FINAL WORKSHOP REPORT

Lessons Learned from Hurricane Katrina and the Role for Standards and Conformity Assessment Programs

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LESSONS LEARNED FROM HURRICANE KATRINA AND THE ROLE FOR
STANDARDS AND CONFORMITY ASSESSMENT PROGRAMS

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Organizer

ANSI Homeland Security Standards Panel (HSSP)

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Executive Summary

The objective of this ANSI Homeland Security Standards Panel (HSSP) Workshop was to convene key stakeholders from both the public and private sectors to review the lessons learned and recommendations from the federal aftermath reports on Hurricane Katrina and to examine the role for standards and conformity assessment programs in assisting future preparedness, response and recovery efforts.

The ANSI-HSSP is a public-private partnership with the mission of assisting the Standards Office of the U.S. Department of Homeland Security (DHS) Science and Technology (S&T) Directorate, the private sector, and any others in the promotion of existing standards, as well as accelerating development and adoption of consensus standards critical to homeland security. Specific homeland security issues are addressed by the Panel via Workshops. These Workshops typically bring together subject matter experts to (i) identify existing standards and conformity assessment programs, (ii) determine where there are gaps, and (iii) to make recommendations for addressing these gaps.

The subject of emergency preparedness is one that the ANSI-HSSP has addressed since its inception, with particular focus on private sector preparedness. The 2004 Panel Workshop on Private Sector Preparedness, convened at the request of the National Commission on Terrorist Attacks Upon the United States (also known as the 9/11 Commission), served as a forum for public and private sector stakeholders to convene and discuss this important subject area. Following a series of three meetings and intensive task group work, the Workshop concluded that the American National Standard NFPA 1600, *Disaster/Emergency Management and Business Continuity Programs*, addressed the need for a high-level, voluntary standard for preparedness, response and recovery. The recommendation on private sector preparedness that ANSI submitted to the 9/11 Commission (see Annex B) was referenced in the Commission's final report (see page 398 of the report and excerpted text in Annex C).

While inclusion in the 9/11 Commission report, formal adoption by the Standards Office of the U.S. Department of Homeland Security (DHS) Science and Technology (S&T) Directorate, reference in federal legislation (Intelligence Reform and Terrorism Prevention Act of 2004), and promotion by a number of entities brought increased awareness and usage of NFPA 1600, Hurricane Katrina demonstrated the need for even broader implementation, especially in small- to mid-sized organizations.

To that end, this Workshop supports the latest efforts by the 110th Congress to embrace the voluntary NFPA 1600 standard and its implementation via direct reference in Title XI of H.R. 1: *Implementing the 9/11 Commission Recommendations Act of 2007* and the consideration that it is receiving in Title VII of S. 4: *Improving America's Security Act of 2007.*

This Workshop report contains recommendations and resources that are aimed at having a positive impact on national preparedness efforts. In addition to serving as a reference for policy makers and those that utilize NFPA 1600, several high-level goals of this report are to:

- Highlight the value of compliance with the NFPA 1600 for both public and private sector disaster/emergency management and business continuity programs.

- Provide a set of targeted recommendations to the NFPA 1600 Technical Committee for its strong consideration during the next review cycle of the standard (change proposals due by May 2009).

- Identify gap areas where further standards are needed to supplement the usage of the NFPA 1600 standard for future disasters.

The recommendations section of this report further elaborates on these key points, as well as provides additional areas for further action.

The audience for this report includes the following sets of stakeholder groupings, to which ANSI and its partners will conduct outreach upon publication of this report:

Stakeholder Group 1: Congress, White House, DHS (DHS/FEMA, DHS Preparedness Directorate-National Preparedness Task Force, Nationwide Plan Review Phase II stakeholders), U.S. Department of Defense (DOD) policy divisions, U.S. Government Accountability Office (GAO), Hurricane Katrina report authors

Stakeholder Group 2: Additional federal agencies, state/local/tribal governments, disaster/emergency management and related organizations (many of which are listed in Annex B of NFPA 1600)

Stakeholder Group 3: Private sector entities (corporations, not-for-profits, faith-based organizations, community organizations), trade associations, chambers of commerce, additional stakeholders/ resources in this arena (many of which are listed in Annex C of NFPA 1600)

Stakeholder Group 4: Standards developing organizations (SDO's), NFPA 1600 Technical Committee, EMAP Standards Committee and Commission, ANSI-HSSP members, disaster/emergency management accreditation and certification programs (many of which are listed in Annex D of NFPA 1600) and academia

Stakeholder Group 5: Media and others to help publicize the importance of this effort

Background

On the morning of August 29, 2005, Hurricane Katrina made landfall on the coast of southeast Louisiana and Mississippi, becoming the costliest, and one of the deadliest, hurricanes in the history of the United States. In addition to its ensuing death and destruction, Hurricane Katrina also tested the preparedness of federal agencies and Gulf Coast communities to deal with a natural disaster of this magnitude. Sadly, it soon became evident that most preparations had failed, and our federal, state and local government leaders were tasked to understand these failures and take measures to prevent their recurrence.

In the aftermath of this tragedy, a number of congressional, agency and White House reports were produced, issuing observations and recommendations ranging from methods for ensuring the continuity of operations, to the coordination of communications, to standards for strengthening mitigation practices. Recognizing that many of the recommendations being advanced were closely aligned to essential elements contained in the already-existing American National Standard, ANSI-NFPA 1600, the ANSI-HSSP organized a series of workshop meetings to examine the aftermath reports and their recommendations and determine how NFPA 1600 and further preparedness guidance could bolster future preparedness, response and recovery efforts. More than 100 experts from dozens of public and private sector stakeholder organizations participated in an eight month effort to sift through these reports, study each of the 89 assembled recommendations, and assess the ability and effectiveness of the NFPA 1600 standard to be used as a guideline for implementing the recommendations of the aftermath reports.

There are many individuals and organizations that were instrumental in the production of this report. Annex A, Acknowledgements, seeks to recognize the contributions that were made during this Workshop process.

Workshop Proceedings

Three meetings were convened for this Workshop:

June 12, 2006	Hosted by Army & Navy Club (Washington, DC)
November 15, 2006	Hosted by U.S. Department of Homeland Security – Science and Technology Directorate – Standards Office (Washington, DC)
January 10, 2007	Hosted by U.S. Department of Homeland Security – Science and Technology Directorate – Standards Office (Washington, DC)

The Workshop co-leaders were Dr. Joseph Broz, Vice President of Strategic Initiatives at Midwest Research Institute and Dr. Sharon Caudle, Assistant Director, Homeland Security and Justice Team at the U.S. Government Accountability Office. The selection of co-leaders from private and public sector organizations symbolized the public-private partnership that occurred throughout this Workshop effort.

Task groups operated via conference calls and e-mail communications to complete work in-between meetings. The following organizations supplied experts to one or more of these workshop meetings (those followed by an asterisk indicate task group participation):

Alamo Learning Systems
Alliance for Telecommunications Industry Solutions (ATIS) *
American Association for Laboratory Accreditation (A2LA)
American National Standards Institute (ANSI) *
American Red Cross
APCO International
ASME - Innovative Technologies Institute (ITI)
Building Diagnostics Research Institute *
Cingular Wireless
Cisco Systems
Dupont Personal Protection
Environmental Security International
Emergency Management Accreditation Program (EMAP)
First Hurricane Services
G&H International Services, Inc
Holst and Associates, LLC *
Homeland Security Institute
Innovative Emergency Management, Inc. *
International Code Council (ICC)
John Jay College of Criminal Justice

Justice and Safety Center at Eastern Kentucky University (JSC/EKU)
Midwest Research Institute (MRI) *
National Electrical Manufacturers Association (NEMA)
National Fire Protection Association (NFPA) *
National Governors Association
National Institute of Standards and Technology (NIST)
North American Electric Reliability Council (NERC)
NYU International Center for Enterprise Preparedness (InterCEP) *
Olive, Edwards, Cooper
Pacific Northwest National Laboratory *
Preparedness, LLC *
Raytheon
SafePlace Corporation
Science Applications International Corporation (SAIC) *
Telecommunications Industry Association (TIA)
The Heritage Foundation
The Infrastructure Security Partnership (TISP)
U.S. Department of Agriculture
U.S. DHS - Citizen Corps *
U.S. DHS - FEMA Response Operations
U.S. DHS - NIMS Integration Center
U.S. DHS – Office of Infrastructure Protection *
U.S. DHS - Preparedness Directorate – National Preparedness Task Force
U.S. DHS - Private Sector Office
U.S. DHS - Science and Technology (S&T) Directorate
U.S. DOD - Office of Continuity Policy and Plans *
U.S. Government Accountability Office *
Underwriters Laboratories, Inc.
United States Postal Service *
United Telecom Council
VisionLink
Wiley Rein & Fielding LLP

As mentioned in the executive summary, the Workshop examined the lessons learned and recommendations from the federal aftermath reports on Hurricane Katrina. These reports included:

- [A Failure of Initiative: The Final Report of the Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina A Failure of Initiative](#) (*House Select Committee*)

- [The Federal Response to Hurricane Katrina Lessons Learned](#) *(White House)*

- [A Performance Review of FEMA's Disaster Management Activities in Response to Hurricane Katrina](#) *(DHS Inspector General)*

- [DHS/FEMA Initial Response Hotwash: Hurricane Katrina in Louisiana](#) *(DHS/FEMA)*

- [Hurricane Katrina: A National Still Unprepared](#) *(Senate Homeland Security and Governmental Affairs Committee)*

- [Nationwide Plan Review: Phase 2 Report](#) *(DHS)*

- [Report and Recommendations to the FCC](#) *(Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks)*

The Workshop participants distilled the findings and recommendations contained within these reports into eighty-nine high-level recommendations. Following discussions at the kick-off meeting of this Workshop, consensus was reached that ANSI-NFPA 1600 remained the preeminent standard on the subject of emergency preparedness and business continuity and should be utilized for the comparison exercise against these recommendations. Through the process of completing this comparison table, Workshop participants were able to develop a series of Workshop recommendations and areas for further action, along with a focused list of proposals for revision directed to the NFPA 1600 Technical Committee for it consideration during the next review cycle of the standard.

It is important to note that at the time of these Workshop proceedings, the 2004 edition of NFPA 1600 was the applicable standard on the books. Since the publication of this Workshop report, the 2007 edition of NFPA 1600 has been issued. All references to chapters and sections of the NFPA 1600 standard are to the 2004 edition. The variations in numbering are minor between the two editions and therefore the findings in the table remain relevant and applicable.

The table contained in [Annex D](#) is one of the major deliverables from this Workshop effort and illustrates how NFPA 1600 serves as a valuable tool in preparing for, responding to, and recovery from a disaster or emergency situation. The table displays the key recommendations derived from major "after-action" reports on Hurricane Katrina referenced against the applicable clauses of NFPA 1600, providing the user with direct citation to find guidance in the standard. In cases where the Workshop believes that the standard may not address a specific recommendation or can be further strengthened, proposed revisions are included in the third column of the table. [Annex E](#) provides a single listing of all the proposed revisions to the NFPA 1600 standard which have been submitted to the NFPA 1600 Technical Committee for their formal consideration.

Workshop Recommendations and Areas for Action

Upon completion of the comparison table and development of the proposed revisions for the NFPA 1600 Technical Committee, the Workshop participants reached consensus on the following set of recommendations for standardization in the area of preparedness, response and recovery.

Recommendation #1

Entities in both the public and private sectors, at all levels and of all organizational sizes, would be well-served in their implementation of post-Hurricane Katrina recommendations by complying with NFPA 1600 and using it as a guideline for their disaster/emergency management and business continuity program. As evidenced by the comparison table included in this Workshop report, NFPA 1600 effectively addresses the majority of the lessons learned and recommendations following Hurricane Katrina. As further evidenced by those that have done so already, public sector entities would additionally benefit from guidance provided by NFPA 1600-based programs, such as the Emergency Management Accreditation Program (EMAP). See Annex F for further information on this program.

Recommendation #2

To measure compliance with NFPA 1600, a voluntary third-party, private sector conformity assessment system should be created. Voluntary conformity with the preparedness standard supported by a conformity assessment system could facilitate incentives for business to promote the necessary investment of resources by the entity. In particular, conformity could assist in (a) limiting an entity's legal liability post-incident by meeting a standard of care, (b) its receiving better insurance terms or conditions, or being charged reduced premiums and (c) providing an efficient way for public reporting/rating agency acknowledgement to inform investors and other stakeholders of how prepared the corporation is for emergencies. It is further recommended that such a system be accredited by the American National Standards Institute (ANSI) to help ensure the competency of the certification bodies performing the third-party certifications.

Recommendation #3

The NFPA 1600 technical committee is encouraged to strongly consider addressing the proposed revisions submitted by this Workshop for the next review cycle of the standard. These proposed revisions, including those geared towards the non-mandatory annex sections, are intended to further strengthen the standard and address the gaps in coverage.

Recommendation #4

The Workshop recommends that American National Standards be created to address the following crucial subject areas and to supplement the usage of the NFPA 1600 standard for future disasters:

- Protective actions for life safety, including evacuation and shelter in place (for persons and their pets)
- Mass care
- All-hazards education and preparedness
- Special needs
- Client information sharing
- Resource information sharing

In addition to the core set of recommendations from this Workshop, there are further areas for which the Workshop recommends action by the appropriate bodies.

Action Area #1

Recommendations in the post-Hurricane Katrina reports examined by this Workshop for the most part focus on the federal government and, as a whole, do not adequately take into consideration the private sector role in preparedness, response and recovery efforts. The private sector has substantial resources which can be brought to bear during disasters, but there are few initiatives to enable more effective private sector mobilization. Little guidance regarding mobilization of private sector resources is available to the diverse state and local governments, and these are the entities responsible for managing most emergencies in the United States. Development of a standard for creating public-private sector partnerships should be considered to address this issue and build on the best practices among the few initiatives currently undertaking this challenge.

Action Area #2

The alignment of NFPA 1600, State and Local Guide (SLG) 101, National Incident Management System (NIMS), National Response Plan (NRP), National Preparedness Goal (NPG), National Infrastructure Protection Plan (NIPP), Emergency Management Accreditation Program (EMAP), and other related federal, national or standards setting emergency management guidance is crucial for overall successful emergency planning/preparedness/management efforts. The DHS S&T Standards Office, through a contract with the Pacific Northwest National Laboratory (PNNL), is undertaking a project to technically review the host of existing incident management related standards, and map these standards relative to their role in incident management. The generalized diagram in Annex G shows the categories of standards available to potentially support incident management, as well as provides a perspective of where NFPA 1600 fits within the system of incident management standards.

Action Area #3
To further improve the national emergency communications plan, the following items should be considered:

- The recommendations from the *Federal Communications Commission (FCC) Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks*
- The Alliance for Telecommunications Industry Solutions (ATIS) Network Reliability Steering Committee (NRSC) *NRSC Hurricane Checklist*
- Clause 5.9.4 of NFPA 1600 (2004 edition)
- The work of the National Communications System (NCS) Emergency Communications Interoperability Task Force and NCS Directive 4-3: Technology and Standards Interoperability of Telecommunications in Support of NS/EP
- Emergency Management Reform Act of 2006 – section 1802 (national emergency communications plan)

Action Area #4
A number of the recommendations from the post-Hurricane Katrina reports are beyond the scope of NFPA 1600 due to their being directed solely to the federal government. However, these lessons learned and recommendations should be addressed by the appropriate parties within the Federal government, such as through congressional hearings by the U.S. Congress.

Action Area #5
To assist the dialogue of disaster management and private-public sector partnering, widely accepted definitions need to be identified for the following terms/categories: *private sector*, *non-governmental organizations (NGOs)*, *not-for-profits*, *faith-based organizations*, *community organizations,* and *special needs*.

Action Area #6
The role for standards should be examined in relation to the following recommendation, which is based upon recommendations from the White House and Senate Committee reports: *Develop the capacity to voluntarily store and retrieve personal identifying information, and data sharing arrangements to more effectively respond to disasters, while protecting privacy, and to protect against waste, fraud and abuse. Establish systems to facilitate reunification of family members separated as a result of a disaster or catastrophe*.

Action Area #7
Buildings designed and built in accordance with modern building codes are proven to better withstand natural hazards. Therefore, adoption of, and enforcement of, modern building codes such as the ICC *International Building Code* (2006) and NFPA 5000 - *Building Construction and Safety Code* (2006 Edition) should be encouraged, emphasized, and supported.

Conclusion

Hurricane Katrina revealed the need for standards and other guidance to further strengthen our nation's resiliency. Standards are crucial for successful planning and execution, allowing public and private sector entities to effectively work together, and for mitigating the consequences resulting from a disaster. These measures are necessary for businesses, governments and communities to protect lives, rapidly recover and avoid devastating economic loss.

