Ever since The Joint Commission started using life safety specialists as surveyors in 2005, hospitals have been closely scrutinized for deficiencies with the Life Safety Code® (LSC) as never before. For many years, the accreditation organization has published the top 10 standards cited by its surveyors for the previous calendar year and life safety issues have consistently been at the top of the list. For fiscal year 2012, this has not changed.

According to published reports from The Joint Commission, here is a summary of the top five LSC-related standards cited by its surveyors in 2012 for hospitals:

LS.02.01.20
This standard requires healthcare organizations to maintain the integrity of the means of egress. The most common element cited by surveyors pertains to corridor clutter. Unattended items (other than crash carts and isolation supply carts for patients on contact precautions) left in the corridor for more than 30 minutes will be subject to a citation from a surveyor.
Quick Hits

Online
Monthly elevator recall tests

CMS and Joint Commission surveyors are requiring documentation from hospitals and nursing homes that elevators have been tested for “recall.” The Life Safety Code® requires a monthly elevator recall test, stating in section 9.4.6 of the 2000 edition that elevators equipped with fire fighter service shall be subject to a monthly operation. The phrase “elevator recall” is a bit of a misnomer, as the monthly test requires activating all of the fire fighter service functions, not just the recall portion.

http://keyeslifesafety.com/monthly-elevator-recall-test

Eyewash stations

Eyewash stations are required wherever there is a possibility that caustic or corrosive chemicals could splash into an individual’s eyes. It is important to note that blood and body fluids are not considered to be caustic or corrosive. Also be aware that the use of personal protective equipment (e.g., face shields) does not exempt the need for an eye-wash station.

http://keyeslifesafety.com/more-on-eye-wash-stations

Stay Connected

HLSC In Your Inbox
Sign up for any of our 17 email newsletters, covering a variety of healthcare compliance, management, and reimbursement topics, at www.hcmarketplace.com.

Don’t miss your next issue
If it’s been more than six months since you purchased or renewed your subscription to Healthcare Life Safety Compliance, be sure to check your envelope for your renewal notice or call customer service at 800-650-6787. Renew your subscription early to lock in the current price.

Relocating? Taking a new job?
If you’re relocating or taking a new job and would like to continue receiving Healthcare Life Safety Compliance, you are eligible for a free trial subscription. Contact customer service with your moving information at 800-650-6787. At the time of your call, please share with us the name of your replacement.
Carts that are attended, such as housekeeping carts, maintenance carts, and food service carts, are exempt from this rule, provided there is an individual assigned to the cart and he or she is actively using it. Other elements cited under this standard relate to doors in the means of egress that are locked. The only locks permitted on doors in the means of egress are:

- Delayed egress
- Access control
- Clinical needs

Delayed egress locks are only permitted in fully sprinklered or smoke detected buildings, and clinical needs locks are only permitted in behavioral health units, although The Joint Commission frequently allows them in nurseries and labor and delivery units. Doors with access control locks really are not locked in the direction of egress. A motion sensor is required on the egress side, which automatically unlocks the door when someone approaches, as well as a wall-mounted “Push to Exit” button that unlocks the door when pressed.

Door swing is another issue that surveyors often cite. Exit doors (such as those doors on stairwells) as well as doors serving an occupant load of 50 or more persons must swing in the direction of egress.

Suites of rooms fall under this standard and suites that are excessive in size will be cited by a surveyor.

**LS.02.01.10**

While this standard encompasses the proper design and maintenance of building fire protection features to minimize the effects of fire and smoke, the main citation under this standard involves unsealed penetrations in rated barriers. This deficiency is probably the one that frustrates The Joint Commission the most, mainly because penetrations in rated barriers can be prevented if the organization manages the work order process better. Many times Joint Commission representatives have publicly encouraged facility managers to develop a system whereby their department is tracking who is above their ceilings and what work is being done. Cabling contractors in particular are a cause of great distress and annoyance to facility managers because they are frequently contracted by a different department, which rarely discloses where they are working. Cooperation between departments is necessary to bring this issue under control.

