

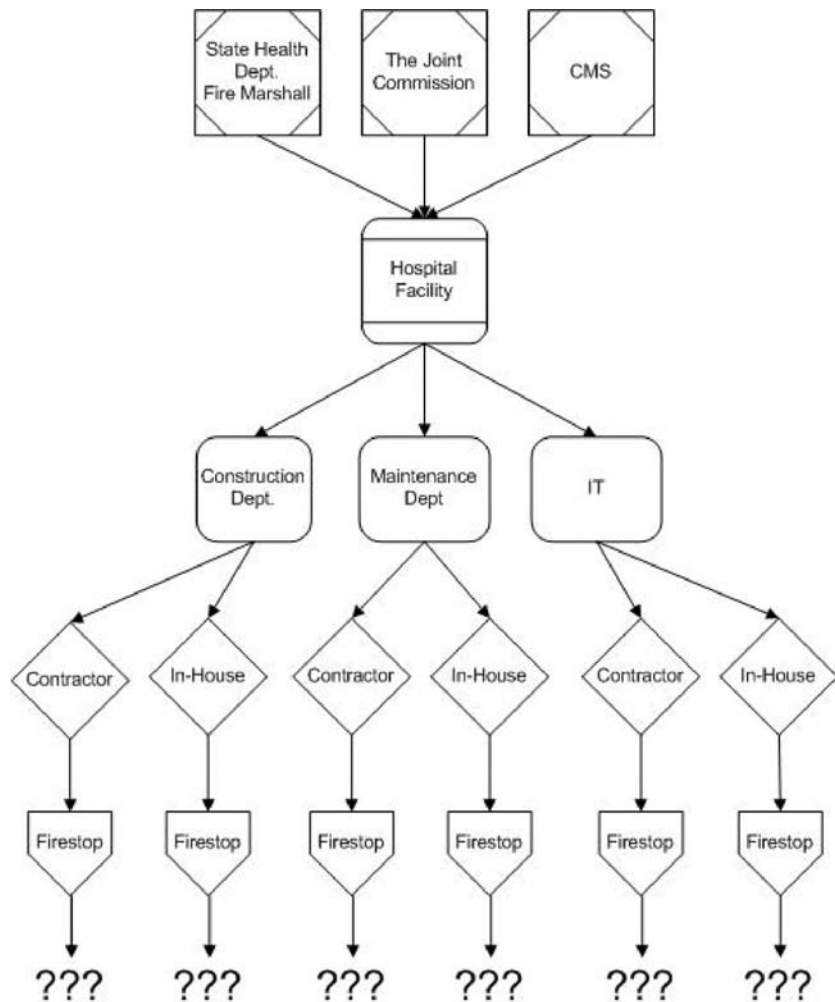
The Importance a Barrier Management Program

By Renée Robison Jacobs

Healthcare facility managers throughout the nation are continually reminded of the perpetual nightmare of firestopping deficiencies throughout their facilities. The looming threat of the Joint Commission continual preparedness, electronic SOC™ (Statement of Conditions) and online Requirements for Improvement (RFI) reporting negate the age-old approach to avoiding the hidden holes in the walls. Joint Commission Standard LS.02.01.30 (Health Care) says that the organization must design and maintain openings required for necessary features to contain fire and smoke to a compartment or floor. What historically had been “out of sight, out of mind” is now a focus of the Joint Commission life safety surveys.

The new 2009 Joint Commission standards are implementing stricter scoring during surveys. Elements of Performance (EP's) that relate to firestopping are now rated at a criticality level “C”, where the number of times the EP is not met by the facility dictates the ultimate survey score. The new standards carry stricter ramifications for not sufficiently addressing interim life safety measures (ILSM's) that have been identified on the Statement of Conditions™ Part 4: Plan for Improvement (PFI) as well. Temporary construction barriers that are not adequately smoke-tight, including correct firestopping, may be identified as a PFI and be subject to corrective action.