The conclusions from our Workshop analysis are clear-cut and have resulted in three broad suggestions:

1. Entities in both the public and private sectors would be well-served in their implementation of post-Hurricane Katrina recommendations by complying with NFPA 1600 and using it as a guideline for their disaster/emergency management and business continuity planning.

2. A voluntary third-party, private sector conformity assessment system to measure compliance with NFPA 1600 should be created.

3. Proposed revisions to the NFPA 1600 standard, surfaced by this Workshop, should be considered during its next review cycle.

As further evidence of the benefits to this approach, the Workshop points to the Emergency Management Accreditation Program (EMAP) that is successfully being utilized by the public sector. EMAP is a voluntary assessment and accreditation process for state/territorial, tribal, and local government emergency management programs. The standards used, collectively called the EMAP Standard, are modeled after NFPA 1600 and were developed by state, local and federal emergency management practitioners. By February 2007, twelve state and local jurisdictions had received EMAP accreditation. Five are conditionally accredited and actively pursuing full accreditation, with twenty-six additional states intending to pursue accreditation through EMAP in the next three years. Further details on this program can be found on the EMAP website and in Annex F.

The leaders of this Workshop look forward to working with key stakeholders to maximize the recommendations and findings from this report. The Workshop appreciates any feedback or inquiries on this report, which should be directed to the contact information listed on the second page.

Annex A - Acknowledgements

ANSI wishes to acknowledge the support and participation of all the organizations that supplied experts to the Workshop meetings. We also wish to express sincere appreciation to all the individual Workshop attendees for their active participation and sharing their expertise on this subject matter, especially those who participated on the Workshop task groups that put together the comparison table and drafted the recommendations/findings for the final report.

ANSI offers its great appreciation to the Workshop co-leaders, Dr. Joseph Broz, Vice President of Strategic Initiatives at Midwest Research Institute and Dr. Sharon Caudle, Assistant Director, Homeland Security and Justice Team at the U.S. Government Accountability Office. Dr. Caudle and Dr. Broz provided the leadership, subject matter expertise, and perseverance that was essential for keeping this Workshop on track and for the successful delivery of this final report. Thanks also go to Matt Deane, Director of Homeland Security Standards at ANSI, for his project management of this activity and helping to ensure that the final report was completed in a timely manner.

ANSI further thanks the Army & Navy Club for hosting the first Workshop meeting, and Dr. Bert Coursey and his team from the DHS S&T Standards Office for hosting the two follow-up meetings. Appreciation is given to the sponsors from the kick-off Workshop meeting: Cisco Systems, Midwest Research Institute, Alamo Learning Systems and Wiley Rein & Fielding LLP. These sponsorships, combined with DHS providing the meeting space for the follow-up meetings, allowed for the Workshop meetings to be convened without a participation fee and helped ensure a successful turnout for all three meetings.

Annex B – ANSI Recommendation to the
National Commission on Terrorist Attacks Upon the United States (2004)

In response to the January 23, 2004 letter from the 9-11 Commission Chairman Kean and Vice Chairman Hamilton, the American National Standards Institute (ANSI) convened safety, security and business continuity experts from a wide range of industries and associations, as well as from federal, state and local government stakeholders, to consider the need for standards for private sector emergency preparedness and business continuity. These parties, brought together under the auspices of ANSI's Homeland Security Standards Panel (ANSI-HSSP), have concluded that a high-level, voluntary standard applicable to all businesses regardless of industry, size, or location, is needed to establish a common framework for emergency preparedness. On behalf of these experts and stakeholders:

> ANSI proposes that the National Commission on Terrorist Attacks Upon the United States include in its recommendations to Congress and the President of the United States, the position that the high-level, voluntary American National Standard on Disaster/Emergency Management and Business Continuity Programs (NFPA 1600) be accepted as the common framework for private-sector national preparedness (hereinafter known as the *National Preparedness Standard)*. This document was developed by the National Fire Protection Association (NFPA) using due process and consensus-based procedures approved by ANSI.

The *National Preparedness Standard* establishes a common set of criteria and terminology for private-sector disaster management, emergency management, and business continuity programs for a variety of hazards. Recognizing that any truly viable standard is open to continuous improvement, the parties also developed several recommendations for further enhancements to the standard. These comments have already been submitted to the NFPA disaster management technical committee.

A national implementation strategy is necessary to support the use of this standard. ANSI recommends that the Commission request the U.S. Department of Homeland Security (DHS), and other federal agencies as appropriate, to undertake this initiative. In addition, ANSI will continue to collaborate with the Working Group on Private Sector Preparedness (PSP-WG) to develop incentives for private-sector implementation of this voluntary standard and to market, promote and educate the public about its existence. The Institute also stands ready to take additional steps that may be deemed appropriate in furtherance of this initiative.

Experts from the following organizations participated in the process:

3M
Alliance for Telecommunications Industry Solutions (ATIS)
American Electric Power (AEP)
American Management Services
ASIS International
Association for Cooperative Operations Research and Development (ACORD)
Attainium Corporation
Bank of New York
Battelle
Bechtel Nevada
Booz Allen Hamilton
Canadian Standards Association (CSA)
Chiron Corporation
The Conference Board
Congressman Christopher Shays' (R-CT) Office
Deere & Company
DMJM Technology
DRI International (DRII)
EAI Corporation
Emergency Corps
Emergency Management Accreditation Program (EMAP)
Federal Emergency Management Agency (FEMA)
Goldman Sachs
Greater New York Safety Council
Homeland Security Industries Association (HSIA)
IBM
Insurance Services Office (ISO)
Lucent Technologies

Marsh USA Inc.
Micro-News Network
Microsoft Corporation
Midwest Research Institute (MRI)
National Biometric Security Project (NBSP)
National Fire Protection Association (NFPA)
New York City Police Department (NYPD), Counter Terrorism Bureau
New York City Transit (NYCT)
North American Electric Reliability Council (NERC)
Raytheon Company
SBC Communications
Skyscraper Safety Campaign
Telecommunications Industry Association (TIA)
U.S. Department of Homeland Security (DHS)
U.S. General Accounting Office (GAO)
U.S. Postal Service (USPS)
Willis
Working Group on Private Sector Preparedness (PSP-WG)

Annex C – Recommendation from 9/11 Commission Report

Private-Sector Preparedness

The mandate of the Department of Homeland Security does not end with government; the department is also responsible for working with the private sector to ensure preparedness. This is entirely appropriate, for the private sector controls 85 percent of the critical infrastructure in the nation. Indeed, unless a terrorist's target is a military or other secure government facility, the "first" first responders will almost certainly be civilians. Homeland security and national preparedness therefore often begins with the private sector.

Preparedness in the private sector and public sector for rescue, restart, and recovery of operations should include (1) a plan for evacuation, (2) adequate communications capabilities, and (3) a plan for continuity of operations. As we examined the emergency response to 9/11, witness after witness told us that despite 9/11, the private sector remains largely unprepared for a terrorist attack. We were also advised that the lack of a widely embraced private-sector preparedness standard was a principal contributing factor to this lack of preparedness.

We responded by asking the American National Standards Institute (ANSI) to develop a consensus on a "National Standard for Preparedness" for the private sector. ANSI convened safety, security, and business continuity experts from a wide range of industries and associations, as well as from federal, state, and local government stakeholders, to consider the need for standards for private sector emergency preparedness and business continuity.

The result of these sessions was ANSI's recommendation that the Commission endorse a voluntary National Preparedness Standard. Based on the existing American National Standard on Disaster/Emergency Management and Business Continuity Programs (NFPA 1600),the proposed National Preparedness Standard establishes a common set of criteria and terminology for preparedness, disaster management, emergency management, and business continuity programs. The experience of the private sector in the World Trade Center emergency demonstrated the need for these standards.

Recommendation: We endorse the American National Standards Institute's recommended standard for private preparedness. We were encouraged by Secretary Tom Ridge's praise of the standard, and urge the Department of Homeland Security to promote its adoption. We also encourage the insurance and credit-rating industries to look closely at a company's compliance with the ANSI standard in assessing its insurability and creditworthiness. We believe that compliance with the standard should define the standard of care owed by a company to its employees and the public for legal purposes. Private-sector preparedness is not a luxury; it is a cost of doing business in the post-9/11 world. It is ignored at a tremendous potential cost in lives, money, and national security.

Annex D – NFPA 1600 and Katrina Recommendations Comparison Table

The following table displays key recommendations derived from major "after-action" reports on Hurricane Katrina referenced against the relevant clauses of NFPA 1600 (2004 edition). The clause references are hyperlinked to the actual text of the standard, which appears below the table.

Proposed revisions to the NFPA 1600 standard are included in the table as well. These proposals will be sent to the NFPA 1600 Technical Committee for their consideration during the next review cycle of the standard.

The absence of proposed revisions in the last column signifies that the Workshop is of the opinion that NFPA 1600 effectively addresses that particular recommendation.

#	Recommendations	Coverage by NFPA 1600 and Proposed Revisions (in underlined text)
	National Response Plan and National Incident Management System	
1 1a	Strengthen the plans and systems for the nation's response to disasters and catastrophes. Renew and sustain commitments at all levels of government to the nation's emergency management system. Resources are needed for additional planning, more frequent and ambitious training and exercises, the enhancement of offices, staffing and preparation of first strike teams, better development of a trained cadre of reservists, and the development of new logistics capabilities.	**4.1** **5.5** **5.11** **5.12** **5.13** **Proposed Revision to A.5.5 (12)** 12) External federal, state, provincial, tribal, territorial, and local agencies. Federal resources are guided by the National Response Plan (including Emergency Support Functions), National Infrastructure Protection Plan, National Incident Management System, and National Preparedness Goal (including the Universal Task List and Target Capabilities List).
1b	Commit to supporting the National Response Plan (NRP) and the National Incident Management System (NIMS) and working together to improve the performance of the national emergency management system.	**4.1** **5.5** **5.11** **5.12** **5.13** **Proposed Revision** *See comment under 1a of this table.*
1c	Address situations that render state and local governments incapable of an effective response	**Proposed Revisions** 1. Section 5.3.3 (3) - *Continuity of operations, including situations that would render the entity totally incapable of response.* 2. Annex A5.5 - The entity should attempt to mitigate, prepare for, plan to, respond to, and recover from those threats, hazards, or ~~perils~~ emergencies that are able to significantly impact people, property, operations, the environment, or the entity itself. 3. Annex A5.5. - The entity should attempt to mitigate, prepare for, plan to, respond to, and recover from those threats, hazards, or perils that are able to significantly impact people, property, operations, the environment, or the entity itself, including conditions so severe that they may totally incapacitate the entity's ability to respond. The entity should prepare for the escalation of an emergency situation, including 'worst case" scenarios.

#	Recommendations	Coverage by NFPA 1600 and Proposed Revisions (in underlined text)
1d	and add an emergency support function (ESF) responsible for assessing the damage to critical infrastructure, taking measures to mitigate the impact on the economy and national security, and restoring critical infrastructure.	**5.10.4** **5.10.5** **Proposed Revision** *See comment under 1a of this table.*
1e	Develop integrated operational plans, procedures and capabilities for organizational support to the base NRP and all ESFs and NRP support annexes, and align response structures to NIMS.	**5.7.1*** **5.7.2** **5.8.4** **5.10.1** **Proposed Revisions** 1. Section 5.7.1 – The program shall include, but shall not be limited to, a strategic plan, an emergency operations/response plan, a mitigation plan, a recovery plan, and a continuity plan. <u>These plans shall define the multi-organizational coordination and integrative activities vital to plan success.</u> 2. Annex A5.7.1 – It should be noted that most entities engage in multiple planning activities (e.g., mitigation planning, land use planning) Coordination ensures non-duplication, improves understanding, increases support, assures that all constituents have a voice, and so on. These plans can be separate or integrated into a comprehensive plan. <u>Multi-organizational relationships can range from fluid coordination and integration with an informal, fluid agreement regarding shared goals, and resource commitments. Integration would involve shared authority, responsibility, resources, and accountability for achieving mutual emergency management goals</u>
1f	Clarify the importance of integrating agencies with ESF responsibilities into the incident command system (ICS).	**5.8** **Proposed Revision** *See comment under 1a of this table.*
1g	Complete coordinated, operational, disaster response plans that are exercised, with lessons learned incorporated into revised plans.	**5.7.1*** **5.7.2**. **5.10.1** **5.13**

#	Recommendations	Coverage by NFPA 1600 and Proposed Revisions (in underlined text)
2	Address regional planning and high risk events. Develop response plans for specific geographic regions and for specific types of high-risk events that will augment the NRP and provide additional operational detail.	**5.7.2*** **5.7.3.1** **5.7.3.2** **Proposed Revisions** 1. New section under 5.7.3 - An entity shall coordinate regional planning approaches with other entities to better leverage resources. 2. New A.5.7.2.5.6 - Formation of regions for planning can vary depending on a number of factors facing the entity, including: • cultural • political • economic • developmental • institutional • ecological • dependence on other entities' capabilities for response A region could include, for example, metropolitan areas across more than one state, intrastate areas with multiple local jurisdictions, and an overlap with a single local political jurisdiction. 3. New section under 5.7.3 - The legality of evacuation, evacuation orders and legal rights, including media access, shall be identified. 4. New section under 5.7.2 - An evacuation and sheltering plan shall describe an organized, phased, and supervised withdrawal, dispersal, or removal of civilians from dangerous or potentially dangerous areas, and their reception and care in safe areas.
3 3a	Institute formal, regular training on the NRP and NIMS. Institute a formal training program on the NIMS and NRP for all department and agency personnel with incident management responsibilities and all departments and agencies should undertake an aggressive ICS training program for all personnel who may deploy during a disaster, including senior officials. Provide detailed, tailored briefings and instructions on the NIMS and NRP to all relevant federal decision-makers and relevant state and local decision makers, the private sector and non-governmental organizations. Emergency agencies at the federal, state, and local levels of government, as well as first responder groups outside of government, should receive regular training on NRP and NIMS, integrating the ESF structure,	**5.12.1** **5.12.2** **5.12.4** **5.9.4** **Proposed Revision** *1. See comment under 1a of this table.* 2. Make sure that language is organization neutral throughout the document. Example 5.8.4 reference to "authorities."
3b	including statutorily required exercises and simulations to expose unaddressed challenges, provide feedback about progress, and maintain pressure to improve. These exercises and simulations should be objectively assessed by an independent evaluator.	**5.13.1** **5.13.3** **5.5.3** **Proposed Revision** Annex A.5.13.3 - The entity should consider including an independent evaluator as part of its periodic program reviews.

