MARSH RISK CONSULTING

FIRE, LIFE, AND SAFETY AUDITS FOR HOSPITALITY INDUSTRY

WHY ARE THESE IMPORTANT

Often, fire life safety (FLS) systems are not considered important in day-to-day operations and therefore fail when they are needed the most. Consequently, the safety of personnel is sometimes compromised. The FLS system's failure becomes even more important in cases of public liability in hotels and hospitals, as they usually have a large gathering of people.

Marsh Risk Consulting (MRC) experts in India and in South East Asia have seen instances of closed valves in the fire protection networks, disconnected smoke extraction fans, and insufficient illumination from emergency lights. At a few facilities, integration of smoke detection system with other life safety systems was absent or inadequate.

SOME REALITIES

On an average, in India, every year about 25,000 people die due to fires and related causes. According to the Fire Risk Survey (FRS) 2013, conducted by Pinkerton and Federation of Indian Chambers and Industry, fire was in the second place in industry-wide risk ranking in the hospitality industry.

The bar chart *(see Figure1)* provides a snap shot of the causes of fire in medical facilities from 2004 to 2006.

The leading causes of fire in the hotel industry are cooking and heating, and laundry equipment *(see Figure 2)*.

The root cause analysis of such incidences showed that a combination of the following factors were the reason for many incidents:

- Management's interest.

- Insufficient hazard identification and prevention practices.

- Design insufficiencies in FLS systems.

- Improper maintenance of FLS systems.

- Insufficient training to the personnel.
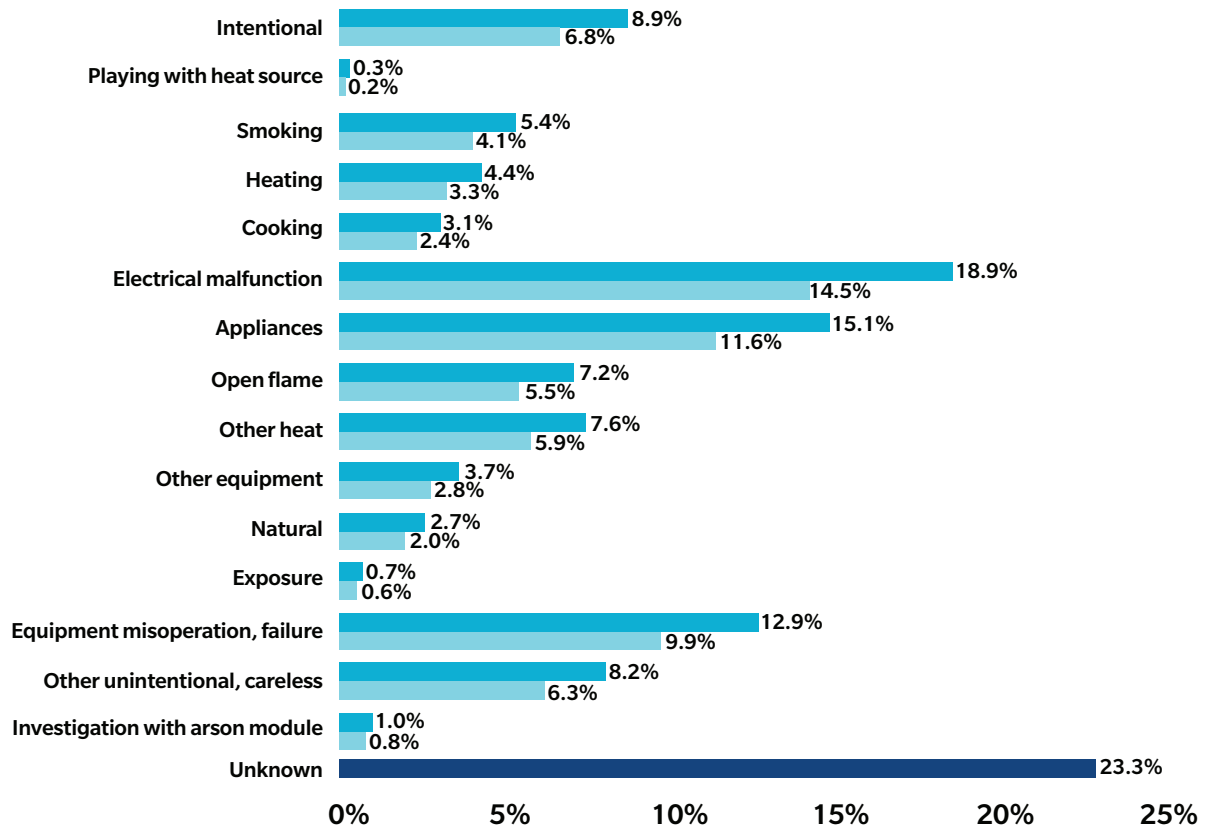
- Lack of mock drills.

