

Making Renovated Health-Care Facilities Safe

NFPA 5000 spells out when a health-care rehabilitation project needs to be sprinklered.

TO LEARN MORE ABOUT NFPA 5000, *BUILDING CODE*™, GO TO WWW.NFPA.ORG.

"UP TO CODE" CAN ALSO BE READ ONLINE AT WWW.NFPA.ORG/NFPAJOURNAL.



NFPA 5000, *Building Code*™, requirements for health-care occupancies draw heavily on health-care provisions in NFPA 101®, *Life Safety Code*®, used nationally in new and existing health-care occupancies. The *Life Safety Code* is commonly used because it's mandated by the Centers for Medicare and Medicaid Services, formerly the Health Care Financing Administration, as well as the Joint Commission on Accreditation of Health Care Organizations and state fire codes.

In preparing the health-care occupancy chapter of NFPA 5000, the NFPA Technical Committee on Health Care Occupancies retained the defend-in-place concept that relies on fire control to ensure occupant safety. The *Life Safety Code* accomplishes this by using a comprehensive set of requirements, including the installation of automatic sprinklers in new buildings. In existing nonsprinklered buildings, any smoke compartment that's to be rehabilitated must be sprinklered unless the rehabilitation project is minor.

The *Building Code* addresses the contentious issue of what constitutes a major or minor change by linking the requirements of Chapter 19, the health-care occupancy chapter, and the new chapter on existing building rehabilitation, Chapter 15.

Rehabilitation and sprinklers

Rehabilitating a building can take the form of repair, renovation, modification, reconstruction, or change of use. For rehabilitation projects where the category of work is classified as reconstruction or as change of use, sprinkler protection is required throughout the smoke compartment undergoing the rehabilitation. For rehabilitation projects where the category of work is classified as modification and the modification involves more than 50 percent or 4,500 square feet (420 square meters) of the area of the smoke compartment, sprinkler protection is required

throughout the smoke compartment undergoing the rehabilitation. In other words, minor rehabilitation and major rehabilitation have been quantified as follows:

A minor rehabilitation is one that involves the categories of repair; renovation; or modification of not more than 50 percent or 4,500 square feet (420 square meters) of the smoke compartment—and isn't subject to the requirement for the installation of automatic sprinklers.

A major rehabilitation is one that involves the categories of modification of more than 50 percent or 4,500 square feet (420 square meters) of the smoke compartment; reconstruction; or change of use—and is subject to the requirement for the installation of automatic sprinklers.

The Technical Committee on Health Care Occupancies chose the 4,500-square-foot (420-square-meter) criterion to ensure that the renovation of the entire floor area of an unsprinklered space in which patients sleep, which the code limits to a maximum of 5,000 square feet (465 square meters), includes the installation of automatic sprinklers.

For additional details, see Chapters 19 and 15 of the *Building Code*, approved in May at the NFPA World Safety Conference and Exposition™. ♦



RON COTÉ, P.E.
is NFPA's principal fire safety engineer.

Inspection, Testing, and Maintenance for Fire Protection Systems at Medical Treatment Facilities: JCAHO versus Navy/DoD Compliance
Inspection, Testing, and Maintenance for Fire Protection Systems at Medical Treatment Facilities: JCAHO versus Navy/DoD Compliance

Question: Why has the Navy decided to perform inspection, testing, and maintenance (ITM) for several components of fire protection systems less frequently than the intervals specified by NFPA and JCAHO?

Answer: On 1 January 2001, DoD adopted a Unified Facilities Criteria (UFC) document, UFC Number 3-600-02, titled "Maintenance and Operation: Inspection, Testing and Maintenance for Fire Protection Systems, applicable to all Navy, Air Force, and Army facilities. This document requires less frequent inspection, testing, and maintenance (ITM) for several components of fire protection systems. To review this document go to:

http://criteria.navfac.navy.mil/criteria/documents/unified_facilities_criteria.htm and then click on the applicable UFC Number (3-600-02). It states in section 1-1 (Background) "It is based on recognized reliability-centered maintenance concepts and reliability-centered risk management. It was prepared using model building maintenance codes, National Fire Codes, industrial standards, and other recognized standards to the maximum extent feasible. Personnel safety and continuity of mission were primary considerations." In section 1-2 (Purpose and Scope) it states "This UFC provides requirements for ITM of engineered fire protection features in Department of Defense (DoD) facilities. Do not deviate from these criteria without prior approval of the component office of responsibility: U.S. Navy, NAVFACENGCOCOM HQ-CHENG."

