You don’t need fire watches for planned disruptions

The Joint Commission’s amended fire watch policy is bound to make your accreditation compliance a bit easier, even though it remains to be seen how other regulators will view the changes.

The June Joint Commission Perspectives explains how The Joint Commission (formerly JCAHO) expects hospitals to institute fire watches, and in doing so, differentiates between scheduled system outages (e.g., servicing a system) and unscheduled disruptions (e.g., a component failure).

Ultimately, you must determine how to best manage any situation in which your sprinkler or fire alarm system is potentially compromised, George Mills, FASHE, CHFM, CEM, senior engineer at The Joint Commission, said during a Joint Commission Resources audio conference in June.

Reaction to the change has been mixed. “The fire watch issue has been causing quite a stir around here,” said William Wilson, CFPS, PEM, fire safety coordinator at Beaumont Hospitals in Royal Oak, MI.

Some observers at Beaumont see the move as a way to save money, whereas those more concerned with code compliance worry that The Joint Commission’s view doesn’t gel with the Life Safety Code’s® (LSC) provisions, Wilson said.

Setting a four-hour threshold

It may be helpful to first examine what the 2000 edition of the LSC requires with fire watches:

- Paragraph 9.6.1.8 requires facilities to alert authorities and either institute a fire watch or evacuate the building when a fire alarm system is out of service for more than four hours in a 24-hour span.
- Paragraph 9.7.6.1 sets similar provisions when a sprinkler system is out of service for more than four hours in a 24-hour period.

Annex notes A.9.6.1.8 and A.9.7.6.1 describe fire watches as actions beyond normal staffing. People who conduct fire watches should receive fire prevention and extinguisher training and know how to activate the fire alarm for the building. Remember, annex notes are explanatory only and not formal parts of the LSC.

Life safety standard mirrors LSC

Meanwhile, Joint Commission standard LS.01.02.01, element of performance (EP) 1, requires fire watches under circumstances similar to those noted by the LSC.
Fire watches < continued from p. 1

Note how interim life safety measures (ILSM) comprise the subsequent EPs under LS.01.02.01, Mills said.

This hierarchy ties ILSMs into fire watches, and—perhaps most importantly—safety officers and facility directors should consider ILSMs when they determine a fire watch isn’t necessary, Mills said.

Explaining planned vs. unplanned

LS.01.02.01’s wording seems clear cut—as does the LSC’s—in saying fire watches must cover sprinkler and fire alarm outages.

However, the true need for a fire watch “comes down to whether an event or activity is scheduled or unscheduled,” according to Perspectives.

The following are examples of when a fire watch is necessary, as explained by Perspectives and Mills:

➤ Staff members covering up an alarm device in a cooking area for more than four hours

➤ A sudden disruption in a fire alarm or sprinkler system for two hours in the morning, followed by another disruption of the same system for two hours in the afternoon

➤ A contractor knocking a sprinkler head off a pipe, causing water to pour out of the pipe for more than four hours

➤ An unplanned shutdown of a sprinkler system zone valve for more than four hours

Sample fire watch procedures from a state fire marshal

Individuals responsible for conducting fire watches must observe the following provisions:

➤ They shall be provided with at least one approved means for notification of the local fire department

➤ Their only duty is to perform constant patrols of the affected areas of the facility and to keep watch for fires

➤ When a sprinkler system is the only inoperable fire protection system, individuals assigned to fire watch duties shall complete a total walk-through of all affected areas at least once every 15 minutes

➤ When a fire alarm system is inoperable, individuals assigned to fire watch duties shall complete a total walk-through of all affected areas at least once every 30 minutes

➤ Fire watch rounds shall be documented in the facility records that are kept on the premises and available to the fire marshal upon request

➤ An unplanned disruption of an entire smoke zone’s fire alarm coverage for more than four hours

(See “Joint Commission points to task force’s opinion on fire watch involvement” below for information about who can conduct a fire watch.)

