



Committee on NFPA 99

MEMORANDUM

TO: NFPA Technical Committee on Health Care Emergency
Management and Security

FROM: Jeanne Moreau-Correia

DATE: March 2, 2010

SUBJECT: NFPA 99 A11 ROP Letter Ballot

The ROP letter ballot for NFPA 99 HEA-HES is attached. The ballot is for formally voting on whether or not you concur with the committee's actions on the proposals. Reasons must accompany all negative and abstention ballots.

Please do not vote negatively because of editorial errors. However, please bring such errors to my attention for action.

Please complete and return your ballot as soon as possible but no later than **Monday, March 15, 2010**. As noted on the ballot form, please submit the ballot to Jeanne Moreau-Correia, e-mail to jmoreaucorreia@nfpa.org or fax to 617-984-7110.

The return of ballots is required by the Regulations Governing Committee Projects.

Attachment: Proposals

99-442 Log #CP607 HEA-HES
(Chapter 12 (New))

Final Action: Accept

Submitter: Technical Committee on Health Care Emergency Management and Security,
Recommendation:

****Insert Include 99_LCP607_R.doc Here****

Substantiation: Chapter 12 is being totally rewritten to correlate with the health care emergency management requirements of The Joint Commission. In addition the rewrite will incorporate many of the lessons learned from recent disasters. Annex C material will be moved to Annex B in the reformatting of the document.

Committee Meeting Action: Accept

99-443 Log #319 HEA-HES
(12.1.2)

Final Action: Accept in Principle

Submitter: Dale Woodin, American Society for Healthcare Engineering

Recommendation: Add text to read as follows:

12.1.2* This chapter provides those with the responsibility for the emergency management program in health care facilities with a framework to assess, mitigate, prepare for, respond to, and recover from disasters of any origin. This chapter is intended to aid in developing, maintaining, and evaluating effective emergency management programs. For additional information on emergency management programs, see NFPA 1600, Standard on Disaster/Emergency Management and Business continuity Programs. NFPA 99 is the source document for emergency management in health care organizations. NFPA 1600, Standard on Disaster/Emergency Management and Business Continuity Programs, provides additional reference material.

Substantiation: NFPA 1600 is written for general industry. As such, it does not address many of the issues related to emergency management in health care organizations, such as continuing in operation throughout the emergency and providing for the clinical needs of the patients / residents. NFPA 99 is becoming the source document for health care security, with NFPA 730 deferring to this document. A similar model should be established for the relationship of NFPA 99 to NFPA 1600 to address the unique needs of health care.

Committee Meeting Action: Accept in Principle

See Committee Proposal 99-442 (Log #CP607).

Committee Statement: The committee revised the proposal and incorporated it into the committee proposal to rewrite the entire chapter. See section 12.1.1. The intent is that NFPA 99 is the source document for healthcare and was based on NFPA 1600.

Revise Chapter 12, Annex A.12 and C.12 in its entirety as follows:

Chapter 12 Health Care Emergency Management

12.1* Scope.

12.1.1* General.

12.1.1.1 This chapter shall provide those with the responsibility for emergency management in health care facilities with the criteria to assess, mitigate, prepare for, respond to, and recover from emergencies of any origin.

12.1.1.2 This chapter shall be the source for emergency management in health care facilities and is based on the foundations of NFPA 1600, Standard on Disaster/Emergency Management and Business Continuity Programs.

12.1.1.3 This chapter shall aid in developing, maintaining, and evaluating effective emergency management programs in new and existing facilities.

12.1.2 Applicability. This chapter shall be applicable to any health care facility that is intended to provide medical care during an emergency or maintain services for patients during a disaster and for the protection of visitors and staff.

12.2 Responsibilities.

12.2.1* Authority Having Jurisdiction.

12.2.1.1 The authority having jurisdiction shall be cognizant of the requirements of a health care facility with respect to its uniqueness for continued operation of the facility in an emergency.

12.2.1.2 The authority having jurisdiction shall ensure health care facility emergency management programs meet the requirements of this chapter.

12.2.2 Senior Management.

12.2.2.1 The senior management shall actively participate in and support emergency management planning.

12.2.2.2 Senior management shall provide the required resources to develop and support the emergency management program.

12.2.2.3 Senior management shall appoint a program coordinator.

12.2.3* Emergency Management Committee. The emergency management committee shall include representatives of senior management and clinical and support services.

12.2.3.1 The membership of the emergency management committee shall include a chairperson, the emergency program coordinator, a member of senior management, nursing, and representatives from key areas within the organization, such as physicians, infection control, facilities engineering, safety/industrial hygiene, security, and other key individuals.

12.2.3.2 The emergency management committee shall have the responsibility for the emergency management program within the facility.

12.2.3.3* The emergency management committee shall model the emergency operations plan on an incident command system (ICS) in coordination with federal, state, and local emergency response agencies, as applicable.

12.3 Matrix Categories.

12.3.1 The application of requirements in this chapter shall be based on the category of the health care facility as defined in Table 12.3.1.

Table 12.3.1 Application Matrix

Category	Definition
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- 1 Those inpatient facilities that remain operable to provide advanced life support services to injured responders and disaster victims. These facilities manage existing inpatient load as well as plan for the influx of additional patients as a result of the emergency.
- 2 Those inpatient or outpatient facilities that augment the critical mission. These facilities manage existing inpatient or outpatient loads but do not plan to receive additional patients as a result of the emergency.

Table A.12.1.1 How NFPA 99 Chapter 12 Relates to NFPA 1600

NFPA 1600	NFPA 99 Chapter 12
Introduction	
Scope	12.1.1 Applicability
Purpose	12.1.2 Framework
Program Management	
Policy	12.2.1 Authority Having Jurisdiction
Program Coordinator	12.2.2 Senior Management
Program Committee	12.2.3 EM Committee
Program Assessment	12.2.3 EM Committee
Program Elements	
General	—
Laws and Authority	—
Hazard Identification and Risk Management	A.12.3.1 Hazard Identification
Hazard Management (Mitigation)	—
Resource Management	A.12.3.3.5 Resource Assessment
Planning	12.3.3 Emergency Management Plan
Direction, Control, and Coordination	A.12.2.3 Incident Command System
Communications and Warning	A.12.3.3.2(7) Communications
Operations and Procedures	12.3.3.1 Identification of Personnel 12.3.3.2 Continuity of Essential Systems 12.3.3.3 Staff Management 12.3.3.4 Patient Management 12.3.3.6 Security 12.3.3.10 Operational Recovery
Logistics and Facilities	12.3.3.5 Logistics
Training	12.3.3.8 Staff Education
Exercises, Evaluations, and Corrective Actions	12.3.3.9 Drills
Public Education and Information	12.3.3.7 Public Affairs
Finance and Administration	—

12.4 General.

12.4.1 Health care facilities shall develop an emergency management program with a documented emergency operations plan based on the category of the health care facility as defined in Table 12.3.1.

12.4.1.1 The emergency management program shall include elements as required to manage an emergency during all four phases: mitigation, preparedness, response, and recovery.

12.4.1.2 The emergency management program shall comply with applicable regulations, directives, policies, and industry standards of practice.

12.4.2 When developing its emergency management program, the facility shall communicate its needs and vulnerabilities to community emergency response agencies and identify the capabilities of its community in supporting their mission.

12.4.3 The medical facility in combination with the local and/or federal authorities shall establish the required category as defined in 12.3.1.

12.5 Categories 1 and 2 Requirements.

12.5.1 All Category 1 and Category 2 health care facilities are required to develop and maintain an emergency management program that addresses all program elements as prescribed in 12.5.2 and 12.5.3.

12.5.2 The elements and complexity of the subsequent code sections in this chapter will apply, appropriate to the hazard vulnerability assessment (HVA), the community's expectations and the leadership's defined mission of the healthcare facility.

12.5.3 Program Elements.

12.5.3.1 Hazard Vulnerability Analysis (HVA).

12.5.3.1.1 An HVA shall be conducted to identify and prioritize hazards that pose a threat to the facility and can affect the demand for its services.

12.5.3.1.2* The hazards to be considered shall include, but not be limited to, the following:

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

12.5.3.1.3 The analysis shall include the potential impact of the hazards on conditions including, but not limited to, the following:

- (1)* Continuity of operations
- (2) Care for new and existing patients/residents/clients
- (3) Health, safety, and security of persons in the affected area
- (4) Support of staff
- (5) Property, facilities, and infrastructure
- (6) Environmental impact
- (7) Economic and financial conditions
- (8) Regulatory and contractual obligations
- (9) Reputation of or confidence in the facility

12.5.3.1.4 The facility shall prioritize the hazards and threats identified in the HVA with input from the community.

12.5.3.2 Mitigation.

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

12.5.3.2.2 A mitigation strategy shall be developed for priority hazards defined by the HVA.

12.5.3.2.3 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

12.5.3.3 Preparedness.

12.5.3.3.1 The facility shall prepare for any emergency as determined by the HVA by organizing and mobilizing essential resources.

12.5.3.3.2 The facility shall maintain a current, documented inventory of the assets and resources it has on-site that would be needed during an emergency such as medical, surgical, and pharmaceutical resources; water; fuel; staffing; food; and linen.

12.5.3.3.3 The facility shall identify the resource capability shortfalls from 96 hours of sustainability and determine if mitigation activities are necessary and feasible.

12.5.3.3.4 The facility shall establish a protocol for monitoring the quantity of assets and resources as they are utilized.

12.5.3.3.5 The facility shall write an Emergency Operations Plan (EOP) that describes a command structure and the following critical functions within the facility during an emergency:

- (1) Communications
- (2) Resources and assets
- (3) Safety and security
- (4) Clinical support activities
- (5) Essential utilities
- (6) Staff roles

12.5.3.3.6 Critical Function Strategies. During the development of the EOP, the facility shall consider the following strategies in order to manage critical functions during an emergency within their facility.

12.5.3.3.6.1 Communications. The facility shall plan for the following during an emergency:

- (1) Initial notification and ongoing communication of information and instructions to staff
- (2) Initial notification and ongoing communication with the external authorities
- (3) Communicating with the following:
 - (a) Patients and their families (responsible parties)
 - (b) Responsible parties when patients are relocated to alternative care sites
 - (c) Community and the media
 - (d) Suppliers of essential materials, services, and equipment
 - (e) Alternative care sites
- (4) Defining when and how to communicate patient information to third parties
- (5)* Establishing backup communication systems

(6) Cooperative planning with other local or regional health care facilities including the following:

- (a) Exchange of information relating to command operations including contact information
- (b) Staffing and supplies that could be shared
- (c) System to locate the victims of the event

12.5.3.3.6.2 Resources and Assets. The facility shall plan for the following during an emergency:

- (1) Acquiring medical, pharmaceutical, and nonmedical supplies
- (2) Replacing medical supplies and equipment that will be used throughout response and recovery
- (3) Replacing pharmaceutical supplies that will be consumed throughout response and recovery
- (4) Replacing nonmedical supplies that will be depleted throughout response and recovery
- (5) Managing staff support activities like housing, transportation, incident stress debriefing, sanitation, hydration, nutrition, comfort, morale, and mental health
- (6) Managing staff family support needs like child care, elder care, pet care, and communication to home
- (7) Staff, equipment, and transportation vehicles needed for evacuation

12.5.3.3.6.3* Safety and Security. The facility shall plan for the following during an emergency:

- (1) Internal security and safety operations
- (2) Roles of agencies such as police, sheriff, and national guard
- (3) Managing hazardous materials and waste
- (4) Radioactive, biological, and chemical isolation and decontamination
- (5) Patients susceptible to wandering
- (6) Controlling entrance into the health care facility during emergencies
- (7) Conducting a risk assessment with applicable authorities should it become necessary to control egress from the health care facility
- (8) Controlling people movement within the health care facility
- (9) Controlling traffic access to the facility

12.5.3.3.6.4 Clinical Support Activities. The facility shall plan for the following during an emergency:

- (1) Clinical activities that could need modification or discontinuation during an emergency such as patient scheduling, triage, assessment, treatment, admission, transfer, discharge, and evacuation
- (2) Clinical services for special needs populations in the community such as pediatric, geriatric, disabled, chronically ill patients, and those with addictions (Category 1 only)
- (3) Patient cleanliness and sanitation
- (4) Behavioral needs of its patients
- (5) Mortuary services
- (6) Evacuation both horizontally and, when required by circumstances, vertically, when the environment cannot support care, treatment, and services
- (7) Transporting patients, their medications and equipment, and staff to an alternative care site(s) when the environment cannot support care, treatment, and services

(8) Transporting pertinent information, including essential clinical and medication-related information, for patients to an alternative care site or sites when the environment cannot support care, treatment, and services

(9) Documenting and tracking patient location and their clinical information

12.5.3.3.6.5* Essential Utilities. The facility shall plan for the following during an emergency:

- (1) Electricity
- (2) Potable water
- (3) Nonpotable water
- (4) HVAC
- (5) Fire protection systems
- (6) Fuel required for building operations
- (7) Fuel for essential transportation
- (8) Medical gas and vacuum systems (if applicable)

12.5.3.3.6.6 Exterior Connections. For Category 1 only, essential utility systems and based on the facility's HVA, consideration shall be given to the installation of exterior building connectors to allow for the attachment of portable emergency utility modules.

