

Flame Fury : Are we prepared?



Fire is a double-edged sword. It could be boon to mankind or in some cases, a bane! The classic cases of this particular nature's fury are four recent major fire incidents. All the three incidents mentioned below can cause substantial property damages and associated Business Interruption, in addition to inflicting severe personnel injuries.

FIRE IN KAMLA MILLS, MUMBAI



Source : Hindustan Times | December 29, 2017

On 28th December 2017, a fire broke out in a restaurant “1 Above” in Kamala Mills, a commercial complex in Lower Parel that houses offices and restaurants. It was reported that, the fire started at around 12:30 am, and soon engulfed the entire place. The cause of the fire is yet to be ascertained.

As reported by several news agencies, around 150 people were inside the building when the fire started. Local municipal authority reported that at least 14 people died and several injured in this incident. Among the dead, it was mostly young women who were in a birthday celebration at the restaurant. All of the deaths were due to suffocation and not because of fire-related injuries.

Kamala Mills is a refurbished industrial compound and houses several upscale restaurants, bars, offices and hotels. It is also home to several media outlets with a number of national news channels which had to stop broadcasting due to the fire event. Firstpost web article dated 29 December 2017 stated that, the owners of the restaurant had reportedly violated fire safety norms.

FIRE AND LIFE SAFETY

Adequate fire and life safety measures has always been a challenge in the refurbished buildings and also in the new commercial complexes. To optimize the project budgets and/or the space available; the fire and life safety regulations are usually compromised which could result in a major disastrous situation in a fire event like this.

Blocked fire exits, inadequate exit paths, inadequate fire protection and smoke control systems are often the major reasons of high number of casualties in such cases.

Marsh Risk Consulting (MRC) Success Story

MRC has helped several Hotel Occupancies, Commercial establishments and Hospital groups in improving their fire and life safety installations meeting the local and international regulations. MRC is associated with one of leading hotels and resort Management Companies for which more than 80 fire and life safety audits are being conducted by MRC on annual basis.

Basis successful sample fire and life safety audits in some of the daycare centers and hospitals owned by a leading Healthcare and Hospital Management group, now MRC has been engaged by them to conduct fire and life safety audit for their properties Pan India.

HIGH-RISE FIRE, VASHI



Source : timesofindia.indiatimes.com | November 6, 2017

A fire broke out in a multi-storeyed building, 'Arunachal Bhawan' near Navi Mumbai's Vashi Railway Station in Maharashtra on 6th November 2017. Fire tenders from the surrounding areas were rushed to the site immediately.

Mid-Day News reported that, as the fire spread to the balcony of the rooms on the 13th floor, due to wind, the upper floors were engulfed as well. This not only damaged the exterior wall of the building but partially charred the offices on those floors. The cause of fire is under investigation.

CONSTRUCTION HAZARD

While the concept of "Green Buildings" is good for reducing the carbon foot print, it is exposed to fire hazard in industrial and commercial properties. Construction plastic materials in the form of building facades, metal faced sandwich panels, insulating materials also impede safe evacuation of people.

MRC Success Story

MRC is associated with one of the leading farmer's product company in India. In 2014, the facility witnessed a fire accident. The damage was restricted to a minimum level due to use of qualified loss prevention materials. The overall loss was accounted to INR 2 crores. Past experience suggest, in similar cases under a traditional construction practice, overall losses including the property damage (PD) loss and Business Interruption Loss (BI) would have easily crossed INR 100 crores!

After this incident, the client consulted MRC to avoid such losses in future and entrusted with a special assignment to design and implement Fire protection system for entire complex on the basis of MRC recommended global loss prevention standards.

HALDIRAM, NOIDA



Source : The Financial Express | September 6, 2017

It took around 200 firefighters, 100 fire tenders and 15 hours of efforts to bring the recent fire in the Haldiram Factory in Noida under control. According to Hindustan Times report, the fire originated from a boiler blast on 6th September 2017. None of the firefighting systems in the factory were functioning during the fire. There could be several causes, like inadequate design or lack of adequate inspection, testing and maintenance (ITM) systems. The causes of the fire and failure of the fire protection system are still being investigated.

As reported by several news agencies, the fire was expected to impact Haldiram's supply as this was one of the biggest production facilities where several type of products are made.

EQUIPMENT HAZARD

Boilers, pressure vessels are critical equipment in any manufacturing facility. As these are often put to work at high pressure & temperature; it is imperative that such equipment need a well-established combustion control and inspection, maintenance and testing program. This, along with management program to guard against by-passing of interlocks is important to avoid any catastrophic failures, even in packaged fuel fired equipment let alone the utility boilers.

MRC Success Story

While inspecting a manufacturing site of one of MRC's FMCG Clients, the low fuel pressure interlocks were found missing. MRC recommended these interlocks to be installed as their absence could lead to an explosion which might result in substantial property damage and business interruption losses.

Being a FMCG and Healthcare facility, the restoration time for such process areas, equipment and supporting utilities is higher. In addition, delay in getting necessary statutory approvals before restarting the production activities would increase the Business Interruption Losses by a huge margin.

Post the discussions at the site, the client understood the hazard and low fuel pressure switches have been provided for all the boilers at this location.

UNICHARM INDIA, ALWAR



Source : timesofindia.indiatimes.com | October 25, 2017

On 25th October 2017, fire broke out in Unicharm India's manufacturing unit in Alwar, Rajasthan. The fire was so severe that about 24 fire tenders were pressed into service and it took more than 24 hours to bring it under control.

The INR 300 Crore factory was set up for manufacturing of disposable baby diapers and sanitary napkins. As reported by The Hindu website, the fire started in the warehouse where the inventory had been stored.

The entire factory, spread across 40 acres, was gutted. The cause of the fire is still unknown. This fire has not only resulted in property damage losses but would lead to a major impact on their business in India.

FIRE SYSTEM ADEQUACY AND RELIABILITY

For Fire Protection system to be effective, it should be designed and installed to suit the purpose, in addition to regular inspection and maintenance. National Building Code (NBC) addresses life safety. So if fire protection systems are designed as per NBC, the protection may not be sufficient for safeguarding the business. International benchmark standards/codes like National Fire Protection Association (NFPA) and FM Global have developed guidelines to help organizations to protect the business from fire and explosion hazards.

Effect of fire protection system's Inspection, Testing and Maintenance (ITM) is not different than that mentioned above for boilers. Inadequate ITM program may lead to pump, motor, valves and flange etc. component failures in the event of a fire resulting in impaired fire protection system.

Manual setting of fire pumps, low start-pressure settings, closed valves in the fire protection network, inadequate fuel supplies are the common reasons impacting the reliability of the fire protection system. These systems have resulted in major losses in the past as they malfunctioned during an emergency.

MRC Success Story - Fire System Adequacy and Reliability

While conducting a visit at one of the leading electronic giant's manufacturing facility at outskirts of Bangalore, our MRC consultant found that the supply valve between the fire tank and fire pumps was closed and site team was completely unaware about this.

In such cases, even if the facility is fully sprinkler protected; a fire event at this site would have resulted in a major property damage and business interruption scenario due to impaired fire water supply.

After this, the client engaged MRC to conduct trainings for the site team for improving their inspection, testing and maintenance program for fire system and other management programs. As part of continual engagement program, now MRC conducts periodic loss prevention visits and on-site trainings for their staff at sites across India.

For more information about Marsh Risk Consulting and other solutions from Marsh, visit <http://marsh.co.in/service/riskconsulting/> or contact riskconsulting.india@marsh.com or contact your local MRC representative.

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