Meanwhile, according to Perspectives and Mills, the following are situations when a fire watch is not necessary:
➤ Covering up one smoke detector to prevent false alarms for more than four hours
➤ A construction project disrupting a sprinkler or alarm system for more than four hours
➤ Covering up all smoke detectors in an area during planned daily contractor work, but uncovering the detectors each day after the work shift is over (provided ILSMs have been at least assessed and contractors are constantly supervising the area)
➤ A scheduled two-hour disruption of a system in the morning followed by a scheduled three-hour disruption of the same system in the afternoon (these outages don’t trip the four-hour threshold in the LSC because they count as separate occurrences, Mills said)

Regarding the first bullet, “If you take one smoke detector out of an area … you haven’t compromised the system,” Mills said. “You may have compromised a single device,” but that isn’t enough to justify a fire watch.

Finally, there are gray areas in The Joint Commission’s fire watch policy:
➤ An upgrade to a sprinkler or alarm system that disrupts the system for more than four hours should at least prompt consideration of a fire watch, although the watch may not be necessary if ILSMs are in place, Mills said.
➤ Work that compromises three sprinkler heads in an area for one week should also lead to consideration

Joint Commission points to task force’s opinion on fire watch involvement

Those of you looking for guidance about who should conduct fire watches should check out an industry group’s posting on the topic, George Mills, FASHE, CHFM, CEM, senior engineer at The Joint Commission, said during a Joint Commission Resources audio conference in June. The Healthcare Interpretations Task Force published an opinion on fire watches in September 1998, which Mills helped write.

When asked whether “normal clinical staff” in an area affected by fire alarm or sprinkler impairment could perform fire watches, the task force wrote:
Yes. Clinical staff may fulfill this role provided, as determined by the authority having jurisdiction, there is an adequate staffing level to continuously patrol the affected area and that they have the means to make proper notification to other occupants in the event of a fire.

To read the opinion, go to www.nfpa.org and search for the term “HITF 9-98.”
The task force is made up of various authorities—including, among others, The Joint Commission, the Centers for Medicare & Medicaid Services, and the Department of Veterans Affairs—who regularly meet to provide consistent opinions about national codes and standards. Their decisions don’t amend NFPA codes and are not official NFPA interpretations.

The task force’s opinion and Joint Commission policy don’t mandate the frequency behind fire watches, Mills said. Instead, it is up to facilities to determine based on the type of work involved, when the work occurs, and combustion threats in the area.

At a minimum, Mills said fire watches should occur at least twice per shift.

One caveat: Annex notes A.9.6.1.8 and A.9.7.6 in the Life Safety Code® mention that fire watches must involve special actions beyond normal staffing, which appears to be at odds with the Healthcare Interpretation Task Force’s opinion.

State and local authorities, as well as insurance carriers, may take stricter views of fire watch provisions (see “Sample fire watch procedures from a state fire marshal” on p. 2 for an example).
Fire watches < continued from p. 3

of a fire watch. You should base the final decision on a risk assessment of whether others sprinklers can still adequately protect the area, Mills said.

How CMS might come into play

Be careful, especially in the early months following this Joint Commission policy revision, said Brad Keyes, CHSP, safety consultant at The Greeley Company, a division of HCPro, Inc., in Marblehead, MA.

There is interest in whether the Centers for Medicare & Medicaid Services (CMS) will follow The Joint Commission’s stance on fire watches.

At pretime in early July, CMS had not returned a request for comment. However, there is at least informal indication that the agency may go along with The Joint Commission’s approach. We’ll follow up on this aspect in a future issue.

“The ironic issue at hand is this [Joint Commission] interpretation deviates from NFPA, and CMS usually is tight with NFPA standards,” said Keyes, who is also contributing technical editor for Healthcare Life Safety Compliance. He questioned how this debate will play out in the bigger concern about The Joint Commission’s deemed status application.

In his presentation, Mills noted that if another authority has more conservative views about fire watches, you must observe the stricter policies.

Regardless of which approach you take, make sure your fire watch policies reflect what actually occurs on the floors when staff members or contractors observe a watch. Surveyors could otherwise cite you for not following your own policy.

Questions? Comments? Ideas?

Contact Senior Managing Editor
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Telephone 781/639-1872, Ext. 3119
E-mail swallask@hcpro.com

Join us for Life Safety Code Solutions for Hospitals in September

We here at Healthcare Life Safety Compliance are excited to announced a brand-new seminar that will focus on hospital compliance with the Life Safety Code® (LSC) and related Joint Commission requirements.


