responsibilities](#)
- (14) Emergency physical access information (secured areas, garage, pool, etc.)
- (15) Emergency technology access information (work files, voicemail, home files, etc.)
- (16) Location of spare keys
- (17) Wallet contents

Statement of Problem and Substantiation for Public Input

The change to Title case and the addition of "The preparation of ..." makes this sub section consistent with previous sections.

Submitter Information Verification

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Submittal Date: Mon Jan 02 18:28:08 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 109-NFPA 1600-2017 [Section No. I.2.2.1.6.4]

I.2.2.1.6.4

Household information is intended to assist an alternative provider in assuming household responsibilities and/or family care at a moment's notice. Household information can include the following:

- (1) Household details:
 - (2) [Security system](#)
 - (3) [Mail delivery](#)
 - (4) [Waste removal](#)
 - (5) [Water](#)
 - (6) [Contracted services](#)
 - (7) [Nonemergency utility controls](#)
 - (8) [Routine bill pay information: Type of bill, amount, account it is paid out of, due date, and payment method \(check, automatic, online\)](#)

- (9) Child and elder care information:
 - (10) [Emergency contact information](#)
 - (11) [Nicknames](#)
 - (12) [Physician information](#)
 - (13) [Access and functional considerations](#)
 - (14) [Medications](#)
 - (15) [Allergies](#)

- (16) Pet care:
 - (17) [Breed and sex](#)
 - (18) [Markings](#)
 - (19) [Veterinarian](#)
 - (20) [Special considerations](#)
 - (21) [Vaccination dates](#)
 - (22) [Medical history](#)

- (23) Household security:
 - (24) [Online accounts \(user names, passwords, and secret question answers\)](#)
 - (25) [ATM card numbers](#)
 - (26) [Home alarms](#)
 - (27) [Gated community access codes](#)

- (28) Other numbers that someone else might need to assume care of your household or family members

Statement of Problem and Substantiation for Public Input

Added "Medications" and "Allergies" to improve the list of items needed for children and elder care

Submitter Information Verification

Submitter Full Name: Virginia Stouffer

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Submittal Date: Mon Jan 02 21:35:26 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 110-NFPA 1600-2017 [Section No. I.2.2.1.6.4]

I.2.2.1.6.4

Household information is intended to assist an alternative provider in assuming household responsibilities and/or family care at a moment's notice. Household information can include the following:

- (1) Household details:
 - (2) [Security system](#)
 - (3) [Mail delivery](#)
 - (4) [Waste removal](#)
 - (5) [Water](#)
 - (6) [Contracted services](#)
 - (7) [Nonemergency utility controls](#)
 - (8) [Routine bill pay information: Type of bill, amount, account it is paid out of, due date, and payment method \(check, automatic, online\)](#)

- (9) Child and elder care information:
 - (10) [Emergency contact information](#)
 - (11) [Nicknames](#)
 - (12) [Physician information](#)
 - (13) [Access and functional considerations](#)

- (14) Pet care:
 - (15) [Breed and sex](#)
 - (16) [Markings](#)
 - (17) [Veterinarian](#)
 - (18) [Special considerations](#)
 - (19) [Vaccination dates](#)
 - (20) [Medical history](#)

- (21) Household security:
 - (22) [Online accounts \(Provider, user names, passwords, and secret question answers\)](#)
 - (23) [ATM card numbers](#)
 - (24) [Home alarms](#)
 - (25) [Gated community access codes](#)

- (26) Other numbers that someone else might need to assume care of your household or family members

Statement of Problem and Substantiation for Public Input

Important to include "Provider" information and not just the information for login

Submitter Information Verification

Submitter Full Name: Virginia Stouffer
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Submittal Date: Mon Jan 02 21:38:19 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)
Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 67-NFPA 1600-2016 [Section No. I.2.2.1.6.4]

I.2.2.1.6.4

Household information is intended to assist an alternative provider in assuming household responsibilities and/or family care at a moment's notice. Household information can include the following:

- (1) Household details:
 - (2) [Security system](#)
 - (3) [Mail delivery](#)
 - (4) [Waste removal](#)
 - (5) [Water](#)
 - (6) [Contracted services](#)
 - (7) [Nonemergency utility controls](#)
 - (8) [Routine bill pay information: Type of bill, amount, account it is paid out of, due date, and payment method \(check, automatic, online\)](#)

- (9) Child and elder care information:
 - (10) [Emergency contact information](#)
 - (11) [Nicknames](#)
 - (12) [Physician information](#)
 - (13) [Access and functional considerations](#)
 - (14) [Ensure your out of area notification is far removed from the incident impact area.](#)

- (15) Pet care:
 - (16) [Breed and sex](#)
 - (17) [Markings](#)
 - (18) [Veterinarian](#)
 - (19) [Special considerations](#)
 - (20) [Vaccination dates](#)
 - (21) [Medical history](#)