Requesting capital funding in these

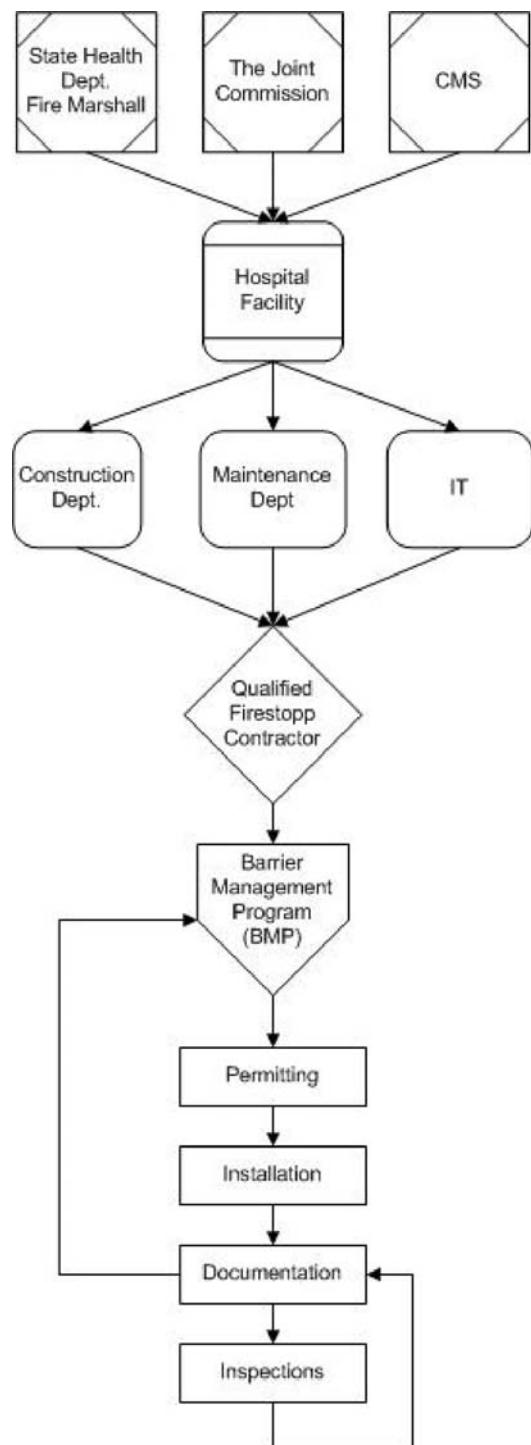


Facility without a Barrier Management Program installing fire stopping

difficult economic times for a problem that never appears to be solved is challenging, and the request is frequently rejected. The question that facility managers and administrators alike should be asking themselves is, “when will we stop the bleeding?”

Firestop contractors are ready at the drop of a hat to appear at the

facility with “red caulk” in hand to “fix” all of the problems. However, is this really fixing the problem or prolonging the inevitable? There is an unsaid financial benefit for the contractor to have firestopping installers that end up as a permanent fixture, seemingly getting the problem under control. However, in reality, the



Facility utilizing a Barrier Management Program

problem only continues, financial outlay continues and the firestop contractor ultimately benefits.

The question that facility managers and firestop contractors alike should be asking themselves is how to put a STOP to the problem. The ultimate goal should be that only a qualified firestop contractor is installing firestopping, as well as administering a barrier management program (BMP). Facility managers should strive to have a fully compliant building not just because it's required by regulatory and accreditation agencies, but because we are all in the business to provide a safe environment for our patients, visitors and staff.

In an ideal world, a facility's BMP should include a permit program, 100% documentation of all firestopping in all rated walls, 100% documentation of all penetrations requiring firestopping in rated walls (deficiencies), correctly firestopped penetrations and continuous maintenance of the integrity of all rated walls. The question that remains is how to reach ideal goals without creating a financial burden for the organization.

The top four challenges in the implementation of an effective BMP are: 1) who should implement and manage the BMP, 2) what software programs are readily available to purchase, 3) how to create single-point control of all entities penetrating rated walls and 4) pre-planning and education of architects, contractors, facility managers and departments that direct work impacting rated walls.