PERSONAL INVOLVEMENT

An essential part of any building's FLS (probably the most important part) is training and education of the occupants in fire safety.

Every conceivable device that technology can devise can be placed in a building, but if the occupants are ignorant of what a fire alarm sounds like, what are safe and unsafe work practices, or where the exits are, then the objective of a fire-safe building will not be achieved.
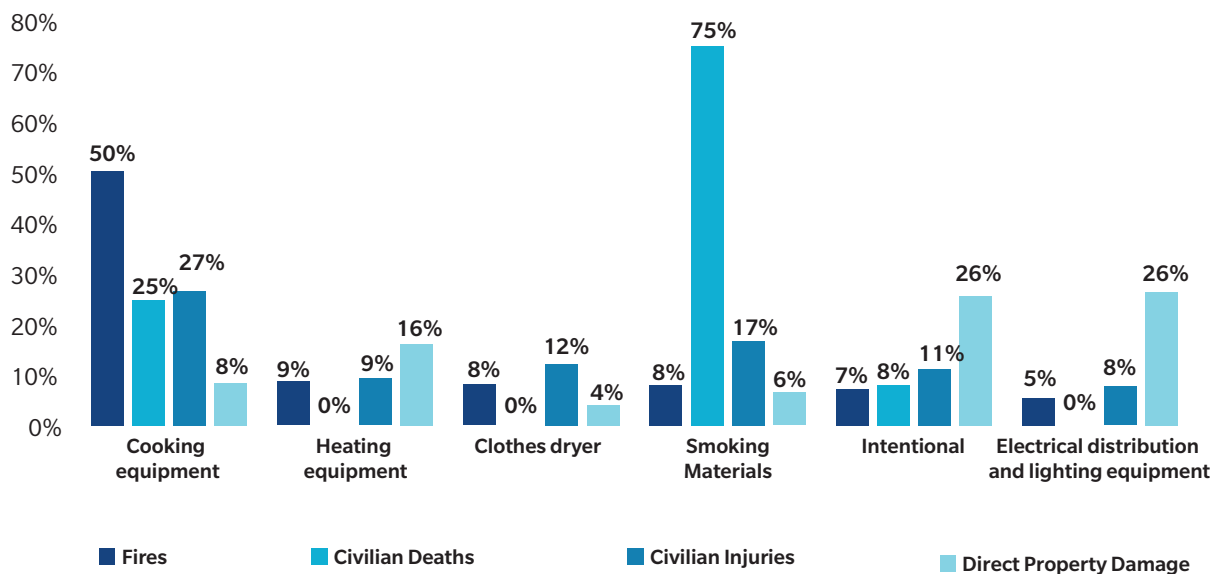
All too often occupant training, fire drills, and safe work practices are overlooked or given only superficial attention.

RISK. DISPUTES. STRATEGY.