- (22) Household security:
 - (23) [Online accounts \(user names, passwords, and secret question answers\)](#)
 - (24) [ATM card numbers](#)
 - (25) [Home alarms](#)
 - (26) [Gated community access codes](#)

- (27) Other numbers that someone else might need to assume care of your household or family members

Statement of Problem and Substantiation for Public Input

Lessons learned from Hurricane Katrina and Sandy

Submitter Information Verification

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Submittal Date: Wed Dec 28 18:30:48 EST 2016

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)
Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 89-NFPA 1600-2017 [Section No. I.2.2.1.6.4]

I.2.2.1.6.4

Household information is Information: The preparation of household information is intended to assist an alternative provider in assuming household responsibilities and/or family care at a moment's notice. Household information can include the following:

- (1) Household details:
 - (2) Security system
 - (3) Mail delivery
 - (4) Waste removal
 - (5) Water
 - (6) Contracted services
 - (7) Nonemergency utility controls
 - (8) Routine bill pay information: Type of bill, amount, account it is paid out of, due date, and payment method (check, automatic, online)

- (9) Child and elder care information:
 - (10) Emergency contact information
 - (11) Nicknames
 - (12) Physician information
 - (13) Access and functional considerations

- (14) Pet care:
 - (15) Breed and sex
 - (16) Markings
 - (17) Veterinarian
 - (18) Special considerations
 - (19) Vaccination dates
 - (20) Medical history

- (21) Household security:
 - (22) Online accounts (user names, passwords, and secret question answers)
 - (23) ATM card numbers
 - (24) Home alarms
 - (25) Gated community access codes

- (26) Other numbers that someone else might need to assume care of your household or family members

Statement of Problem and Substantiation for Public Input

The capitalization of "information" creates the title case, the addition of "The preparation of ..." makes this sub

section consistent with the previous sections.

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Submittal Date: Mon Jan 02 18:29:57 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 90-NFPA 1600-2017 [Section No. I.2.2.1.6.4]

I.2.2.1.6.4

Household information is intended to assist an alternative ~~provider~~ person in assuming household responsibilities and/or family care at a moment's notice. Household information can include the following:

- (1) Household details:
 - (2) Security system
 - (3) Mail delivery
 - (4) Waste removal
 - (5) Water
 - (6) Contracted services
 - (7) Nonemergency utility controls
 - (8) Routine bill pay information: Type of bill, amount, account it is paid out of, due date, and payment method (check, automatic, online)

- (9) Child and elder care information:
 - (10) Emergency contact information
 - (11) Nicknames
 - (12) Physician information
 - (13) Access and functional considerations

- (14) Pet care:
 - (15) Breed and sex
 - (16) Markings
 - (17) Veterinarian
 - (18) Special considerations
 - (19) Vaccination dates
 - (20) Medical history

- (21) Household security:
 - (22) Online accounts (user names, passwords, and secret question answers)
 - (23) ATM card numbers
 - (24) Home alarms
 - (25) Gated community access codes

- (26) Other numbers that someone else might need to assume care of your household or family members

Statement of Problem and Substantiation for Public Input

Changed "provider" to "person" because a "provider" typically means providing a server. In this reference it would be another family member or friend that would assume the responsibility

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Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 91-NFPA 1600-2017 [Section No. I.2.2.1.6.5]

I.2.2.1.6.5

Legal information ~~is~~ **Information:** The preparation of pertinent legal information ~~is~~ intended to assist a household in rebuilding the critical legal family information and to provide critical legal information that might need to be conveyed (such as medical directives and final considerations). Legal information can include the following:

- (1) Legal service provider information
- (2) Marriage certificates
- (3) Divorce and custody court orders
- (4) Alimony and childcare court orders
- (5) Adoption papers
- (6) Wills and trusts
- (7) Birth, marriage, and death certificates
- (8) Powers of attorney and medical releases
- (9) Location of identification cards
- (10) Location of tax and financial records
- (11) Medical directives and final considerations

Statement of Problem and Substantiation for Public Input

Capitalizing of "information" creates the title case makes this section consistent with previous sub sections. Adding "The preparation of pertinent legal information" fixes the sentence structure.

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Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)
Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 111-NFPA 1600-2017 [Section No. I.2.3]

I.2.3 Check.

Education and training is intended to prepare personnel to respond to emergencies and disasters and support performance of the entity's essential functions. Education and training of all personnel is critical for building the resilience that should allow the entity or business to recover rapidly and resume its mission and functions. As part of its training program, the entity must provide documentation of training conducted, training material, the date of training, names of personnel trained, and the name of the facilitator/instructor. This process and its supporting documentation will help ensure that individuals have received the necessary guidance and support and ~~know~~ knowledge prior to, during, and after an event what is expected of them. Training follows the criteria set forth in Chapter 7.