During this one-and-a-half day program, attendees learn about hard-hitting fire protection topics that stem from the 2000 edition of the LSC and other NFPA standards and how surveyors review these areas.

For full information and to register, go to www.greeley.com/seminars or call our customer service center at 800/650-6787.

Our expert speakers include Brad Keyes, CHSP, life safety consultant at The Greeley Company, a division of HCPro, Inc., in Marblehead, MA, and James Murphy, healthcare architect at MRF, Ltd., in Western Springs, IL. Full details of the agenda are available online, but here’s a quick look at our sessions:

➤ How and where to find life safety requirements for your hospital
➤ The big picture: Assessing overall life safety compliance at your facility
➤ Compliance tools to help you meet life safety challenges
➤ Best practices for when to implement interim life safety measures
➤ Getting care providers to comply with the LSC
➤ Equivalencies and other solutions to life safety problems
➤ Ongoing efforts through a life safety compliance program
➤ How to successfully clarify surveyor citations

We look forward to seeing you in Boston.
**Joint Commission compliance**

**July 1 life safety scoring changes you must know about**

As of July 1, The Joint Commission has amended the scoring of various elements of performance (EP) under the EC and life safety standards. The changes, which were published in the June *Joint Commission Perspectives*, center on the accreditor’s criticality scoring levels and scoring categories.

Several EPs within the EC and life safety standards have been upgraded from indirect to the more serious direct impact requirements under the criticality scoring model.

“Occasionally, we felt things were a greater risk, so we changed [them] to direct impact,” **George Mills, FASHE, CHFM, CEM**, senior engineer at The Joint Commission, said during a Joint Commission Resources audio conference in June.

Other changes affect the A and C designation for the standards. Remember, “A” EPs are for requirements in which a hospital either has a policy or plan or doesn’t have a policy or plan, whereas “C” EPs are for requirements whose compliance is judged by the number of times a hospital does or doesn’t meet a provision.

The chart below synopsizes the amended scoring, as outlined by *Perspectives* and Mills, with commentary from Mills and *Healthcare Life Safety Compliance*’s editors and advisors.

<table>
<thead>
<tr>
<th>Standards and EPs</th>
<th>Scoring changes</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS.01.01.01, EP 2: Maintaining a current <em>Statement of Conditions (SOC)</em></td>
<td>From indirect to direct impact</td>
<td>This change seems to reflect The Joint Commission’s emphasis on the importance of keeping an SOC up to date.</td>
</tr>
<tr>
<td>LS.02.01.20, EP 3: Maintaining ratings of walls forming horizontal exits</td>
<td>From C to A</td>
<td>This change reinforces the need to fully protect means of egress with adequate walls.</td>
</tr>
<tr>
<td>LS.02.01.20, EP 8: Exits discharging outside at grade level *</td>
<td>From indirect to direct impact and from C to A</td>
<td>Some Joint Commission surveyors and inspectors from the Centers for Medicare &amp; Medicaid Services have been displeased with uneven or ungraded outside paths to public ways.</td>
</tr>
<tr>
<td>LS.02.01.20, EP 15: Two or more exits from floors or compartments located remotely from each other</td>
<td>From C to A</td>
<td>There is little middle ground with this requirement, which brought into question the original C score.</td>
</tr>
<tr>
<td>LS.02.01.20, EP 30: “No exit” signs posted on doors or stairs that could be mistaken for exits *</td>
<td>From C to A</td>
<td>Even one occurrence of an absent “No exit” sign could threaten occupant safety during an alarm or fire.</td>
</tr>
<tr>
<td>LS.02.01.34, EP 3: Remote annunciator panel approved by local fire department *</td>
<td>From C to A</td>
<td>Only one remote panel is required, thus the need for an A score.</td>
</tr>
<tr>
<td>LS.02.01.35, EP 6: Maintaining 18 inches of clearance below sprinklers in storage rooms *</td>
<td>From direct to indirect impact</td>
<td>The problem of storage potentially disrupting sprinkler spray patterns is easily monitored and corrected.</td>
</tr>
<tr>
<td>LS.02.01.35, EP 7: Sprinkler systems protected isolated hazardous areas and connected to domestic water</td>
<td>From direct to indirect impact</td>
<td>By its very nature, the requirement is of limited use and may not have justified a direct impact level.</td>
</tr>
</tbody>
</table>

> continued on p. 6
### Joint Commission compliance (cont.)