#	Recommendations	Coverage by NFPA 1600 and Proposed Revisions (in underlined text)
4	Develop and resource a planning and execution system to meet the NRP requirements.	5.7.2.2
4a	Develop and resource a deliberative, integrated planning and execution system to meet the requirements of the revised NRP.	**Proposed Revision** *See comment under 1a of this table.*
4b	Have both personnel and funds to be able to train, exercise, plan and detail staff to disaster response activities to enable better execution of their roles and responsibilities.	5.5.2
4c	Specific contingency plans must be integrated so that capabilities and gaps are identified and addressed.	5.5.3 5.13
4d	Ensure that the Catastrophic Incident Annex (NRP-CIA) is fully understood by the federal departments and agencies with responsibilities associated with it.	5.12 5.8.4
4e	Clarify and publish the Catastrophic Incident Supplement (NRP-CIS) and the supporting operational plans for departments and agencies with responsibilities under the NRP-CIA should be completed. These plans should be reviewed and coordinated with the states, and on a regional basis, to ensure they are understood, trained and exercised prior to an emergency.	5.3.1* 5.7.2* 5.8
5	Take an all-hazards approach to emergency management functions. From the federal level down, take a comprehensive all-hazards plus approach to emergency management functions--preparedness, response, recovery and mitigation--which need to be integrated.	5.3.2* 5.3.3* 5.4
6	Establish national information systems for timely information flow and reporting.	5.9 5.14.1
6a	Establish (a) a National Information and Knowledge Management System to provide a common operating picture which allows for the processing and timely provisioning of interagency information sources, (b) a National Reporting System to establish a uniform information flow to senior decision makers at the right time, and in a usable format, and (c) a National Information Requirements and a National Information Reporting Chain for the incident command structure to ensure that valuable, accurate information is reported in a timely manner.	
6b	A national reporting chain should be established to ensure a standard information flow through all levels of the incident command structure.	5.9 5.14.1
	Regional Capabilities	

#	Recommendations	Coverage by NFPA 1600 and Proposed Revisions (in underlined text)
7	Develop and implement staffed, trained, and equipped federal homeland security regions. Develop and implement federal homeland security regions that are fully staffed, trained, and equipped to manage and coordinate all preparedness activities and any emergency that may require a substantial federal response. Require each regional director have significant expertise and experience, core competency in emergency preparedness and incident management, and demonstrated leadership ability. These Regional Directors will comprise the professional PFO cadre and receive initial and on-going PFO training. Each region must be able to establish a self-sufficient, initial JFO anywhere within the region. Each region must be able to establish and resource rapidly deployable, self-sustaining incident management teams (IMT) to execute the functions of the JFO and subordinate area commands that are specified in the NRP and NIMS.	Entire standard **Proposed Revision** New A.5.7.2.5.6 - Formation of regions for planning can vary depending on a number of factors facing the entity, including: • cultural • political • economic • developmental • institutional • ecological • dependence on other entities' capabilities for response A region could include, for example, metropolitan areas across more than one state, intrastate areas with multiple local jurisdictions, and an overlap with a single local political jurisdiction.
8	Establish rapid response interagency task forces for managing the national response. Establish several, strategic-level, standby, rapidly deployable interagency task forces or regional strike teams that can manage the national response for catastrophic incidents that span more than one region. Enhance regional operations to provide better coordination between federal agencies and the states.	5.8.2* 5.8.4
	Federal, State, and Local Preparedness Capabilities	
9 9a	Utilize the National Preparedness Goal for preparedness and mutual aid. Base preparedness of the federal, state, and local authorities on the risk, capabilities, and needs structure of the National Preparedness Goal (NPG).	5.3* 5.3.1* 5.3.2* 5.3.3* 5.5.2 **Proposed Revision** *See comment under 1a of this table.*
9b	Federal, state, and local departments and agencies should develop mutual aid agreements and Emergency Management Assistance Compacts that are informed by the requirements in the NPG and are synchronized in a manner to deliver the right capability at the right time to the right place to meet the right need.	5.6.1 5.6.2 A5.6 5.8.4 **Proposed Revision** *See comment under 1a of this table.*
10	Maintain inventories of capabilities crisis support locations. Develop and maintain a national inventory of federal capabilities and coordinate with other federal agencies and states to identify physical locations around the country that could be used as crisis support centers or bases for receiving, staging and integrating emergency management resources during disasters.	5.5.2 5.5.4 5.6.1 5.6.2 A5.6 5.11.1

#	Recommendations	Coverage by NFPA 1600 and Proposed Revisions (in underlined text)
11	Improve state and urban area collaborative planning. Have states and urban areas conduct adequate collaborative planning as part of preparedness.	4.1 5.6.1 5.6.2 A5.6 5.7.2.1* 5.8.4
12	Improve the Emergency Management Assistance Compacts. Improve the EMAC system by (1) pre-certifying qualified out-of-state first responders, such as search and rescue or medical services ; (2) developing National Guard civil affairs support teams trained in continuity of government operations; (3) streamlining the required paperwork process; (4) streamlining the deputization process for assisting law enforcement agencies; and (5) improving support for continuity of operations.	5.6.1 5.6.2 A5.6
13	Improve characterizing assumptions in planning. Improve state and urban area planning assumptions to reflect the crucial role of assumptions in the planning process. In all-hazards planning, assumptions should be carefully reviewed to ensure they reflect the differences between adaptive threats and non-adaptive hazards. Few assumptions should be necessary for commonly experienced hazards. Given the uncertainty and surprise of terrorist attacks, planners should use available risk information, plan for realistic worst-case scenarios, and assume that terrorists will use every capability at their disposal and operate in the most efficient manner possible.	5.3* 5.7.2* 5.7.3 **Proposed Revision** New section under 5.7.3 - The assumptions used in the preparation of all plans, especially those regarding hazard identification, risk assessment, and impact analysis, shall be identified.
14	Plan for continuity of operations. Ensure all organizations tasked in a basic plan have lines of succession for key management positions; protect, where possible, essential records, facilities, and equipment; make available alternate operating locations; protect emergency response staff; and assure functioning of emergency communications.	5.7.2.5* 5.10.6 5.11.2*
15 15 a	Set standards for pushing pre-positioning of federal assets to state and local entities. Set standards for "pushing" the pre-positioning of federal assets to states and locals, in the case of an imminent catastrophe built on better planning efforts between state and federal emergency management logisticians and operations personnel, the assistance and advice of DOD strategic logistics planners, and more robust private sector partnerships.	5.5.1 5.5.2 5.5.4 5.6 5.7.2.2 5.11.1 **Proposed Revision** Section 5.11.1 – The entity shall establish logistical capability and procedures to locate, acquire, store, distribute, maintain, test, and account for services, personnel, resources, materials, and facilities procured or donated to support the program. The entity shall consider pre-positioning assets either independently or in agreement with other entities to anticipate when local assets may be unavailable or inaccessible.

#	Recommendations	Coverage by NFPA 1600 and Proposed Revisions (in underlined text)
15 b	Mandate the use of pre-competed private sector contracts.	**5.5.2** **5.11** **5.15.2** **Proposed Revision** Section 5.15.1 - The entity shall develop financial and administrative procedures to support the program before, during, and after an emergency or a disaster. <u>The entity shall consider negotiating contracts for resources in advance of an emergency.</u>
16	<u>Audit agencies with emergency support functions.</u> Ensure state emergency preparedness offices audit plans of agencies with ESF responsibilities under the state's emergency operations plan at least annually to ensure they: 1) take an all-hazards approach to emergency management; 2) comprehensively address the agency's ESF responsibilities; 3) are up-to-date; and 4) include provisions for regular training and exercising.	**5.13.1** **A5.13.3** **Proposed Revision** Annex A.5.13.3 - The entity should consider including an independent evaluator as part of its periodic program reviews.
17	<u>Address in advance what policies, doctrine, and guidance can be streamlined during a disaster or catastrophe.</u> Pre-identify areas in policy, doctrine and guidance that can be streamlined, or that provide an opportunity for regulatory flexibility, where appropriate/necessary during a disaster or catastrophe. Ensure that policies and procedures provide emergency management experts sufficient regulatory and policy flexibility so that they are empowered to make decisions that are critical to a quick and effective response during a catastrophic event.	**5.2.2*** **5.7.2*** **5.8.4** 5.10.3* **5.10.5** **5.13*** **5.15.2** **A5.15** **Proposed Revision** New section under 5.2 - <u>The entity shall identify and develop streamlining or flexibility in policy, guidance, or processes that can be activated when normal policies, guidance, or processes are not appropriate in an emergency situation.</u>
	Integrated Use of Military Capabilities/Military Preparations	
18	<u>Improve homeland security and defense coordination and leadership.</u>	**Not within purview of 1600**
18 a	Address when DOD might temporarily assume the lead for the federal response to a catastrophic incident and develop plans for DOD lead of the federal response for events of extraordinary scope and nature.	
18 b	Plan and prepare for a significant DOD supporting role during a catastrophic event, including predicting detailed requirements and plans for specific actions needed to respond to future disasters.	**Not within purview of 1600**

#	Recommendations	Coverage by NFPA 1600 and Proposed Revisions (in underlined text)
18 c	Allow military commanders, in appropriate circumstances, to exercise their authority even without a request from local authorities. Exchange/integrate experienced, trained officials in homeland security and defense operations, streamline mission assignment and commodities distribution processes, and develop an inventory of assets under DOD's control that are most likely to be needed in response to a disaster in order for expeditious deployment. Expand DOD authority, procedures, and guidelines to deploy pre-packaged or pre-identified basic response assets (such as helicopters, boats, medical supplies and personnel, food and water, and communications equipment).	**Not within purview of 1600**
19	Strengthen DOD and state coordination and support for catastrophic events.	**Not within purview of 1600**
19 a	Modify organization and training of the National Guard, and other Reserve Components of the military services to include a priority mission to prepare and deploy in support of homeland security missions. Leverage Reserve civilian skills in disaster relief efforts.	
19 b	Make the position of the DCO in FEMA regional offices a fulltime assignment for senior officers who receive training and education on DOD's role under the NRP, and coordinate closely with DHS, NorthCom, and state officials in plans, training and exercises.	**Not within purview of 1600**
19 c	Develop an integrated DOD/state plan for the deployment of National Guard units and personnel in state status when large-scale military support is requested by a state to respond to a catastrophic incident or disaster.	**Not within purview of 1600**
19 d	Develop a plan for the employment of active duty units and personnel when wide-scale military support is requested by a state or ordered by the President to respond to a catastrophic incident or disaster. Develop detailed operational plans for Defense Support to Civil Authorities missions, including specific plans for response to hurricanes, wildfires, earthquakes, pandemics, and other natural disasters.	**Not within purview of 1600**
	Communications/Information Systems Capabilities, Integration, and Coordination	

#	Recommendations	Coverage by NFPA 1600 and Proposed Revisions (in underlined text)
20	Implement and integrate communications for all levels of crisis and facilitate interoperability.	Addressed in part by Section 5.9
20 a	Develop a national strategy, including timeframes, for implementing a survivable, resilient, national interoperable communications network including the use of 1) interoperable platforms for communications networks; 2) equipment that permits sharing of resources in times of crisis; and 3) systems to promote high-precedence data communications and interoperability. Provide a preliminary strategic plan for integrating communications for all levels of crisis in light of evolving threats and new and converging technologies, and for organizational and policy changes. Review of all current policies, laws, plans, and strategies that address communications and integrate them into a national emergency communications strategy.	**Comment on NFPA 1600:** Clauses 5.9 and 5.14 are very related, so consider having them better ordered in the standard.
20 b	Better utilize the coordinating capabilities at regional, state, and local EOCs, as well as the JFO.	**5.8.4** **Proposed Revision** Section 5.8.4 - The entity shall establish applicable procedures and policies for coordinating response, continuity, and recovery activities with appropriate authorities and resources while ensuring compliance with applicable statutes or regulations. Where appropriate, coordination shall involve both internal and external coordination needs.
20 c	Facilitate interoperability among first responder communications, including encouraging the expeditious development and approval of 700 MHz regional plans and developing spectrum sharing among federal, state, and local agencies for emergency response purposes.	**5.9.4** **Proposed Revision** Add a new definition to Chapter 3 - **Interoperability.** The ability of systems, units or forces to provide services to and accept services from other systems, units, or forces and to use the services so exchanged to enable them to operate effectively together.
20 d	Adopt a common computer software standard for use by all federal and state entities involved in incident management that will serve as the information architecture for shared situational and operational awareness.	**5.9.4** **Proposed Revision** Add a reference in Annex E to OASIS - Emergency Data Exchange Language (EDXL) Distribution Element, v. 1.0 (http://www.oasis-open.org/committees/download.php/17228/EDXL-DE_Spec_v1.0.pdf)
20 e	Ensure that effective communications lines and information sharing systems exist between the state emergency operations centers and all facilities or mobile units that provide medical care or other assistance to victims of a catastrophic event.	**5.9.2** **5.9.4** **Proposed Revisions** 1. Add a reference in Annex E to ASTM E2413-04 Standard Guide for Hospital Preparedness and Response http://www.astm.org 2. Add a reference in Annex E to Joint Commission on Accreditation of Healthcare Organizations (JCAHO) - Comprehensive Accreditation Manual for Hospitals (CAMH) - Emergency Management http://www.jointcommission.org/

#	Recommendations	Coverage by NFPA 1600 and Proposed Revisions (in underlined text)
21	Improve rapid deployment to restore communications systems.	5.7.2.4* 5.9.4
21 a	Coordinate federal regional strike teams with NCS, state-level ESF-2 (Communications) agencies, and private-sector partners to be prepared to deploy in an emergency to facilitate reestablishment of public and private communications systems that work across jurisdictions.	**Proposed Revision** Section 5.9.4 - (3) The restoration of external and internal communication capabilities that are vital to the entity's operations, including assistance to other entities and to communication with its employees, customers, and the general public.
21 b	Strengthen DHS mobile emergency response teams' ability to provide communications support during disasters.	**Not within purview of 1600**
21 c	Acquire and position at regional offices mobile communications suites or caches of secure, interoperable emergency communications equipment and systems that can be deployed.	5.9.1 5.9.2 5.5 **Proposed Revision** Section 5.9.4 - (4) Redundant communication assets and contingency planning
22	Strengthen mitigation practices.	
22 a	Work with all communications providers to develop and implement best practices such as (1) maintaining service during extended commercial power outages using back-up generators and equipment; (2) building communications towers, transmitters, and repeaters to withstand a severe storm; and (3) implementing regional interoperable communications networks that allow first responders' radios to operate off of towers in a neighboring jurisdiction that survived the disaster.	5.7.2* 5.9.1 5.10.5 **Proposed Revision** Add a reference in Annex E to ATIS NRSC Hurricane Checklist (http://www.atis.org/nrsc/docs.asp)
22 b	Develop plans for better direct redundant lines of communications between the emergency operations centers used by all levels of government.	5.9.4
23	Identify the inventory of communications equipment that can be deployed.	
23 a	Develop a database for monitoring the inventory of all federal and, where appropriate, private sector communications equipment that can be deployed following a catastrophic incident to assist first responders and restore commercial communications services.	5.9.4
23 b	Maintain an inventory of what resources are necessary to support the deployment and operation of such assets.	5.5.4
24	Maintain national crisis communication system. Develop and maintain a national crisis communication system to support information exchange from the President, across the Federal government, and down to the State level. Create a password-protected website, accessible by credentialed entities, listing the key state emergency management contacts, as well as post-disaster coordination areas for communications providers.	**Not within purview of 1600**

#	Recommendations	Coverage by NFPA 1600 and Proposed Revisions (in underlined text)
25	Maintain a deployable communications capability and equipment components cache. Establish and maintain a deployable communications capability, to quickly gain and retain situational awareness when responding to catastrophic incidents.	**5.5** **5.8** **5.9**
25 b	Identify a single repository/point of contact for communications outage information.	**5.14** **Proposed Revision** Add a new A.5.14.2 - In a large disaster, the entity shall consider establishing a repository or point of contact for reporting communications outages across the entity. This shall allow more efficient identification of communication difficulties and setting priorities for the restoration of communications.
25 c	Encourage state and local jurisdictions to retain and maintain a cache of equipment components that would be needed to immediately restore existing public safety communications.	**5.5** **5.7.2**
26	Improve knowledge about technologies. Educate the public safety community about the availability and capabilities of non-traditional technologies for backing up existing public safety communications systems.	**Not within purview of 1600**
	Logistics, Resource Ordering and Delivery Process	
27	Strengthen procurement and delivery logistics systems. Develop an efficient, transparent and flexible logistics system for the procurement, tracking, and delivery of goods and services during emergencies. Complete and/or adopt technology and information management systems to effectively manage disaster-related activities. Develop an efficient ordering system that minimizes delays and provides order status visibility and accurate, timely commodity tracking, and a transportation protocol that moves commodities and resources directly from the supplier to the usage area. Streamline procedures for issuing mission assignments. Establish pre-negotiated contracts for priority resources prior to disasters, especially in the areas of food, water, ice, fuel distribution, and housing and provide the surge capacity needed to respond to catastrophic disasters. Develop federal standard-form agreements tailored for various needs. Have states should coordinate with FEMA to assess or upgrade their logistics management capabilities and address any asset tracking deficiencies. Refine and streamline the system through which state and local governments request disaster-related assistance from the federal government and ensure that federal and state systems are compatible and provide for seamless interfacing.	**5.11.1** **Proposed Revisions** Add a new A.5.11.1 - Logistics capability and procedures implications shall take into account the range of the entity's hazards, risks, and impacts. The entity shall consider what logistics capabilities and procedures shall be in place for the possible range of emergencies, from more normal emergencies to catastrophic events.