Statement of Problem and Substantiation for Public Input

Incorrect word use of 'know' - changed to "knowledge"

Submitter Information Verification

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Submittal Date: Mon Jan 02 21:40:31 EST 2017

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)
Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 68-NFPA 1600-2016 [Section No. I.2.3]

I.2.3 Check.

Education and training is intended to prepare personnel to respond to emergencies and disasters and support performance of the entity's essential functions. Education and training of all personnel is critical for building the resilience that should allow the entity or business to recover rapidly and resume its mission and functions. As part of its education and training program, the entity must provide documentation of training conducted, training material, the date of training, names of personnel trained, and the name of the facilitator/instructor. This process and its supporting documentation will help ensure that individuals have received the necessary guidance and support and know prior to, during, and after an event what is expected of them. Training follows the criteria set forth in Chapter7 in NFPA 1600 .

Statement of Problem and Substantiation for Public Input

Recommend addition of Education and reference to NFPA 1600 at end of section

Submitter Information Verification

Submitter Full Name: Joseph Jones
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Affiliation: Committee member
Street Address:
City:
State:
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Submittal Date: Wed Dec 28 18:32:46 EST 2016

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)
Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 69-NFPA 1600-2016 [Section No. I.2.4]

I.2.4 Act.

Based on measures of documented understanding, adequacy, and effectiveness of the education and training, the entity must take any corrective actions to improve or enhance the employee and family preparedness education and training program. Program improvements follow the criteria set forth in Chapter 9 in [NFPA 1600](#) .

Statement of Problem and Substantiation for Public Input

Recommend reference to NFPA 1600.

Submitter Information Verification

Submitter Full Name: Joseph Jones

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Submittal Date: Wed Dec 28 18:34:32 EST 2016

Committee Statement

Resolution: [FR-13-NFPA 1600-2017](#)

Statement: TC revised Annex I to reflect Personal and well as family preparedness.



Public Input No. 119-NFPA 1600-2017 [New Section after J.9.2]

Emergency Communications: Community-wide public alerts and warnings in rapid-onset emergencies

(newly proposed appendix for NFPA 1600, draft written on January 3, 2017)

Proposed by: Erica Kuligowski,

Fire Protection Engineer and Sociologist

Fire Research Division, Engineering Laboratory

National Institute of Standards and Technology

(please see pdf attached)

Additional Proposed Changes

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
Emergency_Communications_annex_1600_1-5-17_to_Submit_Kuligowski.pdf	PDF of a new annex proposed for NFPA1600 (Submitted by Kuligowski)	

Statement of Problem and Substantiation for Public Input

Currently, little information is provided in NFPA 1600 on alerts vs. warnings, emergency communication technology and/or approaches, and guidance on emergency communication strategies. I have proposed a new annex on community-wide public alerts and warnings for rapid-onset emergencies based on research and documents developed by the National Institute of Standards and Technology (NIST) and Fire Protection Research Foundation. The purpose of this annex is to provide information and guidance on emergency communication strategies to emergency managers, emergency personnel, first responders, alerting and warning system manufacturers, government agencies, the media, and other providers responsible for alerting and warning the public in the face of rapid-onset hazards and disasters. Evidence-based guidance is provided and references are included throughout. This work, especially the information and guidance on alerting via outdoor siren systems, social media, and short message service (SMS) platforms is a direct result of the NIST Technical Investigation of the May 22, 2011 tornado in Joplin, MO and implementation of the report's recommendations on emergency communications and public response.

Submitter Information Verification

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Submission Date: Thu Jan 05 11:25:04 EST 2017

Committee Statement

Resolution: FR-37-NFPA 1600-2017

Statement: The TC agrees with the submitter that this is part of the communications needed for community emergency management. It is linked to A.6.10.1.

Emergency Communications: Community-wide public alerts and warnings in rapid-onset emergencies

(newly proposed appendix for NFPA 1600, draft written on January 3, 2017)

Proposed by: Erica Kuligowski,
Fire Protection Engineer and Sociologist
Fire Research Division, Engineering Laboratory
National Institute of Standards and Technology

The material in this annex is based on the National Institute of Standards and Technology (NIST) and Fire Protection Research Foundation research and documents: *Developing Emergency Communication Strategies for Buildings* by E. Kuligowski, S. Gwynne, K. Butler, B. Hoskins, and C. Sandler, *General Guidance on Emergency Communication Strategies for Buildings, 2nd Edition* by E. Kuligowski and H. Omori, and *Outdoor Siren Systems: A review of technology, usage and public response during emergencies* by E. Kuligowski and K. Wakeman.