<table>
<thead>
<tr>
<th>Standards and EPs</th>
<th>Scoring changes</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS.02.01.35, EP 9: Providing Class K extinguishers near grease-producing appliances</td>
<td>From C to A</td>
<td>Generally, only one K extinguisher is necessary to meet the requirement, thus the need for the A score</td>
</tr>
<tr>
<td>LS.02.01.35, EP 13: Controlling exhaust fans for grease-producing appliances</td>
<td>From C to A</td>
<td>This likely moved up to an A score because of the limited amount of cooking exhaust fans in use in a facility</td>
</tr>
<tr>
<td>LS.02.01.50, EP 4: Meeting various provisions for elevators *</td>
<td>From indirect to direct impact and from C to A</td>
<td>The importance of properly functioning Phase I and II features in elevators may have triggered this change</td>
</tr>
<tr>
<td>EC.02.03.01, EP 4: Maintaining unobstructed exit access in business occupancies</td>
<td>From C to A</td>
<td>Even one blocked exit in a business occupancy is a serious deficiency, particularly given The Joint Commission’s few standards regarding business occupancies</td>
</tr>
<tr>
<td>EC.02.03.05, EP 1: Testing supervisory devices</td>
<td>From C to A</td>
<td>The change in scoring reflects The Joint Commission’s view that supervisory devices are critical components</td>
</tr>
<tr>
<td>EC.02.03.05, EP 2: Testing valve tamper switches and water-flow devices</td>
<td>From C to A</td>
<td>The change in scoring reflects The Joint Commission’s view that valve tamper switches and water-flow devices are critical components</td>
</tr>
<tr>
<td>EC.02.03.05, EP 11: Testing fire pumps under flow</td>
<td>From indirect to direct impact</td>
<td>This is an extremely important test, the lack of which calls into question the fire pump’s reliability</td>
</tr>
<tr>
<td>EC.02.03.05, EP 13: Inspecting kitchen hood extinguishing systems</td>
<td>From direct to indirect impact</td>
<td>This score may have been downgraded because of a good track record at hospitals on kitchen protection</td>
</tr>
<tr>
<td>EC.02.03.05, EP 19: Testing smoke detection shutdown devices for air handling equipment</td>
<td>From A to C</td>
<td>This change may reflect a view that merely one smoke detection shutdown deficiency should not constitute a finding under the EP</td>
</tr>
<tr>
<td>EC.02.05.07, EP 4: Testing generators 12 times per year</td>
<td>From indirect to direct impact</td>
<td>This change isn’t a surprise given surveyors’ emphasis on generator reliability</td>
</tr>
<tr>
<td>EC.02.05.07, EP 10: Retesting emergency power systems after repairs</td>
<td>From C to A</td>
<td>This revision makes sense given that a retest after a repair is a one-time event</td>
</tr>
</tbody>
</table>

* Similar scoring changes were made to accompanying life safety standards for ambulatory healthcare facilities, which start with prefix LS.03.

**Sources:** Joint Commission Perspectives; George Mills, FASHE, CHFM, CEM, senior engineer, The Joint Commission; and *Healthcare Life Safety Compliance*’s advisors and editors.
Defibrillator sparking

Poor skin contact, oxygen atmospheres present risks

A sparking incident with a defibrillator, which burned a deceased patient’s body, serves as a good chance to re-view the safest way to use this equipment.

Similar to surgical fires, arcing mishaps with defibrilla-tors need the following three elements to occur:
➤ Heat (e.g., a spark)
➤ An oxidizer (e.g., oxygen, which promotes burning)
➤ Fuel (e.g., a plastic breathing circuit or linens)

An oxygen-enriched atmosphere, such as one created by a patient receiving supplemental oxygen, raises the risk for defibrillator fires, says Ward Hamilton, senior vice president and vice president of marketing at Zoll Medical Corp. in Chelmsford, MA. Zoll develops defibril-lators and other resuscitation devices.