#	Recommendations	Coverage by NFPA 1600 and Proposed Revisions (in underlined text)
28	Strengthen support for the logistics systems.	
28 a	Ensure sufficient contracting staff to handle the flow of disaster assistance and identify and train procurement staff from other agencies who can provide additional surge capacity; develop procurement plans for a variety of disaster scenarios; engage in more rigorous procurement planning and execution to strengthen competitively-awarded technical assistance contracts; improve acquisition process accountability post-disaster; and make non-proprietary information related to disaster-related procurements available to the general public in an easily accessible format.	5.11.1 *Note: Sufficiency of staff covered in 2007 edition of NFPA 1600*
28 b	Create an inventory of federal physical and support assets within the agencies and departments that can be used in responding to disasters.	**Not within purview of 1600**
29	Improve the flexibility to transfer funds prior to supplemental funding. Authorize flexibility in transferring funds across accounts in advance of supplemental funding for immediate use during catastrophes.	5.15
30	Strengthen fraud and abuse controls and action. Ensure that a cooperative effort is made to investigate and prosecute fraud. Strengthen controls on the Individuals and Households Program (IHP), and other programs to reduce fraud and abuse.	5.15.2 **Proposed Revision** Section 5.15.2 - (5) Controls to prevent fraud, waste, and abuse.
	Evacuations	
31	Develop federal and state capability to authorize and conduct mass evacuations.	5.7.2.2 5.10.2
31 a	Develop plans to assist in conducting mass evacuations when an effective evacuation is beyond the capabilities of the state and affected local governments.	
31 b	Review and resolve, to the extent possible, legal and operational issues incident to the issuance of evacuation orders and be prepared to issue a mandatory evacuation order quickly in the event of a disaster.	5.2.1 5.2.2*
31 c	Assess, plan, train, and exercise for evacuations including medical patients in hospitals and nursing homes and others with special needs or populations that do not have the means to evacuate.	5.12.2 5.13.1
31 d	Determine unique geographical/demographic obstacles to evacuation and develop catalogues of regionally available evacuation-related assets.	5.3.3* 5.10.2
31 e	Coordinate sheltering destinations for evacuees from various areas and ensure that air, bus, and other transportation providers have appropriate security escorts to ensure safety during evacuation activities.	5.5.2

#	Recommendations	Coverage by NFPA 1600 and Proposed Revisions (in underlined text)
32	Plan for the evacuation and sheltering of pets. Plan for the evacuation and sheltering of pets and develop procedures for animal identification and processing to facilitate the return of the pets to their owners.	**5.5.2** **5.10.2**
33	Coordinate and publicize plans. Have states with high risk urban areas develop multi-phased evacuation plans that provide for the speediest evacuation of residents most at risk, particularly those who lack the means to evacuate on their own, including considering agreements with bordering states to secure their participation in any contra-flow plan. State and local governments should publicize their evacuation plans and ensure that citizens are familiar with one or more evacuation options.	**5.10.2** **5.14.2**
34 34 a	Utilize the NDMS patient movement capability. Develop a specific concept of operations, training and outreach programs, and patient triage and tracking capabilities to execute domestic patient movement/evacuations utilizing the NDMS patient movement capability.	**5.10.2**
34 b	Integrate non-governmental emergency response and emergency management entities, including private air medical services, into the planning and response process.	**5.5.4** **5.5.5**
35	Evaluate evacuation plans. Evaluate all evacuation plans annually as well as evacuation plans for large urban areas. Ensure that hospitals and nursing homes have evacuation plans that are audited annually, including evaluation of availability of transportation resources.	**5.13.1**
	Search and Rescue	
36	Improve federal and state search and rescue capabilities and integration. **1**.Expand the National Preparedness Goal's Target Capabilities List (TCL) Capability for urban search and rescue to require entities to train, equip, and exercise for civil search and rescue missions. **2**.Create a national search and rescue volunteer certification program. **3**.Incorporate Search and Rescue and US&R annexes into overall disaster response plans. **4**.Develop a comprehensive plan for search and rescue in a multi-environment disaster, including provisions for a unified coordination structure, with subordinate coordination of air, land, and water-borne assets; the means for obtaining the necessary assets and personnel; and a **5**.unified communications network, a common grid reference system, and **6.**standardized procedures and methods for utilizing and sharing local situational awareness acquired by search and	1. **5.2.2**, **5.7.2.2**, **5.7.3.1**, **5.7.3.2**, **5.12** all clauses 2. **5.12** all clauses 3. **5.7.3.1**, **5.7.3.2** 4 .**5.7 1**, **5.7.2.2**, **5.7.2.3**, **5.7.3.1**, **5.7.3.2**, **5.8.1**, **5.8.2**, **5.8.3**, **5.8.4** 5. **5.9** 6. **5.10.4**, **5.9.4** 7. 5.5.2, 5.7.3.1, 5.7.3.2

	rescue operational units. **7.** Incorporate search and rescue policies, plans, and procedures into personnel recovery training at NorthCom operational and strategic levels.	
36	Improve federal and state search and rescue capabilities and integration.	
36 a	Expand the National Preparedness Goal's Target Capabilities List (TCL) Capability for urban search and rescue to require entities to train, equip, and exercise for civil search and rescue missions.	**5.10.2** **5.10.3***
36 b	Create a national search and rescue volunteer certification program. Incorporate Search and Rescue and US&R annexes into overall disaster response plans.	**Not within purview of 1600**
36 c	Develop a comprehensive plan for search and rescue in a multi-environment disaster, including provisions for a unified coordination structure, with subordinate coordination of air, land, and water-borne assets; the means for obtaining the necessary assets and personnel; and a unified communications network, a common grid reference system, and standardized procedures and methods for utilizing and sharing local situational awareness acquired by search and rescue operational units.	**5.5.1** **5.7.1*** **5.10.1** **Proposed Revision** New section under 5.6 - The entity shall consider search and rescue capabilities and needs, including those that may need to be secured from other entities through agreements.
36 d	Incorporate search and rescue policies, plans, and procedures into personnel recovery training at NorthCom operational and strategic levels.	**Not within purview of 1600**
	Law Enforcement/Public Safety and Security	
37	Provide more effective coordination of the law enforcement response. Clarify and expand the role and mission of the Public Safety and Security support function and the Senior Federal Law Enforcement Officer. Designate which agency should have primary responsibility for ESF-13 (Public Safety and Security) in which circumstances, and clarify relationships between the Senior Federal Law Enforcement Official (SFLEO) designation and ESF-13 functions described in the annex.	**5.4** **5.7** **5.8** **Proposed Revisions** 1. New section under 5.7.3 - The legality of evacuation, evacuation orders and legal rights, including media access, shall be identified. 2. New section under 5.7.2 - An evacuation and sheltering plan shall describe an organized, phased, and supervised withdrawal, dispersal, or removal of civilians from dangerous or potentially dangerous areas, and their reception and care in safe areas.
38	Plan for deployment of law enforcement assets. Inventory law enforcement assets and identify other available assets, including units with particular skill sets; planning for the deployment of law enforcement personnel should include how to transport officers to the affected region and arrangements to provide personnel with food, sheltering, supplies, and vehicles once they arrive.	**5.5.2** **5.5.4** **5.8.2** **5.8.4** **5.11.1** **5.6.1** **5.6.2** **5.10.2** **Proposed Revisions** See comments under #37 of this table.
39	Develop federal law enforcement surge capacity. Develop the capability to surge federal law enforcement resources in the immediate aftermath of a disaster and develop procedures for streamlined deputization of qualified federal law enforcement officers.	**5.7.2.2** **5.7.2.5** **5.7.3.1** **5.7.3.2** **5.8.1** **5.8.2** **Proposed Revisions** See comments under #37 of this table.

40	Incorporate force protection into federal response planning. Further incorporate force protection into federal response planning, to prevent disruption of federal agencies' operations and to protect federal personnel and property.	**5.2.2** **5.5.2** **5.7.3** **Proposed Revisions** See comments under #37 of this table.
	Criminal Justice	
41	Provide for the continuation of the federal and state criminal justice system. Develop a program to ensure the continuity of the federal criminal justice system and to provide assistance to states in developing complementary plans. Develop plans to improve the accountability for persons under supervision by the federal criminal justice system.	**Not directly applicable, but adequately covered by all of NFPA 1600**
	Public Health and Medical Response	
42	Unify and strengthen public health and medical command and planning. Develop the lead for a unified and strengthened public health and medical command for federal disaster response and develop a comprehensive plan to identify, deploy and track federal public health and medical assets (human, fixed and materiel) for use during a catastrophic event. Ensure coordination and oversight of emergency, bioterrorism, and ongoing public health preparedness needs. Expand the scope of ESF-8 (Public Health and Medical Services) to clearly include the public health and medical needs not only of victims of an emergency, but also those of evacuees, special needs populations, and the general population who may be impacted by the event or may need to be evacuated or sheltered-in-place. Include mortuary activities and mass fatality plans and the development of capabilities.	**5.4** **5.5** **5.6** **5.7** **5.8** **5.9** **5.10*** **5.11** **5.12** **5.13** **5.14** **5.15** **Proposed Revision** Section 5.7.2.2 - The emergency operations/response plan shall assign responsibilities to organizations and individuals for carrying out specific actions at projected times and places in an emergency or disaster. The plan shall address any special needs of its employees or customers.
43	Improve homeland security and human services. Strengthen authority to coordinate and integrate programs across HHS that relate to preparedness; increase the capabilities of the field regional emergency coordination officers. Develop and implement a system to identify, deploy and track federal public health and medical assets (human, fixed and materiel) used in preparation for or response to national disasters and catastrophes; increase National Disaster Medical System capabilities through adequate resources to equip, staff, and train NDMS teams; improving transportation, logistics and communications capabilities; and developing more effective management support team capability.	**Not within purview of 1600**
44	Communicate public health, individual, and community preparedness guidance. Routinely communicate public health, as well as individual and community preparedness guidance to	**5.14.2*** **5.14.3**

	the general population.	
45	Provide for a federal public health service response team. Create and maintain a dedicated, full time, and equipped response team composed of Commissioned Corps officers of the U.S. Public Health Service.	**Not within purview of 1600**
46	Increase local and state health infrastructure capacities and capabilities. Increase the capacities and capabilities of local and State health infrastructures.	**Not within purview of 1600**
47	Foster widespread use of interoperable electronic health records systems. Accelerate the initiative to foster widespread use of interoperable electronic health records systems, to achieve development and certification of systems for emergency responders.	**Not within purview of 1600**
	Human Services	
48 48 a	Coordinate human services provisions and inventory federal human services. Assign responsibility for coordinating the provision of human services during disasters and inventory all federal human services. Have all federal agencies responsible for the administration of human service programs plan and prepare for the delivery of services in a disaster environment.	**5.5.4** **5.5.5** **5.6** **5.7.2.2** **5.7.3.1** **5.10.2***
48 b	Have federal agencies that routinely deliver human services build on established relationships with state and local agencies and private sector organizations and create contingency plans to assure the independent delivery of federal assistance when necessary.	**5.8.4** **5.10.2*** **Proposed Revision** Section 5.8.4 - The entity shall establish applicable procedures and policies for coordinating response, continuity, and recovery activities with appropriate authorities and resources while ensuring compliance with applicable statutes or regulations. The entity shall establish procedures and policies for providing or coordinating with other entities for human services capabilities for its employees.
49	Develop simple, comprehensive, and efficient means for human services enrollment. Develop a simple, comprehensive, and efficient means for disaster victims to enroll for all available human services at a single encounter.	**5.7.2.2** 5.7.2.4* 5.10* **Proposed Revision** *See revision under #48b.* .
50	Develop a capacity to store, retrieve and share personal identifying information. Develop the capacity to voluntarily store and retrieve personal identifying information, and data sharing arrangements to more effectively respond to disasters, while protecting privacy, and to protect against waste, fraud and abuse. Establish systems to facilitate reunification of family members separated as a result of a disaster or catastrophe.	**5.7.2.2** 5.7.2.4* 5.7.2.5 * **Proposed Revisions** New section under 5.7.2 - The entity shall develop policies and procedures to store, retrieve, and control access of personal information when needed in an emergency situation, including systems to facilitate reunification of family members separated as a result of a disaster or catastrophe.
	Mass Care, Sheltering, Individual Assistance	

51	Strengthen mass care and housing relationships, planning, training, and exercises. Have states coordinate through the FEMA regional offices to develop plans adequate to address shelter needs in a catastrophe or when needs exceeds a state's capacity. Retain ARC and DHS for the mass care and sheltering responsibility during disasters and designate HUD as the lead federal agency for the provision of temporary housing. Have HUD, DHS and ARC develop a close working relationship, not just during crises, and during non-emergency times, jointly plan for mass care and housing during disasters, and train for disasters and conduct exercises to evaluate the response readiness of the federal government.	**5.7.2.2** **5.7.3.1** **5.7.3.2** 5.10* **Proposed Revision** New section under 5.7.2 - A mass care plan shall support efforts to meet the mass care needs of disaster victims, including those with special needs. This plan shall include delivering such services as supplying victims with shelter, feeding, and emergency first aid; supplying bulk distribution of emergency relief supplies; and collecting information to and for a disaster welfare information system designed to report on victim status and assist in reuniting families.
52	Plan for short-term shelter and integrate with other plans. Develop plans for providing short-term shelter for estimated populations in a catastrophic event, including a voluntary database of people in shelters. Develop a catastrophic medical response plan that is integrated with its evacuation and shelter plan and documents the availability of nurses and health care professionals with emergency medical and trauma training in the state. Consider developing and maintaining a voluntary database of special needs persons residing in areas.	**5.7.2.2** **5.7.2.4** **General Comment** A new standard on evacuations (mass and otherwise) and shelter in place (lockdown) should be developed (or existing standard identified) dealing with protective actions for life safety. **Proposed Revisions** See comments under #37 of this table.
53	Develop mass relocation plans and inventories of shelters and shelter sites and movement of residents. Develop mass relocation plans for each major metropolitan area and inventories of existing shelters and shelter sites. Maintain awareness of the movement of shelter and temporary housing residents.	**5.5.4** **5.7.2.2** **General Comment** A new standard on evacuations (mass and otherwise) and shelter in place (lockdown) should be developed (or existing standard identified) dealing with protective actions for life safety.
	Public Affairs/Media Relationships	
54	Improve public affairs/external affairs operating procedures, command, training, structure, and communications. Revise standing operating procedures, command relationships, training, organizational structure, and communications between Federal Public Affairs Offices (PAOs) and their state and local counterparts. Expand federal partnership programs with state and local PAOs.	**5.14.1*** **5.9.4** **5.14.2** 5.14.3 **Proposed Revision** New section under 5.7.2 - Jurisdictions shall have a public education and outreach plan to promote and support citizen preparedness (e.g. public education, training sessions, demonstrations, etc.). This plan shall describe organizational structures, roles and responsibilities, policies, and protocols for providing emergency support and should be flexible enough for use in all emergencies. Plans should also include pre-incident and post-incident public awareness, education, and communications plans and protocols.
55	Establish rapidly deployable public affairs teams. Establish rapidly deployable Public Affairs teams, able to operate self-sufficiently, in austere conditions.	**5.14.1** **5.14.2**
56	Establish integrated public alert and warning system.	**5.9**

		5.14.1*
	Establish an integrated public alert and warning system. Ensure that persons with disabilities and non-English-speaking receive meaningful alerts and work with federal, state, and local agencies to ensure consistent and reliable emergency information through a consolidated and coordinated public information program.	5.14.2 **Proposed Revision** Either in Section 5.9 or Annex, should address the issue of communication to those with special needs and non-English speakers. See previous citation.
	Critical Infrastructure Preparedness	
57	Strengthen infrastructure support organizational structures, roles and responsibilities. Provide for a stronger Infrastructure Support Branch in the National Operations Center and strengthen the role and responsibility of the Infrastructure Liaison. Coordinate with the private sector and NGOs at the state, regional, and national level to incorporate those entities, where appropriate, into planning, training, and exercises. Ensure that hurricane protection levee systems and other flood control infrastructures are included within the definition of critical infrastructure, that a designated state agency is responsible for ensuring that state and local agencies and levee districts prepare for, and are able to respond to, emergencies involving these structures, whether they are directly owned by the state or not, and that the designated state agency executes this responsibility.	5.3 5.4 5.5 5.6 5.7 5.8 5.12 5.13
58	Ensure the collaborative development of regional disaster plans and set basic criteria for private sector preparedness. Require the collaborative development of regional disaster plans with the private sector and set basic criteria for private sector preparedness against which these regional plans can be measured. Share the plans and policy for federal response and delineated roles and responsibilities with the private sector.	5.5 5.6 5.7* 5.13 **Proposed Revisions** See comments under #37 of this table.
59	Improve national infrastructure protection planning. Standardize federal government policy to link the prioritization of both protection and restoration. Require the use of a systems and resiliency approach to determine the global consequence of the loss of each asset. Address cross sector dependencies in the systems approach. Add an annex to the interim NIPP to describe how those policy considerations that are learned in the prioritization for protection will be used to develop restoration priorities.	**Not within purview of 1600**
60	Develop the capability to provide economic impact assessments of major disasters. Provide an overall economic impact assessment of major disasters.	5.3.3*
61	Develop incentives and other mechanisms for private sector prioritization of infrastructure protection.	**Not within purview of 1600**