12.5.3.3.6.7 Staff Roles.

(A) Staff roles shall be defined for the areas of communications, resources and assets, safety and security, essential utilities, and clinical activities.

(B) Staff shall receive training for their assigned roles in the EOP.

(C) The facility shall communicate to licensed independent health care providers their roles in the EOP

(D) The facility shall provide staff and other personnel with identification such as identification cards, wrist bands, vests, hats, badges, or computer printouts.

(E) The facility shall include in their plan the alerting and managing of all staff in an emergency.

12.5.3.3.6.8 The facility shall include the following in their EOP:

- (1)* Standard command structure that is consistent with its community
- (2) Reporting structure consistent with the command structure
- (3) Activation and deactivation of the response and recovery phases, including the authority and process
- (4) Facility's capabilities and appropriate response efforts when the facility cannot be supported from the outside for extended periods in the six critical areas with an acceptable response including an example such as the following:
 - (a) Resource conservation
 - (b) Service curtailment
 - (c) Partial or total evacuation consistent with their designated role in their community response plan

(5) Alternative treatment sites to meet the needs of the patients

12.5.3.3.7 Staff Education.

12.5.3.3.7.1 Each facility shall implement an educational program in emergency management.

12.5.3.3.7.2 The educational program shall include an overview of the components of the emergency management program and concepts of the incident command system.

12.5.3.3.7.3 Individuals who are expected to perform as incident commanders or to be assigned to specific positions within the command structure shall be trained in and familiar with the incident command system and the particular levels at which they are expected to perform.

12.5.3.3.7.4 Education concerning the staff's specific duties and responsibilities shall be conducted.

12.5.3.3.7.5 General overview education of the emergency management program and the incident command system shall be conducted at the time of hire.

12.5.3.3.7.6 Department/staff specific education shall be conducted upon appointment to their assignments or position and annually thereafter.

12.5.3.3.8* Testing Emergency Plans and Operations.

12.5.3.3.8.1 The facility shall test its EOP at least twice annually, either through functional or full-scale exercises or actual events.

12.5.3.3.8.2 Exercises shall be based on the HVA priorities and be as realistic as feasible.

12.5.3.3.8.3 For Category 1 only, an influx of volunteer or simulated patients shall be tested annually either through a functional or full-scale exercise or an actual event (see Table 12.3.1).

12.5.3.3.8.4 Annual table top, functional, or full-scale exercises shall include the following:

- (1) Community integration
- (2) Assessment of stand-alone capability

12.5.3.3.8.5 For Category 1 only, if so required by the community designation to receive infectious patients, then the facility shall conduct at least one exercise a year that includes a surge of infectious patients (see Table 12.3.1).

12.5.3.3.8.6 The identified exercises shall be conducted independently or in combination.

12.5.3.3.9 Scope of Exercises.

12.5.3.3.9.1 Exercises shall be monitored by at least one designated evaluator, with knowledge of the facility's plan, and who is not involved in the exercise.

12.5.3.3.9.2 Exercises shall monitor the critical functions.

12.5.3.3.9.3 The facility shall conduct a debriefing session no more than 72 hours after the conclusion of the exercise or the event.

12.5.3.3.9.4 The debriefing shall include all key people including observers, administration, clinical staff including physician(s), and appropriate support staff.

12.5.3.3.9.5 Exercises and actual events shall be critiqued to identify areas for improvement.

12.5.3.3.9.6 The critiques required by 12.5.3.3.9.5 shall identify deficiencies and opportunities for improvement based upon monitoring activities and observations during the exercise.

12.5.3.3.9.7 Opportunities for improvement identified in critiques shall be incorporated in the facility's improvement plan.

12.5.3.3.9.8 The facility shall modify its EOP in response to critiques of exercises.

12.5.3.3.9.9* Improvements made to the EOP shall be evaluated in subsequent exercises.

12.5.3.4 Response.

12.5.3.4.1* The facility shall declare itself in an emergency mode based on current conditions that leadership considers extraordinary.

12.5.3.4.2 Once an emergency mode has been declared, the facility shall activate their EOP.

12.5.3.4.3 The decision to activate the EOP shall be made by the incident commander designated within the plan, in accordance with the facility's activation criteria.

12.5.3.4.4 The decision to deactivate the EOP shall be made by the incident commander in the health care organization in coordination with the applicable external command authority.

12.5.3.4.5* The organization shall make provisions for emergency credentialing of volunteer clinical staff.

12.5.3.4.5.1 At a minimum, a peer evaluation of skill shall be conducted to validate proficiency for volunteer clinical staff.

12.5.3.4.5.2 Prior to beginning work, efforts shall be made to verify identities of other volunteers offering to assist during response activities.

12.5.3.4.5.3 Personnel designated or involved in the EOP of the health care facility shall be supplied with a means of identification, which shall be worn at all times in a visible location.

12.5.3.4.6 The command staff shall actively monitor conditions present in the environment and remain in communication with community emergency response agencies during an emergency response.

12.5.3.4.7 When conditions approach untenable, the command staff in combination with community emergency response agencies, shall determine when to activate the facility evacuation plan.

12.5.3.4.8 Evacuation to the alternative care site shall follow the planning conducted during the preparedness phase.

12.5.3.4.9 Planning efforts shall minimize to the greatest extent feasible the planned reduction of clinical care.

12.5.3.4.10 The decision to reduce medical care shall be conducted with the full knowledge and concurrence of community leadership.

12.5.3.4.11 Upon implementation of a controlled reduction in medical care, the following shall be considered:

- (1) The triage process shall be modified during an emergency.
- (2) Medical services shall be allocated to prevent the most deaths in the entire population of patients.

12.5.3.4.12 Surge Capacity of Victims. This section shall only apply to those facilities designated as Category 1 as defined by the HVA.

12.5.3.4.12.1 The facility shall plan for surge capacity.

12.5.3.4.12.2 Triage process shall be implemented as follows:

- (1) Arriving victim shall be assessed into the following cohorts:
 - (a) Risk to others as follows:
 - i. Mentally unstable
 - ii. Contaminated
 - iii. Infectious
 - (b) Risk to self as follows:
 - i. Emotionally impaired
 - ii. Suicidal
 - (c) Risk of death or permanent injury as follows:
 - i. Walking wounded
 - ii. Severely injured but stable
 - iii. Life-threatening injury
 - iv. Beyond care
- (2) Patients shall be admitted for treatment depending on capacity, specialty, and clinical need.
- (3) Creation of ancillary clinical space shall have adequate utility support for the following:
 - (a) HVAC
 - (b) Sanitation
 - (c) Lighting
 - (d) Proximity to operating room (OR)

12.5.3.4.13 Recovery from controlled reduction in care standards shall be reversed at the earliest feasible time.

12.5.3.4.14 Health care facilities shall have a designated media spokesperson to facilitate news releases during the response process.

12.5.3.4.15 An area shall be designated for media representatives to assemble, where they will not interfere with the operations of the health care facility.

12.5.3.5* Recovery.

12.5.3.5.1 Plans shall reflect measures needed to restore operational capability to pre-disaster levels.

12.5.3.5.2 Fiscal aspects shall be considered because of restoration costs and possible cash flow losses associated with the disruption.

12.5.3.5.3 Facility leadership shall accept and accommodate federal, state, and local assistance that will be beneficial for recovery of operations.

12.5.3.5.4 No party to recovery shall take action to unfairly limit lawful competition once recovery operations are completed.

12.5.3.5.5 Recovery shall not be deemed complete until infection control decontamination efforts are validated.

12.5.3.6 Administration.

12.5.3.6.1 The facility shall update their emergency management program annually, which shall include the following:

- (1) Updates to the facility HVA
- (2) Updates to the EOP

12.5.3.6.2 The facility shall maintain written records of drills, exercises, and training as required by this chapter for a period of 3 years.

A.12.1 Such facilities include, but are not limited to, hospitals, convalescent or nursing homes, and emergency receiving stations. A government authority could formally designate such facilities as disaster treatment centers. Such facilities would not normally include doctors' or dentists' offices, medical laboratories, or school nurseries, unless such facilities are used for treatment of disaster victims. National bioterrorism preparedness efforts call for the use of schools and other large public facilities to provide facilities for mass immunization.

A.12.1.1 Throughout this chapter, wherever the term hospital is used, the term should also apply to other types of health care facilities. Applicable facilities include, but are not limited to, hospitals, convalescent or nursing homes, and emergency receiving stations. A government authority could formally designate such facilities as disaster treatment centers. Such facilities would not normally include doctors' or dentists' offices, medical laboratories, or school nurseries, unless such facilities are used for treatment of disaster victims. National bioterrorism preparedness efforts call for the use of schools and other large public facilities to provide facilities for mass immunization. An emergency management program (formerly known as a disaster plan or internal/external plan) encompasses activities across four phases: mitigation, preparedness, response, and recovery. Mitigation activities are those designed to reduce or eliminate the impact of hazards. Preparedness activities include those that build organizational and individual capabilities to deal with disasters. Response activities include all necessary actions to stop ongoing negative effects of a disaster, and recovery activities are those that restore the organization, its employees, and the community back to normal.

The Joint Commission has incorporated Comprehensive Emergency Annex G for The Joint Commission publications.

NFPA 1600, Standard on Disaster/Emergency Management and Business Continuity Programs, is an internationally accepted framework for an emergency program. NFPA 99, Chapter 12, recognizes this overall structure and provides additional information useful to health care organizations. Table A.12.1.1 illustrates the relationship between the elements of NFPA 99, Chapter 12, and NFPA 1600.

Table A.12.1.1 How NFPA 99 Chapter 12 Relates to NFPA 1600	
NFPA 1600	NFPA 99 Chapter 12
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Finance and Administration	—

A.12.2.1 In time of disaster, all persons are subject to certain constraints or authorities not present during normal circumstances. The emergency operations plans written by a health care facility should be reviewed and coordinated with such authorities so as to prevent confusion. Such authorities include, but are not limited to, civil authorities (such as a fire department, police department, public health department, or emergency medical service councils), Centers for Disease Control, Federal Bureau of Investigation, and emergency management or military authorities. See Annex G for publications explaining how the out-of-hospital response is organized to multiple and mass casualty incidents. Further, an authority having jurisdiction can impose upon the senior management of the facility the responsibility for participating in a community emergency management program.

