

The Magazine of Effective Compartmentation

Life Safety DIGEST

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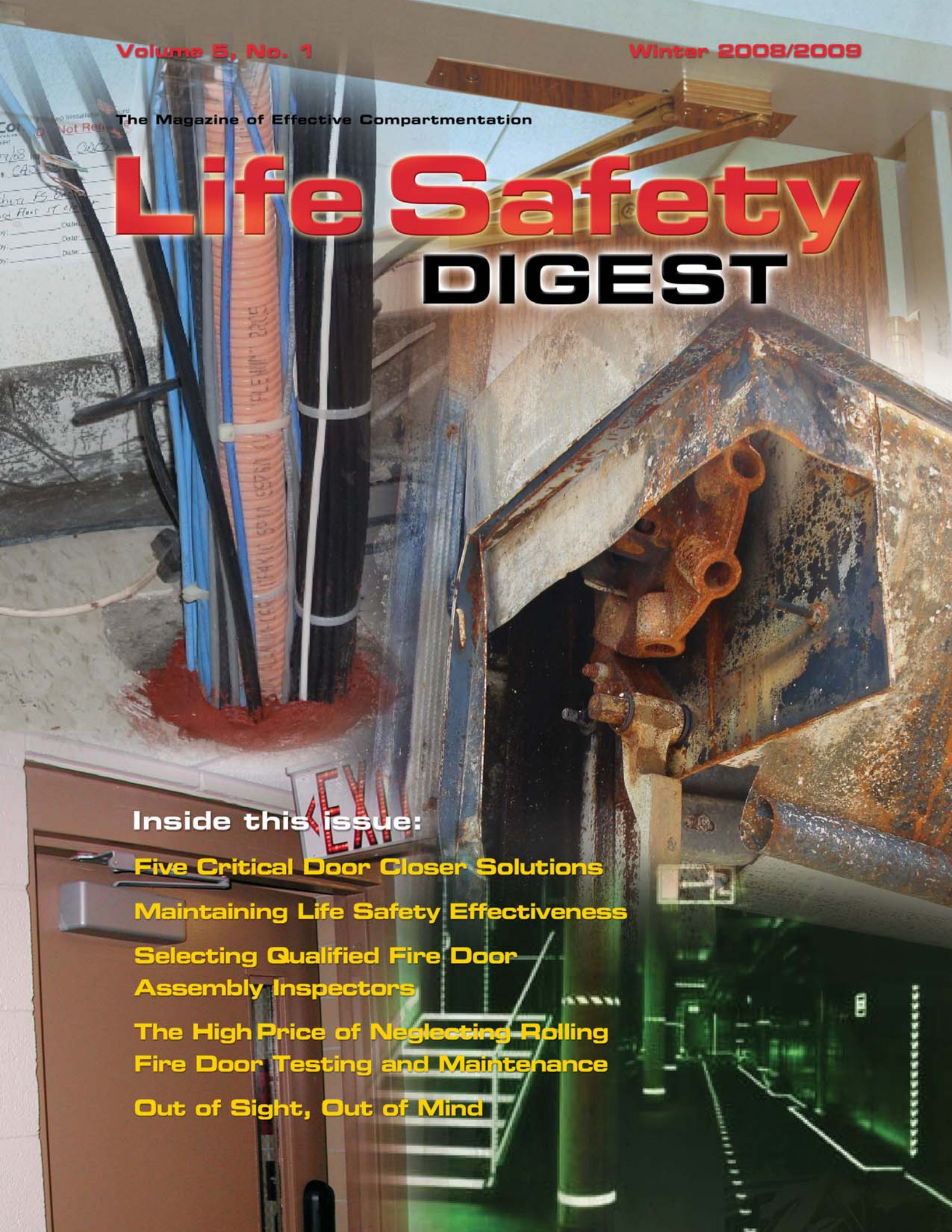
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Out of Sight, Out of Mind



The High Price of Neglecting Rolling Fire Door Testing and Maintenance



This rolling fire door failed to close during the Sofa Super Store fire. The heat sensing fuselink and spring release functioned properly. Non-compliant field mounted ceiling support angles fastened through the door hoods may have interfered with the coiled fire door curtains preventing them from closing.