	Develop incentives and other mechanisms to motivate private sector cooperation and participation in efforts to prioritize infrastructure protection.	
	Environmental Assessments and Hazards	
62	Increase the capability to conduct initial environmental assessments and communicate warnings. Enhance the Emergency Response Team (ERT) capability to conduct initial environmental assessments and communicate warnings to the general public and emergency responders. Collaboratively develop detailed plans to guide initial environmental assessment operations under the NRP. Develop planning and operational procedures for worker health and safety, including pre-disaster identification of potential hazards to inform out-of-area responders.	**Not within purview of 1600**
63	Strengthen environmental data gathering and provision to responders. Develop an integrated plan to quickly gather environmental data and provide the public and emergency responders the most accurate information available to decide whether it is safe to operate in a disaster environment or return after evacuation.	**Not within purview of 1600**
64	Coordinate debris removal issues and address maritime salvage. Address and coordinate debris removal issues as part of ESF operational procedures. Assign a single federal maritime salvage coordinator who will be responsible for responses to maritime salvage during times of national disasters (man-made or natural) and clarify federal agency responsibilities.	**Not within purview of 1600**
	International Support	
65	Clarify international coordination responsibilities. Clarify responsibilities regarding federal agency response to domestic incidents and international coordination. Develop a policy for accepting and directing corporate in-kind donations and accepting and directing foreign donations.	**5.5.5**
66	Develop international assistance procedures and training.	
66 a	Develop procedures to review, accept or reject any offers of international assistance for a domestic catastrophic incident.	**5.5.5** **Proposed Revision** Annex A.5.5 - Voluntary donations and their management should consider the possibility of international assistance.
66 b	Include Department of State and foreign assistance management in domestic interagency training and exercise events.	**5.12.2** **5.13.2*** **Proposed Revision** *See revision under # 66a.*

67	Maintain a prioritized list of foreign assistance needs and the handling of cash donations Create and routinely update a prioritized list of anticipated disaster needs for foreign assistance and a list of items that cannot be accepted. Establish an interagency process to: determine appropriate uses of international cash donations; to ensure timely use of these funds in a transparent and accountable manner; to meet internal Federal government accounting requirements; and to communicate to donors how their funds were used.	**5.5.5**
68	Communicate policies for cash, equipment, and personnel donations. Encourage cash donations, preferably to recognized nonprofit voluntary organizations with relevant experience, and emphasize that donations of equipment or personnel should address disaster needs.	**5.5.5**
69	Develop procedures to meet the needs of foreign missions and persons unaccounted for in a disaster zone. Develop procedures to ensure that the needs of foreign missions are included in domestic plans for tracking inquires regarding persons who are unaccounted for in a disaster zone. Provide personnel who have technical expertise in humanitarian and disaster management issues, to include population displacement. In improving their strategies for providing faster information and assistance to American citizens, federal, state, and local emergency management officials should include provisions covering the needs of affected foreign nationals. Provide daily disaster response situational updates through the Secretary of State to all Chiefs of Mission or Chargés d'Affaires.	**5.5.5**
	Non-governmental Organization Assistance	
70	Designate responsibility for coordination of non-governmental assistance. Designate responsibility for coordinating non-governmental assistance, including faith-based organizations, during emergencies. Establish an office with responsibility for integrating non-governmental and other volunteer resources into federal, state, and local emergency response plans and mutual aid agreements. Establish a distinct organizational element to assist faith-based organizations.	**5.5.5**
71	Develop policies and plans for donations and special needs requirements. Develop a policy for accepting and directing corporate inkind donations and accepting and directing foreign donations. Ensure that response and recovery plans of private sector and NGOs participating in emergency preparedness and response operations take into consideration the	**5.5.5**

	special needs of persons with physical, mental, and other disabilities.	
72	Incorporate NGOs and the private sector into emergency planning, training, exercises, and disaster relief efforts. Coordinate with the private sector and NGOs at the state, regional, and national level to incorporate those entities, where appropriate, into planning, training, and exercises.	**5.7.2*** **5.12.2** **5.13.2*** **Proposed Revisions** See comments under #37 of this table.
73	Improve access and awareness of private sector and NGO emergency response resources. Improve access to, and awareness of, private sector and non-governmental resources available for use during emergency response operations.	**5.5.5** **5.7.2*** **5.12.2** **5.13.2*** **Proposed Revisions** See comments under #37 of this table.
74	Remove legal and liability impediments to NGO and private sector resources use and coordination. Remove legal and liability impediments to the use and coordination of non-governmental and private sector resources during a catastrophic event.	**5.5.5** **5.7.2*** **5.12.2** **5.13.2*** **Proposed Revisions** See comments under #37 of this table.
75	Encourage NGOs and private sector to plan giving streams at the local level. Encourage NGOs and the private sector to plan their giving streams at the local level in order to provide comprehensive support to affected local areas during an emergency and prevent duplication of relief efforts.	**5.5.5** **5.7.2*** **5.12.2** **5.13.2*** **Proposed Revisions** See comments under #37 of this table.
	Exercises and Lessons Learned	
76	Conduct exercises to keep plans updated. Conduct exercises and simulations to expose unaddressed challenges and to ensure that plans are continually revised and updated, including exercises simulating a large-scale catastrophe.	**5.13.1** **5.13.2*** **5.13.3***
77	Support remedial action management programs. Establish and fund Remedial Action Management Programs (RAMPs) for all agencies with operational components.	**Not within purview of 1600**
78	Conduct training and exercises with key official participation. Conduct training and exercises with key State and local officials participating.	**5.13.1**
79	Restructure top official exercise series and add further all-hazards scenarios. Restructure the TOPOFF Exercise Series, including restructuring the scope and scale of the TOPOFF exercise series and include further all-hazards scenarios.	**Not within purview of 1600**

80	Exercise all urban security initiative cities and state capitals.	Not within purview of 1600
	Provide a series of exercises to all Urban Area Security Initiative cities and State capitals.	
81	Consolidate training and exercise structures and establish exercise and evaluation programs.	Not within purview of 1600
	Consolidate the DHS Training and Exercise Structure and establish a National Exercise and Evaluation Program (NEEP).	
82	Establish a homeland security professional development program with standards.	Not within purview of 1600
	Establish a homeland security professional development program that encompasses career assignments, education, exercises, and training in agencies with homeland security responsibilities. Establish an interagency working group to establish specific goals with objective standards against which department and agency progress toward full implementation of effective professional development programs can be measured. Provide training, technical, and other assistance in support of homeland security professional development programs. Consider establish a Presidential Board to review the national security, homeland security, and counterterrorism professional development programs of Federal departments and agencies to identify opportunities for further integration. Establish a Homeland Security Academy or National Homeland Security University for homeland security instruction and maintain a web-based "lessons learned" and best practices program. Strengthen and expand the Emergency Management Institute's (EMI) courses for emergency management personnel. Expand use of innovative techniques and technologies to enhance the quality and dissemination of homeland security education and training.	
83	Mandate interagency and intergovernmental assignments and professional education in career development processes.	Not within purview of 1600
	Implement a career development process that mandates interagency and intergovernmental assignments as well as professional education.	
	Credentialing	
84	Develop national credentialing requirements and process guidelines for emergency response personnel.	Not within purview of 1600
	Ensure that all federal and state emergency response personnel, including volunteers have a standard credential based on measurable criteria, performance, objectives and standards. Include private sector telecommunications, utility, critical infrastructure, medical personnel, volunteers, and other private entities in emergency response planning and be assured appropriate access to	

	disaster areas through a standardized national credential.	
	Citizen and Community Preparedness	
85	Develop a culture of citizen and community preparedness. Develop and implement a comprehensive strategy to develop a culture of preparedness in America, including ensuring that emergency plans are community-based and include outreach and education to the public in languages appropriate to the relevant constituencies. Make citizen and community preparedness a national priority. Increase grant funding for citizen and community preparedness programs and where program metrics demonstrate effectiveness, consider allowing greater use of Federal funds for Citizen Corps Council staff positions at the State and local level.	**5.10.2** **Proposed Revision** New section under 5.7.2 - Jurisdictions shall have a public education and outreach plan to promote and support citizen preparedness (e.g. public education, training sessions, demonstrations, etc.). This plan shall describe organizational structures, roles and responsibilities, policies, and protocols for providing emergency support and should be flexible enough for use in all emergencies. Plans should also include pre-incident and post-incident public awareness, education, and communications plans and protocols.
86	Build citizen and community baseline skills and capabilities.	
86 a	Build baseline skills and capabilities needed by all citizens and communities. Establish a comprehensive list of skills and capabilities to assess how well citizens are prepared and develop tools for state and local governments to use in order to prepare, train, exercise, and engage citizens and communities in all areas of preparedness. Give special consideration to persons with disabilities, health problems, language barriers, income barriers, and unaccompanied minors and the needs of household pets and other animals.	**5.5.2** **5.10.2** **Proposed Revision** *See revision under #85.*
86 b	Include individual and community preparedness into current elementary and secondary educational programs.	**5.12.1** **Proposed Revision** *See revision under #85.*
86 c	Establish neighborhood pre-disaster and post-disaster information centers at schools, shopping centers, places of worship, and other community institutions, to provide information on evacuations and the location of disaster assistance sites.	**5.5.2** **Proposed Revision** *See revision under #85.*
87	Highlight preparedness best practices. Highlight preparedness best practices through the DHS Lessons Learned and Information Sharing website (www.llis.gov) and the Citizen Corps Council's National conference.	**Proposed Revision** *See revision under #85.*
88	Provide tax incentives for purchasing preparedness supplies Encourage the establishment of State tax relief holidays throughout the year to allow citizens to purchase disaster preparedness supplies.	**Proposed Revision** *See revision under #85.*
	Mitigation	
89	Address root causes of disasters. Integrate ecological restoration efforts into hurricane protection that addresses the root causes of ongoing ecological and geological processes, such as the	**5.2** **5.3.2***

| | loss of coastal wetlands and regional subsidence. Ensure future decision making regarding navigation channels recognizes, accounts for, and mitigates the role the channels play in increasing, speeding, or transferring storm surges and their impact on wetland loss and the coastal environment and the resulting long-term implications for hurricane vulnerability. Establish an interagency review board to examine the level of vulnerability of communities located in floodplains and coastal regions, to hurricanes and floods, and specifically examine the adequacy of existing and planned flood and hurricane protection levees and flood control structures, the contribution of environmental and ecological conditions, and the impact of nonstructural programs, such as the federal flood insurance program and pre- and post-disaster mitigation programs. | |

Excerpted text from NFPA 1600 (2004 Edition)

Chapter 1 Administration

1.1* Scope. This standard establishes a common set of criteria for disaster management, emergency management, and business continuity programs hereinafter referred to as the program.

1.2 Purpose. This standard shall provide those with the responsibility for disaster and emergency management and business continuity programs the criteria to assess current programs or to develop, implement, and maintain a program to mitigate, prepare for, respond to, and recover from disasters and emergencies.

1.3 Application. This document shall apply to both public and private programs.

Chapter 2 Referenced Publications (Reserved)

Chapter 3 Definitions

3.1 General. The definitions contained in this chapter shall apply to the terms used in this standard. Where terms are not included, common usage of the terms shall apply.

3.2 NFPA Official Definitions.

3.2.1* Approved. Acceptable to the authority having jurisdiction.

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

3.2.3 Shall. Indicates a mandatory requirement.

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

3.2.5 Standard. A document, the main text of which contains only mandatory provisions using the word "shall" to indicate requirements and which is in a form generally suitable for mandatory reference by another standard or code or for adoption into law. Nonmandatory provisions shall be located in an appendix or annex, footnote, or fine-print note and are not to be considered a part of the requirements of a standard.

3.3 General Definitions.

3.3.1 Business Continuity Program. An ongoing process supported by senior management and funded to ensure that the necessary steps are taken to identify the impact of potential losses, maintain viable recovery strategies and recovery plans, and ensure continuity of services through personnel training, plan testing, and maintenance.

3.3.2 Damage Assessment. An appraisal or determination of the effects of the disaster on human, physical, economic, and natural resources.

3.3.3 Disaster/Emergency Management Program. A program that implements the mission, vision, and strategic goals and objectives as well as the management framework of the program and organization.

3.3.4 Entity. A governmental agency or jurisdiction, private or public company, partnership, nonprofit organization, or other organization that has disaster/emergency management and continuity of operations responsibilities.

3.3.5 Impact Analysis (Business Impact Analysis, BIA). A management level analysis that identifies the impacts of losing the entity's resources. The analysis measures the effect of resource loss and escalating losses over time in order to provide the entity with reliable data upon which to base decisions concerning hazard mitigation, recovery strategies, and continuity planning.

3.3.6 Incident Management System. In disaster/emergency management applications, the combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure with responsibility for the management of assigned resources to effectively accomplish stated objectives pertaining to an incident.

3.3.7 Mitigation. Activities taken to eliminate or reduce the probability of the event, or reduce its severity or consequences, either prior to or following a disaster/emergency.

3.3.8 Mutual Aid Agreement. A pre-arranged agreement developed between two or more entities to render assistance to the parties of the agreement.

3.3.9 Preparedness. Activities, programs, and systems developed and implemented prior to a disaster/emergency that are used to support and enhance mitigation of, response to, and recovery from disasters/emergencies.

3.3.10 Recovery. Activities and programs designed to return conditions to a level that is acceptable to the entity.
3.3.11 Response. In disaster/emergency management applications, activities designed to address the immediate and short-term effects of the disaster/emergency.

3.3.12 Situation Analysis. The process of evaluating the severity and consequences of an incident and communicating the results.

Chapter 4 Program Management

4.1 Program Administration. The entity shall have a documented program that defines the following:

(1) Executive policy including vision, mission statement, and enabling authority
(2) Program goals and objectives
(3) Program plan and procedures
(4) Applicable authorities, legislation, regulations, and/or industry codes of practice
(5) Program budget, project schedule, and milestones

4.2* Program Coordinator. The program coordinator shall be appointed by the entity and authorized to administer and keep current the program.

4.3* Advisory Committee.

4.3.1* An advisory committee shall be established by the entity in accordance with its policy.

4.3.2 The advisory committee shall provide input to or assist in the coordination of the preparation, implementation, evaluation, and revision of the program.

4.3.3 The committee shall include the program coordinator and others who have the appropriate expertise and knowledge of the entity and the capability to identify resources from all key functional areas within the entity and shall solicit applicable external representation.

4.4 Program Evaluation. The entity shall establish performance objectives for program elements listed in Chapter 4 and Chapter 5 and shall conduct a periodic evaluation of the objectives as described in Section 5.13.

Chapter 5 Program Elements

5.1* General.

5.1.1 The program shall include the elements given in Section 5.2 through Section 5.15, the scope of which shall be determined by the impact of the hazards affecting the entity.

5.1.2* These elements shall be applicable to the four phases of disaster/emergency management: mitigation, preparedness, response, and recovery.

5.2 Laws and Authorities.

5.2.1 The disaster/emergency management program shall comply with applicable legislation, regulations, directives, policies, and industry codes of practice.

5.2.2* The entity shall implement a strategy for addressing needs for legislative and regulatory revisions that evolve over time.

5.3* Hazard Identification, Risk Assessment, and Impact Analysis.

5.3.1* The entity shall identify hazards, the likelihood of their occurrence, and the vulnerability of people, property, the environment, and the entity itself to those hazards.

5.3.2* Hazards to be considered at a minimum shall include, but shall not be limited to, the following:

(1) Natural hazards (geological, meteorological, and biological)
(2) Human-caused events (accidental and intentional)

5.3.3* The entity shall conduct an impact analysis to determine the potential for detrimental impacts of the hazards on conditions including, but not limited to, the following:

(1) Health and safety of persons in the affected area at the time of the incident (injury and death)
(2) Health and safety of personnel responding to the incident
(3)*Continuity of operations
(4) Property, facilities, and infrastructure
(5) Delivery of services
(6) The environment
(7)*Economic and financial condition
(8) Regulatory and contractual obligations
(9) Reputation of or confidence in the entity

5.4 Hazard Mitigation.

5.4.1 The entity shall develop and implement a strategy to eliminate hazards or mitigate the effects of hazards that cannot be eliminated.

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

5.4.3 The mitigation strategy shall consider, but not be limited to, the following:

 (1) The use of applicable building construction standards
 (2) Hazard avoidance through appropriate land-use practices
 (3) Relocation, retrofitting, or removal of structures at risk
 (4) Removal or elimination of the hazard
 (5) Reduction or limitation of the amount or size of the hazard
 (6) Segregation of the hazard from that which is to be protected
 (7) Modification of the basic characteristics of the hazard
 (8) Control of the rate of release of the hazard
 (9)*Provision of protective systems or equipment for both cyber or physical risks
(10) Establishment of hazard warning and communication procedures
(11) Redundancy or duplication of essential personnel, critical systems, equipment, information, operations, or materials

5.5* Resource Management.

5.5.1 The entity shall establish resource management objectives consistent with the overall program goals and objectives as identified in Section 4.1 for the hazards as identified in Section 5.3.