A.12.2.3 It is strongly recommended that medical leadership representatives play a key role in the emergency management committee and planning process. The list provided is not intended to be all inclusive. Additional representatives might be needed based on the level of care provided or the structure of the organization such as the following:

- (1) Bioterrorism coordinator
- (2) Communications/data management
- (3) Finance
- (4) Human resources
- (5) Legal/risk management
- (6) Public relations
- (7) Purchasing/materials management
- (8) Quality management
- (9) Training and education

A.12.2.3.3 Federal, state, and local governments are required to use an incident command system (ICS) based on the National Incident Management System (NIMS). Although private sector hospitals are not required to be NIMS-compliant, many are choosing to do so, not only to integrate with other emergency responders but to remain eligible to receive certain federal grant monies. HICS, the Hospital Incident Command System, was specifically designed to be NIMS compliant, and therefore many hospitals use this model, either as developed or with some customization. HICS can be customized and adapted to other types of health care facilities. HICS is led by an incident commander, assisted by command staff consisting of the public information officer, safety officer, and liaison officer, and those medical/technical specialists as appropriate to the event. Section chiefs are responsible for each of the following sections:

- (1) Operations Section: Conducts the tactical operations to carry out the incident action plan using defined objectives and directing all necessary resources
- (2) Planning Section: Collects and evaluates information for decision support, maintains resource status information, prepares the Incident Action Plan, and maintains documentation
- (3) Logistics Section: Provides support, resources, and other services to meet the operational objectives
- (4) Finance/Administration: Monitors costs related to the incident, provides accounting services, time recording, and cost analyses

Each section is composed of subordinate positions that are divided into branches or units.

Features of HICS include the following:

- (1) Clear chain of command
- (2) Manageable span of control
- (3) Common terminology

(4) Adaptability to unified command

HICS tools include the following:

(1) Job action sheets detailing position responsibilities

(2) Forms to document the event

HICS was intended to be used not only for emergencies but also for planned events. Complete HICS documentation is free and available for download at www.emsa.ca.gov.

A.12.5.3.1.2 By basing the planning of health care emergency management on realistic conceptual events, the program reflects those issues or events that are predictable for the environment in which the organization operates. Thus, such conceptual planning should focus on issues, such as severe weather typical in that locale, situations that can occur due to close proximity of industrial or transportation complexes, or earthquake possibilities due to local seismic activity. Planning should also incorporate knowledge available in the emergency management research about how individuals, small groups, organizations, communities, and societies behave during emergencies.

A.12.5.3.1.3(1) Continuity of operations can include, but is not limited to, maintaining staffing levels, resources and assets, ability to obtain support from the outside environment, and leadership sustainability.

A.12.5.3.3.6.1(5) Emergency internal and external communication systems should be established to facilitate communication with security forces and other authorities having jurisdiction as well as internal patient care and service units in the event normal communication methods are rendered inoperative. The basic form of communication in a disaster is the telephone system. As part of the contingency plan to maintain communication, a plan for restoring telephone systems or using alternate systems is necessary. Typically, the first line of internal defense for a system outage is strategically placed power-failure telephones that are designed to continue to function in the event of system failure (e.g., dedicated lines, fax lines). Plans for external outages and load control should include the use of pay phones, where available, that have first priority status in external system restoration. Facilities should pre-plan restoration activities and prioritization with their telephone service providers. Review with the state and other communications (i.e., Government Emergency Telecommunications Service, Wireless Priority Service, Health and Homeland Alert Network).

Contingency plans should also contain strategies for the use of radio-frequency communications to supplement land-line usage. The plan should include a means to distribute and use two-way radio communication throughout the facility. A plan for the incorporation and use of amateur radio operators should also be considered.

It should be recognized that single-channel radio communication is less desirable than telephone system restoration due to the limited number of messages that can be managed. Cellular telephones, although useful in some disaster situations, should not be considered a contingency having high reliability due to their vulnerability to load control schemes of telephone companies. Portable e-mail devices, satellite telephones, and audio- and video-conferencing services are useful tools to link key staff and organizations.

A.12.5.3.3.6.3 Prior to a disaster, facilities should formally coordinate their security needs with local law enforcement agencies. The health care institution will find it necessary to share its emergency operations plans with local law enforcement agencies, or better still involve them in the process of planning for security support during disasters. The information should at least include availability of parking for staff, patients, and visitors, and normal vehicular, emergency vehicular, and pedestrian traffic flow patterns in and around the facility. The extent of the

security and traffic control problems for any given health care facility will depend upon its geographical location, physical arrangement, availability of visitor parking areas, number of entrances, and so forth.

Crowd Control. Visitors can be expected to increase in number with the severity of the disaster. They should not be allowed to disrupt the disaster functioning of the facility. Ideally, a visitor's reception center should be established away from the main facility itself, particularly in major disasters. Volunteer personnel such as community emergency response teams (CERT), Red Cross, Explorer Scouts, or other helpers can be utilized as liaisons between the visitors and the health care facility itself.

Vehicular Traffic Control. Arrangement for vehicular traffic control into and on the facility premises should be made in the disaster planning period. It will be necessary to direct ambulances and other emergency vehicles carrying casualties to triage areas or the emergency room entrance, and to direct incoming and outgoing vehicles carrying people, supplies, and equipment. Charts showing traffic flow and indicating entrances to be used, evacuation routes to be followed, and so forth, should be prepared and included in the emergency operations plan. Parking arrangements should not be overlooked.

Internal Security and Traffic Control. Internal security and traffic control are best conducted by facility trained personnel (that is, regular health care facility security forces) with reinforcements as necessary. Potential additional assistance from the local law enforcement agencies should be coordinated in the disaster planning phase. Upon activation of the emergency operations plan, security guards should be stationed at all unlocked entrances and exits to the extent possible. Entrance to the facility should be restricted to personnel bearing staff identification cards and to casualties. In the case of major access corridors between key areas of the facility, pedestrian traffic should be restricted to one side of the corridor, keeping one side of the corridor free for movement of casualties. Traffic flow charts for internal traffic should also be prepared in the planning phase, as is the case with external traffic control.

A.12.5.3.3.6.5 Consideration should be given to preemptively installing parallel components such that maintenance can be performed on operating equipment. This will necessitate the installation of additional valves, circuits, or controls to isolate those parts to be removed and replaced, such as air or fuel filters. This work should not violate any other code, standard, or safety device. The desired outcome is system resiliency despite part failure.

A.12.5.3.3.6.8(1) The command structure should also follow the National Incident Management System (NIMS) as seen in NFPA 1600, Standard on Disaster/Emergency Management and Business Continuity Programs.

A.12.5.3.3.8 Experiences show the importance of drills to rehearse the implementation of all elements of a specific response including the entity's role in the community, space management, staff management, and patient management activities. To document an exercise, the following aspects are typically incorporated. A general overview of the scenario, documented activation of the emergency operations plan, reports from an identified evaluator(s), evaluation of all involved participants (departments) and any observer(s), a written critique following the drill, and any identified follow-up training or improvement action(s) to correct or manage any deficiencies.

A.12.5.3.3.9.9 When improvements require substantive resources that cannot be accomplished by the next planned exercise, interim improvements should be put in place until final resolution.

A.12.5.3.4.1 In emergency situations that occur without warning and impact the facility, staff at the scene of the problem are expected to follow established protocols to protect life, notify others, and conserve property. Senior management can establish a hospital command center

(HCC) or participate in unified command with other responding agencies at a designated emergency operations center (EOC). In emergency situations with warning or whose impacts require extended periods to resolve, designated leadership reports to the HCC. Not all incidents require an HCC.

The HCC provides centralized locations for information collection, display, coordination, documentation, and dissemination.

A.12.5.3.4.5 Note that care should be taken to assure that identification cards are recalled whenever personnel terminate association with the health care facility. Members of the news media should be asked to wear some means of identification, such as the press card, on their outside garments so that they are readily identifiable by security guards controlling access to the facility or certain areas therein. Clergy also will frequently accompany casualties or arrive later for visitations and require some means of identification. Water storage systems should be inventoried and protected to the greatest extent possible.

A.12.5.3.5 Recovery measures could involve a simple repositioning of staff, equipment, supplies, and information services; or recovery could demand extensive cleanup and repair. It can, under certain circumstances, identify opportunities for structural and nonstructural mitigation efforts. Filing of loss claims might require special approaches. Health care facilities should have access to cash or negotiable instruments to procure immediately needed supplies.

B.12 Additional Information on Chapter 12.

B.12.1 Emergency Management Program Development. The program development process illustrated in Figure B.12.1 is an example of a tool that can be used to develop an Emergency Management Program; other tools or processes are acceptable as long as the tasks of identification, planning, education, evaluation, and improvement are addressed.

****INSERT FIGURE HERE****

FIGURE B.12.1 Emergency Management Program Development Process.

B.12.1.1 Program Development Steps and Activities.

B.12.1.1.1 Review the Hazard Vulnerability Analysis (HVA) and Determine Priorities for Developing Standard Operating Procedures (SOPs). Using the input submitted by operating unit managers, the committee must prioritize threats/events and develop a list of SOPs that must be developed to address those hazards. Figure B.12.1.1.1 displays a sample standard operating procedure format.

****INSERT FIGURE HERE****

FIGURE B.12.1.1.1 Sample Standard Operating Procedure Format.

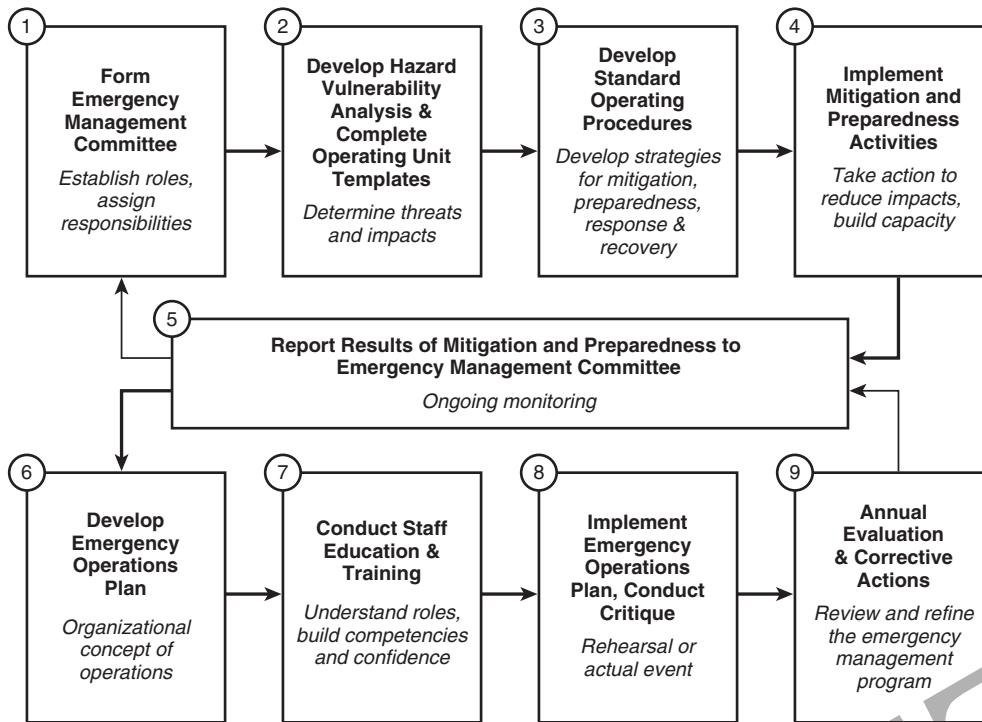


FIGURE B.12.1 Emergency Management Program Development Process.

recalled as required. In order to relieve switchboard congestion, it is desirable to utilize a pyramidal system to recall individuals who are off duty or otherwise out of the facility. Under the pyramidal system, an individual who has been notified will notify two other individuals, who in turn will each notify two other individuals, and so on. A current copy of the notification and recall roster, with current home and on-call telephone numbers, will be maintained at the hospital switchboard at all times. In case the pyramidal system is to be utilized, each individual involved in the system has to maintain a current copy of the roster at all times, in order that each knows whom they are to notify and the telephone numbers concerned. It is essential that key personnel rosters be kept current.