Rated barriers include fire-rated barriers and smoke compartment barriers. Fire-rated barriers can be used for the purpose of:

- Separating different occupancies
- Separating different construction types
- Separating exit enclosures from the rest of the building
- Creating a horizontal exit
- Separating floors and stories in the building
- Separating a hazardous area from the rest of the building

Smoke compartment barriers are similar to fire-rated barriers, but they are not quite the same. They are required to have fire-rated construction (one-hour for new and 30-minute for existing), but the difference lies in the doors. Whereas a fire-rated barrier requires a fire-rated door, smoke compartment barriers do not. Although doors in a fire-rated barrier must be self-closing and positively latching, doors in a smoke compartment barrier only have to be self-closing and do not have to latch when closed.

Other issues related to this standard include pairs of doors with gaps between them that exceed 1/8 inch; undercuts (the distance between the bottom of the door and the floor) on non-corridor doors that exceed 3/4 inch; “Exit” signs that are missing, have burned-out lamps, or have not been inspected monthly; insufficient illumination on the path of egress, both inside the building and outside along the discharge path; and improper travel distance from any point in the hospital to the exit.

**EC.02.03.05**

While this standard is not found in the Life Safety chapter of the Joint Commission Hospital Accreditation Standards manual (it is part of the Environment of Care chapter), it involves the testing, inspection, and maintenance of life safety equipment. There are multiple issues that surveyors cite frequently under this standard, and they almost always involve the lack of proper documentation.

Fire alarm system testing documentation that does not clearly identify the location of all devices connected
to the fire alarm system (e.g., power supplies, smoke detectors, heat detectors, duct detectors, pull stations, tamper switches, water flow switches, pressure switches, strobes, horns, bells, interface relays, and control modules), and whether the system passed or failed its test, will come under surveyor scrutiny. Having an accurate, up-to-date test report on your fire alarm system is a must. And don’t forget interim life safety measures for those items that are found to be deficient but are unable to be resolved immediately. Surveyors are especially keen on those issues.

Other fire safety systems that surveyors often cite under this standard are fire pumps that are not tested weekly and annually; sprinkler systems that are not inspected annually; kitchen hood fire suppression systems that are not tested semiannually; portable fire extinguishers that miss their monthly inspection or annual maintenance; fire and smoke dampers that are not tested one year after installation or every six years thereafter; and overhead rolling or sliding fire doors that do not have an annual test and inspection.

A fairly new element under this standard requires testing and inspection documentation to include the following information:

- Name of the test or inspection
- Date of the test or inspection
- Required frequency of the test or inspection
- Name and contact information of the organization and person conducting the test or inspection
- The NFPA standard and edition referenced for the test or inspection
- Results of the test or inspection

**LS.02.01.30**

This particular standard involves protecting the occupants of the building from hazards. The most common finding in this standard involves hazardous rooms, which apparently are not that well understood by all facility managers. The LSC specifically identifies the following areas as hazardous areas, although this is not an all-inclusive list:

- Boiler rooms and fuel-fired heater rooms
- Central/bulk laundries larger than 100 square feet
- Paint shops
- Repair shops
- Soiled linen rooms
- Trash collection rooms
- Rooms or spaces larger than 50 square feet used for the storage of combustible supplies in quantities deemed hazardous by the authority having jurisdiction
- Laboratories employing flammable or combustible materials
- Gift shops displaying combustibles in quantities considered hazardous

The rooms receiving the most analysis by surveyors are storage rooms with combustibles. As mentioned above, rooms storing combustibles in quantities deemed hazardous by the authority will be considered a hazardous room. Often a facility manager may obtain the opinion from a local fire inspector that a room containing combustibles does not qualify as a hazardous room, only to find out during a survey that the surveyor believes it does. This is a difference of opinion between authorities, and the healthcare organization must comply with the most restrictive interpretation. Just because a local fire inspector rules one way is no guarantee that a surveyor will do likewise, and he or she is under no obligation to rule in the same fashion as the local fire inspector.

The requirements to separate hazardous rooms from the rest of the building differ depending on whether the room is protected with sprinklers, and whether the room is considered new or existing construction.