Question: Is BUMED pursuing a resolution to this issue?

Answer: Yes. BUMED has contacted the Naval Facilities Engineering Command (NAVFACENGCOCOM) to discuss the issue of UFC Number 3-600-02 conflicting with JCAHO and NFPA compliance for ITM of fire protection systems. The NAVFACENGCOCOM

Chief Fire Protection Engineer stated, "The NFPA documents state that their purpose is to provide requirements that ensure a reasonable degree of protection for life and property from fire through minimum inspection, testing, and maintenance... They also state that they are not intended to prevent the use of alternative test methods or testing devices. UFC 3-600-02 is based on a 99% overall system reliability, which I believe equates to or is better than NFPA's statement of reasonable degree of protection. As far as the hospitals go, it appears it would be in our best interest to have a meeting with BUMED (and possible the Army & Air Force Medical Commands) and a representative of JCAHO to ensure that they understand how UFC 3-600-02 was developed and that they concur with the UFC and will still provide accreditation for the medical facilities. If they disagree and want to follow NFPA requirements, then we can modify the UFC accordingly." The meeting to discuss this issue is currently in the coordination stage. The results of the meeting will be communicated to BUMED medical treatment facilities.

Question: What should I do in the interim, pending a resolution to this issue?

Answer: Discuss it with your facilities officer/manager and brief it to your CO.

Your command should contact the host Public Works Center (or other responsible entity) and the local fire department and/or "Authority Having Jurisdiction" for your facility(ies) to ensure they are aware of the conflict between UFC 3-600-02 and JCAHO Environment of Care (EC) Standard EC.2.10.2. Decide on what appropriate action to take based on the circumstances for ITM of fire protection systems at your activity, pending final resolution of the matter. Discuss the issue at your Safety Policy Council meeting (or equivalent) and document it in the minutes.

Question: What are some examples of less frequent requirements for ITM of fire protection systems components established by UFC 3-600-02 versus JCAHO EC.2.10.2?

Answer: Here are some of the ITM frequency requirement differences:

Initiating devices/supervisory signal devices (except valve tamper switches) tested: JCAHO EC.2.10.2a.1/quarterly, UFC 3-600-02/two years.

Initiating devices/valve tamper switches and water flow devices tested: JCAHO EC.2.10.2a.2/semiannually, UFC 3-600-02/annually.

Initiating devices/heat detectors, smoke detectors, and manual fire alarm boxes tested: JCAHO EC.2.10.2a.3/annually, UFC 3-600-02/two years.

Water-based automatic fire extinguishing system/fire pumps tested under no flow condition: JCAHO EC.2.10.2d.1/weekly, UFC 3-600-02/monthly.

Water-based automatic fire extinguishing system/fire pumps tested under flow: JCAHO EC.2.10.2d.2/annually, UFC 3-600-02/five years.

Water-based automatic fire extinguishing system/all fire department connections inspected: JCAHO EC.2.10.2d.6/quarterly, UFC 3-600-02/annually.

Healthcare Interpretations Task Force

During the National Fire Protection Association Fall Meeting the AFMLO Facilities Management team was afforded an exceptional opportunity to become part of the Healthcare Interpretations Task Force. This group is made up of representatives from American Health Care Association (AHCA), American Society for Healthcare Engineering (ASHE), International Fire Marshals Association (IFMA), Healthcare Financing Administration (HCFA), Joint Commission on Accreditation of Healthcare Organizations (JCAHO), National Fire Protection Association (NFPA), and Department of Veterans Affairs (DVA). The mission of the task force is "to provide consistent interpretations on national codes and standards referenced by Healthcare Financing Administration (HCFA) and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and state and territorial authorities having jurisdiction. This is accomplished through the evaluation of field conditions, surveyor/inspector/fire marshal interpretations, questions by consumers of these services generated through a member of the task force." Membership in this group affords us the opportunity to shape and influence the interpretation of the various codes and standards, in particular the *Life Safety Code*[®]. One of the tasks of the representatives is to let everyone in their respective organizations know the interpretations reached by the task force.

The following interpretations were discussed and voted on by the HITF during their meeting in November, 1999.

1. NFPA 101, 1985 and Subsequent Editions. Background Information: Many Authorities having Jurisdiction (AHJ's) require floor plans showing evacuation routes to be posted on each floor of a healthcare facility. The AHJ's often cite Sections 31-4.1.1 and 31-4.2.2 of the 1985 edition of NFPA 101 and similar sections in other editions of the *Life Safety Code*[®]. For example, HCFA's Fire Safety Report for the 1985 Code in K48 states "A simple floor plan showing the evacuation routes is posted in prominent locations on all floors. 31-4.1.1, 31-4.2.2"; however, the referenced Code section does not specifically require these evacuation plans.