B.12.3 Special Considerations and Protocols.

B.12.3.1 Fire and Explosion. In the event that the health care facility need not be completely evacuated immediately, the actions staff should take when they are alerted to a fire are detailed in Sections 18.7, 19.7, 20.7, and 21.7 of *NFPA 101, Life Safety Code*.

B.12.3.2 During the past decade the healthcare industry has been struck by numerous natural disasters. A study of these disasters has presented us with areas for “lessons learned.” The following are examples.

B.12.3.2.1 Alert. Alerting is often provided through the local Office of Emergency Management and the National Oceanic and Atmospheric Administration. Based on your facility’s geographical location, these alerts often come in the form of a “watch,” which indicates the strong possibility of a natural disaster, or “warning,” which indicates the immediate threat of a disaster. A Hazard Vulnerability Analysis (HVA) of your area would result in actions that should be taken at different stages of the alert. Such actions could indicate monitoring reports by

a liaison with the Office of Emergency Management; the Internal Incident Command of a facility would assess existing staffing and supply issues and make decisions to activate staff call-back plans and augment critical supplies. Some facilities have also indicated they have found it useful to complete a pre-storm patient census reduction to discharge where possible, and/or move pre-selected high acuity patients, such as neonatal intensive care patients, bariatric patients, patients with severe respiratory complications, etc. Also during this pre-storm patient relocation, selected patients may be moved to what is considered to be safer areas within the facility.

Some natural disasters give us absolutely no warning, such as an earthquake. During this situation staff would have to assume immediate operations plan procedures.

B.12.3.2.2 Isolation Survival for up to 96 Hours. Recent disasters have shown it could be 96 hours (in some cases, more) before outside help is able to reach the facility. Those facilities with sufficient resources in-house for critical areas fared the best during disasters. Facilities that had corporate structures or associations with out-of-area organizations also received help in a timely manner.

B.12.3.2.3 Wind. The wind knocked down communication antennas, resulting in severe difficulties for facilities to communicate with staff, other healthcare facilities, etc. One solution was construction of antennas with hinges so they could be laid down during a pre-storm warning. In other cases, the history of high winds and/or the HVA showed that certain windows should be boarded and certain doors should be braced and sandbagged.

B.12.3.2.4 Flooding. Flooding into facility’s lower levels where utilities are often housed results in a disruption of these services. In a recovery effort, the following was helpful:

(Name of facility)

Standard Operating Procedure #: _____ (Date) _____

SUBJECT: _____
(Insert Hazard, Threat, or Event Name)

1. Description of hazard, threat, or event: _____

2. Impact on mission critical systems: _____

3. Operating units and key personnel with responsibility: _____

4. Mitigation and Preparedness Activities
 - a. Hazard reduction strategies and resource issues: _____

 - b. Preparedness strategies and resource issues: _____

5. Response and Recovery Activities
 - a. Hazard control strategies and resource issues: _____

 - b. Hazard monitoring strategies: _____

 - c. Recovery strategies and resource issues: _____

6. Notification Procedures
 - a. Internal: _____

 - b. External: _____

7. Specialized staff training: _____

8. References and further assistance: _____

9. Review date: _____

(Name) (Position/Title)

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FIGURE B.12.1.1.1 Sample Standard Operating Procedure Format.

B.12.1.1.2 Implement Mitigation and Preparedness Strategies. Using the SOPs developed for prioritized threats/events, develop and implement actions that will eliminate or reduce the impact of adverse events to the facility and build capabilities to manage them. The committee should review the SOPs to identify resources needed for mitigation and preparedness, develop cost estimates or resources required, and submit the resource request to the director for funding. The committee is responsible for tracking mitigation and preparedness planning activities until completed.

B.12.1.1.3 Report Results of Mitigation and Preparedness Activities to the Emergency Management Committee. Operating unit managers and the emergency program coordinator should regularly report results of mitigation and preparedness activities to the committee. Reports should include mitigation activities taken that effectively reduced or eliminated adverse impacts to the facility; mitigation activities that did not reduce or eliminate adverse impacts to the facility operation; and recommendations for mitigation and preparedness activities, budget, and timelines.

B.12.1.1.4 Develop, Publish, and Distribute the Emergency Operations Plan (EOP). NFPA 1600, Standard on Disaster/Emergency Management and Business Continuity Programs, Section 3.6, describes four types of planning: strategic administrative (preparedness) planning, mitigation planning, recovery planning, and emergency operations planning.

The Federal Emergency Management Agency, now part of the Department of Homeland Security, issues guidance on the development of emergency operations plans, or EOPs. The EOP is designed to address all hazards and it accomplishes this through its organization by functions, not departments, hazards, or individuals. Flexibility is a key feature of this type of format, as only the functions needed to address the problems are activated, not the entire plan. This type of EOP format (a basic plan and functional annexes) is that used by communities, states, and the Federal Response Plan. (See AnnexD.)

B.12.1.1.5 Train Staff on the EOP. See 12.3.3.8.

B.12.1.1.6 Delegate the Emergency Management Committee (EMC), Identify Department Roles, and Assign Responsibilities. The EMC is a multidisciplinary committee established to coordinate and oversee the emergency management program, and should have a close relationship with the Safety and/or Environment of Care Committee(s).

The functions of the EMC include defining the role of the organization in the community-wide emergency management program; conducting/reviewing a Hazard Vulnerability Analysis (HVA), which addresses all hazards that threaten the facility; developing/reviewing standard operating procedures (SOPs) that address hazards identified in the HVA; developing/reviewing the emergency operations plan and coordinate it with other health care organizations in the community-wide emergency management program; assigning roles and responsibilities of operating unit managers and key operators/managers; overseeing the development and maintenance of the EMP; ensuring that all employees have received appropriate training; conducting an annual evaluation of the effectiveness of the program, and ensuring a telephone roster of key personnel responsible for critical operations is kept current.

B.12.1.1.7 Test and Evaluate the EOP in Response to a Drill or Actual Event. See 12.3.3.9.

B.12.2 Personnel Notification and Recall. Medical staff, key personnel, and other personnel needed will be notified and recalled as required. In order to relieve switchboard congestion, it is desirable to utilize a pyramidal system to recall individuals who are off duty or otherwise out of the facility. Under the pyramidal system, an individual who has been notified will notify two other individuals, who in turn will each notify two other individuals, and so on. A current copy

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B.12.3.2.4 Flooding. Flooding into facility's lower levels where utilities are often housed results in a disruption of these services. In a recovery effort, the following was helpful:

- (1) Keep the electrical service turned off until the electrical device completely dries
- (2) Secure environmental waste containers and portable medical gas containers

One contractor dealing with the Gulf State hospitals stated that, based on their experience with floods, they would never again use “fail return” elevators to a basement level. Many times elevators returned to the basement level upon loss of power, resulting in the wires that are located in the cab flooring being soaked, rendering the elevator useless.

B.12.3.2.5 Power Loss. Power is lost typically as a result of high winds and flooding. Generators and transfer switches have been lost due to their location below the high water mark. Another problem surfacing with generators is that they often were not powerful enough to provide heating, ventilation, and air-conditioning services to the facility. In some of the Gulf States, this alone forced evacuation of the hospital or long-term care facility. Other problems encountered were fuel, designed for another type of generator (such as military), contaminating the unit. When ordering back-up generators, know the size needed and the method to be used to connect the generator to your facility.

Services, in priority, which should be up and running for your facility to be operational are as follows:

- (1) Clinical care:
 - (a) Life support systems
 - (b) Life safety (exits and fire alarm and fire suppression)
 - (c) Lab services
 - (d) Pharmaceutical services
 - (e) Diagnostic services
- (2) Infrastructure:
 - (a) Heating, ventilation, and air conditioning
 - (b) Water supply and removal systems
 - (c) Information technology
 - (d) Food and liquids
 - (e) Elevators

B.12.3.2.6 Communications. Loss of communications is one of the major problems during a disaster. There have been many suggested solutions, including satellite phones and websites to communicate to staff and responsible parties. A successful solution has been communications conducted through Amateur Radio Emergency Services (ARES). Healthcare facilities have also reported that it was important to either have a liaison or a liaison position within the community Emergency Operations Center.

Loss of Water

This can result in problems with sewer service, air conditioning, generator and refrigeration cooling systems, sterilization, dialysis services, liquid consumption, laundry, dishwashing, staff and patient hygiene, and fire suppression. It is recommended hospitals perform risk assessments in these areas and prepare themselves for 96 hours of isolation, without outside water delivery. If this is not possible, evacuation may have to be considered.

Staff Issues

The following items were found important to address:

- (1) Transportation, including knowing what roads are open and actually getting staff to the facility
- (2) Addressing the safety of staffs' families
- (3) Provision of food, liquids, and lodging for staff and family members

Civil Disturbance

This mostly resulted from members of the disaster-struck community seeking drugs, food, and shelter. During such a disaster, facilities initiate lockdown procedures and request local police assistance to protect the facility. It was noted that police departments were often overburdened during such disasters, and facilities had to rely on private security and/or the National Guard.

Influx of Patients

Even though the facility is trying to keep their patients alive and safe, it must be recognized that some outside patients may come to the facility due to serious injuries that occurred during the disaster or other medical needs. Others may have power at home or home healthcare providers to assist them with special needs. Community members may come to the facility simply to seek shelter or medications in the event their normal pharmacy is shut down. Some patients may come from an evacuating facility.

Recognizing these situations, facilities may be able to redirect the special needs population to a special needs shelter, if the community has set up such provisions. It was found helpful to establish an outside (under cover) pre-emergency/triage room to relieve stress from the critical care emergency room within the hospital.

Evacuation

Often evacuation was in two phase: Phase I was a pre-storm evacuation. It was found that, if this was going to be undertaken, it had to be started early enough to avoid traffic congestion to get patients to their ultimate destination in an acceptable length of time. Otherwise, Phase II, or full hospital evacuation, could not take place until the disaster had subsided and transportation was once again available to move patients. Additional problems occurred with tracking patients and moving their medical records. Medical records that were on the Electronic Health Records System were at times unattainable if they could not be accessed from a remote site. Hard copy records, in some cases, were lost during transport.

B.12.3.3 Evacuation. Evacuation can be partial or total. It might involve moving from one story to another, one lateral section or wing to another, or moving out of the structure. Even partial evacuations can involve all categories of patients; where these are people who would not routinely be moved, extraordinary measures might be required to support life. It is also necessary to ensure movement of supplies in conjunction with any evacuation. Decisions to evacuate might be made as a result of internal problems or under menace of engulfing external threats. In all cases, the following considerations govern:

- (1) Move to predesignated areas, whether in the facility, nearby, or in remote zones. Evacuation directives will normally indicate destinations. Note that it is recommended to predesign a mutual aid evacuation plan with other health care facilities in the community. (See Annex D, U.S. Government Publication 3152, Hospitals and Community Emergency Response — What you Need to Know, on the subject of health care community mutual aid and evacuation planning.)
- (2) Ensure movement of equipment, supplies, and medical records to accompany or meet patients and staff in the new location.
- (3) Execute predetermined staffing plans. Some staff will accompany patients; others will rendezvous in the new location. Maintenance of shifts is more complex than normal, especially when some hard-to-move patients stay behind in the threatened location, and when staff might be separated from their own relocated families.
- (4) Protection of patients and staff (during and after movement) against the threatening environment should be provided.
- (5) Planning should consider transportation arrangements and patient tracking.

B.12.3.3.1 The emergency management committee oversees the HVA process to ensure that all major threats to the facility are accounted for and assessed. Input to the HVA by operating unit managers is very important. Once a list of priority hazards, threats, and events has been compiled, managers should complete an operating unit template for their particular service or department. Some threats to individual operating units are so severe that they might interrupt the

continuity of critical operations in the facility. The operating unit template is a unit-level contingency plan, useful in staff education, drills, and actual events. Figure B.12.3.3.1(a) illustrates a sample HVA format. Figure B.12.3.3.1(b) shows a sample operating unit template.