For existing construction (those rooms that were constructed prior to March 1, 2003), a hazardous room must be protected with one-hour fire-rated walls that extend to the deck above and ¾-hour fire-rated doors that are self-closing and positive latching if the room is not protected with automatic sprinklers. If the room is protected with sprinklers, then the walls only have to extend to the ceiling and be smoke resistant, provided the ceiling also resists the passage of smoke. The doors must also be smoke resistant, self-closing, and positive latching, but they may be non-rated.

For new construction, hazardous rooms must be protected with automatic sprinklers and have one-hour fire-rated walls that extend to the deck above and ¾-hour fire-rated door assemblies that are self-closing and positive latching.
Common findings with this standard include situations where the hospital takes a patient room out of service and turns it into a supply room, which contains supplies wrapped in plastic, paper, and cardboard (combustibles). Frequently this is done without the facility manager’s knowledge, and the first time he or she is made aware of it is during the survey.

When you change the use of a room or space, it has to meet the requirements for new construction. For hazardous rooms, that means the room must be sprinklered and have one-hour fire-rated walls and \( \frac{3}{4} \)-hour fire-rated door assemblies. When patient rooms are originally constructed, they seldom meet these provisions, and the first time these converted storage rooms are examined for life safety compliance is usually with the surveyor present.

Another issue cited under this standard is corridor doors. Nothing receives as much abuse in hospitals as corridor doors. Transporters slam carts into them to open the door, housekeepers wedge mop handles between the door and the frame, and nurses tape the latch back to prevent the door from latching. It’s no wonder that corridor doors frequently do not close and latch properly. The **LSC** states that corridor doors in new construction are required to positively latch, while corridor doors in existing construction are permitted to have a device that keeps the door closed with 5 foot-pounds applied to the edge of the door, in lieu of the positive latching.

Many facility managers attempt to rely on the March 1, 2003, designation of new versus existing to allow a closer to hold a door corridor closed in lieu of positive latching, but it’s not that simple. If the **LSC** required the door to have positive latching hardware for new construction when the corridor door was installed, then the door must comply and be maintained as such for the life of the door. Even before the 1970 edition of the **LSC**, new corridor doors were required to have latching hardware. That means a corridor door with a device to keep it closed with 5 foot-pounds must have been installed before 1970 to be acceptable for use today. And that scenario is quite unlikely given that many hospitals over 40 years old have received upgrades and renovations that would eliminate those devices.

**LS.02.01.35**

Last but not least is the standard involving maintenance of fire extinguishing systems. The most frequent finding under this standard is violation of the 18-inch clearance required underneath sprinkler heads.

Quite honestly, this is a fairly easy issue for facility managers to keep watch over. Staff education on maintaining proper distance, marking a line on the walls at the 18-inch level, and routine rounding and inspections should catch any items stored too close to sprinkler heads before the surveyor finds them.

Other issues involving fire extinguishing systems are cables and wires suspended from sprinkler pipes and hangers, dirty sprinkler heads, and a Class “K” type fire extinguisher missing from the kitchen.

**Application**

How do these life safety standards rank with results from actual hospital surveys in 2012? **Healthcare Life Safety Compliance** contacted a for-profit healthcare organization that has more than 70 hospitals in the U.S., all accredited by The Joint Commission. During 2012, 27 of the organization’s hospitals received a triennial survey from the accreditor, and based on the results obtained from the organization’s corporate facility director, here are its top life safety standards found to be noncompliant:

1. **LS.02.01.20**—32 findings
2. **LS.02.01.10**—24 findings
3. **LS.02.01.30**—17 findings
4. **EC.02.03.05**—10 findings
5. **LS.02.01.35**—six findings

These results are nearly identical to the Joint Commission reports, save the flip-flop between Nos. 3 and 4. The results clearly confirm what The Joint Commission has said for the past four years.

What action will you take to ensure your facility does not have a finding under one of these five standards? Email Matt Phillion at mphillion@hcpro.com and tell us your success stories. We would love to hear from you.

**Editor’s note:** See p. 12 for an inspection form on the top LSC-related deficiencies.
When a survey starts to go bad

When a survey starts to go bad, it seems like every survey conducted by a state agency on behalf of CMS or a survey conducted by one of the three accreditation organizations (The Joint Commission, Healthcare Facilities Accreditation Program, and Det Norske Veritas) always shines new light on an issue that was not considered to be a problem by the healthcare organization prior to the survey. This is because surveyors typically each have their own area of expertise, which they tend to express during the survey. It can also be attributed to recent training and education afforded to the surveyor. When surveyors learn something new about the Life Safety Code® (LSC), they typically will start looking for deficiencies in that area, regardless of whether that issue was ever cited in the past.