To assure fire ready operation, codes require inspection and testing of fire doors at least once a year and that a written record is maintained for inspection by the local Authority Having Jurisdiction. Rolling fire door testing requirements are detailed in National Fire Protection Association bulletin 80 (NFPA 80). While NFPA 80 compliance is specifically addressed in the predominant codes, including the International Building Code® and International Fire Code®, this vital obligation can be overlooked by building owners, inspection officials and others.

The U.S. Fire Administration/National Fire Academy recently published a “Fire Door Inspections” training bulletin for fire and building inspectors that emphasized the code requirement for annual inspections “only by trained and competent persons who are familiar with the door assemblies being tested.” In this bulletin, they reference rolling fire doors installed at the Sofa Super Store in Charleston, SC. Those doors, which had been modified after being installed, failed to operate during a fire on June 18, 2007 in which nine firefighters lost their lives. The City of Charleston Post Incident Assessment and Review Team report states that “the Sofa Super Store had not been inspected by the City of Charleston for

By John Polchin

It is crucial that rolling fire doors function as designed to provide continuity of fire resistance rated assemblies in the event of an actual fire emergency. Any breach in protective fire resistant walls during an actual fire can quickly lead to devastating consequences.

Unfortunately, the maintenance and testing of fire doors is often neglected. Whether this is because of ignorance, a desire to save money or the lack of local code enforcement is irrelevant. What is important is the loss of life and property that can result when this responsibility is ignored. And, sadly, there are examples where this very outcome has occurred.

code enforcement purposes since 1998" and post inspection photos of the doors clearly identify field mounted ceiling support angles fastened through the door hoods that may have interfered with the coiled fire door curtains preventing them from closing. Testing would have identified the modifications made to the doors and exposed their inability to operate.

Annual inspection of rolling fire doors requires that the door closes and opens smoothly, that all door fasteners are securely in place, that no other construction materials are directly attached to the fire door components and that fuselinks and chains are properly located and not painted or coated with grease or dirt. Annual testing of rolling fire doors requires drop testing of all detection/closing mechanisms to test for full closure and an acceptable closing speed and to reset the doors to fire ready mode. As stated previously, testing must comply with the requirements of NFPA 80 and a written record must be maintained by the building owner and the door company that tested the doors.

Rolling fire doors that do not pass inspection and testing should be fixed immediately or positioned to the fully closed position until repair parts can be obtained from the original door manufacturer or until approved retrofit operator components can be obtained and installed so that the doors pass the inspection and testing requirement. Again, had the Sofa Super Store fire doors been routinely tested, the outcome of the fire could have been a minor incident.

Even though the National Fire Protection Association, the U.S. Fire Administration and accepted codes state the requirements for rolling fire door testing, there is a disconnect when it comes to fire door testing and inspection enforcement. Along with

fire extinguishers and sprinkler systems, rolling fire doors are a part of the buildings life safety equipment and should be required by law to be tested and inspected on a not less than annual basis.

To help building owners meet their annual fire door testing obligation, manufacturers have evolved the design of rolling fire door closing systems to simplify the testing and resetting process. These advanced closing systems are designed to safely close doors at a consistent, controlled speed and are easily reset to fire ready mode by facility personnel once power is restored and the alarm system is cleared. These systems are ideal for applications where fire doors are connected into a central alarm system that is routinely tested or tripped, for recessed fire door applications or for any fire door application in which simplified testing and resetting is desired.

Because these superior fire door closing systems have been found to be so much safer and more reliable than traditional fire door closing systems, testing agencies and code referenced standards have been updated to allow the retrofitting of these systems to currently installed rolling fire doors, where appropriate. But, although these advanced door systems simplify the process, they do not eliminate the need for documented annual inspection and testing by a trained door systems technician.

With the regulations for testing and inspection currently in place, and with the availability of advanced automatic rolling fire door closing systems, building owners and managers need to be proactive to ensure that building occupants and property are protected and code compliant! Don't be held liable should a fire occur and the doors not perform as designed, resulting in catastrophic damage, injury or loss of life. Stating



The closing path of rolling fire doors are required to be free of any objects that may interfere with door closing. Routine testing draws awareness to fire door locations and the need to keep their closing paths clear.

that a local building inspector did not enforce testing of the doors won't indemnify anyone in the building management team of the situation. Take advantage of today's rolling fire door product offering and protect the people in your building, minimize potential loss of property and protect yourself from litigation! 🔥

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