INSERT FIGURE HERE

FIGURE B.12.3.3.1(a) Sample Hazard Vulnerability Analysis (HVA) Format.

INSERT FIGURE HERE

FIGURE B.12.3.3.1(b) Sample Operating Unit Template.

B.12.3.4 Activation of Emergency Utility Resources. Loss of utility resources can occur at any time due to a natural disaster, an internal system failure, or even a supply shortage. Redundancy in system design and support are fundamental to avoiding loss of utilities. Critical points of failure in systems and supply chains should be identified, and their malfunction, disruption, or loss mitigated.

The key to a successful response to a loss of utilities is planning. Assessment of the organization's utility systems is an excellent starting point and should consist of identifying essential utility systems such as electricity, water/sewer, piped medical gas and vacuum systems, HVAC systems, and vertical and horizontal transports. Once the systems are identified, they should be broken down to the component level and evaluated for importance. This allows the organization to establish priorities and the capabilities of the systems and its components.

Organizations should evaluate their self sufficiency for at least 96 hours. This evaluation will assist in establishing gaps in the utility systems. For example, if a facility loses electricity and has backup generators, the organization must establish how long they can operate on those generators. By looking at different components of the generator system, the organization may determine that only enough fuel for 24 hours is maintained. If the same generator is cooled by water and the water supply is disrupted, that is an additional limitation. This concept should be applied to all systems and key components of each utility.

By establishing the limitations of the utility systems and components, an organization can identify the need to mitigate with alternative means such as extra equipment, generators, bottled medical gas, bottled water, or formal documented agreements and understandings with other organizations. Contingency plans should be established and tested for effectiveness on a regular basis. It is essential that an organization understands its limitations and uses this information to determine if it can sustain itself for 96 hours or if it is appropriate to stop or limit services.

Operating Unit: _____ Operating Unit Manager: _____

Mission Critical System	Potential Problems	Contact for Assistance in Preparing	Mitigation Actions	If this mission critical system is interrupted, then:	
				Assess situation for:	Action required:
(Lighting)					
(Electrical Power)					
(Steam Distribution)					
(HVAC)					
(Room or Hood Exhaust)					
(Water Delivery)					
(Waste Stream)					
(Communications)					

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FIGURE B.12.3.3.1(b) Sample Operating Unit Template. [ROC-615]

B.12.3.5 Civil Disturbance. Large-scale civil disturbances have shown that health care facilities and their personnel are not immune to the direct effects of human violence in such disturbances. Hospitals in large urban areas have to make special provisions in their disaster plans to ensure the physical safety of their employees in transit from the hospital exit to and from a secure means of transportation to their homes. In extreme cases it might be necessary to house employees within the health care facility itself during such civil disturbances. Another aspect of civil disturbances not to be overlooked in facility security planning is the possibility that a given health care facility might have to admit and treat large numbers of prisoners during such emergencies; however, security guards for such patients will normally be provided by the local police department.

B.12.3.6 Hazardous Materials. There are at least three major sources of concern with regard to nonradioactive hazardous materials not related to the intentional use of chemical agents to harm people (see B.12.3.8). The first is the possibility of a large spill or venting of hazardous materials near the facility; this is especially likely near major rail or truck shipping routes, near pipelines, or near heavy manufacturing plants. Second, every facility contains within its boundaries varying amounts of such materials, especially in the laboratory and custodial areas. A spill of a highly volatile chemical can quickly contaminate an entire structure by way of the air ducts. Finally, contaminated patients can pose a risk to staff, though on a more localized basis. Usually removal of their clothing will reduce the risk materially. In any case, staff has to be prepared to seek advice on unknown hazards. This type of advice is not usually available from poison centers, but rather from a central referral, such as CHEMTREC, and its toll-free emergency information service number (800-424-9300).

See Annex D for publications concerning hazardous materials regulations and reports on various types of chemical protective equipment.

B.12.3.7 Volcanic Eruptions. Although most of the direct effects of a volcanic eruption are covered in other protocols for disasters (fire, explosion, etc.), it is necessary to make special provisions for functioning in areas of heavy to moderate ash fall. This hazard can exist hundreds of miles downwind from the eruption.

Volcanic ash is actually finely pulverized rock blown out of the volcano. Outside the area of direct damage, the ash varies from a fine powder to a coarse sand. General housekeeping measures can exclude much ash. It should be noted, however, that people move about freely during and after ash fall.

Ash fall presents the following four problems for health care facilities:

- (1) People require cleanup (brushing, vacuuming) before entering the building.
- (2) Electromechanical and automotive equipment and air-filtering systems require special care because of the highly abrasive and fine penetration nature of the ash.
- (3) Increased flow of patients with respiratory complaints can be expected.
- (4) Eye protection is required for people who have to be out in the dust. (No contact lenses should be worn; goggles are suggested.) Dust masks are available that are approved by the National Institute for Occupational Safety and Health (NIOSH) and are marked TC-21 plus other digits.

B.12.3.8 Weapons of Mass Destruction. Weapons of mass destruction, or WMD, are defined as any weapon or device that is intended, or has the capability to cause, death or serious bodily injury to a significant number of people through the release, dissemination, or impact of: toxic or poisonous chemicals or their precursors; a disease organism; or radiation or radioactivity. A complete index of chemical, biological, and radiological agents and treatment recommendations

can be found at the following web site: <http://www.bt.cdc.gov/agent/index.asp>. Many federal departments and agencies are involved in supporting WMD preparedness and response activities at the state and local level. The Department of Health and Human Services manages two cooperative grant programs administered by the Centers for Disease Control and Prevention (CDC) and the Assistant Secretary for Preparedness and Response (ASPR). These programs are aimed at enhancing the readiness of the public health and hospital system (see the following web link for a description of these initiatives:

http://www.bt.cdc.gov/planning/continuationguidance/pdf/activities_attachments.pdf.)

The Department of Justice maintains a help line (1-800-368-6498) offering technical assistance in nonemergency cases providing information on the following subjects: detection equipment, personal protective equipment, decontamination systems and methods, physical properties of WMD materials, signs and symptoms of WMD exposure, treatment of exposure to WMD materials, toxicology information, federal response assets, and applicable laws and regulations. For reporting actual or potential acts of terrorism, health care facilities should contact their local or state health departments. The National Response Center (1-800-424-8802) can link callers to technical experts.

See Annex D for publications relating to WMD preparedness for health systems.

B.12.4 Continuing Operations Plan and Recovery. It has been well documented that a community cannot recover without the health care facilities recovering simultaneously or beforehand. If at all possible, health care needs to remain operational through the disaster to care for their patients as well as those who will be injured during the disaster.

It is important to advertise that the facility is open for business when this fact occurs.

In recovering, the business of health care can be as follows:

- (1) It is important to know the sources of funds, such as insurance and FEMA funds, and request loans against them to get cash flowing as soon as possible.
- (2) Activate lines of credit with vendors and banks.
- (3) Use stock and other investments as collateral for loans and lines of credit.
- (4) Have the finance section chief of the incident command system work with other section chiefs to keep very good records of disaster-related expenses for reimbursement following the disaster.
- (5) Ensure doctors and their offices open simultaneously with the hospital being able to provide services to “get patients in the door.” Provide office support as soon as possible for physicians, with priority being emergency department physicians, general practitioners, orthopedic surgeons, and cardiovascular surgeons.
- (6) Activate billing and payroll as soon as possible.
- (7) Consider setting up a bank within the hospital for staff.

Credits:

Educational Fact Finding and On-site Research in Houston, Texas following Tropical Storm Allison, 2001.

National Fire Protection Association.

Russell Phillips & Associates, LLC.

Also, see Atmospheric Pressure in “Fire Journal,” issue July–August, 2002.

Educational Fact Finding and On-site Research for Hurricane Katrina, Louisiana, Mississippi, 2005.

American Society of Healthcare Engineers: Dale Woodin.

Russell Phillips & Associates, LLC: Russell Phillips & Scott Aronson.

99-444 Log #320 HEA-HES
(12.1.2)

Final Action: Accept in Principle

Submitter: Dale Woodin, American Society for Healthcare Engineering

Recommendation: Revise text to read as follows:

~~12.1.2* This chapter provides those with the responsibility for the emergency management program in health care facilities with a framework to assess, mitigate, prepare for, respond to, and recover from disasters of any origin. This chapter is intended to aid those responsible for the emergency management program in healthcare facilities with in~~ developing, maintaining, and evaluating effective emergency management programs. ~~For additional information on emergency management programs, see NFPA 1600, Standard on Disaster/Emergency Management and Business Continuity Programs shall be the standard for compliance with this chapter.~~

~~12.1.3 For additional information on emergency management programs, see NFPA 1600, Standard on Disaster/Emergency Management and Business Continuity Programs.~~

Substantiation: Improve clarity of intent.

This is not original material; its reference/source is as follows:

I am proposing this revision on behalf of the ASHE Emergency Preparedness Workgroup chaired by Mike Rawson.

Committee Meeting Action: Accept in Principle

See Committee Proposal 99-442 (Log #CP607).

Committee Statement: The committee revised the proposal and incorporated it into the committee proposal to rewrite the entire chapter. See section 12.1.1. The intent is that NFPA 99 is the source document for healthcare and was based on NFPA 1600.

99-445 Log #218 HEA-HES
(12.2.2)

Final Action: Accept in Principle

Submitter: Dale Woodin, American Society for Healthcare Engineering

Recommendation: Revise text to read as follows:

~~12.2.2 Senior Management. Each health care organization shall have plans necessary to respond to a disaster or an emergency. Each health care organization shall have an individual or group, often known as an emergency management committee, as appropriate, with the authority for developing, implementing, exercising, evaluating, and updating the emergency management program. Senior Management officer or employee shall have responsibility for Program Administration as described in NFPA 1600, chapter 4. The governing body and Chief of Medical Staff will appoint this Program Administrator.~~

Substantiation: Improve clarity of description

This is not original material; its reference/source is as follows:

I am proposing this revision on behalf of the ASHE Emergency Preparedness Workgroup chaired by Mike Rawson

Committee Meeting Action: Accept in Principle

Committee Statement: The committee has incorporated this change into Committee Proposal 99-442 (Log #CP607). See Section 12.2.2.

99-446 Log #213 HEA-HES
(12.2.3)

Final Action: Accept in Principle

Submitter: Dale Woodin, American Society for Healthcare Engineering

Recommendation: Add new text as follows:

12.2.3 Program Coordinator. The Program Coordinator will be responsible to the Program Administrator for implementing the program.

Substantiation: Utilize industry known description of position

This is not original material; its reference/source is as follows:

I am proposing this revision on behalf of the ASHE Emergency Preparedness Workgroup chaired by Mike Rawson
Committee Meeting Action: Accept in Principle

Committee Statement: See Committee Proposal 99-442 (Log #CP607), section 12.2.2.3. The Program Coordinator reports to Senior Management.

99-447 Log #214 HEA-HES
(12.2.3 (New))

Final Action: Accept in Principle

Submitter: Dale Woodin, American Society for Healthcare Engineering

Recommendation: Add new text as follows:

12.2.3* Emergency Management Committee. The membership of the EMC should include a chairperson, the emergency program coordinator, and representatives from key areas within the organization, such as the administration office, physicians, nursing, infection control, facilities engineering, safety/industrial hygiene, purchasing/fiscal, security, and other critical operating unit managers.

Substantiation: Promote the appendix material to the body of the code

This is not original material; its reference/source is as follows:

I am proposing this revision on behalf of the ASHE Emergency Preparedness Workgroup chaired by Mike Rawson

Committee Meeting Action: Accept in Principle

Committee Statement: Add this material to Committee Proposal 99-442 (Log #CP607). See Section 12.2.3.