Every hospital is unique. There is an old saying that goes, “If you’ve seen one hospital, you’ve seen one hospital.” The issues and circumstances are never the same from hospital to hospital. With that in mind, it is easy to see why surveyors sometimes have difficulty determining compliance with the LSC.

Consider the circumstances during a recent survey at FirstHealth of the Carolinas in Pinehurst, N.C. John Ganley, CHFM, CHSP, corporate safety director for the healthcare organization, shares his insight into a potentially bad survey situation.

“During our document review session, the surveyor asked how we confirm the transfer of each automatic transfer switch [ATS] during the monthly generator load test,” says Ganley. “We have 23 transfer switches scattered across our campus, and walking to each ATS during the monthly generator load test to confirm that it transferred is pretty nearly impossible.”

All of the ATSs are required to transfer from normal to emergency once a month—no sooner than 20 days and no later than 40 days. This is typically accomplished during the monthly generator load test. Confirmation that each ATS transferred is a requirement of the test. Apparently, the answer Ganley provided did not agree with the surveyor.

“With the new ATS switch gear that we recently had installed, we have the capability to transfer the ATS manually from a remote location,” explains Ganley. “In our generator control room, we can toggle a switch and the ATS will transfer, and a series of LED lights illuminate indicating that the ATS did in fact transfer. It also has a digital readout to show the transfer from normal to emergency power on every ATS. However, the surveyor did not like that.”

Even when Ganley explained that this was consistent with the manufacturer’s recommendations, the surveyor was not willing to accept confirmation from the remote indicators that every ATS actually did transfer. The surveyor was clearly looking for physical confirmation that each ATS transferred.

“He said we needed to go to each ATS and throw the main breaker, and we would need to wear arc flash protection to accomplish this,” says Ganley. “I told him that the breaker was enclosed in an arc flash cabinet and it is a small switch that is designed for that purpose. He was very skeptical of that.”

To add to this dilemma, the documentation for each monthly generator load test did not list each of the 23 ATSs individually. Traditionally, the monthly generator load test report will identify each ATS by name and location and allow for a notation by the technician to document whether the ATS transferred.

“Our chief electrician did not have a check-off for each and every ATS on the test report,” says Ganley. “But each monthly report clearly indicated that every ATS transferred. If one of the ATSs fails to transfer, we know about it immediately due to the remote readouts. If it failed, our technician will make a note of it, and he will resolve the issue and we retest the ATS. It is all there in the report.”

The surveyor wanted to see the procedure for testing the ATS for himself, so Ganley escorted him down to the plant operations control room. This is not unusual when a surveyor is unsure about something. A walk to the physical plant where the equipment is located usually allows for a better understanding of the situation.

“When we went down to the plant operations area, we had to physically explain how we do it, and we had to show him the remote panel in the generator control room,” explains Ganley. “We showed him that we had each monthly load test indicating the transfer of every ATS on computer backup. This was very effective electronic documentation of the monthly...
test. Then he wanted to know about tripping the main breaker, so we walked him down to an ATS and showed him where the breaker is located. Right on the cover of the ATS it says it is in an arc flash cabinet.”

The surveyor still was not satisfied with the arrangement, even though Ganley was able to answer each of his questions.

“He was looking for something to find wrong and he said, ‘Well, you should stand on a dielectric mat,’ ” says Ganley. “Our electrician knew what he was talking about and he said, ‘This is a dielectric mat,’ and he went to the other end, pulled the mat back, and it had a label with the ANSI number listing it as a dielectric mat.”

In this case, the surveyor yielded and determined that the organization had sufficient evidence that every ATS transferred during the monthly load tests.

“My big take from this ordeal is knowing what our operation is so you can explain it to a surveyor,” says Ganley. “That was one of things I got out of it because we could explain our procedure and what we were doing and that we knew what we were talking about.”

