



Life Safety DIGEST

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ASHE - ICC Ad-Hoc Committee on Health Care

What Facilities Managers Need to Know About Fire and Smoke Damper Inspections in Healthcare Facilities

By Alexandra Witkowski

Although fire and smoke dampers are hidden from view, where required, they are integral fire and life safety components in facilities. Facilities managers are in charge of a multitude of building features. One is making sure fire and smoke dampers are tested at the right intervals, meet the code requirements, and have the records to prove it. Knowing the purpose of these components - testing intervals, code requirements, how they are tested, and the best way to record testing results - ensures that future testing is completed in less time and that the facility remains safe between testing periods.

Function

The purpose of smoke dampers is to restrict the flow of smoke in air ducts in the event of a fire. Fire dampers are required anywhere there is a penetration in a firewall or barrier. In many instances, combination fire and smoke dampers are installed in these areas, and together, they retard fire and smoke from traveling through a facility's ductwork. Fire dampers operate when a bi-metallic link heats up to the point of separation, releasing a gravity drop or spring-loaded damper blades. Smoke dampers are motorized and are usually triggered by a fire alarm or detector.

Keeping a Facility Code Compliant

The Joint Commission reviews the maintenance procedures among many other items for healthcare facilities and it is imperative to stay in compliance. For fire and smoke dampers, the Joint Commission relies on NFPA standards for the requirements. NFPA 80 the Standard for Fire Doors and Other Opening Protectives identifies the testing requirements for Fire Dampers and NFPA 105 the Standard for Smoke Door Assemblies and Other Opening Protectives covers smoke dampers. Both standards require dampers to be tested one year after install, every four years thereafter, and every six years for healthcare occupancies. To remain consistent with NFPA, the Joint Commission revised EC.5.40 EP 14 in July 2007 to include the six-year testing period for healthcare facilities.

Proper Damper Testing and Recording Tips

As a facilities manager for a healthcare facility, it is very important to keep careful track of any HVAC, mechanical, wall, or partition changes in your facility. Although this may seem like a simple problem to solve, it can be very challenging to keep up with the inevitable changes that occur between the six-year testing periods. The best advice is to ask the damper



testing firm or inspector to mark the locations of the dampers they find on the building's architectural and mechanical plans. The damper's locations should be permanently labeled and numbered so the corresponding number is indicated on the plans. Keeping a detailed map of the damper's locations should result in shorter testing time in the future. Additionally, it will also help to identify any changes that may occur between testing cycles.

When changes occur in a facility, it makes it difficult to know the exact location of all the dampers. In these cases, a survey must be completed at any site that should have a damper in the field. If there is no access panel, a small hole can be made and a mini camera can verify if there is a damper in the area. Once a damper has been found, an access panel must be installed to test the component. Dampers must be tested under the conditions appropriate for their static or dynamic rating. The testing firm will confirm the track area is free from dirt and debris so the damper is not impeded during operations. Additionally, tests should include before and after pictures that show the dampers opened and closed to demonstrate the test was performed.

Finally, the reports should include a detailed map of the component's locations, individual reports for each damper, the pictures of each damper tested, and a list of deficiencies. It is also a good idea to have all the information available electronically so that it is easy to reference in six years. Do this and your Joint Commission inspection will be a breeze. 🔥

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