New York hospital cleared of blame

On April 10, clinicians at Phelps Memorial Hospital Center in Sleepy Hollow, NY, attempted to resuscitate a patient with a defibrillator when something caused a pad to spark.

The spark briefly ignited, resulting in a small, first-degree burn to the patient, says Mary Sernatinger, a spokesperson for the hospital.

The patient did not survive, but the defibrillator mis-hap did not lead to the person’s death, Sernatinger says.

After investigating the incident, the New York state Department of Health determined the hospital was not at fault, she adds.

Occasional accidents warrant caution

Fortunately, reports of defibrillator mishaps are “not all that frequent, but there have been reports on occasion over the years,” Hamilton says.

For example, in 1998, a defibrillator fire occurred at the former Cook County Hospital in Chicago when a teen’s arm caught fire after a spark shot out near an oxy-gen tube. Also, in 2004, as paramedics in an ambulance in New London, CT, attempted to resuscitate a patient with a defibrillator, a spark jumped from the paddle and started a small fire on the patient’s clothing.

Oxygen-enriched atmospheres played a role in both of those fires.

(For a quick look at what The Joint Commission may ask about defibrillator safety, see “Surveyors may question you about defibrillator training” below.)

Surveyors may question you about defibrillator training

Joint Commission surveyors have been known to ask about defibrillator use and safety during visits to facilities.

For example, Georgia Regional Hospital at Savannah under-went a Joint Commission survey in September 2007. A surveyor showed interest in Georgia Regional’s equipment management plan, especially because the hospital had just installed new automated external defibrillators.

In particular, the surveyor wanted to see paperwork proving all of the hospital’s physicians received training on how to use the equipment. The facility provided documenta-tion that indicated the appropriate training had been provided to the physicians.

Also, defibrillators often tie into life safety in terms of wheeled items allowed in corridors. The Joint Commission allows crash carts, which typically contain defibrillators, to remain in corridors regardless of minimum width require-ments so they are always available to staff members in case of patient emergencies.
Defibrillator < continued from p. 7

It doesn’t take much searching through databases on the FDA’s Web site to find reports on defibrillators arcing, although sparking doesn’t always result in fires. Sometimes, the problems are maintenance-related, whereas other causes aren’t as clear (see “A sampling of defibrillator incidents reported to the FDA” below for more information).

Steps to stay safe

Hamilton offers the following three tips to improve fire safety with defibrillator use:

➤ Remove any oxygen sources from the patient’s chest and head area before using the defibrillator. Watch for nasal cannulae, breathing tubes, and anesthesia equipment.

➤ Ensure that the defibrillator’s pads or electrodes have proper skin contact. A gel goes on the pads or electrodes that acts as a conductor between the equipment and patient’s chest. If proper pressure isn’t applied to the skin, an arc can occur between the chest and the paddle, similar to a spark you’d see between an appliance plug and an electrical outlet if you haven’t fully inserted the plug.

➤ Remove flammable materials away from the patient as much as possible.

In a 2002 report, the FDA further noted that arcing can stem from the following:

➤ Excessive hair on a patient that inhibits good skin contact with the paddle

➤ Poor adherence of the electrodes

➤ Folds in the conductive surface of the pad

Some experts also warn against applying defibrillators to bony protuberances because they provide poor paddle-to-skin contact, which can promote arcing.

A sampling of defibrillator incidents reported to the FDA

The FDA’s Manufacturer and User Facility Device Experience database lists the following recent defibrillator mishaps involving arcing or fires. This particular database doesn’t provide the names of facilities where the incidents occurred.

Date: June 2, 2008.

Problem: Arcing occurred at paddles during defibrillation, burning the patient.

Potential cause: The paddle was torn, causing it to raise slightly and creating an arc because of poor skin contact.

Date: May 27, 2008.

Problem: Electrode arced during defibrillation. At least one electrode may have been placed on a surgical drape.

Potential cause: Lack of skin contact during defibrillation.

Date: March 20, 2008.

Problem: Following a popping noise, a small fire broke out on a defibrillator pad being used on a patient, burning the person. An oxygen mask was lying across the pad.

Potential cause: Oxygen-enriched atmosphere from the oxygen mask.

Date: December 10, 2007.

Problem: During defibrillation, a loud “boom” sound occurred on an electrode cable and the cable started to smell bad. Arcing occurred at the electrode.

