

The JCAHO's building maintenance program:

Scoring and compliance tips



A supplement to HCPro, Inc., publications

Exploring the building maintenance program

The optional building maintenance program has been part of the *Statement of Conditions (SOC)* for hospitals since 1999.

It's clear today that those in charge of environment-of-care concerns at the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) are proponents of the building program because it offers advantages to hospitals while also encouraging facilities to faithfully keep maintenance activities up to par.

With the JCAHO now switching to only unannounced surveys at accredited facilities, it's a good time to explain the scoring thoughts behind the building maintenance program, along with ideas about how to best comply with the program's intents.

We've culled our information from the *SOC* and the following experts:

- **Frederick Bradley, PE**, principal at FCB Engineering in Alpharetta, GA
- **Mark Forstneger**, spokesperson for the JCAHO
- **George Mills, FASHE, CHFM, CEM**, associate director of the JCAHO's standards interpretation group, who spoke during the American Society for Healthcare Engineering's conference in July 2005 in Anaheim and during an October 2005 audioconference presented by Joint Commission Resources, Inc.
- **Steven MacArthur**, safety consultant for The Greeley Company, a division of HCPro, Inc., in Marblehead, MA, which also published this special report

Please contact me if you have any thoughts about this special report or ideas for future stories.

Sincerely,



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How to succeed with your building program

JCAHO official outlines good ideas to keep you ahead

It's a virtual guarantee that surveyors from the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) will review the *Statement of Conditions (SOC)*.

Medical sites should anticipate that as surveyors look over *SOC* concerns, they will ask facilities whether they use the *SOC*'s optional building maintenance program, says **George Mills, FASHE, CHFM, CEM**, associate director of the JCAHO.

The building program allows facilities to correct common maintenance-related *Life Safety Code*® (*LSC*) deficiencies without worrying about whether surveyors will cite them for each problem. In exchange for this relaxed scoring, facilities arrange scheduled, documented maintenance reviews for a set list of items (see the box below). Facilities may choose to adopt all or some of the items listed.

Sites must show that at least 95% of the program's items work properly at any given time.

Mills helped develop the idea for the building maintenance program when he worked at the American

Society for Healthcare Engineering (ASHE) during the late 1990s. The idea behind the program is to provide relief to facilities who are trying to stay on top of small-ticket *LSC* deficiencies, he says.

"It makes so much sense" to use the building maintenance program, Mills says. He offers the following tips to stay on top of the program:

✓ **Consider adopting a policy addendum for your building program.** If your facility uses a building maintenance program, the JCAHO would prefer to see something in writing that formally indicates the program's existence, Mills says. Suggestions include a policy, memo to the safety committee, or declaration that the building program is in use, he says.

However, the JCAHO doesn't require a policy for the building program, he adds.

✓ **Make sure the program's inspections meet the JCAHO's intent.** When inspecting items for building program compliance, be careful not to tap-dance around the JCAHO's wishes. A facilities crew member who performs work to maintain a smoke barrier > p. 4

Items under the building maintenance program

Following are the items listed in the optional building maintenance program. You can find the building program in the *Statement of Conditions*, Parts 3A and 3B, question 6J:

1. Do one-hour and 90-minute fire-resistance-rated assembly doors have
 - positive latches?
 - self- or automatic-closing devices?
 - 1/8-in. or smaller gaps between meeting edges of door pairs?
 - 3/4-in. or smaller undercuts?
2. Do linen and trash chute inlet and outlet doors have
 - positive latches?
 - self- or automatic-closing devices?
3. Do smoke barrier doors
 - have self- or automatic-closing devices?
 - prevent the spread of smoke?
4. Do corridor doors
 - have positive latches?
 - restrict the spread of smoke?
5. Are smoke barrier penetrations sealed properly?
6. Are corridor wall penetrations sealed properly?
7. Do lights in the means of egress work?
8. Are exit signs illuminated?
9. Are the means of egress free from accumulation of ice and snow?
10. Does the facility clean and maintain
 - exhaust hoods?
 - exhaust duct systems?
 - grease-removal devices? ■

is not inspecting that barrier for compliance with the program, Mills says.

