EMC Insurance Companies

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FALL 2006

Loss Control

INSIGHTS FOR SCHOOLS

When EMC risk improvement manager Mike Duffield inspects a school facility, fire prevention is always on his mind. "Workplace fires kill more than 300 and injure more than 5,000 workers every year," comments Duffield. "Fires destroy businesses and put people out of work," he adds. Trained to identify fire risks and armed with information on ways to prevent fires, Duffield and other risk improvement specialists can advise you if your workplace is in compliance with standards for fire safety.

...continued inside

A Little Fire Prevention Planning Can Save You From A Big Problem

Although National Fire Prevention Week is October 8-14, EMC Insurance Companies practices fire safety every day of the year by helping companies comply with fire safety standards and reduce the likelihood of workplace fires.

Building Fire Exits

- Each workplace building should have at least two means of escape, remote from each other, to be used in a fire emergency.
- Fire doors should not be blocked or locked to prevent emergency use when buildings are occupied. Delayed opening of fire doors may be permitted when an approved alarm system is integrated into the fire door design.
- Emergency egress routes from buildings should be clear, free of obstructions, and properly marked with signs designating exits from the building.

Emergency Evacuation Planning

- Each employer with 10 or more employees needs to have a written emergency action plan that describes the routes to use and procedures to be followed by employees. This plan should be available for employee review.
- Special procedures for helping physically impaired employees should be addressed in the plan. The plan should also include procedures for those employees who must remain behind temporarily to shut down crucial plant equipment before they evacuate.
- An employee alarm system should be available throughout the workplace. The alarm system may be voice communication or other audible and visual signals. All employees should know the evacuation signal.
- Employers should review the plan with new employees and with all employees when the plan is changed so they know correct actions in an emergency

IN CASE OF FIRE, DON'T PANIC!

When discussing your fire prevention plan with employees, remind them to take these precautions if they cannot escape the fire safely:

- Close as many doors as possible between you and the fire.
- Seal all cracks where the smoke can enter by using wet materials such as jackets, towels, etc.
- If you have access to a telephone, call 911 and tell them exactly where you are.
- Wait at a window if possible and signal for help by waving an object that can be seen from a distance.
- If possible, open a window for air, but do not break it as you may need to close the window if smoke rushes in.

» SEPTEMBER IS NATIONAL PREPAREDNESS MONTH

Throughout September, individuals will be encouraged to get an emergency supply kit, make a family emergency plan, and be informed about the different threats that may affect them. For details visit www.ready.gov.

» EMERGENCY SAFETY FOR WORKERS WITH DISABILITIES

A comprehensive guide and related website is now available to ensure federal workplace emergency plans address the needs of individuals with disabilities. For details, visit www.LNI.wa.gov/Safety.

» NEW AUTO PRE-START SAFETY GUIDELINES AVAILABLE

According to a study sponsored by the National Safety Council (NSC) and Castrol, 93 percent of Americans are hitting the roads ill prepared — therefore increasing their chances of an accident. NSC and Castrol recommend the following Start Up Checklist: secure loose objects, turn off cell phone, allow enough time to avoid speeding, read fuel/fluid levels, check tire pressure, use safety belts, and adjust mirrors. To order a copy of the Start Up for Safety brochure, call 1-888-CASTROL.

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Fire Prevention Plan

- Employers need to implement a written fire prevention plan. Stopping unwanted fires from occurring is the most efficient method of fire prevention.
- Housekeeping procedures for the storage and cleanup of combustible and flammable materials and waste should be included in the plan.
- Procedures for controlling workplace ignition sources such as smoking, welding and cutting should be addressed in the plan. Heat producing equipment should be properly maintained and kept clean of accumulations of combustible residues. Flammables should never be stored close to these pieces of equipment.
- All employees should be informed of potential fire hazards of their job and the procedures called for in the employer's fire prevention plan.

Fire Suppression Equipment

- Properly designed and installed automatic fire suppression systems enhance fire safety in the workplace. Automatic fire sprinkler systems are among the most reliable fire protection devices.
- Automatic fire suppression systems require routine maintenance. When it is necessary to take a fire suppression system out of service while business continues, the employer should temporarily substitute a fire watch of trained employees standing by to respond quickly to any fire emergency in the normally protected area.
- Signs should be posted in areas protected by total flooding suppression systems that use agents that are a serious health hazard. Such systems should be equipped with pre-discharge alarm systems. There should be an emergency action plan to provide for the safe evacuation of employees within the protected area.