Potential cause: None listed.

Date: November 15, 2004.

Problem: Electrode sparked during defibrillation, after which staff members applied pressure on the electrode with a towel and successfully shocked the patient.

Potential cause: Hair on the electrode decreased proper skin contact.

Date: January 28, 2004.

Problem: During defibrillation, an arc or spark came out of the equipment and lit the patient’s hair and clothing on fire.

Potential cause: None listed.
Editor’s note: This is the second in a series of articles about how to stay prepared for a Joint Commission life safety survey. It is authored by Brad Keyes, CHSP, safety consultant at The Greeley Company, a division of HCPro, Inc., in Marblehead, MA, and a former life safety specialist for The Joint Commission.

In the last issue, I discussed building tours conducted by Joint Commission life safety specialists. I have a few further highlights from the building tour to pass along.

Corridor clutter is always on the radar for surveyors. Gone is the old myth that you are allowed to leave unattended items in the corridor as long as they are pushed to one side of the hall and they are on wheels. Any unattended item left in the corridor longer than 30 minutes is a violation of the Life Safety Code® (LSC).

The exceptions to this rule are crash carts, as they are considered in use at all times, and isolation supply carts for patients who are actively on isolation precautions. Life safety specialists may actually make mental notes of the time at which they see items left unattended in the corridor, and they will circle back within 30 minutes to see whether the items are still there.

Corridor doors are easy items for a surveyor to inspect because there are so many of them. Doors that open onto an exit access corridor must be able to close and latch (for existing construction, they can be held closed by a device with a minimum of 5 pounds-force). Corridor doors cannot be wedged or propped open.

Tour doesn’t have to be floor by floor

The building tour may not encompass every floor and unit of your hospital. Surveyors may choose random units to inspect as representative of your facility.

They may stop and interview staff members along the way to determine how well trained they are in the hospital’s fire response plan. They may talk to nurses, housekeepers, physicians, students, maintenance technicians, and even contractors.

All staff members must be able to recite the hospital’s plan in case they discover a fire. The plan is typically the RACE acronym (rescue, alarm, confine, and extinguish/evacuate).

When the tour hits the lower floors, life safety specialists will want to inspect rooms that house the generator, fire pump, fire alarm panel, medical gas manifold, and materials storage.

They will look for proper clearances below sprinkler heads, unsealed penetrations in fire-rated walls, and proper ventilation in the manifold room, and they will inspect all doors for proper hardware operation.

Specialists will also visit the kitchen to examine the fire suppression system in the exhaust hoods, along with the food service dry goods storage room.

A hit list of frequent deficiencies

Additionally, life safety specialists commonly watch for the following problems:

➤ Obstructed electrical panels and medical gas shut-off valves
➤ Inappropriate construction types for the number of stories in the hospital
➤ Locked doors in the path of egress that do not comply with LSC provisions
➤ Poor enforcement of the facility’s no-smoking policy
➤ Smoke detectors mounted too close to air diffusers
➤ Areas open to a corridor that don’t have appropriate supervision or smoke detectors
➤ Unlabeled electric circuits in panels
➤ Damaged walls or missing ceiling tiles in clean or sterile areas
➤ Excessive travel distances to exits
➤ Suites that are too large
➤ Poor illumination and marking of means of egress
Questions & Answers

Editor’s note: Each month, Brad Keyes, CHSP, a safety consultant at The Greeley Company, a division of HCPro, Inc., in Marblehead, MA, answers your questions about life safety compliance. Our editorial advisory board also reviews the Q&A column.

Use of elevators during fire alarms

Our fire policy states that someone must be posted at the elevator during a fire alarm to make sure no one uses the elevator. I believe this is only necessary if the elevator is located in the smoke compartment that is identified as the origin of the fire. Even then, the smoke detector outside the elevator should keep the doors from opening on that floor. What’s your take on this?

All existing elevators having a travel distance of 25 ft. or more above or below the level that best serves the needs of the responding fire department must comply with section 9.4.3.2 in the 2000 Life Safety Code® (LSC).

This section in turn requires the elevator to comply with elevator recall as described in American National Standards Institute standard A17.3, Safety Code for Existing Elevators and Escalators.