Instead, department managers or similar folks should be charged with inspecting the barriers for penetrations and other problems, Mills says.

The inspections should validate whether the maintenance work is appropriate, which is why the same person can't conduct both efforts simultaneously.

✓ If you have trouble meeting the 95% maintenance rate, increase your inspections. Suppose that a small facility has only 10 fire doors under a building maintenance program and that crews check those doors once per year.

If one of those doors doesn't latch properly, the facility has already dropped below the required 95% rate in the program.

Yet a larger site with 100 fire doors could also have one door in disrepair and still make it above the 95% rate, even though the number of deficient items is the same in both facilities.

One way around this dilemma is to increase inspection frequencies. For example, perform quarterly inspections of fire doors in the small facility, Mills says.

That brings the total sample up to 40—10 doors multiplied by four inspections each. With increased inspections, one door out of 10 that doesn't latch now makes it above the 95% compliance rate in the program.

You can also choose to increase inspections of items in specific areas, which may be prone to more abuse from carts (e.g., doors in the dietary departments), Mills says.

✓ Small sample sizes shouldn't be a detriment. Facilities that have small sample sizes for certain items in the building maintenance program shouldn't shy away from the program for that reason, Mills says.

In some cases, it's reasonable to assume that those items will remain in good repair.

Take kitchen hoods, for example, which fall under grease-producing devices in the building program. A facility might only have three hoods in the entire building.

"So you've got a small number of [hoods]. How many times are you visiting them?" Mills says. "Immediately, you're visiting them twice a year just to be compliant with [NFPA codes], so that's a denominator of six. And if [hood maintenance] is contracted out and you make sure the guy's coming in there, is there really a concern about failure rate on those particular three items? Most likely not."

If you run into a problem with the hoods, you could elect to increase visual inspections of the equipment as noted above, he adds.

✓ Take action if you fall below 95%. If your maintenance activities don't live up to the building program's required 95% rate, take one of the following two steps:

1. Fix the deficiencies as soon as possible and determine what it will take to bring your building program back up to acceptable levels.
2. Pull the item category in question out of the building program until you can solve the problem. Although the deficiency may still receive a citation on its own, it won't sink your entire building program, Mills says. ■

Editor's note: For more information about the continually challenging aspect of tracking penetrations within the building maintenance program, see the related story on p. 7.

Questions? Comments? Ideas?

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Crosswalk of building maintenance requirements

This chart traces the items listed under the building maintenance program within the *Statement of Conditions (SOC)* and how they tie into NFPA provisions.

The items in the building maintenance program receive scoring advantages when they meet a 95% compliance rate. These items, when not included in a building maintenance program, fall under the *SOC's* regularly scored questions.

Those questions in turn stem from various NFPA code requirements. This chart features NFPA references to the

- *Life Safety Code (LSC)*, 2000 edition
- NFPA 80, *Fire Doors and Fire Windows*, 1999 edition
- NFPA 96, *Ventilation Control and Fire Protection of Commercial Cooking Operations*, 1998 edition

Building maintenance program item	SOC question	NFPA code reference
Positive latches on fire-rated doors	1C	<i>LSC</i> —8.2.3.2 NFPA 80—2-4.4.3
Self-closing or automatic-closing devices on fire-rated doors	1C	<i>LSC</i> —8.2.3.2.1 NFPA 80—2-4.1.2
1/8-in. or smaller gaps between meeting edges of fire-rated door pairs	1C	<i>LSC</i> —8.2.3.2.1 NFPA 80—2-3.1.7
3/4-in. or smaller undercuts on fire-rated doors	1C	<i>LSC</i> —8.2.3.2.1 NFPA 80—1-11.4
Positive latches on linen/trash chute inlet and outlet doors	4B	<i>LSC</i> —8.2.3.2.3.1, 19.3.1, and 19.5.4
Self-closing or automatic-closing devices on linen/trash chute inlet and outlet doors	4B	<i>LSC</i> —8.2.3.2.3.1, 19.3.1, and 19.5.4
Self-closing or automatic-closing devices on smoke barrier doors	3D	<i>LSC</i> —19.3.7.6
Smoke barrier doors prevent the spread of smoke	3D	<i>LSC</i> —8.3.4.1 and 19.3.7.6
Positive latches on corridor doors	2I	<i>LSC</i> —19.3.6.3.2*
Corridor doors restrict the spread of smoke	2I	<i>LSC</i> —19.3.6.3.1
Properly sealed smoke barrier penetrations	3C	<i>LSC</i> —8.3 and 19.3.7.3
Properly sealed corridor wall penetrations	2A	<i>LSC</i> —19.3.6.2.2
Lights in the means of egress	5C	<i>LSC</i> —7.8, 7.9, and 19.2.8
Illuminated exit signs	5K	<i>LSC</i> —7.10.5
Means of egress free of ice and snow	5M	<i>LSC</i> —7.1.10.1
Cleaned and maintained exhaust hoods	6I	<i>LSC</i> —9.2.3 and 19.3.2.6 NFPA 96—Chapter 8
Cleaned and maintained exhaust ducts	6I	<i>LSC</i> —9.2.3 and 19.3.2.6 NFPA 96—Chapter 8
Cleaned and maintained grease removal devices	6I	<i>LSC</i> —9.2.3 and 19.3.2.6 NFPA 96—Chapter 8