Having the manufacturer’s recommendations in writing doesn’t hurt either.

“We did our research,” says Ganley. “We got a letter from the manufacturer confirming that our procedures were consistent with their recommendations, and we placed that letter in the binder with the operations manual. I gave the surveyor a copy of the letter and he took the copy with him. He decided we knew what we were talking about.”

In this case, the surveyor yielded and determined that the organization had sufficient evidence that every ATS transferred during the monthly load tests.

“We have a 40-year-old hospital, and one set of elevators only extends up to the fifth floor in a seven-story building,” he says. “The top of the elevator shaft pokes through the sixth floor by about 24 inches or so, but is fully encapsulated by two-hour construction. These are hydraulic elevators and no drive motors sit on top of the elevator shaft.”

Since there is a concrete cap on top of the elevator shaft, the hospital wanted to use this space for storage. So the facility installed a door that opened onto the corridor to access the space on top of the elevator shaft.

For years this hospital has been inspected by various authorities, such as state health departments, the state and local fire marshals, the state agency on behalf of CMS, and the hospital’s accreditation organization. At no time did any of these authorities find any issue with the elevator shaft in question—that is, until the last survey.

“During our last survey the surveyor said the step into the storage room on top of the elevator shaft was a violation,” explains the facility manager. “Apparently, the single step was about 24 inches high, and the surveyor said the maximum any step is permitted is 8 inches high. We explained that this storage room was only used by facilities staff and they utilize a small step ladder to get in and out, but that didn’t seem to make a difference to this surveyor.”

The solution to this violation was to install a code-compliant series of steps, but this didn’t seem practical as they would then obstruct the required width of the corridor.

“We approached the survey team leader and asked if this was indeed a legitimate finding,” says the facility director. “He conferred with his home office staff and they said unless we board up the room and remove the door, it was a violation of the LSC.”

The organization wanted to continue to use the room, so the finding remained on its final report. After the survey, the corporate architect suggested the organization submit an equivalency as its plan of correction for this finding.

“We did submit a Fire Safety Evaluation System equivalency, and after a period of time, the accreditation organization did accept it,” says the facility manager. “If it wasn’t for the suggestion of the equivalency, I don’t think we would have been able to continue to use the storage space.”
Honeywell issues notice on fire alarm pull stations

Honeywell Fire Systems, a division of Honeywell International, has identified an issue with the series BG-10 fire alarm pull stations marketed under many different names. The issue could affect normal operation of the device. The notice (they are not calling this a recall) affects the manual pull stations manufactured from 1992 through 2010, although the majority of the devices were manufactured from 1992 to 2000.

The issue is related to the seal installed around the alarm switch, which can deteriorate over time preventing the switch from signaling an alarm when the pull station is activated.

Honeywell has issued a statement from its Northford, Conn., office that says all products have a finite service life, and while there is no industry standard for replacement intervals for pull stations, mechanical devices are not intended to be in service indefinitely. Honeywell continues to say replacement of the BG-10 series pull stations is highly recommended and this is an opportunity to upgrade your existing BG-10 series pull stations to the newer, more aesthetically pleasing BG-12 series.

Although Honeywell will provide you with a new O-ring seal to install around the switch of your BG-10 series pull station, it will not pay to have the seal replaced. Essentially, if you have one of these devices, you need to fix it yourself or hire a fire alarm professional to do it for you.

According to a published report from WHSV-TV 3 in Harrisonburg, Va., Honeywell has had issues with this series of pull stations in the past. A hex screw that holds the pull station together can be installed too tightly, causing cracks in the pull station backing, which may prevent the device from signaling an alarm when activated. Overtightening of the screw can actually crack the plastic housing of the pull station, and Honeywell recommends replacement of any housing showing cracks.

The WHSV-TV report says Honeywell is not taking the responsibility of repairing the pull stations itself. Rather, it is sending out the replacement O-ring seals at no cost to organizations that have the defective pull stations and it’s up to them to have it repaired.