In recent years, with facilities demanding documentation, the burden has been placed upon the firestop contractor to produce a database (Microsoft Excel, Access, etc.) that is readily available and easy to customize. Unfortunately, with multiple contractors working in a facility - along with information technology contractors running cables randomly - the facility manager is left with multiple databases in multiple formats, none of which provides a consolidated database. When a penetration is accessed multiple times by different contractors, the integrity of the database and reporting is negated.

Facility managers, with limited time and resources, are in desperate need of assistance from firestopping contractors and manufacturers to develop and implement a BMP that captures data in the field and can act as a living database. Turnkey solutions to firestopping challenges for both existing facilities and new construction are the key to success. When a turnkey solution is implemented, the amount of firestopping by the contractor is not reduced, just managed more effectively. Costs for the BMP can be either integrated into the cost of the work or handled as a separate project or consult-

ing engagement.

Several companies are developing, or have already developed software solutions for firestopping documentation and inspections. The key to an effective BMP software solution is data capture of firestopping documentation in the field, how the barriers are managed once the penetration is documented and how this relates to the building architectural plans. The future should bring solutions that are Building Information Modeling (BIM)-based as this software is developed and software costs decrease.

Creating single-point control, logically within the facilities department, is a daunting task for most organizations. When an information technology department or a medical equipment vendor runs cable without the knowledge of the facilities department, it is frequently an unmanageable situation. Strict policy and procedure supported by top management is imperative to the success of the BMP. This enforces the BMP on all departments, regardless of the corporate reporting structure. Knowledge of the residual cost and regulatory liability that results from departments not following policy is key to strict enforcement.

Once the policy and procedures are developed, the pre-planning and education process is imperative for implementation of an effective program that has the endorsement of all stakeholders. New construction and remodel alike benefit from a well-designed path for electrical conduit and cabling runs. Efficient design should include systems that are conducive to future cable runs and easy modification. If the system cannot be easily modified or additional cable easily fed through the existing path, the natural inclination of the contractors is to add additional penetrations in the barriers, thus creating additional cost.

Architects and engineers can benefit from education and directive from the facility to design a well-planned path and system that is a part of construction documents. These simple additions to construction documents, especially where stacks of telecommunication and electrical closets are concerned, remove the design responsibility from the installation contractor, minimizing the quantity of penetrations and cost. Additionally, it provides a consistent approach that ultimately allows for the barriers to be managed throughout the life of the building.

Up-front communication and coordination between the firestopping contractor and other trades can further reduce the amount of firestopping required and, therefore, lower costs. When trades are informed of the impact of penetrating rated walls and then subsequently given specific direction on the best methods to create

holes in the walls, the amount of firestopping can be significantly reduced. In lieu of a tradesman putting a hammer through a wall to create a one-foot square hole to accommodate a 4-in. conduit, the tradesman is told to create a hole that can be firestopped with an approved UL system. This minimizes time and is cost-efficient, since an engineering judgment is not required.

With tightened budgets and increasing regulatory requirements, the logical approach to firestopping is investing in a BMP. Healthcare facilities' reduced staffing and budget reductions are creating a demand for the qualified firestop contracting community to take a hard look at providing solutions in addition to being an installation contractor. The incremental cost of implementing a BMP into firestop installation provides a tremendous payoff by reducing future liability and costs. By re-thinking its approach, the firestop contracting community will have the attention of facility managers, architects, engineers and the general contracting community. For a number of years general contractors and subcontractors have been desperately seeking a solution to this headache and liability. It is past time to create effective solutions that benefit all parties involved and ultimately create an extremely satisfied customer, the facility manager.

Renée Robison Jacobs, CHFM, job as vice president of facilities and construction for all 11 Saint Luke's facilities, both in the Kansas City metro area and regionally, involves oversight of all areas of design, construction, renovation, master planning, plant operations and maintenance, and oversight of the "New Saint Luke's," Saint Luke's Hospital's \$330 million multi-phase new construction and renovation. Jacobs' passion for firestopping is a result of managing construction, renovation and maintenance of healthcare facilities and frequently dealing with the lack of an effective barrier management program.

Renée Robison Jacobs is a Certified Healthcare Facility Manager and has more than a 20-year career in construction project management and healthcare facility management. She is Vice President, Facilities and Construction, at Saint Luke's Health System in Kansas City, Mo.