5.5.2 The resource management objectives established shall consider, but not be limited to, the following:

(1) Personnel, equipment, training, facilities, funding, expert knowledge, materials, and the time frames within which they will be needed

(2) Quantity, response time, capability, limitations, cost, and liability connected with using the involved resources

5.5.3 An assessment shall be conducted to identify the resource capability shortfalls and the steps necessary to overcome any shortfalls.

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

5.5.5 Voluntary donations, solicited and unsolicited, and the management thereof, shall be addressed.

5.6* Mutual Aid.

5.6.1 The need for mutual aid shall be determined and agreements established.

5.6.2 Mutual aid agreements shall be referenced in the applicable program plan.

5.7 Planning.

5.7.1* The program shall include, but shall not be limited to, a strategic plan, an emergency operations/response plan, a mitigation plan, a recovery plan, and a continuity plan.

5.7.2* Plans.

5.7.2.1* The strategic plan shall define the vision, mission, goals, and objectives of the program as it relates to the policy of the entity that is required in Section 4.1.

5.7.2.2 The emergency operations/response plan shall assign responsibilities to organizations and individuals for carrying out specific actions at projected times and places in an emergency or disaster.

5.7.2.3 The mitigation plan shall establish interim and long term actions to eliminate hazards that impact the entity or to reduce the impact of those hazards that cannot be eliminated.

5.7.2.4* The recovery plan shall be developed using strategies based on the short-term and long-term priorities, processes, vital resources, and acceptable time frames for restoration of services, facilities, programs, and infrastructure.

5.7.2.5* A continuity plan shall identify the critical and timesensitive applications, vital records, processes, and functions that shall be maintained, as well as the personnel and procedures necessary to do so, while the damaged entity is being recovered.

5.7.3 Common Plan Elements.

5.7.3.1 The functional roles and responsibilities of internal and external agencies, organizations, departments, and individuals shall be identified.

5.7.3.2 Lines of authority for those agencies, organizations, departments, and individuals shall be established or identified.

5.8 Direction, Control, and Coordination.

5.8.1 The entity shall develop the capability to direct, control, and coordinate response and recovery operations.

5.8.2* The capabilities shall include, but shall not be limited to, the following:

(1) An incident management system
(2) *The specific organizational roles, titles, and responsibilities for each incident management function specified in the emergency operations/response plan

5.8.3 The incident management system utilized shall be communicated to and coordinated with appropriate authorizations and resources identified in Section 5.5.

5.8.4 The entity shall establish applicable procedures and policies for coordinating response, continuity, and recovery activities with appropriate authorities and resources while ensuring compliance with applicable statutes or regulations.

5.9 Communications and Warning.

5.9.1 Communications systems and procedures shall be established and regularly tested to support the program.

5.9.2 The entity shall develop and maintain a reliable capability to notify officials and alert emergency response personnel.

5.9.3 Emergency communications and warning protocols, processes, and procedures shall be developed, periodically tested, and used to alert people potentially impacted by an actual or impending emergency.

5.9.4 The program shall address communications including, but not limited to, the following:

(1) Communication needs and capabilities to execute all components of the response and recovery plans
(2) The inter-operability of multiple responding organizations and personnel

5.10* Operations and Procedures.

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

5.10.2 The safety, health, and welfare of people, and the protection of property and the environment under the jurisdiction of the entity shall be addressed in the procedures.

5.10.3* Procedures, including life safety, incident stabilization, and property conservation, shall be established and implemented for response to, and recovery from, the consequences of those hazards identified in Section 5.3.

5.10.4 A situation analysis that includes a damage assessment and the identification of resources needed to support response and recovery operations shall be conducted.

5.10.5 Procedures shall be established to allow for initiating recovery and mitigation activities during the emergency response.

5.10.6 Procedures shall be established for succession of management/government as required in 5.7.2.5.

5.11 Logistics and Facilities.

5.11.1 The entity shall establish logistical capability and procedures to locate, acquire, store, distribute, maintain, test, and account for services, personnel, resources, materials, and facilities procured or donated to support the program.

5.11.2* A primary and alternate facility capable of supporting continuity, response, and recovery operations shall be established, equipped, periodically tested, and maintained.

5.12 Training.

5.12.1 The entity shall assess training needs and shall develop and implement a training/educational curriculum to support the program. The training and education curriculum shall comply with all applicable regulatory requirements.

5.12.2 The objective of the training shall be to create awareness and enhance the skills required to develop, implement, maintain, and execute the program.

5.12.3 Frequency and scope of training shall be identified.

5.12.4 Personnel shall be trained in the entity's incident management system.

5.12.5 Training records shall be maintained.

5.13 Exercises, Evaluations, and Corrective Actions.

5.13.1 The entity shall evaluate program plans, procedures, and capabilities through periodic reviews, testing, post-incident reports, lessons learned, performance evaluations, and exercises.

5.13.2* Exercises shall be designed to test individual essential elements, interrelated elements, or the entire plan(s).

5.13.3* Procedures shall be established to ensure that corrective action is taken on any deficiency identified in the evaluation process and to revise the relevant program plan.

5.14 Crisis Communication and Public Information.

5.14.1* The entity shall develop procedures to disseminate and respond to requests for pre-disaster, disaster, and post-disaster information, including procedures to provide information to internal and external audiences, including the media, and deal with their inquiries.

5.14.2 The entity shall establish and maintain a disaster/emergency public information capability that includes, but is not limited to, the following:

(1) A central contact facility for the media
(2) A disaster/emergency information handling system
(3) Pre-scripted information bulletins
(4) A method to coordinate and clear information for release
(5) The capability of communicating with special needs populations
(6) Protective action guidelines/recommendations (e.g., shelter-in-place or evacuation)

5.14.3 Where the public is potentially impacted by a hazard, a public awareness program shall be implemented.

5.15* Finance and Administration.

5.15.1* The entity shall develop financial and administrative procedures to support the program before, during, and after an emergency or a disaster.

5.15.2 Procedures shall be established to ensure that fiscal decisions can be expedited and shall be in accordance with established authority levels and accounting principles. The procedures shall include, but not be limited to, the following:

(1) Establishing and defining responsibilities for the program finance authority, including its reporting relationships to the program coordinator
(2) Program procurement procedures
(3) Payroll
(4) Accounting systems to track and document costs

Annex A Explanatory Material

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

A.1.1 The disaster/emergency management and business continuity community is comprised of many different entities including the government at distinct levels (e.g., federal, state/provincial, territorial, tribal, indigenous, and local levels); business and industry; non-governmental organizations; and individual citizens. Each of these entities has its own focus, unique missions and responsibilities, varied resources and capabilities, and operating principles and procedures. Each entity can have its own definition of disaster. Examples of disaster definitions used by entities include the following:

(1) An occurrence or imminent threat to the entity of widespread or severe damage, injury, or loss of life or property resulting from natural or human causes
(2) An emergency that is beyond the normal response resources of the entity and would require the response of outside resources and assistance for recovery
(3) A suddenly occurring or unstoppable developing event that does as follows:
    (a) Claims loss of life, suffering, loss of valuables, or damage to the environment
    (b) Overwhelms local resources or efforts

(c) Has a long-term impact on social or natural life that is always negative in the beginning

A.3.2.1 Approved. The National Fire Protection Association does not approve, inspect, or certify any installations, procedures, equipment, or materials; nor does it approve or evaluate testing laboratories. In determining the acceptability of installations, procedures, equipment, or materials, the authority having jurisdiction may base acceptance on compliance with NFPA or other appropriate standards. In the absence of such standards, said authority may require evidence of proper installation, procedure, or use. The authority having jurisdiction may also refer to the listings or labeling practices of an organization that is concerned with product evaluations and is thus in a position to determine compliance with appropriate standards for the current production of listed items.

A.3.2.2 Authority Having Jurisdiction (AHJ). The phrase "authority having jurisdiction," or its acronym AHJ, is used in NFPA documents in a broad manner, since jurisdictions and approval agencies vary, as do their responsibilities. Where public safety is primary, the authority having jurisdiction may be a federal, state, local, or other regional department or individual such as a fire chief; fire marshal; chief of a fire prevention bureau, labor department, or health department; building official; electrical inspector; or others having statutory authority. For insurance purposes, an insurance inspection department, rating bureau, or other insurance company representative may be the authority having jurisdiction. In many circumstances, the property owner or his or her designated agent assumes the role of the authority having jurisdiction; at government installations, the commanding officer or departmental official may be the authority having jurisdiction.

A.4.2 The program coordinator should ensure the preparation, implementation, evaluation, and revision of the program.
It is not the intent of this standard to restrict the users to program coordinator titles. It is recognized that different entities use various forms and names for their program coordinator that performs the functions identified in the standard. An example of a title for the public sector includes disaster/emergency manager, and an example of a title for the private sector includes business continuity manager. A written position description should be provided.

A.4.3 Members of the advisory committee should participate with the clear understanding that the objective is to minimize turnover of committee members to maintain an effective committee. Within the private sector, representatives can include, but are not limited to, information technology, plant operations, transportation, maintenance, engineering, personnel, public relations, environment, legal, finance, risk management, health and safety, security, stakeholders, and fire fighting/rescue. Within the public sector, representatives can include, but are not limited to, police, fire, emergency medical services, engineering, public works, environmental protection, public health, finance, education, disaster/emergency management, legal, transportation authorities, homeland security, stakeholders, and the military (e.g., the National Guard). When determining the representation on the committee, consideration should be given to public sector representation on a private sector committee and vice versa. This will help to establish a coordinated and cooperative approach to the program.

A.4.3.1 Though the program coordinator has the final authority in deciding the course of the program through its dayto-day administration, it is encouraged that major decisions will be made in consultation with the program committee.
The program coordinator and the advisory committee should be in agreement concerning priorities and resource allocation in the day-to-day operations of the program.
Decisions made and actions taken in the day-to-day administration of the program crucially affect the ultimate implementation of the program in times of disaster/emergency. Therefore, because the advisory committee is composed of those representing key functional areas, both within and external to the entity, it is encouraged that the program coordinator and the advisory committee consult together on important administrative matters to ensure the goals of the program are indeed met.
All state and local emergency management entities report to a higher authority. States report to Governors, Adjutant Generals, Chief Law Enforcement Officers, County Commissions, or City Commissions. These authorities set the agendas for emergency management activities. Having an advisory committee might or might not be encouraged. Mandating that an entity must have an advisory committee will, in many cases, violate the authorities under which the emergency management entity is established. Those organizations that can have, or want to have, an advisory committee that will provide advice and guidance should be encouraged to do so.

A.5.1 See Table A.5.1.

A.5.1.2 Key program elements cross boundaries during each of the four phases of disaster/emergency management (mitigation, preparedness, response, recovery). Each element should not be considered independently, but in relation to each of the four phases.

A.5.2.2 If, through exercise or incident analysis, program evaluation, and corrective action, limitations in the necessary laws and applicable authorities are discovered, a formal process should exist to amend them. In the case of public entities, consideration should be made for periodic review of existing legislation, regulations, codes, and authorities to determine whether adequate flexibility exists to accommodate evolving programmatic policy or if new legislation should be developed and introduced

through a legislative initiative. This is particularly relevant as program requirements change to comply with changing roles and relationships in and among varying levels of government.

For example, the entity might have the appropriate authority to conduct disaster/emergency operations but lack authority to take action prior to an event to mitigate the occurrence or the recurrence of a disaster/emergency. In other cases, additional authorities could be needed to generate the necessary revenue to sustain a viable program, and additional authority could be required to create a standing contingency fund to adequately support a disaster operation. In the private sector, the governing factors can be industry codes of practice or regulations rather than statutory restrictions. A process should be established for periodic review of industry practices for compliance with the strategy, goals, and objectives of the entity. Evolving best practices should be incorporated into industry codes as applicable.

A.5.3 A comprehensive risk assessment identifies the range of possible hazards, threats, or perils that have or might impact the entity, surrounding area, or critical infrastructure supporting the entity. The potential impact of each hazard, threat, or peril is determined by the severity of each and the vulnerability of people, property, operations, the environment, and the entity to each threat, hazard, or peril. The risk assessment should categorize threats, hazards, or perils by both their relative frequency and severity, keeping in mind that there might be many possible combinations of frequency and severity for each. The entity should attempt to mitigate, prepare for, plan to respond to, and recover from those threats, hazards, or perils that are able to significantly impact people, property, operations, the environment, or the entity itself.

A.5.3.1 A number of methodologies and techniques for risk assessment exist that range from simple to complex. These techniques and associated amplifying information include, but are not limited to, the following:

(1) "What-if": The purpose of the "What-if" analysis is to identify specific hazards or hazardous situations that could result in undesirable consequences. This technique has limited structure but relies on knowledgeable individuals who are familiar with the areas/operations/processes. The value of the end result is dependent on the team and the exhaustive nature of the questions they ask regarding the hazards.
(2) Checklist: A specific list of items is used to identify hazards and hazardous situations by comparing the current or projected situations with accepted standards. The value of the end result is dependent on the quality of the checklist and the experience/credentials of the checklist user.
(3) What-if/checklist: This technique is a combination of the what-if and checklist techniques, and uses the strength of both techniques to complete the risk assessment. The what-if questions are developed and checklist(s) are used to encourage the creativity of the what-if process, as well as fill in any gaps in the process of developing questions. The value of the end result is dependent on the team and exhaustive nature of the questions they ask regarding the hazards.
(4) Hazard and operability study (HAZOP): This technique requires an interdisciplinary team that is very knowledgeable of the areas/operations/processes to be assessed. This approach is thorough, time-consuming, and costly. The value of the end result depends on the qualifications/experience of the team, the quality of the reference material available, the ability of the team to function as a team, and strong, positive leadership.
(5) Failure mode and effects analysis (FMEA): Each element in a system is examined individually and collectively to determine the effect when one or more elements fail. This is a bottom-up approach; that is, the elements are examined and the effect of failure on the overall system is predicted. A small interdisciplinary team is required. This technique is best suited for assessing potential equipment failures. The value of the end result is dependent on the credentials of the team and scope of the system to be examined.
(6) Fault-tree analysis (FTA): This is a top-down approach where an undesirable event is identified and the range of potential causes that could lead to the undesirable event is identified. The value of the end result is dependent on the competence in using the FTA process, on the credentials of the team, and on the depth of the team's analysis.

A.5.3.2 The hazard identification should include, but is not limited to, the following types of potential hazards:
(1) Naturally occurring hazards that can occur without the influence of people and have potential direct or indirect impact on the entity (people, property, the environment)

       (a) Geological hazards (does not include asteroids, comets, meteors)
            i. Earthquake
            ii. Tsunami
            iii. Volcano
            iv. Landslide, mudslide, subsidence
            v. Glacier, iceberg
       (b) Meteorological hazards
            i. Flood, flash flood, seiche, tidal surge
            ii. Drought
            iii. Fire (forest, range, urban)

iv. Snow, ice, hail, sleet, avalanche

v. Windstorm, tropical cyclone, hurricane, tornado, water spout, dust/sand storm

vi. Extreme temperatures (heat, cold)

vii. Lightning strikes

viii. Famine

(c) Biological hazards

i. Diseases that impact humans and animals (plague, smallpox, anthrax, West Nile virus, foot and mouth disease)

ii. Animal or insect infestation

(2) Human-caused events

(a) Accidental

i. Hazardous material (chemical, radiological, biological) spill or release

ii. Explosion/fire

iii. Transportation accident

iv. Building/structure collapse

v. Energy/power/utility failure

vi. Fuel/resource shortage

vii. Air/water pollution, contamination

viii. Water control structure/dam/levee failure

ix. Financial issues, economic depression, inflation, financial system collapse

x. Communications systems interruptions

(b) Intentional

i. Terrorism (conventional, chemical, radiological, biological, cyber)

ii. Sabotage

iii. Civil disturbance, public unrest, mass hysteria, riot

iv. Enemy attack, war

v. Insurrection

vi. Strike

vii. Misinformation

viii. Crime

ix. Arson

x. Electromagnetic pulse

A.5.3.3 The impact analysis is a broad description and quantification of a potential event that can impact an entity. This analysis should give a clear idea of what hazards are most likely to occur; what entity facilities, functions, or services are affected based on their vulnerability to that hazard; what actions will most effectively protect them; and the potential impact on the entity in quantifiable terms.

Within the impact analysis, the entity should consider the impact external to its area of influence that can affect the entity's ability to cope with a disaster/emergency. One example is the cascade effects of a hurricane. Direct impacts can include wind and flood damage. Secondary impacts can include communications, power, and transportation disruptions, both inside and outside the direct impact area, and the potential impact on the entity in quantifiable terms.

A.5.3.3(3) In order to maintain continuity of operations, the entity should identify essential or critical functions and processes, their recovery priorities, and internal and external interdependencies, so that recovery time objectives can be set.