I say all that to explain that your elevators should comply with recall, which will seize control of the elevator car and deliver it to a predesignated floor whenever the lobby smoke detector or machine room detector is activated on any floor for that elevator shaft.

When that recall occurs, the elevator car will not be available for use by your staff members until it is reset. If your elevators have this recall feature properly installed, I agree with your statement that the elevator shaft doors should not open on the floor where there is a presence of smoke.

Annex note A.9.4.1 in the LSC explains that elevators can be used as an accessible means of egress. However, elevators can’t serve as a required means of egress. Therefore, the LSC allows use of elevators that are not directly involved in a fire situation.

Quite honestly, if you have to evacuate bed-ridden patients vertically from a floor that is involved with a fire, you’ll want to utilize the elevators that are not involved with the fire rather than use the stairs.

Designating a person to go to each patient floor elevator lobby and attempt to hold the elevator for the possibility of evacuation is certainly a viable plan. However, it may not be necessary to do so, as the elevator could be summoned, and some elevators even have emergency call buttons to override other calls.

It is your call whether to continue with this policy to have someone posted at the elevator during an alarm. If it were up to me, I would vote to discontinue this policy because you will be evaluated as to how well you comply with it, meaning one instance of a designated person not being at an elevator lobby during an alarm could result in a citation.

I suggest you take this matter to your safety committee members and let them discuss and vote on it.

Wires strapped to sprinkler pipe

A hospital in our area recently had a survey and was cited for communication wires that were strapped to the sprinkler pipe above the ceiling. I have not heard of this as being a problem. We have the same situation in our hospital. Must we remove these cables from the sprinkler piping and hangers?
Sprinkler piping and hangers can’t support non-sprinkler system components, according to 6-1.1.5 of NFPA 13, *Installation of Sprinkler Systems* (1999 edition). The reason for this requirement is the hangers and supports are only designed to sustain the weight of a water-filled pipe, plus a “safety factor” determined by engineers. No allowance has been made for any additional non-sprinkler system components.

Although one may believe that communication wire or cable does not add a significant weight load, at what point does the addition of these extra components exceed the capacity of the hangers?

I also have read of authorities citing hospitals for wires and cables attached to sprinkler hangers. Since the LSC requires you to comply with NFPA 13, this seems to be a legitimate finding.

I suggest you examine all of your sprinkler piping and remove all non-sprinkler system components.

(To read additional details from a hospital safety manager about the survey-related risks of improperly attaching items to sprinkler system components, see “Door gaps and wire tied to sprinkler brace grab notice” in the May Healthcare Life Safety Compliance.)

**Doors to gift shops**

Must hospital gift shops be treated as hazardous areas? During a recent survey, the inspector said the entrance door to our gift shop needed to have positive-latching hardware.

This is one of those “it depends” answers. Section 19.3.2.5 of the 2000 LSC clearly states that gift shops must be treated as hazardous areas if they contain combustible items in quantities considered hazardous.

Most hospital gift shops contain items that are considered combustible (e.g., greeting cards, stuffed animals, clothing, and other items). But are they in sufficient quantities to be considered hazardous?

This is a question that only an authority can answer. If a surveyor considers the combustible items in sufficient quantities to be a hazard, you must treat the gift shop as a hazardous area.

However, please be aware that you deal with more than one authority, and in most cases, an opinion of one does not have much bearing on the opinion of another.

Therefore, I suggest that you be very conservative on this issue. If your gift shop has any combustible items, treat it as a hazardous room and ensure that all corridor doors have positive latching.

A hazardous room would require either:

- Automatic sprinkler protection with smoke-resistant, self-closing, positive-latching doors
- One-hour fire-rated walls with three-quarter-hour fire-rated, self-closing, positive-latching doors
- Both of the above provisions if the hazardous room is newly constructed

If a gift shop doesn’t have combustible items on display or in storage, doesn’t exceed 500 square ft., and is fully protected by sprinklers, you don’t have to treat it as a hazardous area, meaning it could be open to the corridor without positive-latching doors.

If you have a question about life safety compliance, fire codes and standards, or the EC, pass it along to us and we’ll include it in one of Healthcare Life Safety Compliance’s future Questions & Answers columns.