99-448 Log #215 HEA-HES
(12.2.3.1 (New))

Final Action: Accept in Principle

Submitter: Dale Woodin, American Society for Healthcare Engineering

Recommendation: Add new text as follows:

12.2.3.1* The emergency management committee shall have the responsibility for the emergency management program within the facility, under the supervision of designated leadership. The program shall be based on realistic conceptual events and operating capacity thresholds. The emergency management committee should base the entity's program on a hazards vulnerability analysis (HVA). The HVA determines whether the following types of hazards are applicable and the impacts each might have on mission critical systems:

(1) Natural disasters

(2) Technological/industrial disasters

(3) Civil/political disasters

For further information on how to conduct the HVA, see NFPA 1600, *Standard on Disaster/Emergency Management and Business Continuity Programs*, and other publications listed in Annex G. See C.12.3.5 for descriptions of sample protocols for common hazards.

Substantiation: Promote the appendix material to the body of the code

This is not original material; its reference/source is as follows:

I am proposing this revision on behalf of the ASHE Emergency Preparedness Workgroup chaired by Mike Rawson

Committee Meeting Action: Accept in Principle

Committee Statement: See Committee Proposal 99-442 (Log #CP607), Sections 12.2.3, 12.5.3.1.

99-449 Log #216 HEA-HES
(12.2.3.2)

Final Action: Reject

Submitter: Dale Woodin, American Society for Healthcare Engineering

Recommendation: Revise text to read as follows:

12.2.3.2* The emergency management committee shall model the emergency operations plan on an incident ~~command management~~ system (~~ICMS~~) in coordination with local emergency response agencies as referenced in NFPA 1600.

A.12.2.3.2 The incident ~~command management~~ system (~~ICMS~~) (also referred to as the incident management system, or (IMS) is a system having an identified chain of command that adapts to any emergency event. The ~~ICMS~~ consists of eight key elements: common terminology, integrated communications, modular organization, unified command structure, manageable span of control, consolidated action plans, comprehensive resource management, and pre-designated incident facilities. These allow emergency responders from hospitals and all involved organizations to respond to an incident and be familiar with the management concepts and terminology of other responders. It also facilitates the request and processing of mutual aid requests.

A widely accepted structure of an ~~ICMS~~ is illustrated in Figure A.12.2.3.2.

Substantiation: Utilize industry standard language

This is not original material; its reference/source is as follows:

I am proposing this revision on behalf of the ASHE Emergency Preparedness Workgroup chaired by Mike Rawson

Committee Meeting Action: Reject

Committee Statement: The term Incident Command is more widely used in the health care industry.

99-450 Log #325 HEA-HES
(12.2.3.2)

Final Action: Reject

Submitter: Dale Woodin, American Society for Healthcare Engineering

Recommendation: Revise text to read as follows:

12.2.3.2* The emergency management committee shall model the emergency operations plan on an incident ~~command management~~ system (~~ICMS~~) in coordination with local emergency response agencies as referenced in NFPA 1600.

A.12.2.3.2 The incident ~~command management~~ system (~~ICMS~~) ~~(also referred to as the incident management system, or (IMS)~~ is a system having an identified chain of command that adapts to any emergency event. The ~~ICMS~~ command structure, manageable span of control, consolidated action plans, comprehensive resource management, and pre-designated incident facilities. These allow emergency responders from hospitals and all involved organizations to respond to an incident and be familiar with the management concepts and terminology of other responders. It also facilitates the request and processing of mutual aid requests.

A widely accepted structure of an ~~ICMS~~ is illustrated in Figure A.12.2.3.2.

Substantiation: Utilize industry standard language.

This is not original material; its reference/source is as follows:

I am proposing this revision on behalf of the ASHE Emergency Preparedness Workgroup chaired by Mike Rawson.

Committee Meeting Action: Reject

Committee Statement: The term Incident Command is more widely used in the health care industry.

99-451 Log #209 HEA-HES
(12.3.1)

Final Action: Accept in Principle

Submitter: Dale Woodin, American Society for Healthcare Engineering

Recommendation: Revise text to read as follows:

12.3.1* When a facility declares itself in an emergency disaster mode, or when the authority having jurisdiction declares that a state of disaster exists, the emergency operations plan shall be activated.

A.12.3.1 In emergency situations that occur without warning and impact the facility, staff at the scene of the problem are expected to follow established protocols to protect life, notify others, and conserve property. Senior management can establish an Incident Command Post (ICP) near the scene, or support one that is established by responding public safety agencies. In emergency ~~situations~~ with warning or whose impacts require extended periods to resolve, senior management report to the facility's Emergency Operations Center (EOC). Not all incidents require an EOC.

Both the ICP and the EOC provide centralized locations for information collection, display, coordination, documentation, and dissemination. When both are established, the ICP focuses on tactical activities currently underway, and the EOC focuses on strategies for the next operational period(s), resource issues, etc.

See Annex G for publications on the Incident ~~Command~~ (Management) System.

Substantiation: Utilize industry standard language

This is not original material; its reference/source is as follows:

I am proposing this revision on behalf of the ASHE Emergency Preparedness Workgroup chaired by Mike Rawson

Committee Meeting Action: Accept in Principle

Committee Statement: See Committee Proposal 99-442 (Log #CP607). The committee used the word "emergency" consistently throughout the document in place of disaster.

99-452 Log #331 HEA-HES
(12.3.3.3)

Final Action: Accept in Principle

Submitter: Dale Woodin, American Society for Healthcare Engineering

Recommendation: Add text to read as follows:

12.3.3.3* Staff Management. Planning shall include the alerting and managing of all staff and employees in a disaster, as well as consideration of all of the following:

- (1) Housing
- (2) Transportation of staff and staff family
- (3) Critical incident stress management
- (4) Provisions for temporary credentialing of clinical staff.

Substantiation: Align with other national standards and expectations for healthcare emergency preparedness.

This is not original material; its reference/source is as follows:

I am proposing this revision on behalf of the ASHE Emergency Preparedness Workgroup chaired by Mike Rawson.

Committee Meeting Action: Accept in Principle

Committee Statement: See Committee Proposal 99-442 (Log #CP607), section 12.5.3.3.6.2.(5).

99-453 Log #332 HEA-HES
(12.3.3.4)

Final Action: Accept in Principle

Submitter: Dale Woodin, American Society for Healthcare Engineering

Recommendation: Add text to read as follows:

12.3.3.4* Patient Management. Planning shall include provisions for management of patients, particularly with respect to clinical and administrative issues. The plans should focus also on modification or discontinuation of nonessential patient services, control of patient information, and admission/discharge and transfer of patients. Emergency transfer plans need to consider the proper handling of patient personal property and medical records that will accompany the patient as well as assurance of continuity of quality care. Evaluation of space, patient transport resources, and a process to ensure patient location information should be included.

Substantiation: Move appendix material into body of the standard to align with other national standards and expectations for healthcare emergency preparedness.

This is not original material; its reference/source is as follows:

I am proposing this revision on behalf of the ASHE Emergency Preparedness Workgroup chaired by Mike Rawson.

Committee Meeting Action: Accept in Principle

Committee Statement: See Committee Proposal 99-442 (Log #CP607), Section 12.5.3.3.6.4

99-454 Log #333 HEA-HES
(12.3.3.5)

Final Action: Reject

Submitter: Dale Woodin, American Society for Healthcare Engineering

Recommendation: Revise text to read as follows:

12.3.3.5* Logistics. Planning for disasters shall include as a minimum stockpiling or ensuring immediate or at least uninterrupted access to critical materials such as the following in coordination with the facility Hazard Vulnerability Analysis.

When designated by the emergency operations plan to provide continuous service in a disaster or emergency, health care facilities shall be able to be self sustained for 72 hours or have a working contingency plan to provide essential supplies to the critical listed items for the same 72 hour period.

- (1) Pharmaceuticals
- (2) Medical supplies
- (3) Food supplies
- (4) Linen Supplies
- (5) Industrial and potable (drinking) waters

A.12.3.3.5 It will be essential to assess these kinds of resources currently available within the health care facility itself, and within the local community as a whole. Community sources identification can be effectively performed by the local disaster council, through the cooperation of local hospitals individually or collectively through local hospital associations, nursing homes, clinics, and other outpatient facilities, retail pharmacies, wholesale drug suppliers, ambulance services, and local medical-surgical suppliers and their warehouses.

It is recommended that where possible a minimum of 96 hours supply be available on-site.

Knowing the location and amount of in-house and locally available medical and other supply sources, a given health care facility could then desire to stockpile such additional critical material and supplies as could be needed to effectively cope with the disaster situation. Stockpiling of emergency supplies in carts should be considered as they facilitate stock rotation of outdated supplies, provide a locally secured environment, and are easily relocated to alternate site locations both within and outside the facility.

See Annex G for information about mutual aid and the Emergency Management Assistance Compact.

Substantiation: Align with other national standards and expectations for healthcare emergency preparedness.

This is not original material; its reference/source is as follows:

I am proposing this revision on behalf of the ASHE Emergency Preparedness Workgroup chaired by Mike Rawson.

Committee Meeting Action: Reject

Committee Statement: Mandating 72 hours may not be practical for every health care facility. Facilities can perform a gap analysis to increase their resource capability if they need to.

99-455 Log #334 HEA-HES
(12.3.3.6)

Final Action: Accept in Principle

Submitter: Dale Woodin, American Society for Healthcare Engineering

Recommendation: Revise text to read as follows:

12.3.3.6* Security. Security plans shall be developed to meet the needs of the facility. Prior to a disaster, facilities should formally coordinate their security needs with local law enforcement agencies.

The health care institution will find it necessary to share its emergency operations plans with local law enforcement agencies, or better still involve them in the process of planning for security support during disasters. The information should at least include availability of parking for staff, patients, and visitors, and normal vehicular, emergency vehicular, and pedestrian traffic flow patterns in and around the facility. The extent of the security and traffic control problems for any given health care facility will depend upon its geographical location, physical arrangement, availability of visitor parking areas, number of entrances, and so forth.

Crowd Control. Visitors can be expected to increase in number with the severity of the disaster. They should not be allowed to disrupt the disaster functioning of the facility. Ideally, a visitor's reception center should be established away from the main facility itself, particularly in major disasters. Volunteer personnel such as Red Cross, Explorer Scouts, or other helpers can be utilized as liaisons between the visitors and the health care facility itself.

Vehicular Traffic Control. Arrangement for vehicular traffic control into and on the facility premises should be made in the disaster planning period. It will be necessary to direct ambulances and other emergency vehicles carrying casualties to triage areas or the emergency room entrance, and to direct incoming and outgoing vehicles carrying people, supplies, and equipment. Charts showing traffic flow and indicating entrances to be used, evacuation routes to be followed, and so forth, should be prepared and included in the emergency operations plan. Parking arrangements should not be overlooked.

Internal Security and Traffic Control. Facility trained personnel, that is, regular health care facility security forces, best conduct internal security and traffic control with reinforcements as necessary. Potential additional assistance from the local law enforcement agencies should be coordinated in the disaster planning phase. Upon activation of the emergency operations plan, security guards should be stationed at all unlocked entrances and exits to the extent possible. Entrance to the facility should be restricted to personnel bearing staff identification cards and to casualties. In the case of major access corridors between key areas of the facility, pedestrian traffic should be restricted to one side of the corridor, keeping one side of the corridor free for movement of casualties. Traffic flow charts for internal traffic should also be prepared in the planning phase, as is the case with external traffic control.

Other Considerations. The following should also be considered:

- (1) Notification protocols
- (2) Response criteria
- (3) Maintaining sensitive areas security
- (4) Safeguarding property/equipment
- (5) Backup communication
- (6) Maintaining critical security systems
- (7) Alternate site security
- (8) Security to/from evacuated/alternate sites
- (9) Security at evacuated facilities

Substantiation: Move the appendix material into the body of the code to align with other national standards and expectations for healthcare emergency preparedness.