Portable Fire Extinguishers

- Each workplace building should have the proper type and number of fire extinguishers for the fire hazards present.
- Employees expected or anticipated to use fire extinguishers should be instructed on the hazards of fighting fire, how to properly operate the extinguishers, and what procedures to follow in alerting others to the fire emergency.
- Only approved fire extinguishers are permitted to be used in workplaces, and they should be kept in good operating condition.
- When the employer wishes to evacuate employees instead of having them fight small fires, there should be written emergency plans and employee training for proper evacuation.

HISTORY TEACHES A FIRE PREVENTION LESSON

There is a long and tragic history of workplace fires in this country. One of the most notable was the fire at the Triangle Shirtwaist Factory in New York City in 1911, in which nearly 150 women and young girls died because of locked fire exits and inadequate fire extinguishing systems.

History repeated itself several years ago in Hamlet, NC, where 25 workers died in a fire in a poultry processing plant. It appears that here, too, there were problems with fire exits and extinguishing systems.

While many of the fire prevention tips in this issue of *Loss Control Insights* may already be familiar to you, as history has shown, they deserve to be repeated often.

Designing Schools With Fire/Life Safety Needs In Mind

What types of fire and smoke detectors are right for your school? According to the experts at System Sensor, a division of Honeywell that manufacturers fire detection and notification devices, design engineers and school facility managers should specify fire and smoke detectors based on the expected usage of the space in accordance with local building codes.

What Are Your Options For Fire And Smoke Detectors?

There are four types of sensors available for use in your school:

- **Ionization sensors** — These devices almost immediately recognize fast flaming fires and can readily detect smoke from most common combustible products. However, they offer limited capabilities when installed in high altitude locations, areas with high air velocity or near kitchens. They can also be affected by dust or dirt that accumulates on the radioactive element, causing the device to become too sensitive.
- **Photoelectric sensors** — These devices quickly recognize smoldering fires, but cannot "see" the full range of smoke at the same intensity as ionization sensors. They instantly identify visible white smoke, while dark smoke produced by fires containing plastics and rubber are not recognized as quickly. Photoelectric sensors can also be "tricked" by intensely lit areas or steam.
- **Thermal sensors** — These devices identify heat energy rather than particles of combustion and will initiate an alarm after temperatures reach a predetermined level or surpass allowable "rate of rise" temperature increases. These should never be installed in spaces that have large temperature variations.
- **Multicriteria smoke detectors** — These devices are noted for their quick signal-producing and the reduction of false and nuisance alarms.

What Should Be Installed And Where?

Here are some guidelines to consider when installing fire and smoke detectors:

- Single-sensor photoelectric detectors provide adequate protection for areas like classrooms, offices and lobbies.
- Ionization detectors are better suited for areas that could produce fast-flaming and smoldering fires, such as science labs, libraries or computer labs.
- Photoelectric/thermal multi-criteria detectors offer complete protection from both fast-flaming and smoldering fires, providing comprehensive protection in most environments, including classrooms, offices, storage areas, lobbies, mechanical areas, and laboratories.

It's All About Saving Lives And Property

Design engineers and school facility managers are the guardians of students and faculty, as well as their possessions. As a result, you must insist on fire and life-safety systems that offer the greatest return on investment — peace of mind.

The information above, which originally appeared in *School Construction News*, is reprinted with the permission of System Sensor.

Count on EMC®

Building Valuations

To help business owners insure to value, EMC risk improvement specialists use *BVS-Commercial*, a software program developed by Marshall & Swift/Boeckh that provides accurate reconstruction costs.

Unlike traditional replacement cost values, reconstruction costs represent the cost at current prices to rebuild a damaged or destroyed building using like kind and quality of materials, construction standards, design and workmanship. Although reconstruction costs tend to be greater than new construction, they are a much better representation of insurance value.

According to Bryon Snethen, EMC engineering services manager, *BVS-Commercial* offers several advantages:

- More accurate reconstruction costs incorporating all local wage and material costs and hundreds of building types and occupancies
- The credibility of Marshall & Swift/Boeckh, the country's premier provider of insurance building cost information and estimating systems
- *BVS-Commercial* reports not only have more details, but they are easy to read and understand

Count on EMC to help your insurance keep pace with rising construction costs.

Rebuilding After A Fire:
The Rising Cost Of Construction

After his manufacturing plant suffered a devastating fire, business owner Andy Bergonzi faced an even greater challenge — rebuilding in the face of increasing construction material costs. Although he had completed a building appraisal two years ago, the cost to rebuild the structure had risen 30% since that time. Like a majority of business owners, Bergonzi did not have adequate insurance protection to cover the rising cost of reconstruction. According to a recent study, 73% of commercial insureds are under-insured by an average of 40%.