Although the instructions provided by Honeywell make the repairs appear to be easy, it can be a bit tricky because you’re dealing with a fire alarm system that can be online and active. According to NFPA 72, National Fire Alarm Code, 1999 edition, section 7-1.2.2 requires service personnel to be qualified and experienced in the maintenance of the fire alarm system before they are permitted to make the repairs. NFPA lists examples of qualified personnel to include:

- Factory trained and certified
- National Institute for Certification in Engineering Technologies fire alarm certified
- International Municipal Signaling Association fire alarm certified
- Certified by a state or local authority
- Trained and qualified personnel employed by an organization listed by a national testing laboratory for the servicing of fire alarm systems

Many public buildings have the Honeywell BG-10 series manual pull station, including hospitals and nursing homes. Honeywell manufactured and distributed the series BG-10 pull station under the following brand names:

- ADT
- Fire-Lite
- Johnson Controls
- Notifier

Visit Honeywell’s website at www.pullstationsafety.com for a complete listing of devices covered, how to order free replacement seals, and step-by-step directions on replacing the O-ring seal. The site includes a video demonstrating how to replace the O-ring.

After replacing the seal, Honeywell recommends that the pull station should be tested in accordance with NFPA 72 and any other state or local requirements to ensure it is operating correctly. If the pull station does not operate correctly during this test, it must be replaced with a new device. Honeywell recommends the series BG-12 as an acceptable replacement for the BG-10 series pull stations.
Editorially speaking …

Editor’s note: Each month, Senior Editor Brad Keyes, CHSP, offers his thoughts, concerns, and comments on issues pertaining to healthcare life safety.

Moore Medical Center struck by tornado

On May 20, shortly before 3 p.m., a major F4 tornado swept through Moore, Okla., nearly destroying the 46-bed acute care Moore Medical Center. The town of Moore is located in suburban Oklahoma City. According to published reports, 30 patients were admitted at the time of the tornado, but no patients or staff were injured. This is a testament to the emergency preparedness training provided by the organization, and the execution of that training by hospital staff to provide excellent patient safety during the disaster.

Moore Medical Center is affiliated with the Norman Regional Health System. Those wishing to support the Employee Care Fund and the relief efforts at Moore Medical Center are encouraged to contribute at www.NRHFoundation.org.

CMS issues short form for life safety inspections in select nursing homes

CMS issued a memo, S&C:13-22-NH, on April 2 that outlines a new option for state agencies to implement a Short Form Fire Safety Survey for a limited number of nursing homes that are fully protected with automatic sprinklers and have demonstrated superior compliance with Life Safety Code® (LSC) requirements.

Due to the federally imposed sequester-required budget reductions, CMS developed the short form to allow state agencies to spend more time with nursing homes whose life safety compliance poses greater risks to residents, and less time with those above-average facilities where LSC compliance is superior. Only nursing homes that are fully sprinklered, do not have any significant waivers of LSC requirements, and are not certified by the use of the Fire Safety Evaluation System will be considered for the use of the short form survey.

The CMS memo did not explain the definition of “significant waivers,” so the presumption is that it will be up to the individual state agencies or the respective CMS regional offices to determine what waivers are significant. CMS made it clear that the use of the short form is solely at the option of the state agency, and will only be valid in fiscal years 2013 and 2014. Part of the reason to implement the new short form is to allow state agencies to be active in determining compliance with the CMS requirement that all existing nursing homes be fully sprinklered by August 13, 2013.

ASHE announces student competition

The American Society for Healthcare Engineering (ASHE), in partnership with Schneider Electric, held a competition at its recent International Summit & Exhibition on Health Facility Planning, Design & Construction as a way to engage young people interested in a career in the healthcare physical environment. The competition involved college students from around the country who worked with peers from different schools. The teams collaborated to address life safety problems at Saint Hypothetical Hospital. The students worked together to create a plan to address deficiencies and prevent violations from occurring in the future, and they presented their plans to a panel of judges. The competition is part of ASHE’s outreach to college students as the organization works on succession planning issues.

ASHE and Schneider Electric have also teamed up to create an internship program dedicated to the industry. The program will help increase awareness of the healthcare facility management field among young professionals and create a pool of trained candidates to sustain the future workforce. ASHE has always been an advocate for the healthcare facility manager in all areas of the physical environment. This outreach program is another fine example of the creative solutions that ASHE uses to resolve many of the problems facing the healthcare industry today. If you are not already a member of ASHE, consider joining at www.ashe.org/about/ASHE_membership.
Editor’s note: Each month, Senior Editor Brad Keyes, CHSP, consultant for Keyes Life Safety Compliance, answers your questions about life safety compliance. Our editorial advisory board also reviews the Q&A column. Follow Keyes’ blog on life safety at www.keyeslifesafety.com for up-to-date information.