* An exception under 19.3.6.3.2 allows existing roller latches to remain on corridor doors in certain situations. Effective March 13, 2006, the Joint Commission on Accreditation of Healthcare Organizations and Centers for Medicare & Medicaid Services will override this exception and require all facilities to replace roller latches on corridor doors with positive latches.

Sources: *LSC* and *SOC*.

An analysis of SOC scoring benefits for hospitals

Although the calculations sometimes are complex, the final tally is clear: Hospitals that successfully use the optional building maintenance program win a scoring advantage from the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). Let's look at how this benefit occurs.

Surveyors score each item within the *Statement of Conditions (SOC)*, including the questions that allow the building maintenance program (question 6J under Parts 3A and 3B).

But the scoring is different than the typical 0, 1, and 2 ranks you find alongside each environment of care (EC) element of performance. In those scores, a 0 equals noncompliance with an element, 1 translates to partial compliance, and 2 is full compliance. In turn, those element scores work into overall EC standard scores.

In this case, learn your XYZs

As Mills explains it, instead of using 0, 1, and 2 scores, the SOC items use scores of X, Y, and Z, in which

- X = 1/6 of a 0 score for standard EC.5.20 (which requires compliance with the SOC and *Life Safety Code*)
- Y = 1/3 of a 0 score for EC.5.20
- Z = 0 score for EC.5.20

It takes two Xs to equal one Y score, Mills says. Six Xs equal one Z score, which, as noted in the bullet above, translates to a 0 score for EC.5.20.

Surveyors use a scoring grid that establishes the X and Y scores to determine how to rate each SOC item.

Seek out the scoring tables

The tabulations are confusing to explain, Mills says. What makes it worse is that it's not easy to find the scores.

The last accreditation manual in which HCPro found the scores was from late 2003. Now the scores are available online through all facilities extranet connection to the JCAHO.

If you have access to that grid, you'll see that all 10 building maintenance program entries have an X next to them, which means that any deficiency that falls below the 95% rate receives an X score, says **Mark Forstneger**, a spokesperson for the JCAHO.

Corridor doors: A comparison

The "all X" approach to scoring the building maintenance program is advantageous.

Here's how the benefit plays out, using corridor doors as an example.

As noted earlier, if at least 95% of your corridor doors are in good shape, you comply with the building program. If enough doors have deficiencies (e.g., not latching properly) to drop you below 95%, surveyors will score you with an X.

If you didn't include corridor doors in a building maintenance program, surveyors will score those doors in the regular SOC. In this case, corridor door latching falls under question 2I.3 in Part 3A.

If one latch doesn't close properly on a corridor door because of poor maintenance, surveyors will hand you a score of X under 2I.3. A second latching problem will get you another X, for a total of two Xs or one Y.

What's the bottom line?

In theory, if you had six latching problems for corridor doors covered under the building maintenance program, you might still make it above 95%, and even if you didn't, you would receive one X for all of the deficiencies, Mills says.

But if you didn't use the building program, six latching deficiencies under question 2I.3 result in a 0 score under EC.5.20, which could lead to a requirement for improvement citation.