It Costs More To Build Today Than It Did A Year Ago

According to a recent survey published in *Engineering Record News*, the selling price of new construction projects increased 2.3% during the second quarter of 2006 after climbing 2.5% during the first quarter. The results of this survey were based on three indexes that include productivity, overhead and margins, along with labor and material costs. Indexes that measure only labor and material costs rose 1.2% this quarter and are up 6% for the year.

Industry experts attribute the continuing rise in construction costs to several factors — the ongoing effects of Gulf Coast hurricanes, rising energy costs, the general state of the economy, and higher labor costs. As a result, experts agree that we will continue to see another year of elevated construction material prices. Consider the impact of the cost of copper, which has increased 87% during the past year. An electrical transformer, which is copper intensive, that cost $65,000 a year ago goes for $100,000 today.

From copper to bricks, the cost of just about every component used in the construction process has risen dramatically over the past year. The following chart shows how the increased cost has fluctuated during the past several months for many common construction materials.

	NOV	JAN	MARCH	MAY
Wire & cable	+16.6	+21.2	+18.3	**+46.6**
Gypsum products	+14.6	+18.5	+21.2	**+25.9**
PVC products	+20.8	+22.1	+20.5	**+18.0**
Cement	+11.9	+14.5	+14.8	**+14.9**
Paint	+7.5	+7.3	+8.7	**+7.7**
Bricks	+7.9	+7.4	+7.0	**+6.9**
Fabricated steel	+3.1	+3.6	+4.1	**+4.3**
Lumber, softwood	-0.7	+2.1	-3.9	**+2.7**
Sheet metal	+0.2	+0.2	+1.1	**+1.8**
Plywood	+3.9	-2.7	-3.9	**+1.5**
Glass, flat	+3.1	+1.5	-0.2	**+0.5**

All numbers represent percentages of change between November 2005 and May 2006.

Keeping Up With Rising Construction Costs

As construction costs continue to rise, it will be more important than ever to make certain your insurance is keeping pace. We encourage you to talk to your EMC agent about your building values. Don't wait for your renewal, or worse yet, a fire or other disaster, to make certain you have adequate coverage to replace what you have worked so hard to achieve.

WHERE DO FIRES BEGIN?

The more you know about where fires begin, the better prepared you will be to prevent them. Here is some information from the National Fire Protection Association that may help in your fire prevention efforts.

- **Schools:** The highest percentage of school fires originate in lavoratories or locker rooms (23%), followed by the kitchen (13%), classrooms or assembly areas (7%) and corridors or hallways (7%). Forty-six percent of these fires are intentionally set.
- **Churches:** The largest percentage (18%) of church fires originate in structural areas (exterior walls and ceiling/roof assemblies). One-quarter of these fires result from electrical distribution. Seventeen percent begin in worship, meeting or classroom areas, one-third of which are arson related.
- **Restaurants:** Not surprisingly, cooking is the primary cause of fires (64%). Cooking materials are the most frequent item first ignited (33%), followed by electrical wiring (8%).
- **Construction Sites:** The two leading causes of fire are incendiary/suspicious (41%) and open flame (30%). Arson is one and one-half times more frequent in construction settings than any other category.

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VERSION 1

Are Your Fire Sprinklers And Extinguishers Ready For Action?

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Loss Control Insights is also available online at www.emcinsurance.com.

While testing their automatic fire sprinkler system, an EMC policyholder noticed a drastic loss in water pressure that would have prevented the system from functioning properly in the event of a fire. A failed city valve, which was quickly repaired, was the cause of the problem.

This true story illustrates a major point about fire prevention — automatic sprinkler systems and fire extinguishers reduce the severity of workplace fires only when they are properly installed, inspected and maintained. Here are some tips to make certain your fire prevention equipment will be ready for action when needed.

Maintaining Automatic Fire Sprinkler Systems

In addition to regular inspections (at least quarterly):

- Never paint sprinklers.
- Never hang anything from any part of a fire sprinkler system.
- Never stack items close to fire sprinklers (maintain at least 18 inches clearance).
- Always report damage to any part of a sprinkler system immediately.
- Always make sure control valves are in the open position.

Fire Extinguisher Inspection Checklist

Portable fire extinguishers must be visually inspected monthly. The inspection should ensure that:

- Extinguishers are in their assigned position
- Extinguishers are not blocked or hidden
- Extinguishers are properly mounted
- Pressure gauges show adequate pressure
- Pin and seals are in place
- Extinguishers show no visual sign of damage
- Nozzles are free of blockage