The purpose of this annex is to provide information and guidance on emergency communication strategies to emergency managers, emergency personnel, first responders, alerting and warning system manufacturers, government agencies, the media, and other providers responsible for alerting and warning the public in the face of rapid-onset¹ hazards and disasters. This guidance is based on multiple reviews of literature sources from a variety of social science and engineering disciplines (Kuligowski et al. 2012; Kuligowski and Wakeman 2017) as well as a workshop held with emergency managers and National Weather Service representatives from 13 tornado-prone communities in the U.S.

This annex presents guidance on community-wide public alerts and warnings for use in rapid-onset emergencies. The first section discusses the differences between alerts and warnings, followed by an overview of emergency communication technology and/or approaches. The annex ends with a presentation of guidance on emergency communication strategies, including general guidance on coordination and pre-planning, alerts, and warnings, as well as more specific guidance on alerts provided by outdoor siren systems and “short messages” sent by social media or other short message service (SMS) platforms.

- 1) **Alerts vs. Warnings:** This section discusses the differences between alerts and warnings. An *alert* is meant to grab peoples’ attention that an emergency is taking place and there is important information that will be provided to them. A *warning* message is meant to provide or convey that important information to building occupants. Effective warnings include information regarding the state of the emergency and what the public should do in response to the emergency.
- 2) **Emergency Communication Technologies and/or Approaches:** This section provides information on the types of emergency communication technologies and/or approaches available for communities or other entities to alert and warn the public of an impending hazard event. Alerting and warning systems represent a means to influence the information provided to a population and the manner in which this information is perceived. The technologies used determine the type of information that can be provided and how this information is provided. Several different technologies are discussed, below, organized by the classification systems similar to those used in *NFPA 72, The Fire Alarm and Signaling Code, 2016 Edition*.

¹ Rapid-onset emergencies are those emergencies that occur with little (in the case of minutes) or no notice, rather than slow-onset emergencies (i.e., emergencies in which the occurrence is known hours or days in advance). These different types of emergencies require different strategies for alerting and warning the public.

- a. **Technology used for wide-area communication:** First, there is technology that exists that will allow a community to broadly alert and/or warn individuals located in some geographical area, also known as “wide-area communication”. The technology featured in this annex that falls within this category is outdoor siren systems.
- i. **Outdoor siren systems** often consist of interconnected sirens designed to alert individuals located outdoors of an approaching threat. Outdoor siren systems are commonly used to alert the public of tornado events or other extreme weather conditions (including high winds); however, many communities also use this technology to alert the public of other weather-related events (e.g., hail, flash flooding, lightning, hurricanes, and derechos), as well as non-weather events (e.g., hazardous material situations, fire response and wildfires, active shooter threat, tsunami, earthquake, and volcanoes). The current systems available on the market are either electro-mechanical or electronic systems, which mainly differentiates how the sound is provided and what types of sounds can be disseminated. Electro-mechanical devices can disseminate sound only, including horns, whistles, and sirens; while electronic systems can disseminate both sound and voice. Those systems that allow for sound only would be considered *alerting systems*; whereas the systems that allow for both sound and voice communication would be considered *warning systems*². Additionally, there are a lower number of tones/signal types available for dissemination by electro-mechanical systems in comparison with electronic systems. Sirens can also be distinguished by their direction of sound: some systems consist of stationary sirens capable of producing constant sound in all directions (also known as omni-directional sirens), while other systems include directional sirens or horns that can rotate. Table 1, taken directly from Kuligowski and Wakeman (2017), includes a summary of the categorization of outdoor siren technology, and the significance of each category.

² It should be noted that while there are obvious benefits to providing warning information at the same time as an alert (Kuligowski and Omori 2014), FEMA guidance discusses whether siren system technology is the best mechanism to disseminate this information (FEMA 2006). Among other concerns, voice warnings may be unintelligible due to issues like communities’ terrain and ambient noises. FEMA notes that the use of voice communication via siren systems may require installation of more devices than would be necessary for the basic alerting system to ensure intelligibility (FEMA 2006).

Table 1: Categorization of Outdoor Siren Technology

Category	Explanation of Category	Range within Category	Significance
Type of System	Method describing how sound is provided	Electro-mechanical; Electrical	Identifies the types of sounds that can be disseminated (i.e., sound only vs. voice)
Voice Communication	Capability of disseminating information via voice.	Yes (capability is included); No	Allows dissemination of both a warning message and an alerting sound by the siren system
Signal (number of tones)*	The number of tones disseminated by the system.	1 tone to 10 tones, including custom tones	Allows communities to disseminate different types of sounds, both within the same community and across different U.S. communities
Direction of Sound	The coverage area of the siren system and its method of achieving that coverage (rotating or stationary)	180 degrees to 360 degrees	Affects the way individuals receive the tone throughout the community
Continuity of Sound	The time period allowed for continuous operation, before a cooling down period must begin	15 mins, 30 mins, to continuous	Affects the length of time that the siren's tone can sound continuously
Testing Options	The testing options available to verify that the siren is still functioning appropriately	Silent test; growl test; audible test only	Affects the frequency by which individuals hear the tone (during a test)

*Note: There are options to mount strobe lights on (or as part of) outdoor sirens to aid with alerting, especially to reach those who are unable to hear the siren tones/signals.