A.5.3.3(7) An economic and financial impact analysis allows the quantification of the impacts without considering the cause of the disaster/emergency. This analysis is closely related to the process of identifying essential or critical functions or processes and helps decide where to place the emphasis in planning efforts.

The analysis examines potential economic or financial loss resulting from disruption of the functions, processes, or services over time.

The purpose of an economic and financial impact analysis is to arrive at a general loss expectancy that demonstrates what is at risk and to guide measures to mitigate the effects of a disaster/emergency.

A.5.4.2 The mitigation strategy should establish interim and long-term actions to reduce the risks from hazards.

A.5.4.3(9) Protective systems or equipment can reduce the probability of occurrence or the severity of consequences. For cyber risks, hardware and software firewalls can help prevent penetration of computer networks.

A.5.5 Resources for program administration as well as disaster/emergency operations should be specifically identified.

These resources include, but are not limited to, the following:

(1) The locations, quantities, accessibility, operability, and maintenance of equipment (e.g., heavy duty, protective, transportation, monitoring, decontamination, response, personal protective equipment)
(2) Supplies (e.g., medical, personal hygiene, consumable, administrative, ice)
(3) Sources of energy (e.g., electrical, fuel)
(4) Emergency power production (generators)
(5) Communications systems
(6) Food and water
(7) Technical information
(8) Clothing
(9) Shelter
(10) Specialized personnel (e.g., medical, religious, volunteer organizations, disaster/emergency management staff, utility workers, morticians, and private contractors)
(11) Specialized volunteer groups (e.g., Red Cross, amateur radio, religious relief organizations, charitable agencies, VOAD (Volunteer Organization Active in Disaster), COAD (Community Organization Active in Disaster), CERT (Community Emergency Response Team)
(12) External federal, state, provincial, tribal, territorial, and local agencies A resource should be available in a timely manner and should have the capability to do its intended function. Restriction on the use of the resource should be taken into account, and application of the resource should not incur more liability than would failure to use the resource. Finally, the cost of the resource should not outweigh the benefit.

A.5.6 Mutual aid agreements between entities are an effective means to obtain resources and should be developed whenever possible. Mutual aid agreements should be in writing, be reviewed by legal counsel, be signed by a responsible official, define liability, and detail funding and cost arrangements. The term "mutual aid agreement" as used here includes cooperative assistance agreements, intergovernmental compacts, or other terms commonly used for the sharing of resources.

A.5.7.1 It should be noted that most entities engage in multiple planning activities (e.g., mitigation planning, land use planning) Coordination ensures non-duplication, improves understanding, increases support, assures that all constituents have a voice, and so on. These plans can be separate or integrated into a comprehensive plan.

A.5.7.2 The extent of planning requirements will depend on the program's objectives, results of the hazard analysis, corporate culture and philosophy, regulations, and so on.

A.5.7.2.1 The plan should be reviewed annually and updated as necessary. It should also be re-evaluated when any of the following occur:

(1) Regulatory changes
(2) New hazards are identified or existing hazards change
(3) Resources or organizational structures change
(4) After tests, drills, or exercises
(5) After disaster/emergency responses
(6) Infrastructure, economic, geopolitical changes
(7) Funding or budget-level changes

The strategic plan identifies the long-term goals, using broad general statements of desired accomplishments. The objectives developed from these goals include measurable activities that should be accomplished within identified time frames to meet those objectives.

A.5.7.2.4 In developing plans, short-term goals and objectives should be established and should include, but not be limited to, the following:

(1) Vital personnel, systems, operations, records, and equipment identified in Section 5.5
(2) Priorities for restoration and mitigation
(3) Acceptable downtime before restoration to a minimum level
(4) Minimum resources needed to accomplish the restoration

In developing plans, consideration should be given to long-term goals and objectives, which should include, but not be limited to, the following:

(1) The entity's strategic plan
(2) Management and coordination of activities
(3) Funding and fiscal management
(4) Management of volunteer, contractual, and entity resources
(5) Opportunities for disaster mitigation

A.5.7.2.5 Plans for business continuity, continuity of government, and continuity of operations are generally similar in intent, and less similar in content. Continuity plans have various names in both the public and private sectors. These include business continuity plans, business resumption plans, recovery plans, and so on.

In addition, within the public sector, continuity of operations plans might use business impact analysis to identify critical governmental functions.

Recovery planning for public sector normally includes bringing infrastructure and individuals back to pre-disaster conditions, including implementation of mitigation measures, to facilitate short- and long-term recovery.

Business continuity planning in the private sector incorporates both the initial activities to respond to a disaster/emergency situation and the restoration of the business and its functions to pre-disaster levels. As a result, there are both differences and similarities between public sector recovery plans and private sector business continuity plans.

Specific areas to consider in continuity plans include:

(1) Succession: To ensure that the leadership will continue to function effectively under disaster/emergency conditions. When practical, there is a designation of at least three successors for each position. Provisions have been made to deal with vacancies and other contingencies such as absence or inability to act.
(2) Pre-delegation of emergency authorities: To ensure that sufficient enabling measures are in effect to continue operations under disaster/emergency conditions. Disaster/emergency authorities have been enacted that specify the essential duties to be performed by the leadership during the disaster/emergency period and that enable the leadership to act if other associated entities are disrupted, and to re-delegate with appropriate limitations.
(3) Emergency action steps: Actions that facilitate the ability of personnel to respond quickly and efficiently to disasters/emergencies.
    Checklists, action lists, and/or standard operating procedures (SOPs) have been written that identify disaster/emergency assignments, responsibilities, and emergency duty locations. Procedures should also exist for alerting, notifying, locating, and recalling key members of the entity. The SOPs and notification procedures should be integrated.
(4) Primary emergency operations center: A facility from which direction and control is exercised in a disaster/emergency. This type of center is designated to ensure that the capability exists for the leadership to direct and control operations from a centralized facility in the event of a disaster/emergency. *(See A.5.11.2).*
(5) Alternate emergency operations center: An alternate facility from which direction and control is exercised in a disaster/emergency should the primary center become unavailable, or should it be determined that the alternate facility is a more appropriate location from which to handle the disaster/emergency.
(6) Alternate operating or back-up facilities: Provisions also exist for alternate site(s) for departments or agencies having disaster/emergency functions or continuing operations.
(7) Vital records: The measures that are taken by the entity to protect the entity's vital records—for example, financial, data, personnel records, and engineering drawings —that the entity should have to continue functioning during disaster/emergency conditions and to protect the rights and interests of the entity.
    Procedures have been put in place to ensure the selection, preservation, and availability of records essential to the effective functioning of the entity under disaster/emergency conditions and to maintain the continuity of operations.
(8) Protection of resources, facilities, and personnel: The measures that are taken to disperse resources and personnel in a manner that will provide redundancy to ensure the entity can continue to function during disaster/emergency conditions. Plans and procedures are in place to ensure the protection of personnel, facilities, and resources so the entity(s) can operate effectively. The entity should have the ability to allocate needed resources and restore functions during and after disasters/emergencies.

Plans should address deployment procedures to relocate/replicate resources or facilities, increase protection of facilities, and inform and train personnel in protective measures. Preparedness should be increased based on the threat level. *(See A.5.7.2.4.)*

A.5.8.2 In disasters/emergencies, an incident management system would be used to systematically identify management functions assigned to various personnel. The system used varies among entities and among jurisdictions within entities. In minor disasters/emergencies, incident management functions might be handled by one person, the incident commander. *(See Sections C.3 and C.4.)*

A.5.8.2(2) Where necessary, equivalent titles and functions should be cross-referenced.

A.5.10 Procedures should include, but not be limited to, the following:

(1) Control of access to the area affected by the disaster/emergency
(2) Identification of personnel engaged in activities at the incident.
(3) Accounting for personnel engaged in incident activities.
(4) Accounting for persons affected, displaced, or injured by the disaster/emergency.
(5) Mobilization and demobilization of resources.
(6) Provision of temporary, short-term, or long-term housing, feeding, and care of populations displaced by a disaster/emergency.
(7) Recovery, identification, and safeguarding of human remains. The National Foundation for Mortuary Care has recommended practices for mass casualty events.
(8) Provision for the mental health and physical well-being of individuals affected by the disaster/emergency.
(9) Provision for managing critical incident stress for responders.

A.5.10.3 Property conservation, as used in 5.10.3, means minimizing property damage.

A.5.11.2 Facilities should be capable of accommodating any combination of essential representatives who are identified in the entity's plan. Facilities should have adequate workspace, communications, and back-up utilities and should meet other basic human needs for each representative. Essential functions include gathering essential information capable of providing centralized direction and control, and warning for response and recovery actions. Facilities should be located so that they are not impacted by the same event. *(See A.5.7.2.5.)*
      It should also be noted that there is a movement toward mobile and virtual capabilities. Use of this type of capability should still meet the criteria in this section.

A.5.13.2 Exercises should include, but not be limited to, tabletops, simulations, and full operational exercises.

A.5.13.3 A Corrective Action Program is a process that follows an actual occurrence or exercise to identify program shortfalls and necessary corrective actions to address those shortfalls. The Corrective Action Program provides the techniques to manage the capabilities improvement process.
      The Corrective Action Program begins following the "afteraction" discussion/critique of the incident or exercise.
      During the evaluation, process deficiencies are noted that require improvement. Typically, those deficiencies fall within one or more of the 13 program elements found within the standard. There are three categories, listed as follows:

(1) Plan or standard operating procedures (SOP) revisions
(2) Training
(3) Equipment additions or modifications and facilities A task group is 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 is established.
      The task group should do the following:

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

      There are eight components in the Corrective Action Program, as follows:

(1) Develop a problem statement that states the problem and identifies its impact.
(2) Review the past history of corrective action issues from previous evaluations and identify possible solutions to the problem.
(3) Select a corrective action strategy and prioritize the actions to be taken.
(4) Provide authority and resources to the individual assigned to implementation so that the designated change can be accomplished.
(5) Identify the resources required to implement the strategy.
(6) Check on the progress of completing the corrective action.

(7) Forward problems that need to be resolved by higher authorities to the level of authority that can resolve the
    problem.
(8) Test the solution through exercising once the problem is solved.

As a special note: The appropriate corrective actions might not be taken due to budgetary constraints or will be deferred as a part of the long-range capital project. However, temporary actions might be adopted during the time it takes to fund and implement the desired option.

A.5.14.1 Information can be accessed, both internally and externally, in many ways. There can be formal educational programs established to reach the populations that could be impacted by a disaster/emergency. In turn, these same populations might request information of the entity with regard to the hazards and the program in place. In both cases, the entity should establish procedures to disseminate this information to (or educate and inform) its own members and, if applicable, the public. Also, it should establish procedures to respond to internal and external requests for such information, which can be done through pamphlets, speaker's bureaus, the Internet, community meetings, newsletters, and so forth.

Information should be tailored to the appropriate audience or population. For example, internal members will need to know more about their role in the program. They will need to know how to respond, where to respond, and how to prevent or minimize the impact of the hazard. The public, on the other hand, will need to know how they will be notified of a disaster/emergency, the potential effect of the hazard, and how to protect themselves from the impact of the hazard.

A.5.15 There should be a responsive financial management and administrative framework that complies with the entity's program requirements and is uniquely linked to disaster/emergency operations. The framework should provide for maximum flexibility to expeditiously request, receive, manage, and apply funds in a non-emergency environment and in emergency situations to ensure the timely delivery of assistance. The administrative process should be documented through written procedures. The program should also be capable of capturing financial data for future cost recovery, as well as identifying and accessing alternative funding sources and managing budgeted and specially appropriated funds.

A.5.15.1 In addition to having sound financial and administration procedures for daily operations, it is equally important to have procedures in place that will allow an entity to expedite financial decision making and ensure that proper accounting occurs. To develop proper financial and administration procedures, the following steps should be taken:

(1) The financial department should be included as a member of the program committee. *(See Section 4.3.)*
(2) The finance department should be actively involved with identifying, prioritizing, and purchasing internal and
    external resources. *(See Section 5.5.)*
(3) The entity's financial opportunities or limitations should be identified within the strategic plan that defines the
    vision, mission, goals, and objectives of the program. *(See 5.7.2.1.)*

Annex E – Recommendations to the NFPA 1600 Technical Committee

#	Annex C Table #'s	NFPA 1600 Clause	Proposal Recommends (new text, revised text, deleted text)	Proposal (include proposed new or revised wording, or identification of wording to be deleted): (Note: Proposed text should be in legislative format: i.e., use underscore to denote wording to be inserted (inserted wording) and strike-through to denote wording to be deleted (deleted wording).	Statement of Problem and Substantiation for Proposal: (Note: State the problem that will be resolved by your recommendation; give the specific reason for your proposal including copies of tests, research papers, fire experience, etc. If more than 200 words, it may be abstracted for publication.)
1	1a, 1b, 1d, 1f, 3a 4a, 9a, 9b,	A.5.5 (12)	New text	(12) External federal, state, provincial, tribal, territorial, and local agencies. <u>Federal resources are guided by the National Response Plan (including Emergency Support Functions), National Infrastructure Protection Plan, National Incident Management System, and National Preparedness Goal (including the Universal Task List and Target Capabilities List).</u>	One of the Hurricane Katrina aftermath reports recommendations was to strengthen the plans and systems for the nation's response to disasters and catastrophes. "Federal guidance" of relevant programs and activities (NRP, NIMS, NPG, UTL, TCL) should be referenced in the appropriate annex to provide further information and resources to the user of the standard.
2	1c	5.3.3 (3)	New text	(3) *Continuity of operations<u>, including situations that would render the entity totally incapable of response.</u>	One of the Hurricane Katrina aftermath reports recommendations was to address situations that render state and local governments incapable of an effective response. This is a gap in NFPA 1600 that this proposed new text seeks to remedy.
3	1c	A.5.5	Revised text	The entity should attempt to mitigate, prepare for, plan to, respond to, and recover from those threats, hazards, or ~~perils~~ <u>emergencies</u> that are able to significantly impact people, property, operations, the environment, or the entity itself.	One of the Hurricane Katrina aftermath reports recommendations was to address situations that render state and local governments incapable of an effective response. This is a gap in NFPA 1600 that this proposed new text seeks to remedy. Word should be changed to "emergencies to be consistent with language used in the "Hazard Vulnerability Analysis" (HVA).

#	Annex C Table #'s	NFPA 1600 Clause	Proposal Recommends (new text, revised text, deleted text)	Proposal (include proposed new or revised wording, or identification of wording to be deleted): (Note: Proposed text should be in legislative format: i.e., use underscore to denote wording to be inserted (inserted wording) and strike-through to denote wording to be deleted (deleted wording).	Statement of Problem and Substantiation for Proposal: (Note: State the problem that will be resolved by your recommendation; give the specific reason for your proposal including copies of tests, research papers, fire experience, etc. If more than 200 words, it may be abstracted for publication.)
4	1c	A.5.5	New text	The entity should attempt to mitigate, prepare for, plan to, respond to, and recover from those threats, hazards, or perils that are able to significantly impact people, property, operations, the environment, or the entity itself, including conditions so severe that they may totally incapacitate the entity's ability to respond. The entity should prepare for the escalation of an emergency situation, including 'worst case" scenarios.	One of the Hurricane Katrina aftermath reports recommendations was to address situations that render state and local governments incapable of an effective response. This is a gap in NFPA 1600 that this proposed new text seeks to remedy.
5	1e	5.7.1	New text	The program shall include, but shall not be limited to, a strategic plan, an emergency operations/response plan, a mitigation plan, a recovery plan, and a continuity plan. These plans shall define the multi-organizational coordination and integrative activities vital to program success.	One of the Hurricane Katrina aftermath reports recommendations was to develop integrated operational plans, procedures and capabilities for organizational support to the base NRP and all ESFs and NRP support annexes, and align response structures to NIMS. This proposed new text seeks to add language regarding "integration" within appropriate legal authorities.

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6	1e	A.5.7.1	New text	It should be noted that most entities engage in multiple planning activities (e.g., mitigation planning, land use planning) Coordination ensures non-duplication, improves understanding, increases support, assures that all constituents have a voice, and so on. These plans can be separate or integrated into a comprehensive plan. <u>Multi-organizational relationships can range from fluid coordination and integration with an informal, fluid agreement regarding shared goals, and resource commitments. Integration would involve shared authority, responsibility, resources, and accountability for achieving mutual emergency management goals</u>	One of the Hurricane Katrina aftermath reports recommendations was to develop integrated operational plans, procedures and capabilities for organizational support to the base NRP and all ESFs and NRP support annexes, and align response structures to NIMS. This proposed new text seeks to add annex material that discusses 'coordination vs. integration,' including during the planning process.
7	2	New section under 5.7.3	New text	<u>An entity shall coordinate regional planning approaches with other entities to better leverage resources.</u>	One of the Hurricane Katrina aftermath reports recommendations was to develop response plans for specific geographic regions and for specific types of high-risk events that will augment the NRP and provide additional operational detail. This proposed new text stresses the importance of regional planning.