This is not original material; its reference/source is as follows:

I am proposing this revision on behalf of the ASHE Emergency Preparedness Workgroup chaired by Mike Rawson.

Committee Meeting Action: Accept in Principle

Committee Statement: See Committee Proposal 99-442 (Log #CP607), Section 12.5.3.3.6.3.

99-456 Log #335 HEA-HES
(12.3.3.8)

Final Action: Accept in Principle

Submitter: Dale Woodin, American Society for Healthcare Engineering

Recommendation: Revise text to read as follows:

12.3.3.8* Operational Recovery. Plans shall reflect measures needed to restore operational capability to pre-disaster levels. Fiscal aspects shall be considered because of restoration costs and possible cash flow losses associated with the disruption. Preplanning shall address actions that can take place before or during the disaster that will limit or prevent damage.

A.12.3.3.8 Recovery measures could involve a simple repositioning of staff, equipment, supplies, and information services; or recovery could demand extensive cleanup and repair. It can, under certain circumstances, identify opportunities for structural and nonstructural mitigation efforts. Filing of loss claims might require special approaches. Health care facilities should have access to cash or negotiable instruments to procure immediately needed supplies. Pre-planning shall address issues such as security of facilities, relocation of high value assets and a “stay team” of specially designated individuals who can, if circumstances permit, make ongoing efforts to maintain building components so that recovery can be expedited.

Substantiation: Expand concept of recovery to align with other national standards and expectations for healthcare emergency preparedness.

This is not original material; its reference/source is as follows:

I am proposing this revision on behalf of the ASHE Emergency Preparedness Workgroup chaired by Mike Rawson.

Committee Meeting Action: Accept in Principle

Committee Statement: See Committee Proposal 99-442 (Log #CP607), Section 12.5.3.5.

99-457 Log #336 HEA-HES
(12.3.3.9.1)

Final Action: Reject

Submitter: Dale Woodin, American Society for Healthcare Engineering

Recommendation: Revise text to read as follows:

12.3.3.9.1 Each health care facility shall implement an educational program. This program shall include an overview of the components of the emergency management program and concepts of the incident ~~command~~ management system. Education concerning the staff’s specific duties and responsibilities shall be conducted.

Substantiation: Align term with other national standards and expectations for healthcare emergency preparedness.

This is not original material; its reference/source is as follows:

I am proposing this revision on behalf of the ASHE Emergency Preparedness Workgroup chaired by Mike Rawson.

Committee Meeting Action: Reject

Committee Statement: The committee believes Incident Command System is used more frequently and is the accepted term.

99-458 Log #337 HEA-HES
(12.3.3.9.2)

Final Action: Reject

Submitter: Dale Woodin, American Society for Healthcare Engineering

Recommendation: Revise text to read as follows:

12.3.3.9.2 General overview education of the emergency management program and the incident ~~command~~ management system shall be conducted at the time of hire and Department/staff specific education shall be conducted upon reporting to their assignments or position and annually thereafter.

Substantiation: Align term with other national standards and expectations for healthcare emergency preparedness.

This is not original material; its reference/source is as follows:

I am proposing this revision on behalf of the ASHE Emergency Preparedness Workgroup chaired by Mike Rawson.

Committee Meeting Action: Reject

Committee Statement: The committee believes Incident Command System is used more frequently and is the accepted term.

99-459 Log #CP608 HEA-HES
(Chapter 13 (New))

Final Action: Accept

Submitter: Technical Committee on Health Care Emergency Management and Security,

Recommendation: Add new Chapter 13, Security Management as follows:

Chapter 13 Security Management

13.1* Scope.

This chapter shall provide those with the responsibility for security in new and existing health care facilities with the criteria to develop a security management program.

13.1.1* A health care facility shall have a security management plan.

13.1.2* The scope, objectives, performance, and effectiveness of the security plan shall be tested on a frequency shown to be necessary by review of the security vulnerability assessment (SVA) in accordance with Section 13.2.]

13.2 Security Vulnerability Assessment (SVA).

13.2.1* The health care facility shall conduct an SVA.

13.2.2 The SVA shall evaluate the potential security risks posed by the physical and operational environment of the health care facility to all individuals in the facility.

13.2.3 The facility shall implement procedures and controls in accordance with the risks identified by the SVA.

13.3 Responsible Person.

13.3.1 A person(s) shall be appointed by the leadership of the health care facility to be responsible for all security management activities.

13.3.2 The duties of the person assigned in Section 13.3 shall include, but not be limited to, the following, as identified in the SVA:

- (1) Provide identification for patients, staff, and other people entering the facility
- (2) Control access in and out of security-sensitive areas
- (3) Define and implement procedures as follows:
 - (a) Security incident
 - (b) Hostage situation
 - (c)* Bomb (explosive device or threat)
 - (d) Criminal threat
 - (e) Labor action
 - (f) Disorderly conduct
 - (g) Workplace violence
 - (h) Restraining order
 - (i) To prevent and respond to infant or pediatric abduction
 - (j) Situations involving VIPs or the media
 - (k) Ensuring access to emergency areas
 - (l) Civil disturbance
 - (m) Forensic patients
 - (n) Patient elopement
 - (o) Homeland Security advisory system (threat level changes)
 - (p) Suspicious powder or substance
 - (q) Use of force policy
 - (r) Security staffing augmentation
- (4) Security at alternate care sites or vacated facilities
- (5) Vehicular traffic control on the facility property
- (6) Protecting the facility assets, including property and equipment
- (7) Policy for interaction with law enforcement agencies
- (8) Compliance with applicable laws, regulations, and standards regarding security management operations
- (9) Education and training of the facility security force to address the following:
 - (a) Customer service
 - (b) Use of physical restraints
 - (c) Use of force
 - (d) Response criteria
 - (e) Fire watch procedures
 - (f) Lockdown procedures

- (g) Emergency notification procedures
- (h) Emergency communications procedures

13.4 Security Sensitive Areas.

13.4.1 All security sensitive areas as identified by the SVA shall be protected as appropriate.

13.4.2 Emergency department security shall include appropriate protection including the following:

- (1)* Control and limit access by the general public
- (2) Private duress alarm at the nurse's station and reception for summoning immediate assistance
- (3) Access-controlled treatment area
- (4) Lockdown procedure to secure the area when conditions threaten the viability of the department
- (5) Bullet-resisting glazing material as deemed necessary by review of the SVA

13.4.3 Pediatric and infant care areas shall have a security plan for the prevention of and response to pediatric and infant abduction that shall include appropriate protections such as the following:

- (1) Control and limit access by the general public
- (2) Screening by nursing prior to allowing persons access to infant care areas
- (3) Matching protocol with staff clearance to pair infants with parents
- (4) System to monitor and track the location of pediatric and infant patients
- (5)* Facility alert system, lockdown, and staff inspection of all packages leaving the premises
- (6) Using electronic monitoring, track and access control equipment
- (7) Using an automated and standardized facility-wide alerting system to announce pediatric or infant abduction
- (8) Remote exit locking or alarming
- (9) Facility lockdown procedures and staff inspection of all persons and packages leaving the premises
- (10) Prohibition on birth announcements by staff
- (11) Detection of the presence of a nonidentified individual constitutes a security breach
- (12) Movement of infants restricted to bassinets only, no hand carries
- (13) Health care staff wear unique identification or uniforms
- (14) Secure storage of scrubs and uniforms, both clean and dirty
- (15) Education about pediatric and infant abduction as follows:
 - (a) Health care staff are familiar with infant abduction scenarios.
 - (b) Parents know not to leave a child or infant unattended or in the care of an unidentified person.
- (16) Visiting family and friends not permitted to enter any nursery area with an infant or newborn from the outside
- (17) Infant abduction drills conducted periodically to test effectiveness of chosen measures

13.4.4* Medication storage and work areas shall be secured against admittance of unauthorized personnel through the use of the following:

- (1) Physical access control
- (2) Unique identification for the area
- (3) Secure storage and controlled dispensing of drugs

13.4.5 Clinical and research laboratories shall be secured against admittance of unauthorized personnel through appropriate protections such as the following:

- (1) Physical access control
- (2) Unique identification for the area
- (3) Secure storage and controlled dispensing of regulated chemical, biological, and radiological materials

13.4.6* Dementia or behavioral health units shall be secured against the admittance or release of unauthorized personnel through appropriate protections such as the following:

- (1) Physical access control
- (2) Unique identification for the area
- (3) Procedure to prevent entry of contraband prior to a person being admitted into the unit or department
- (4) Elopement precautions
- (5) Maintain color photos with the medical information of current patients to aid in identification

13.4.7 Forensic patient treatment area shall provide appropriate protections such as the following:

- (1)* Law enforcement attending the patient at all times
- (2) Treatment performed in an area separate from other patients
- (3) Restraints applied or removed only under forensic staff control

13.4.8 Communications, data infrastructure, and medical records storage areas shall be secured against the admittance of unauthorized personnel or unauthorized release of confidential information through the use of appropriate protections such as the following:

- (1) Physical access control
- (2) Unique ID for the area

- (3) Surveillance equipment
- (4) Data encryption and password protection
- 13.5 Access and Egress Security Measures.
 - 13.5.1 Public visitation controls shall be enforced.
 - 13.5.2 After-hours entrance by the public shall be restricted to designated areas such as entrance lobbies and emergency departments.
 - 13.5.3 Health care facility security controls and procedures shall comply with life safety requirements for egress.
 - 13.5.3.1* Security plans for healthcare occupancies shall address access and egress control during periods of quarantine and other events in conjunction with emergency agencies.
 - 13.6* Media Control.
 - 13.6.1 The security management plan shall include procedures to accommodate media representatives.
 - 13.6.1.1* A person shall be designated to serve as media contact and representative for the organization in regard to media interactions.
 - 13.6.2* An area shall be designated for assembly of media representatives.
 - 13.6.3 A security or facility staff member shall remain with the media representative(s) at all times.
 - 13.6.4 Media shall be escorted when granted access to the health care facility outside of the area designated in 13.6.1.1.
 - 13.7* Crowd Control.
 - 13.7.1 The security management plan shall provide procedures for crowd control demanding access to a health care facility.
 - 13.7.2 The procedures for managing crowd control shall provide for coordination and collaboration of security and law enforcement.
 - 13.8 Security Equipment.
 - 13.8.1 The security management plan shall provide procedures for crowd control demanding access to a health care facility.
 - 13.8.2 The security management plan shall include processes and procedures for controlling access to the health care facility.
 - 13.8.2.1 Exterior entrances shall be provided with locking devices.
 - 13.8.2.2 Locking devices shall comply with applicable federal, state, and local requirements.
 - 13.8.2.3 Locking devices shall be properly installed and be in good working order.
 - 13.8.3* The facility shall operate a key control program.
 - 13.9* Employment Practices.
 - 13.9.1 Employers shall ensure a high level of integrity in the workplace by using the following practices:
 - (1) Background checks of employees with access to critical assets
 - (2) Background checks of outside contractors' employees
 - (3) Drug testing program for employees
 - 13.10* Security Operations.
 - 13.10.1* Post orders shall be written for security personnel.
 - 13.10.2 Security personnel training shall include but not be limited to the following:
 - (1) Customer service
 - (2) Emergency procedures
 - (3) Patrol methods
 - (4) De-escalation training
 - (5) Use of physical restraints
 - (6) Use of force
 - 13.11 Program Evaluation.
 - 13.11.1* Periodic drills shall be conducted at various times and locations.
 - 13.11.2 The drills shall be critiqued for plan effectiveness and to identify opportunities for improvement.
 - 13.11.3 Identified opportunities for improvement shall be incorporated into the security plan.
 - 13.11.4 The SVA and security plan shall be evaluated at least annually.
 - 13.11.5 The evaluation of the security management plan shall include a review of laws, regulations, and standards applicable to the security program.