- b. **Technology used for communication through individual measures:** Second, there are technologies that exist that will allow a community official, e.g., emergency manager, government agency, or other entity within or outside of the community, to alert and/or warn individuals, on an individual and personal basis, also known as “communication through individual measures”. This technology allows the alert and/or warning message to be disseminated directly to the individual/member of the public, acting more like push³ technology, rather than pull technology. The technologies featured in this annex that fall within this category are social media, wireless emergency alerts (or WEAs), automated voice dialing and text messaging, and email. Note: applications (or “apps”) that are set up on a personal mobile device can also provide alerts and warnings, depending upon the app’s features and capabilities.
- i. **Social media** is a more recent form of alerting and/or warning. Online social media sites have been developed that allow people to maintain virtual connections via the Internet. These web-based services enable people to construct a profile, develop a list of other individuals with whom they share a connection, and view/follow their connections as well as the connections with others in the system (White et al. 2009). Examples of online social media platforms include Facebook, Instagram, Snapchat, YouTube, Twitter, Yahoo Groups, LinkedIn, Flickr, Yelp, Foursquare, Google+, and many other forums and blogs (American Red Cross 2010). These sites and others like them are increasingly being used for

³ Push technology are those that do not require individuals to take extra effort to receive the alert or warning message (e.g., text messages), whereas pull technology require the individual to seek additional information to acquire the alert/message (e.g., Internet websites).

providing alerting and warning information (i.e., photos, videos, graphics, and text) before, during and after emergencies. For disasters that require evacuation, for example, warning information can include maps, evacuation instructions, evacuation site/shelter locations, and directions and evacuation routes (American Red Cross 2010b). Social media platforms vary in the amount of information that can be provided via the system; i.e., some platforms restrict the number characters that can be disseminated via one message (e.g., Twitter restricts each message to 140 characters), while others do not. Platforms that do not restrict characters can operate more as *warning systems*, whereas more restrictive platforms are more likely to operate as *alerting systems*. Additionally, whereas most current emergency communication modes are one-way, in that providers send information to a population with little opportunity to receive feedback, social media provides the potential for interaction and two-way communication between emergency officials and the affected public (Latonero and Shklovski 2010). Since the technology is fairly new and possibly not as familiar as other older technology, the benefits and limitations of social media technology are included here.

1. **Benefits:** Using social media sites and tools for emergency communication can provide quick dissemination of information. Another benefit of social media is the ability for message providers to monitor public response, allowing them to craft messages that are appropriate for the current emergency as well as to provide follow-up messages that are relevant to the affected population and can correct or redirect actions if necessary. Although there has been a concern about the perpetuation of false information via social media sites, research has found that users often correct false information, such that social media in emergencies becomes self-correcting (Mileti and Sutton 2009). Another benefit of social media is its facilitation of the milling or confirmation process. In any emergency, individuals are likely to spend time discussing the emergency with others to decipher what is going on and what should be done about it. By posting information on social media sites, the milling process takes place in a virtual forum, which can reduce the time spent in this process and allow individuals to respond in a quicker manner (National Research Council 2013; Mileti and Sutton 2009). Finally, social media can provide a very fast, cheap, and relatively easy way for mass distribution of communications (White et al. 2009).
2. **Limitations:** Agencies may be required to spend a significant amount of time filtering and verifying incoming information both before and during a disaster (Humphrey 2011; Latonero and Shklovski 2010; White et al. 2009). Depending upon the duration of the disaster and the size of the affected community, this may not be a feasible avenue for two-way emergency communication. Additionally, depending upon the specific social networking tool, there may be limits to the character size of the message that can be provided (Humphrey 2011b). In this case, technologies that limit character size, e.g., 140 characters, may disseminate messages that act more so like an *alerting system* than a warning system, since it is difficult to include all information required in a warning message within smaller character limits. Another limitation to social media is that it may be relatively confined to certain subpopulations in the United States, for example, younger populations or populations with access to the internet (American Red Cross 2010c);

however, studies have shown that these discrepancies are decreasing. For example, usage among those 65 years old and older has more than tripled since 2010 and two-thirds of American adults (65%) are using social networking sites (Perrin 2015). Finally, as with any other technology that relies on the internet, electricity, and computer software, natural and human-caused disasters represent a risk of technology or software failure (or security breach) (White et al. 2009).