Question: Does the Life Safety Code require that floor plans showing evacuation routes be posted on all or any floors of a healthcare facility?

Answer: NO

2. NFPA 101, 1997 Edition; Sections 7-6.1.8 and 7-7.6 Background Information: None

Question 1 : Is it the intent that the referenced code sections require a fire watch in unoccupied areas of a healthcare occupancy under construction for the duration of the shutdown?

Answer 1: YES

Question 2 : If the answer to question 1 is yes, is the fire watch requirement applicable 24 hours a day for the duration of the shutdown?

Answer 2: YES

3. NFPA 10, 1998 Edition; Section 1-6.2 Background Information: Some AHJ's (inspectors) require signs marking the location of portable fire extinguishers to be mounted perpendicular to the wall in which the extinguisher cabinet is mounted. They also require this same type of signage when extinguishers are surface mounted on a wall. The referenced code section requires only that "extinguishers mounted in cabinets or wall recesses...be marked conspicuously."

Question 1 : Is it the intent of NFPA10 to require signs marking the location of wall mounted portable fire extinguishers when not in cabinets or recesses?

Answer 1: NO

Question 2 : Where signs are installed to meet the marking requirements of the referenced code, must they be mounted perpendicular to the wall in which the extinguisher cabinet is mounted?

Answer 2: NO

Question 3 : If the answer to question 2 is no, does a conspicuous sign, including those mounted parallel to the wall, meet the intent of this section?

Answer 3: YES. NFPA 10, Section D-2-2.2 provides guidance to support this position.

4. NFPA 101, 1997 Edition; Section 13-5.4.1; NFPA 82, 1994 Edition; Section 3-2.2.4. Background: One state agency has been mandating the four foot extension on linen chutes that is required in NFPA 82, Section 3-2.2.4, be provided for existing chutes. NFPA 101, Section 13-5.4.1 requires compliance with NFPA 82 for any new chutes that may be installed in existing healthcare facilities.

Question: Is it the intent of NFPA 101, Section 13-5.4.1 to require existing chutes, that are not otherwise being altered or replaced, to comply with the four foot extension rule that is contained in NFPA 82, Section 3-2.2.4?

Answer: NO. The language of NFPA 101 is very clear that it only requires compliance with NFPA 82 (via the reference to NFPA 101, Section 7-5) for new chutes. In addition, NFPA 82, Sections 1-3.1 and 1-3.2 apply the standard to new construction and allows existing chutes to remain without be altered. NFPA 101, Sections 1-3.4, 1-3.8 and 7-5.2, exception, support this conclusion as does the general statement (specifically the last sentence) contained in NFPA 101, Section 33-1. This last statement describes the intended use of the referenced documents contained in NFPA 101.

If during the course of work you find you have a question on the *Life Safety Code*[®], you can forward the question to the Facilities Management Support Team and we will submit it to the task force for an interpretation. Please format your question similar to what you see above with some background information, citing the section where the question is based on, what edition of the *Life Safety Code*[®] you are referencing, and then state your question. Your question is then forwarded to the chairman for inclusion on the agenda and for discussion at the next meeting. This task force meets at least twice a year during the NFPA meeting.

In the very near future we will be discussing the Healthcare Interpretations Task Force with the Army and the Navy. The purpose of this discussion will be to set-up a schedule so all the services will have the opportunity to get involved either as the primary or alternate Department of Defense representative to the task force.

JCAHO Random Unannounced Survey Policy

The Joint Commission has announced some significant changes to the random unannounced survey process. These changes take effect 1 January 2000. The changes include organizations will no longer receive advance notice of the unannounced surveys. The window your organization can be in for an unannounced survey has also changed. The new window is now 9 months to 30 months following your triennial survey, as opposed to the old window which was the mid-point following your triennial survey. Also, the random unannounced surveys will no longer be based on preannounced standards. The random surveys will now be looking at the standards from any recommendations your organization received, known sentinel events, and "other relevant information regarding the organization's performance." For further information visit the Joint Commission's website at www.jcaho.org.

(Reference: <http://www.jcaho.org/news/nb208.html>)

(AFMLO-FOM-F, Major Dick Hart, DSN 343-4081)