Send us your questions in writing by:

- Mail to Healthcare Life Safety Compliance, 200 Hoods Lane, P.O. Box 1168, Marblehead, MA 01945
- E-mail to swallask@hcpro.com (include “Q&A” in the subject line)
- Fax to 781/639-2982 (send your fax to the attention of Healthcare Life Safety Compliance)
We occasionally field questions about where exactly in the Life Safety Code® (LSC) the provisions that allow projections into egress corridors are located.

The place to look is Chapter 7 in the 2000 edition of the LSC, which covers the means of egress requirements. Paragraph 7.3.2 requires you to measure the width of means of egress from the narrowest clear points within the corridor or exit component in question.

The exception to 7.3.2 pinpoints the allowance of projections. It states, “Projections not more than 3.5 inches on each side shall be permitted at 38 inches and below.”

The 38-inch limit is generally known as handrail height, and the exception allows facilities to install handrails along the lengths of corridors while not encroaching on minimum required widths.

Later editions prove useful

An interesting point to note is that 2006 and later editions of the LSC amend the corridor projection provisions as follows:

➤ Projections of up to 4.5 inches are permitted at or below handrail height
➤ Projections of up to 6 inches are allowed above 40 inches from the floor to account for installation of alcohol-based hand gel dispensers

In fact, The Joint Commission (formerly JCAHO) makes use of the latter bullet in life safety standard LS.02.01.20, element of performance 12, by allowing gel dispensers, retractable computers, and similar items to poke into hallways. “They cannot project more than 6 inches into the corridor,” the standard states.

Code amendment sets the stage

Technically, the Joint Commission provision for 6-inch projections is allowed for all healthcare occupancies under the 2000 LSC as part of a tentative interim amendment issued in 2004 that paved the way for broader hand gel dispenser installations in corridors.

Because it was an interim amendment, by NFPA rules, it automatically became a proposed change in subsequent editions of the LSC, and that change was later approved by NFPA members.

Finally, the LSC has long permitted projections of unlimited width provided they are 80 inches or higher above the floor (see 7.1.5 in the 2000 LSC for additional details).

Editor’s note: To read the full NFPA tentative interim amendment for hand gel dispensers, go to www.nfpa.org and search for “TIA-00-1 hand.”
Quiz questions

1. (T) (F)  NFPA 13, *Installation of Sprinkler Systems*, states that communication wires can remain on sprinkler hangers, but cables cannot.

2. (T) (F)  “A” category elements of performance (EP) are for requirements whose compliance is judged by the number of times a hospital does or doesn’t meet a provision.

3. (T) (F)  When elevator recall occurs, the elevator car will not be available for use by your staff members until it is reset.

4. (T) (F)  The *Life Safety Code® (LSC)* allows facilities to install handrails along the lengths of corridors while not encroaching on minimum required widths.

5. (T) (F)  The *LSC* requires facilities to either institute a fire watch or evacuate the building when a fire alarm or sprinkler system is out of service for four or more hours in a 24-hour span.

6. (T) (F)  Daily shipments of combustible items to a hospital gift shop meet the threshold for when the *LSC* considers these items to be hazardous.

7. (T) (F)  The Joint Commission’s new fire watch policy differentiates between scheduled system outages and unscheduled disruptions.

8. (T) (F)  Crash carts and isolation supply carts for patients who are actively on isolation precautions can remain in egress corridors at all times.

9. (T) (F)  Technically speaking, oxygen-enriched atmospheres do not raise the risk for defibrillator fires because of ground-fault interruption features in the device.

10. (T) (F)  Poor skin-to-paddle contact can lead to a defibrillator arcing.
1. False. Sprinkler piping and hangers can’t support any non-sprinkler system components, according to NFPA 13.

2. False. “C” EPs are judged by the number of times a hospital does or doesn’t meet a provision. “A” EPs are for requirements in which a hospital either has a policy or plan or doesn’t have a policy or plan.

3. True

4. True

5. True

6. False. The LSC doesn’t set a limit or threshold for what amount of combustible items are considered hazardous in gift shops.

7. True

8. True

9. False. Oxygen-enriched atmospheres increase the threat for defibrillator fires when combined with others risks, such as electrical arcing.

10. True