- ii. **Wireless Emergency Alerts (WEAs)** is a nationwide program whereby emergency messages (restricted to 90-characters in length) are sent to individual mobile devices by “authorized government alerting authorities”. An individual can receive these alerts directly to his/her mobile device, without the need to download an app or subscribe to a particular service. There are three main types of alerts that can be disseminated through this system, including alerts for extreme weather, AMBER alerts (i.e., urgent bulletins alerting individuals about child-abduction cases), and Presidential Alerts during a national emergency. WEA messages are always accompanied by a special tone and vibration, which are both repeated two times as the message is first displayed on the mobile device. In addition to emergency managers, the National Weather Service is considered an “authorized government alerting authority” and can send WEA messages for tsunami, tornado and flash floods, and hurricanes, typhoons, dust storms and extreme wind. The WEA messages are sent to individuals based upon their geographical location (i.e., WEAs are broadcast from area cell towers to mobile devices in the area), their type of device (i.e., it needs to be a WEA-capable phone), and their wireless carrier (i.e., the carrier must participate in the program). This is an opt-out program, in that if individuals do not wish to receive WEAs, they can opt-out of the system via settings on their mobile devices. WEAs are considered to be more of an *alerting system*, rather than a warning system, due to the difficulty in disseminating all required warning information in 90 characters. Due to their smaller character limit, WEA messages should provide notice of where the individual can find (or seek out) additional information about the impending emergency (FEMA.gov).
- iii. Many private companies now offer services that allow for automated messages to be disseminated to a certain population via ***routine phone (landline or mobile device), text, email, or app group services***. These are often facilitated through a business or university, among other communities, whereby an individual who wishes to register for the service will receive alerts and warning messages about various types of natural disasters and other types of human-caused events (e.g., active shooter threat or chemical spill/hazardous materials situation). This category of technology includes *Reverse 911*, which provides an automated message (audible) via phone call to registered landline or mobile phones.
- c. **Technology used for communication through public measures:** Third, there are technologies that will allow a public or private entity, within or outside of the community, to publicly broadcast alerts and/or warnings to members of the public (simultaneously), also known as “communication through public measures”. This technology, with the exception of tone alert radios, requires the individual (i.e., member of the public) to seek out additional information via the technology to acquire the alert/warning message, acting more like pull technology, rather than push⁴ technology.

⁴ Push technology are those that do not require individuals to take extra effort to receive the alert or warning message (e.g., text messages), whereas pull technology require the individual to seek additional information to acquire the alert/message (e.g., Internet websites).

The technologies featured in this annex that fall within this category are the emergency alert system (or EAS); radio and television broadcast; tone alert radios; and internet/website posts, news and/or blogs.

- i. The ***Emergency Alert System (or EAS)*** is a national public alerting and warning system that requires the following providers to disseminate communications' capability to the President to address the American public within 10 minutes during a national emergency: broadcasters, cable television systems, wireless cable systems, satellite digital audio radio service and direct broadcast satellite. This system can also be used by state and local authorities, in cooperation with the broadcast community, to deliver emergency information, such as AMBER alerts and weather information. EAS, at the federal level, is jointly coordinated by the Federal Emergency Management Association (FEMA), the Federal Communications Commission (FCC), and the National Weather Service (NWS). Each message is comprised of four features: a header, an attention signal or tone, an audible announcement (of which some portion may be provided via text), and an "end-of-message" marker; allowing for the categorization of this technology as both an *alert and a warning system*. This system is part of a suite of technology to deliver emergency information to the public⁵, including WEAs and NOAA Weather Radio All Hazards (NWR) via NOAA⁶ Weather radios (FCC.gov), which are discussed in the next section.
- ii. ***Tone alert (or weather alert) radios*** are a technology used to disseminate messages originated by NOAA Weather Radio All Hazards (NWR), a national network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official National Weather Service warnings, watches, forecasts, and other hazard information 24 hours a day, 7 days a week (www.nws.noaa.gov). NWR also broadcasts warning information for all types of natural, environmental, and public safety emergencies, in partnership with federal, state, and local emergency managers and other public officials. The tone alert radios, or NWR transmitters, can be purchased by individuals at any retail outlet, as well as online. The receivers are either desktop or handheld models, and these require the owner to program the radio (i.e., to specify the particular area for which he/she would like to receive alerts) to ensure that the appropriate location-specific broadcasts are disseminated via the receiver. Before the NWR warning messages are broadcast, the radio will disseminate a 1050 Hz tone alarm even if the audio is turned off⁷, allowing for the categorization of this technology as both an *alerting and a warning system* (www.nws.noaa.gov)⁸.
- iii. In addition to EAS via television or radio, the public can also receive warning information via other ***radio or television broadcasts***. Warning information can be provided by various types of television channels or radio stations; however,

⁵ It is also appropriate to mention that the Integrated Public Alert and Warning System (IPAWS) is an internet-based capability that Federal, State, territorial, tribal, and local authorities can use to issue critical public alerts and warnings about emergencies using EAS, WEA, NOAA Weather Radio, and other public alerting systems from a single interface (<https://www.fema.gov/integrated-public-alert-warning-system>).