Medical gas shutoff valves

Q I came across a medical gas shutoff valve that was located behind an access panel in a small storage closet in the surgery department. The closet was packed and equipment was blocking the access panel. There was no signage. Do you know whether this is permitted, or is it breaking a bunch of rules as it seems to me?

A You are correct—this is way wrong. What you described is a zone valve and NFPA 99 (1999 edition) section 4-3.1.2.3 (d) requires zone valves to be readily operable from a standing position in the corridor on the same floor that they serve. Section 19.3.2.4 of the 2000 edition of the Life Safety Code® (LSC) requires the hospital to be in compliance with NFPA 99 for “medical gas storage and administration areas.” The phrase “administration areas” is inclusive of the medical gas supply system, which means you must comply with NFPA 99 even for existing conditions. My advice is to relocate the valve to the corridor in accordance with NFPA 99, and provide adequate signage as to the areas that it serves.

Existing fire-rated doors

Q Do existing fire-rated doors (in a two-hour fire-rated barrier) need to have a vision panel (window) in the door?

A No, I do not believe that they are required to have vision panels, although they are permitted, as long as they are factory installed. Section 8.2.3.2.1 of the 2000 edition of the LSC requires door assemblies in fire-rated barriers to comply with NFPA 80, Standard for Fire Doors and Fire Windows (1999 edition). Section 1-7 in NFPA 80 discusses glazing materials in fire doors, which is another name for vision panels, or windows. The standard discusses the requirements that must be
followed when glazing materials are installed in fire-rated doors, but it does not specify that glazing materials are required in existing fire-rated doors. For fire-rated door assemblies in new horizontal exits, vision panels are required, according to section 18.2.2.5.6 of the LSC.

Qualified technicians

Q We recently discovered that our own maintenance staff is not qualified to service our fire alarm system. What other systems or items in the hospital require our own technicians to be qualified for them to perform the required service?

A As you mentioned, technicians who test, inspect, or maintain the fire alarm system are required to be qualified and experienced, according to NFPA 72, National Fire Alarm Code, 1999 edition. Section 7-1.2.2 lists examples of qualified personnel, and includes, but does not limit individuals with the following qualifications:

- Factory trained and certified
- National Institute for Certification in Engineering Technologies fire alarm certified
- International Municipal Signal Association fire alarm certified
- Certified by a state or local authority
- Trained and qualified personnel employed by an organization listed by a national testing laboratory for the servicing of fire alarm systems

Below are some other fire safety systems typically found in hospitals where some type of qualification is required:

- According to NFPA 10, Standard for Portable Fire Extinguishers, 1998 edition, section 4-1.4, maintenance, servicing, and recharging of portable fire extinguishers must be performed by trained persons having available the appropriate servicing manuals, the proper types of tools, recharge materials, lubricants, and manufacturer’s recommended replacement parts for the use of the extinguishers. Also, according to section 5-1.2 of the same standard, hydrostatic testing on portable fire extinguishers must be performed by persons trained in pressure testing procedures and safeguards, who have suitable testing equipment, facilities, and appropriate servicing manuals available. The standard does not list any examples of “trained persons.”

- Backflow preventers: Persons performing testing and inspection on backflow preventers are typically required to be licensed by the state or local authorities.


- NFPA 17A, Standard for Wet Chemical Extinguishing Systems, 1998 edition (for kitchen hood fire suppression systems), section 5-3.1 says a trained person who has undergone the instructions necessary to perform the maintenance and recharge service reliably and has the applicable manufacturer’s listed installation and maintenance manual and service bulletins must service the wet chemical fire extinguishing system six months apart.

Where the above standards do not specify what training or qualifications are required, that determination is left up to the authority having jurisdiction. So far, I have only seen the accreditation organizations request documentation to verify qualifications of the technicians for fire alarm testing, inspection, and maintenance, but that does not mean they couldn’t request documentation related to the other issues.