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8	2, 7	New A.5.7.2.5.6	New text	Formation of regions for planning can vary depending on a number of factors facing the entity, including: • cultural • political • economic • developmental • institutional • ecological • dependence on other entities' capabilities for response A region could include, for example, metropolitan areas across more than one state, intrastate areas with multiple local jurisdictions, and an overlap with a single local political jurisdiction.	One of the Hurricane Katrina aftermath reports recommendations was to develop response plans for specific geographic regions and for specific types of high-risk events that will augment the NRP and provide additional operational detail. This proposed new text seeks to add guidance in the annex on what "regional" means from planning and operational aspects.
9	2, 37, 38, 39, 40, 52, 58, 72, 73, 74, 75	New section under 5.7.3	New text	The legality of evacuation, evacuation orders and legal rights, including media access, shall be identified.	The standard needs to further address protective actions for life safety, including evacuation and shelter in place. This language is derived from NIMS-version 1 (2/1/07) under review and comment.

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10	2, 37, 38, 39, 40, 52, 58, 72, 73, 74, 75	New section under 5.7.2	New text	An evacuation and sheltering plan shall describe an organized, phased, and supervised withdrawal, dispersal, or removal of civilians from dangerous or potentially dangerous areas, and their reception and care in safe areas.	The standard needs to further address protective actions for life safety, including evacuation and shelter in place. This language is derived from NIMS-version 1 (2/1/07) under review and comment.
11	3a	Entire standard	Revised text	Make sure that language is organization neutral throughout the document. Example 5.8.4 reference to "authorities."	NFPA 1600 should be organization neutral so that it can be used by both the public and private sectors. This comment seeks to correct a public sector specific term.
12	3b, 16	A.5.13.3	New text	The entity should consider including an independent evaluator as part of its periodic program reviews.	One of the Hurricane Katrina aftermath reports recommendations was to include statutorily required exercises and simulations to expose unaddressed challenges, provide feedback about progress, and maintain pressure to improve. These exercises and simulations should be objectively assessed by an independent evaluator. This proposed new text seeks to address this provision.

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13	13	New section under 5.7.3	New text	The assumptions used in the preparation of all plans, especially those regarding hazard identification, risk assessment, and impact analysis, shall be identified.	One of the Hurricane Katrina aftermath reports recommendations was to improve state and urban area planning assumptions to reflect the crucial role of assumptions in the planning process. In all-hazards planning, assumptions should be carefully reviewed to ensure they reflect the differences between adaptive threats and non-adaptive hazards. Few assumptions should be necessary for commonly experienced hazards. Given the uncertainty and surprise of terrorist attacks, planners should use available risk information, plan for realistic worst-case scenarios, and assume that terrorists will use every capability at their disposal and operate in the most efficient manner possible. This proposed new text seeks to reflect this recommendation.
14	15a	5.11.1	New text	The entity shall establish logistical capability and procedures to locate, acquire, store, distribute, maintain, test, and account for services, personnel, resources, materials, and facilities procured or donated to support the program. The entity shall consider pre-positioning assets either independently or in agreement with other entities to anticipate when local assets may be unavailable or inaccessible.	One of the Hurricane Katrina aftermath reports recommendations was to set standards for "pushing" the pre-positioning of federal assets to states and locals, in the case of an imminent catastrophe built on better planning efforts between state and federal emergency management logisticians and operations personnel, the assistance and advice of DOD strategic logistics planners, and more robust private sector partnerships. This proposed new text seeks to reflect this recommendation.

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15	15b	5.15.1	New text	The entity shall develop financial and administrative procedures to support the program before, during, and after an emergency or a disaster. The entity shall consider negotiating contracts for resources in advance of an emergency.	One of the Hurricane Katrina aftermath reports recommendations was to mandate the use of pre-competed private sector contracts. This proposed new text seeks to add more specific language regarding the use of pre-competed contracts.
16	17	New section under 5.2	New text	The entity shall identify and develop streamlining or flexibility in policy, guidance, or processes that can be activated when normal policies, guidance, or processes are not appropriate in an emergency situation.	One of the Hurricane Katrina aftermath reports recommendations was to pre-identify areas in policy, doctrine and guidance that can be streamlined, or that provide an opportunity for regulatory flexibility, where appropriate/ necessary during a disaster or catastrophe. Ensure that policies and procedures provide emergency management experts sufficient regulatory and policy flexibility so that they are empowered to make decisions that are critical to a quick and effective response during a catastrophic event. This proposed new text seeks to add language about expediting and streamlining decision making.
17	20a	5.9 and 5.14	Revised text	**Comment:** Clauses 5.9 and 5.14 are very related, so consider having them better ordered in the standard.	Note: We realize that this may already by covered in the 2007 edition of the standard.

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18	20b	5.8.4	New text	The entity shall establish applicable procedures and policies for coordinating response, continuity, and recovery activities with appropriate authorities and resources while ensuring compliance with applicable statutes or regulations. Where appropriate, coordination shall involve both internal and external coordination needs.	One of the Hurricane Katrina aftermath reports recommendations was to better utilize the coordinating capabilities at regional, state, and local EOCs, as well as the JFO. This proposed new text reinforces the importance of this coordination.
19	20c	Chapter 3	New text	New definition **Interoperability.** The ability of systems, units or forces to provide services to and accept services from other systems, units, or forces and to use the services so exchanged to enable them to operate effectively together.	Interoperability is not defined in the standard, but should be. This definition is taken from the *ATIS Telecomm Glossary* (http://www.atis.org/tg2k/)
20	20d	Annex E	New text	Add a reference to OASIS - Emergency Data Exchange Language (EDXL) Distribution Element, v. 1.0 (http://www.oasis-open.org/committees/download.php/17228/EDXL-DE_Spec_v1.0.pdf)	One of the Hurricane Katrina aftermath reports recommendations was to adopt a common computer software standard for use by all federal and state entities involved in incident management that will serve as the information architecture for shared situational and operational awareness. This standard should be referenced in Annex E to address this comment.
21	20e	Annex E	New text	Add a reference to ASTM E2413-04 Standard Guide for Hospital Preparedness and Response http://www.astm.org	This standard should be referenced in the Annex E to provide further information and resources to the user of the standard.

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22	20e	Annex E	New text	Add a reference to the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) - Comprehensive Accreditation Manual for Hospitals (CAMH) - Emergency Management http://www.jointcommission.org/	This standard should be referenced in the Annex E to provide further information and resources to the user of the standard.
23	21a	5.9.4	New text	(3) The restoration of external and internal communication capabilities that are vital to the entity's operations, including assistance to other entities and to communication with its employees, customers, and the general public.	One of the Hurricane Katrina aftermath reports recommendations was to coordinate federal regional strike teams with NCS, state-level ESF-2 (Communications) agencies, and private-sector partners to be prepared to deploy in an emergency to facilitate reestablishment of public and private communications systems that work across jurisdictions. This proposed new text seeks to add more specific language regarding cooperation with other entities to restore communication systems. This includes communication in all directions (between agencies, agencies to private sector, private sector to govt., etc.), as well as private sector and NGOs.

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24	21c	5.9.4	New text	(4) Redundant communication assets and contingency planning	One of the Hurricane Katrina aftermath reports recommendations was to acquire and position at regional offices mobile communications suites or caches of secure, interoperable emergency communications equipment and systems that can be deployed. This proposed new text seeks to address the issue of redundant communication in the standard.
25	22a	Annex E	New text	Add reference to ATIS NRSC Hurricane Checklist (http://www.atis.org/nrsc/docs.asp)	This guidance document should be referenced in the Annex E to provide further information and resources to the user of the standard.
26	25b	New A.5.14.2	New text	In a large disaster, the entity shall consider establishing a repository or point of contact for reporting communications outages across the entity. This shall allow more efficient identification of communication difficulties and setting priorities for the restoration of communications.	One of the Hurricane Katrina aftermath reports recommendations was to identify a single repository/point of contact for communications outage information.
27	27	New A.5.11.1	New text	Logistics capability and procedures implications shall take into account the range of the entity's hazards, risks, and impacts. The entity shall consider what logistics capabilities and procedures shall be in place for the possible range of emergencies, from more normal emergencies to catastrophic events.	One of the Hurricane Katrina aftermath reports recommendations was to strengthen procurement and delivery logistics systems. This proposed new text seeks to address this issue.

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28	30	5.15.2	New text	(5) Controls to prevent fraud, waste, and abuse.	One of the Hurricane Katrina aftermath reports recommendations was to ensure that a cooperative effort is made to investigate and prosecute fraud. Strengthen controls on the Individuals and Households Program (IHP), and other programs to reduce fraud and abuse. This proposed new text seeks to address this issue.
29	36c	New section under 5.6	New text	The entity shall consider search and rescue capabilities and needs, including those that may need to be secured from other entities through agreements.	One of the Hurricane Katrina aftermath reports recommendations was to develop a comprehensive plan for search and rescue in a multi-environment disaster, including provisions for a unified coordination structure, with subordinate coordination of air, land, and water-borne assets; the means for obtaining the necessary assets and personnel; and a unified communications network, a common grid reference system, and standardized procedures and methods for utilizing and sharing local situational awareness acquired by search and rescue operational units. This proposed new text seeks to add specific language regarding capabilities for search and rescue.
30	42	5.7.2.2	New text	The emergency operations/response plan shall assign responsibilities to organizations and individuals for carrying out specific actions at projected times and places in an emergency or disaster. The plan shall address any special needs of its employees or customers.	This proposed new text seeks to reinforce that there needs to be guidance focused on the special needs population

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31	48b 49	5.8.4	New text	The entity shall establish applicable procedures and policies for coordinating response, continuity, and recovery activities with appropriate authorities and resources while ensuring compliance with applicable statutes or regulations. <u>The entity shall establish procedures and policies for providing or coordinating with other entities for human services capabilities for its employees.</u>	This proposed new text seeks to add specific language regarding capabilities for human service delivery addressing whole range of human service needs (from public health to shelter, to grief counseling, etc.).
32	50	New section under 5.7.2	New text	<u>The entity shall develop policies and procedures to store, retrieve, and control access of personal information when needed in an emergency situation, including systems to facilitate reunification of family members separated as a result of a disaster or catastrophe.</u>	One of the Hurricane Katrina aftermath reports recommendations was to develop the capacity to voluntarily store and retrieve personal identifying information, and data sharing arrangements to more effectively respond to disasters, while protecting privacy, and to protect against waste, fraud and abuse. Establish systems to facilitate reunification of family members separated as a result of a disaster or catastrophe. This proposed new text seeks to address this issue.
33	51	New section under 5.7.2	New text	<u>A mass care plan shall support efforts to meet the mass care needs of disaster victims, including those with special needs. This plan shall include delivering such services as supplying victims with shelter, feeding, and emergency first aid; supplying bulk distribution of emergency relief supplies; and collecting information to and for a disaster welfare information system designed to report on victim status and assist in reuniting families.</u>	One of the Hurricane Katrina aftermath reports recommendations was to strengthen mass care and housing relationships, planning, training, and exercises. This proposed new text on mass care is derived from NIMS-version 1 (2/1/07) under review and comment.

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34	54 85, 86, 87, 88	New section under 5.7.2	New text	Jurisdictions shall have a public education and outreach plan to promote and support citizen preparedness (e.g. public education, training sessions, demonstrations, etc.). This plan shall describe organizational structures, roles and responsibilities, policies, and protocols for providing emergency support and should be flexible enough for use in all emergencies. Plans should also include pre-incident and post-incident public awareness, education, and communications plans and protocols.	One of the Hurricane Katrina aftermath reports recommendations was to improve public affairs/external affairs operating procedures, command, training, structure, and communications.

This proposed new text seeks to address all-hazards education and preparedness. This proposed new text on mass care is derived from NIMS-version 1 (2/1/07) under review and comment. |
| 35 | 66a 66b | A.5.5 | New text | Voluntary donations and their management should consider the possibility of international assistance. | One of the Hurricane Katrina aftermath reports recommendations was to develop procedures to review, accept or reject any offers of international assistance for a domestic catastrophic incident. This proposed new text seeks to consider adding more specific language regarding international assistance and coordination. |

EMAP Emergency Management Accreditation Program

Building safer communities through standards of excellence.

The **Emergency Management Accreditation Program (EMAP)** is a standard-based voluntary assessment and accreditation process for state/territorial, regional, tribal, and local government emergency management programs. EMAP combines self-assessment against national recognized standards; documentation of compliance; independent evaluation by trained professional emergency management assessors; and, for accreditation, committee and commission review, to provide:

- An evaluation of a jurisdiction's emergency preparedness and response system against established national standards;
- A structure for identifying areas in need of improvement and benchmarking progress;
- A methodology for organizing strategic planning, corrective actions and accountability in prioritizing resources;
- A catalyst for improved interoperability and continuity; and
- Strengthened state/tribal, regional, territorial, and local preparedness.

EMAP Standard and Compliance

Encompasses comprehensive standard that can be applied to an emergency management program of almost any size. EMAP standards are scalable and rigorous. Key components of preparedness and response are addressed, including multidisciplinary coordination, continuity of operations and government planning, alternate operating facilities, and interoperability. Programs must provide written documentation for each standard for compliance to be validated. This requirement can be challenging but serves to institutionalize procedures and improve continuity and benchmarking progress forward. A new requirement for achieving EMAP accreditation is the mandatory demonstration of certain pre-identified standards during the on-site assessment.

EMAP Milestones

Twelve jurisdictions are fully accredited: Arizona, District of Columbia, East Baton Rouge Parish (La.), Florida, Illinois, Jacksonville/Duval County (Fla.), Massachusetts, Montana, New York, North Dakota, Pennsylvania, and Virginia. In conjunction with the U.S. Department of Homeland Security/Federal Emergency Management Agency (FEMA), EMAP conducted baseline assessment of 52 state and territorial emergency management programs. EMAP trained more than 300 state and local emergency managers to be EMAP peer review assessors. EMAP completed the first regional/multi-jurisdictional assessment using the *EMAP Standard* and assessment process.

EMAP and the Future
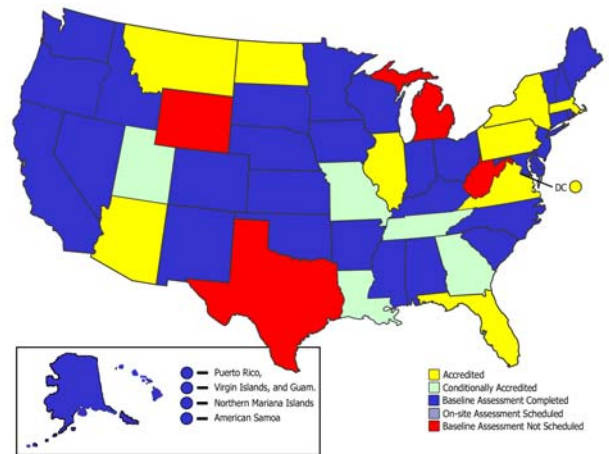
EMAP and Regional Preparedness

In addition to assessments for accreditation and for benchmarking purposes, EMAP is creating tools that regions (UASIs as well as state regional structures) can use to assess strengths and weaknesses and provide justification for resource allocation.

EMAP and Public Education

The need for consistent, comprehensible, and actionable information about potential and actual disasters is vital to protecting public safety and welfare and in maintaining the stability of democratic institutions. With support from the Alfred P. Sloan Foundation, EMAP developed guidance on creating and maintaining an effective disaster public education and information program. This EMAP guide, *Assessing Your Disaster Public Awareness Program,* provides supplemental guidance towards strengthening state and local public education programs, including example practices and a list of key resources.

EMAP and the Private Sector

Success in meeting public sector-private sector partnership challenges, such as how to integrate industries spanning multiple counties and states into state and local planning efforts, requires best practice-based guidance. EMAP currently is seeking private sector partners to develop such guidance and pilot its implementation to create validate and institutionalize processes to rapidly engage private sector resources and meet private sector needs not in the aftermath of an event, but by pre-planning and inter-organizational communication in anticipation of a disaster.

System — Example: **NFPA 1600** *Disaster/Emergency Management and Business Continuity Programs*

Operational — Example: **NFPA 1500** *Fire Department Occupational Safety and Health Program*

Technical — Example: **NFPA 472** *Standard for Professional Competence of Responders to Hazardous Materials Incidents*

Guidelines & Procedures — Example: **Hospital Emergency Incident Command System (HEICS)**