With the building program in place, "we're giving you the grace by reducing the scoring," Mills says.

In return, hospitals must show the JCAHO that they have a process in place to oversee routine maintenance issues. ■

Take the edge off of potential penetration problems

Strive for a successful maintenance effort, not a number-crunching exercise

Smoke barrier penetrations have always been the bane of the building maintenance program because the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) has never offered much guidance about how a facility should track penetrations.

Remember, facilities that use a building maintenance program need to maintain all the items that they've included in the program at a deficiency rate of no more than 5%.

This goal is generally easy for items such as extinguishers and exit signs because it's simply a matter of establishing an inventory and then inspecting for deficiencies, says safety consultant **Steven MacArthur**.

However, meeting the 95% compliance rate can be a challenge when it comes to barrier penetrations.

For example, does the 95% rate come from the total number of penetrations that a facility notes? Or is it based on the amount of penetrations per the average barrier area?

'Pretty darn close' compliance

The JCAHO's **George Mills, FASHE, CHF, CEM**, doesn't see barrier penetration measurement as a black-or-white issue.

Suppose that a facility has 200 smoke barriers and the maintenance director inspects 10 barriers each week. One week, he notes four penetrations among the 10 barriers. That works out to a 60% rate, which is far out of compliance with building program requirements, Mills says.

"On the other hand, if you hit 10 of them and one of them had a hole in it, I'd say we're pretty darn close" to compliance even though the rate is still only 90%, he says.

95% rate isn't always literal

It isn't the JCAHO's intent for facilities to calculate the total surface area of their smoke barriers and then allow 5% noncompliance, Mills says.

Common sense would dictate that if a campus has 100,000 sq. ft. of smoke barriers, then the JCAHO would never be happy if 5,000 sq. ft. of that total were deficient, even if it still met the 95% rate, he says.

In other words, there's a practical approach to barrier penetration maintenance that goes beyond the numbers.

There's a practical approach to barrier penetration maintenance that goes beyond the numbers.

"You know when your program is effective," Mills says. "Don't go into the mathematics of it and do crazy calculations. [Focus on] what's reasonable with your barriers."

Ways to embrace barrier monitoring

Consultant **Frederick Bradley, PE**, has come up with useful ideas to help facilities better track barrier maintenance and penetrations:

- Develop accurate drawings that clearly show the locations of barriers. If necessary, talk to long-time engineering employees about this issue because they may have knowledge that others don't about the barriers.
- Each year, take a copy of these drawings and check the facility for barrier penetrations.
- Provide the drawings to contractors so they know which walls are barriers.
- Put into any construction or renovation contract that workers must repair and properly seal any penetrations they create.
- Make contractors submit penetration sealant data ahead of time so the facility is familiar with the product that will be used.
- Inspect any penetration sealing before the facility issues final contractor payments.

"The key is the first two steps. Find out where your smoke barriers are" and inspect them, Bradley says. "It's important that you establish a program for checking [barriers for penetrations]." ■

Inventory holes patched by colored firestopping

Your building may use various firestopping materials depending on the area in which crews applied them and what vendors supplied the products.

During inspections of healthcare sites that he's performed, safety consultant **Steven MacArthur** has noted firestopping that's white, black, red, and green in the same facility.

Take advantage of the different looks of firestopping by cataloging them, MacArthur says.

Digital photos make it easy

Shoot digital photos of the firestopping materials used and note with which projects the pictures correspond.

Attach specification sheets to the photos and identify the vendors from which you bought the firestopping products. Arrange the information in a binder or a chart for easy presentation.

Not only will it help your facilities and safety employees, but surveyors and inspectors will find it an easier way to check on your sealed penetrations, MacArthur says.

Explain your efforts first

Often, surveyors will move on to other issues if the first sealed penetration they check meets with their satisfaction. Describe your process for tracking penetration to surveyors before they pop a ceiling tile.

"You want to make it as easy as you can for [surveyors] to stop looking," he says.

You might also be able to exploit firestopping colors by using certain hues for different departmental work. For example, when information services runs computer and data lines through fire walls, insist that it identify its penetrations by using blue firestopping, MacArthur says. ■

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