As always, it is best to check with your state and local authorities to determine whether they have additional requirements or interpretations that you will need to comply with.
### Quick tip

**Sample inspection form for the top life safety deficiencies**

Date: ____________________________    Work order #: ____________________________

Inspection performed by: ____________________________

Unit or location inspected: ____________________________

NOTE: This test and inspection form is intended to be a general tracking form for an inspection of specific *Life Safety Code*® issues that are frequently cited by The Joint Commission. Inspection frequencies are suggestions only and are not requirements. Actual frequencies must be in compliance with applicable codes and standards, and the organization’s policies and procedures.

<table>
<thead>
<tr>
<th>System</th>
<th>Activity</th>
<th>Frequency</th>
<th>Pass/Fail*</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Means of egress [LS.02.01.20]</td>
<td>Corridor clutter</td>
<td>Weekly</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Door locks</td>
<td>Monthly</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Door swing</td>
<td>Monthly</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Suites of rooms</td>
<td>Monthly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Features of building fire protection [LS.02.01.10]</td>
<td>Penetrations in rated barriers</td>
<td>Monthly</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Door gaps</td>
<td>Monthly</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>“Exit” signs</td>
<td>Monthly (required)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Illumination of path of egress</td>
<td>Monthly</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Proper travel distance to exit</td>
<td>Annually</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Testing, inspection, and maintenance of fire safety equipment [EC.02.03.05]</td>
<td>Fire alarm system</td>
<td>Quarterly</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fire pumps</td>
<td>Weekly/annually</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sprinkler systems</td>
<td>Quarterly</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kitchen hood suppression systems</td>
<td>Monthly</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fire extinguishers</td>
<td>Monthly/annually</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fire/smoke dampers</td>
<td>1 year/6 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rolling/sliding fire doors</td>
<td>Annually</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hazardous areas [LS.02.01.30]</td>
<td>Hazardous rooms</td>
<td>Monthly</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corridor doors</td>
<td>Weekly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire extinguishing systems [LS.02.01.35]</td>
<td>Sprinkler head clearance</td>
<td>Weekly</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cables suspended from sprinkler pipe</td>
<td>Monthly</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dirty sprinkler heads</td>
<td>Monthly</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class “K” extinguisher in kitchen</td>
<td>Quarterly</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*All “Fail” answers must be investigated and corrected with work orders.

Source: NFPA Codes and Standards.
Quiz questions

1. (T) (F) The top Life Safety Code® (LSC) finding by Joint Commission surveyors in 2012 was rated barrier penetrations.

2. (T) (F) Additional deficiencies cited by Joint Commission surveyors related to the means of egress include locks on doors.

3. (T) (F) Deficiencies involving hazardous rooms made the top five LSC-related standards cited by Joint Commission surveyors.

4. (T) (F) John Ganley is the facility manager at First Health of the Carolinas in Pinehurst, N.C.

5. (T) (F) Visual confirmation that automatic transfer switches (ATS) transferred their load from normal to emergency power is not required if the ATSs are equipped with remote readout indicators.

6. (T) (F) Honeywell issued a notice about fire alarm pull stations that it manufactured from 1992 to 2010.

7. (T) (F) In the notice issued by Honeywell, the company said it will replace all defective pull stations at no cost to the organization.

8. (T) (F) The Honeywell notice on pull stations affects the following brand names: ADT, Fire-Lite, Johnson Controls, and Notifier.

9. (T) (F) The new CMS short form for life safety inspections is an option for accreditation organizations to use on hospitals.

10. (T) (F) The American Society for Healthcare Engineering recently held a competition for young college students on solving life safety problems at a hypothetical hospital.

A supplement to Healthcare Life Safety Compliance
1. False. Rated barrier penetrations was No. 2. The top finding was corridor clutter.

2. True.

3. True.

4. False. Ganley is the corporate safety director.

5. True.

6. True.

7. False. Honeywell said it will replace all O-ring seals on BG-10 series pull stations manufactured from 1992 to 2010.

8. True.

9. False. The short form is an option for state agencies surveying on behalf of CMS for select nursing homes only.

10. True.