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Figure 1. Causes of fire in Medical Facilities, 2004 to 2006

Cause	Value 1	Value 2
Intentional	8.9%	6.8%
Playing with heat source	0.3%	0.2%
Smoking	5.4%	4.1%
Heating	4.4%	3.3%
Cooking	3.1%	2.4%
Electrical malfunction	18.9%	14.5%
Appliances	15.1%	11.6%
Open flame	7.2%	5.5%
Other heat	7.6%	5.9%
Other equipment	3.7%	2.8%
Natural	2.7%	2.0%
Exposure	0.7%	0.6%
Equipment misoperation, failure	12.9%	9.9%
Other unintentional, careless	8.2%	6.3%
Investigation with arson module	1.0%	0.8%
Unknown	23.3%	

Figure 2. Structure Fires in Hotels and Motels by Leading Cause, 2009-2013

Cause	Fires	Civilian Deaths	Civilian Injuries	Direct Property Damage
Cooking equipment	50%	25%	27%	8%
Heating equipment	9%	0%	9%	16%
Clothes dryer	8%	0%	12%	4%
Smoking Materials	8%	75%	17%	6%
Intentional	7%	8%	11%	26%
Electrical distribution and lighting equipment	5%	0%	8%	26%

WHAT ARE THESE AUDITS?

In these audits, MRC professionals examine all these factors. The scope depends on client requirement, and range from discussions with the top management to understanding their safety philosophy to support to the operation staff that implement the policies.

Hazard identification policies, verification of the standards adopted, and the procedures implemented to maintain the FLS systems in the premises in an operable condition are also important parameters.

MRC also evaluates whether the performance of the FLS systems is checked by carrying out functional tests on fire pumps, fire alarm systems, stair-case pressurization system, smoke extraction systems, homing of lifts, and closure of fire doors.

The performance of the emergency response teams is also evaluated by participating in mock fire drills. Management programs, such as work permit system, smoking controls, housekeeping practices, change procedure, and maintenance of electrical systems too are examined.

Some of the applicable standards to which the audits are carried out are:

- National Building Code, Part 4.

- NFPA4.

- NFPA51B.

- NFPA72.

- NFPA96.

- NFPA99.

- NFPA101.

- NFPA2001.

INDUSTRY FOCUS

MRC works with clients and independently inspects the fire and life safety arrangements in the premises. The practice provides reports to highlight the gaps in FLS systems as well as recommendations to bridge the gaps, including the priority level for each of the non-compliance areas in the industry specific categories.

For the hotel industry the audit will focus on the following categories:

- Fire life safety management.

- Training awareness.

- Hazard elimination.

- Inspection testing and maintenance.

- Fire detection and alarm systems.

- Water based systems.

- Hand held extinguishers.

- Kitchen safety.

- Special fire protection systems.

- Passive fire protection systems.

- Emergency response plan.

For hospitals, audit focuses on following categories:

- Active fire safety.

- Passive fire safety.

- Life safety.

- Electrical safety.

- Gas supply for kitchens and power generation.

- Inspection testing and maintenance.

- Emergency response systems.

- Administration controls.

OUR EXPERIENCE

Consultants from India had conducted FLS audits for one of the largest hotel chains in South East Asia in the past three years. The audit reports helped the management to understand the risk levels and the reports were used to make informed decisions about allocating resources to improve the FLS systems in their properties.

The audit was extended to the Middle East, Europe, and North America. The MRC team from India was selected from 10 other competitors from these regions.

Recently, Marsh India's MRC team had successfully audited two of the major hospital chains in India. Nine audits were conducted under this program.

THE MARSH DIFFERENCE

As the world's leading insurance broker and risk advisor, Marsh offers the experience, knowledge, and insight required to identify and manage property exposures in the current risk environment. Marsh was the first in our field to establish specialized industry practices for property risk consulting.

Our risk professionals are knowledgeable about the regulatory, technical, and business challenges of all major industries. We continually monitor research development, building codes, and local regulations to ensure that our risk solutions reflect the current local codes and best practices. We can help establish your risk profile and recommend cost-effective strategies to mitigate property related risks.

For more information about MRC's property risk survey report and other solutions from Marsh, visit www.marsh.co.in/service/riskconsulting/or contact:

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