⁶ NOAA stands for National Oceanic and Atmospheric Administration.

⁷ Note: Some manufacturers of weather alert radios allow for adaptors, including visual and vibrating alarms and simple readouts, for the hearing impaired.

⁸ See the following websites for additional information: <http://www.nws.noaa.gov/nwr/info/nwrrcvr.html> and <http://www.nws.noaa.gov/nwr/>.

it is most often provided by local news and/or weather sources. Depending upon the type of emergency, the media can work closely with emergency managers and the National Weather Service to issue consistent and clear information on the emergency and what the public should do in response to it. The media can also invite local emergency managers or other emergency officials to broadcast the message, in person, to the listening audience. Local radio and television stations are in place in most towns/communities; however, where local stations are not readily available, the broadcast of local emergency information can become complicated. Additionally, since a large amount of information can be disseminated via radio or television (audibly or visually), this technology and approach can be categorized as a *warning system*.

- iv. Warning information can also be provided to the public via ***Internet/website posts, news, and blogs***, as examples. Many local and state emergency management agencies have official websites, as do newspapers, television and radio stations, businesses, universities, and government agencies, among others. Often during emergency situations, these sources will post emergency warning information via their websites, as well as report on the situation and the public's response via news, blogs, and other sources. This information is often posted directly on the front page of the website, making it easier for the public to find information; however, due to the nature of the technology, individuals are required to search for this emergency information in the first place. Also, it is often the agency's or company's public information officer (PIO) whose responsibility it is to post emergency information. Due to changing conditions of the emergency, the posted information often requires constant updates in an emergency situation, which becomes more difficult as the PIO's attention is divided among numerous emergency-related tasks during the response and recovery phases.

3) **Guidance on the Emergency Communication Strategies:** This section provides guidance for emergency managers, emergency personnel, first responders, alerting and warning system manufacturers, government agencies, the media, and other alerting and warning providers on community-wide public alerts and warnings for use in rapid-onset emergencies. First, general guidance is provided on coordination of the use of all approaches/technologies described in the previous section. Also, general guidance on the construction and dissemination of both alerts and warnings are provided, taken directly from (Kuligowski and Omori 2014), also referenced in *NFPA 72, National Fire Alarm and Signaling Code, 2016 Edition*. Finally, specific guidance is provided on the use of outdoor siren systems during emergencies, based on Kuligowski and Wakeman (2017) and Kuligowski and Kimball (in progress).

- a. ***Coordination and pre-planning:*** In each community, and even across communities, emergency managers, the National Weather Service, and the media can develop a joint plan and take steps to ensure that accurate and consistent emergency alert and warning information is communicated in a timely manner to enhance the situational awareness of community residents, visitors, and emergency responders affected by an event (Kuligowski et al. 2014). Some communities are already engaged in similar activities, known as Integrated Warning Teams (or IWTs). The pre-emergency communication plans that are established via IWTs or other means can aid in the provision of clear, consistent, recognizable, and accurate emergency communications during an emergency, enabling safe, effective and timely response among individuals, organizations, and communities affected by the disaster.
- b. ***Alerts:*** Independent of technology type, it is important to provide notice to the public of an emergency, and that a warning message will follow. This notice can be given in the

form of an alert. An alert is necessary to gain people's attention before the warning message is provided. The following provides guidance on effective community-wide public alerts:

- i. An alert can be provided via multiple means, i.e., audibly, visually, and via tactile means, to ensure that all individuals within the affected community will receive it. There are additional methods to alert individuals to an emergency; disruption of routine activities, social networks, and face-to-face.
 - ii. Alerts, if audible, are more effective if they are significantly different from ambient sounds.
 - iii. Flashing, rather than static lights, preferably one standard color, can be used to gain attention.
 - iv. Effective alerting signals precede clear, consistent, concise, and candid warning information.
 - v. Once selected, an alert should be tested for its success in getting occupants' attention in the event of an emergency and used as part of community education and training.
- c. **Warnings:** Effective warning messages are disseminated after an alert and contain information on the state of the emergency and what the public should do in response to the emergency. Please see *Appendix G in NFPA 72, National Fire Alarm and Signaling Code, 2016 Edition* for further guidance on the following: warning message content (e.g., the types of information that should be included in a warning message), the source of the message, message structure, message language (or wording), the use of multiple messages, and more specific guidance on the appropriate methods to disseminate audible warnings. Guidance is also given in *NFPA 72* on the appropriate methods to disseminate visual warnings; however, that guidance is most relevant to warnings disseminated from inside buildings, rather than at a community scale.
- d. **Specific Guidance on the Use of Outdoor Siren Systems:** This section provides guidance for emergency managers, emergency personnel, outdoor siren system manufacturers, and other alerting and warning providers on the ways in which alerts (and/or warnings) should be created and disseminated via outdoor siren systems located within communities. The guidance provided in this section is based on research performed at NIST, and published within the following documents (Kuligowski and Wakeman [2017]; and Kuligowski and Kimball [in progress])
- i. **Develop consistent protocols for outdoor siren systems:** Since the protocols and procedures for outdoor siren system use varies significantly in the U.S. from community to community, common national or regional standards and practices for the use of outdoor siren systems can be adopted to minimize confusion among the public and increase trust in the outdoor siren systems. Common standards and protocols can be developed to standardize aspects of outdoor siren system usage across U.S. communities, such as the following:
 1. Consistent protocols for the use of all-clear signals,
 2. Consistent criteria for system activation,
 3. Agreement on the length of time that the siren's signal will sound (both during actual events as well as during testing),
 4. Consistent testing procedures (e.g., the number of times a test of the outdoor siren system will occur per month, the day of the week that the test will take place, and time of day that the test will begin).

An **example** is provided here on a national standard protocol for outdoor siren testing:

- Audible (and visual, via strobe light, for example) outdoor siren system testing occurs once per month – the first Wednesday of each month, at 1:00 pm.

- *All system testing will be accompanied by a warning message (delivered by [fill in the blank] communication technology/approaches), noting that this system is in test-mode; however, the affected public should practice taking shelter during this test.*
 - *Testing will still occur if bad weather is imminent or taking place, as long as a message is disseminated to the public that this is a test of the outdoor siren system.*
- ii. **Reach as wide an audience as possible:** It is important to understand the factors that may limit a person’s ability to receive (or hear) the siren’s sound in outdoor settings. First, human hearing is reduced with lower frequencies; i.e., at less than 300 Hz, human hearing sensitivity is reduced and higher background noise may cause hearing restrictions (FEMA 1980). Additionally, sound decreases in magnitude (i.e., in loudness) at larger distances away from its source, known as attenuation. Attenuation occurs at a faster rate at higher frequencies (e.g., above 1,000 Hz) (FEMA 1980). Therefore, the signals available for use by siren technology normally fall between the 300 to 1000 Hz range (FEMA 1980), with the steady (or mid-range) frequencies surrounding 500 or 600 Hz and dual frequencies at 460 Hz and 920 Hz. Some manufacturers discuss the benefits of signals with dual frequencies as better able to reach a wider listening audience. Finally, research has shown that frequency components between 225 and 355 Hz will allow transmission of sounds/signals through windows, in cases where it is important to reach people inside of vehicles or structures (Mahn 2013).
 - iii. **Increase the impact of the outdoor siren system:** An effective outdoor siren system’s signal/tone is accompanied by specific, credible, accurate, and consistent warning information disseminated by multiple warning technologies (from within and/or outside of the community). This warning information provides the public with information about why the siren’s signal is sounding and what they should do in response to the signal (*Note: guidance on constructing effective warning messages is found in 3c of this annex*). This specific and consistent warning information is deemed more credible when it is provided by credible sources. Effective warning information that accompanies the siren’s signal/tone is provided via push technology, and reaches as wide of an audience as possible. Overall, the use of multiple alerting and warning systems, in addition to the outdoor siren system, is typically the best approach when alerting and warning the public of an impending disaster. This is especially important since the outdoor siren system is meant to alert individuals located outdoors only.
 - iv. **Reach out to vulnerable populations:** Certain members of a population become more vulnerable than others because they are unable to receive the alerting signal from the outdoor siren system (e.g., the hearing impaired, if a siren is not equipped with visual-based alerting technology). In this case, it is vital that an alert is provided via other means. On the other hand, while the siren system may exacerbate the vulnerabilities of some groups, it may help to lessen the vulnerabilities in others. For example, non-English speakers rely heavily on siren systems to make them aware of emergency situations (Kuligowski and Wakeman 2017). For these reasons, emergency management can develop a means of engagement with community leadership within vulnerable populations, before an emergency occurs, to ensure that emergency alerting and warning information reaches all populations during an emergency.
 - v. **Educate and train the public on the outdoor siren system:** Education on the use of outdoor siren systems is key. Education can include advertisements that are played alongside of monthly tests of the system and/or nationwide drills that promote participation across communities on the same day each year. Education

can also include K-12 (school-age) education programs, as well as community-based adult education programs.

- e. *Specific Guidance on the Use of Wireless Mobile Alerts and “Short Messages” sent via Social Media Platforms for Alerting the Public in Rapid-Onset Emergencies*

Reserved

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