A.13.1 This chapter is the source for security management in health care facilities and is based on the foundations of NFPA 730, Guide for Premises Security.

A.13.1.1 A health care facility security plan can be formulated from security sensitive areas that need the highest level of protection outward to the perimeter of the health care facility campus in concentric rings. Viewed from the outside,

security is thus open and welcoming to patients and visitors. As an individual proceeds into the interior, public spaces may have minimal surveillance, but those sensitive areas that cannot be entered are layered with protections and countermeasures.

A.13.1.2 The security plan should be reviewed annually or more frequently if new challenges present themselves.

A.13.2.1 For general information regarding the SVA, and premises security, see NFPA 730, Guide for Premises Security.

A.13.3.2(3)(c) The emergency potential inherent in the telephoned bomb threat warrants inclusion of this contingency in the health care emergency operations plan. Experience has shown that facility personnel have to accompany police or military bomb demolition personnel in searching for the suspected bomb, because speed is of the essence and only individuals familiar with a given area can rapidly spot unfamiliar or suspicious objects or condition in the area. This is particularly true in health care facilities. The facility switchboard operator has to be provided with a checklist to be kept available at all times, in order to obtain as much information as possible from the caller concerning the location of the supposed bomb, time of detonation, and other essential data, which have to be considered in deciding whether or not to evacuate all or part of the facility.

A.13.4.2(1) A visible presence is normally accomplished by the placement of a security officer at the ambulance entrance. This serves a dual purpose for monitoring the cameras throughout the emergency department as well as the activity at the ambulance entrance.

A.13.4.3(5) The facilitywide alerting system should be activated for all reports of pediatric or infant abduction. The use of a standardized “code alert” system can facilitate the announcement; for example “code pink” for an infant abduction or “code purple” for a pediatric abduction.

A.13.4.4 Video surveillance and motion detection can be used as additional protection for these areas. Some controlled drugs may need to be stored in safes.

A.13.4.6 Examples of contraband check procedure can be to control items such as tobacco, drugs, or tools that could cause harm to the patient or staff.

A.13.4.7(1) Law enforcement personnel should have orientation on the emergency procedures and layout of the facility. There should be good communication between law enforcement and health facility security staff.

A.13.5.3.1 There can be times where full or partial facility access or egress is not desirable. Planning for these events should be conducted in coordination with local emergency agencies, such as police, fire, and public health agencies.

A.13.6 Patients that generate media interest should have special security procedures. VIP or media representatives bring a unique set of security requirements. Protection of VIPs is normally accomplished by restricting the use of names on charts and rooms and by assigning a dedicated security watch.

Admission of a high-profile person to a health care facility creates two sets of problems that might require partial activation of the health care emergency management plan. These problems are security and reception of news media.

Provision of security forces in this situation might be provided by a governmental agency or private security forces. However, activation of facility security forces might be required to prevent hordes of curious onlookers from entering facility work areas and interfering with routine facility functioning. Routine visiting privileges and routine visiting hours might need to be suspended in parts of the facility.

A.13.6.1.1 The marketing department of the hospital may be best suited to assist security personnel with media control.

A.13.6.2 Ideally, news media personnel should be provided with a media briefing area, and/or a media staging with access to telephone communication and, if possible an expeditor who, though not permitted to act as a spokesperson for news releases, could provide other assistance to these individuals. News media personnel should not be allowed into the health care facility without proper identification. Media representatives should be requested to wear some means of identification for security purposes. Members of the news media should be asked to wear some means of identification, such as the press card, on their outside garments so that they are readily identifiable by security guards controlling access to the facility or certain areas therein.

A.13.7 Crowd control of persons demanding access to care will create additional demands on security. Because of the intense public interest in disaster casualties, news media representatives should be given as much consideration as the situation will permit. To alert off duty health care staff and for reassuring the public, use of broadcast media should be planned.

Where feasible, photo identifications or other means to assure positive identification should be used. Visitor and crowd control create the problem of distinguishing staff from visitors. Such identification should be issued to all facility personnel, including volunteer personnel who might be utilized in disaster functions. Note that care should be taken to assure that identification cards are recalled whenever personnel terminate association with the health care facility. Clergy also will frequently accompany casualties or arrive later for visitations and require some means of identification.

A.13.8.3 Facility keys should not be identified in any manner such that a person finding a lost key could trace it back to the facility. A policy should be established to restrict duplication of keys without written permission. All keys should be

marked "DO NOT DUPLICATE" to deter the unauthorized copying of keys.

There should be a log of keys issued to employees and vendors maintained at the facility. A responsible individual should be in charge of issuing keys and for maintaining complete, up-to-date records of the disposition of keys, including copies. The records should show issuance and return of keys, including the name of person, as well as date and time. Records of key issuance should be secured and kept separate from keys.

Keys should be restricted to those who need them and extra copies of keys should be kept locked in a secure cabinet with access control.

Procedures should be established for collecting keys from terminated employees, employees on vacation, and vacated tenants. Lost keys should be reported immediately and procedures established for the re-keying or replacement of the affected locks.

A master key system should be designed so that the grandmaster key is the only key that will open every restricted area of the facility. A master key system is used to limit the number of keys carried by personnel requiring access to multiple areas of the building. It is important that such a system not be designed so that the loss of a single key could provide an unauthorized individual unrestricted access to all areas of the building. The sophistication of the master key system should depend upon an assessment of employees' or tenants' needs and the criticality, risk, and sensitivity of restricted areas.

The number of grandmaster keys should be limited to the least number necessary for operation of the health care facility. Master key distribution should be limited to the personnel requiring access to multiple restricted areas. A log should be maintained showing who is in possession of master keys.

A.13.9 Background checks should include criminal records checks, employment histories, and references. This function is typically managed by the human resources department.

A.13.10 The number of guards needed at any given time will depend on the size of the facility, the hours of operation, and current risk factors. Many states have laws that require background checks and specific training for security personnel, especially armed personnel. It is essential that facilities using security personnel train them in the legal and practical applications of their employment. Training must reflect changes in regulations and the enactment of new laws.

A.13.10.1 Post orders should contain a list of the duties of the security officer and instructions to cover all foreseeable events the security officer can encounter. Post orders should list the name of the facility, the date issued, effective date, and purpose. Duties of security personnel should be listed including job classification, uniforms, carrying firearms, reporting times, watch tours, hours of coverage, and other duties to be assigned. Instructions should be lawful and protect the safety of the security officer and those they meet. Reviews of post orders should be conducted regularly with facility management and security officers. Post orders should be updated regularly and at least annually. A procedure should be established to inform security officers of changes in post orders.

A.13.11.1 The effectiveness of the security plan is tested by performing drills. Drills should be conducted on all work schedules. Drills on all of the shifts are necessary so that all personnel are familiar with the plan. Practicing the plan helps personnel react as needed during a security incident.

Substantiation: The scope of the TC on Health Care Emergency Management was changed to include security. This chapter was added to address security in health care facilities. The health care industry has some unique security issues and they are best addressed in this document.

Committee Meeting Action: Accept

99-512 Log #340 HEA-HES
(Annex A)

Final Action: Accept in Principle

Submitter: Dale Woodin, American Society for Healthcare Engineering
Recommendation: Revise text to read as follows:

Insert Table Here

Substantiation: Provide crosswalk between these two NFPA documents to aid the reader in determining which document sections align, repeat, or provide guidance not covered in the other document.

This is not original material; its reference/source is as follows:

I am proposing this revision on behalf of the ASHE Emergency Preparedness Workgroup chaired by Mike Rawson.

Committee Meeting Action: Accept in Principle

The numbering system will be updated to reflect the changes in the recent edition of NFPA 1600 and the proposed changes to Chapter 12 of NFPA 99. See Committee Action on Committee Proposal 99-442 (Log #CP607). See section A.12.1.1.

Committee Statement: The numbering system will be updated to reflect the new chapter layout.

99-520 Log #338 HEA-HES
(A.12.1)

Final Action: Accept in Principle

Submitter: Dale Woodin, American Society for Healthcare Engineering

Recommendation: Revise text to read as follows:

A.12.1 Such facilities include, but are not limited to, hospitals, clinics, convalescent or nursing homes, and first-aid stations (disaster receiving stations). A government authority could formally designate such facilities ~~Such facilities could be formally designated by a government authority~~ as disaster treatment centers. Such facilities would not normally include doctors' or dentists' offices, medical laboratories, or school nurseries, unless such facilities are used for treatment of disaster victims. National bioterrorism preparedness efforts call for the use of schools and other large public facilities to provide facilities for mass immunization.

Substantiation: Improve clarity of appendix guidance.

This is not original material; its reference/source is as follows:

I am proposing this revision on behalf of the ASHE Emergency Preparedness Workgroup chaired by Mike Rawson.

Committee Meeting Action: Accept in Principle

Committee Statement: This material will be added to Committee Proposal 99-442 (Log #CP607) section A.12.1.

99-532 Log #339 HEA-HES
(C.12.1)

Final Action: Accept in Principle

Submitter: Dale Woodin, American Society for Healthcare Engineering

Recommendation: Revise text to read as follows:

C.12.1 Emergency Management Program Development. ~~For those new to the emergency management field, and/or for those seeking to re-structure an existing program, a sample~~ The program development process is illustrated in Figure C.12.1 is an example of a tool that can be used to develop and Emergency Management Program, other tools or processes are acceptable as long as the tasks of identification planning, education, evaluation, and improvement are addressed.

Substantiation: Clearly identify that the figure is one example and that there are other national standards and expectations for healthcare emergency preparedness to be considered when developing a plan.

This is not original material; its reference/source is as follows:

I am proposing this revision on behalf of the ASHE Emergency Preparedness Workgroup chaired by Mike Rawson.

Committee Meeting Action: Accept in Principle

Committee Statement: See Committee Proposal 99-442 (Log #CP607) section B.12.1.

<u>Cross Walk NFPA 99 Chapter 12 and NFPA 160</u>	
<u>NFPA 1600</u>	<u>NFPA 99 CH 12</u>
<u>Ch 1 Administration</u>	<u>-----</u>
<u>1.1 Scope</u>	<u>-----</u>
<u>1.2 Purpose</u>	<u>12.1.2</u>
<u>1.3 Application</u>	<u>12.1.1</u>
<u>Ch 2 Reserved</u>	<u>-----</u>
<u>Ch 3 Definitions</u>	<u>-----</u>
<u>Ch 4 Program Management</u>	<u>-----</u>
<u>4.1 Program Administration</u>	<u>-----</u>
<u>4.2 Program Coordinator</u>	<u>12.2.3</u>
<u>4.3 Advisory Committee</u>	<u>12.2.4</u>
<u>4.4 Program Evaluator</u>	<u>-----</u>
<u>Ch 5 Program Elements</u>	
<u>5.1 General</u>	<u>12.2.4.2</u>
<u>5.2 Laws and Authority</u>	<u>-----</u>
<u>5.3 Hazard Identification, Risk Assessment, Impact</u>	<u>12.2.4.1</u>
<u>5.4 Hazard Mitigation</u>	<u>12.3.3.2</u>
<u>5.5 Resource Management</u>	<u>12.3.3.3</u>
<u>5.6 Mutual Aid</u>	<u>12.3.3.4</u>
<u>5.7 Planning</u>	<u>12.2.4.2</u>
<u>5.8 Direction, Control Coordination</u>	<u>-----</u>
<u>5.9 Communications and Warnings</u>	<u>-----</u>
<u>5.10 Operations and Procedures</u>	<u>12.3.3.3 & 12.3.3.8</u>
<u>5.11 Logistics and Facilities</u>	<u>12.3.3.5</u>
<u>5.12 Training</u>	<u>12.3.3.9</u>
<u>5.13 Exercise</u>	<u>12.3.3.10</u>
<u>5.14 Crisis Communications</u>	<u>12.3.3.7</u>
<u>5.15 Finance and Administration</u>	<u>-----</u>