The impacts of fire and other emergencies

The importance of safe evacuation in today's business world
Impacts

Overview

It is estimated that over a third of businesses never resume operations after a major fire - losing orders, contracts, and key employees, which results in lost jobs and services to the community. However, while fire is still is the most common reason for evacuation, emerging threats such as terrorism, social activism and crime should also be considered as potential evacuation triggers.

This report examines the impacts of fire today, as well as the non-traditional threats that cause evacuation. Building owners should be aware of these and have a robust evacuation strategy in place.

Scope

When it comes to protecting life and property, there's no room to compromise. This white paper was produced by Eaton to raise awareness around the importance of safe evacuation for organisations today.

Background

Eaton is a power management company with 2015 sales of $20.9 billion. Eaton provides energy-efficient solutions that help our customers effectively manage electrical, hydraulic and mechanical power more efficiently, safely and sustainably. Eaton has approximately 97,000 employees and sells products to customers in more than 175 countries. For more information, visit **www.eaton.com**.

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The impacts of fire and other emergencies

In 2012, the cost of commercial fire damage in the UK was circa £620m – equating to £1.7 million every single day.[1]

It is also estimated that over a third of businesses never resume operations after a major fire - losing orders, contracts, and key employees, which results in lost jobs and services to the community.[2]

Aside from the enormous cost to business every year in the UK, fire is unique as it has the potential to put hundreds of occupants at risk within a matter of seconds.

The key to occupant safety in the event of a fire is preparedness. Being prepared makes evacuation faster and safer, which is especially important as most fire deaths are not caused by the flames themselves, but by smoke inhalation.[3] The toxic fumes created from combustible materials in commercial buildings can overcome people so quickly that they are not able to make it to an otherwise accessible exit.

The statistics in Great Britain

The latest available figures show that there were 22,200 fires in non-domestic buildings in Great Britain in 2013-14, a number that has declined by more than 50 per cent from 2003-04.[4] In these fires, 17 fatalities and 1,083 injuries occurred, representing around five per cent of all fire fatalities and 11 per cent of non-fatal casualties in Great Britain.

While the frequency of recorded fire has decreased, the severity of each fire has increased. Figure 1 below shows how the average cost of a fire has increased over a 20 year period.[5] Figure 2 also shows the type of property that these fires are most common in (2013-2014).[4]
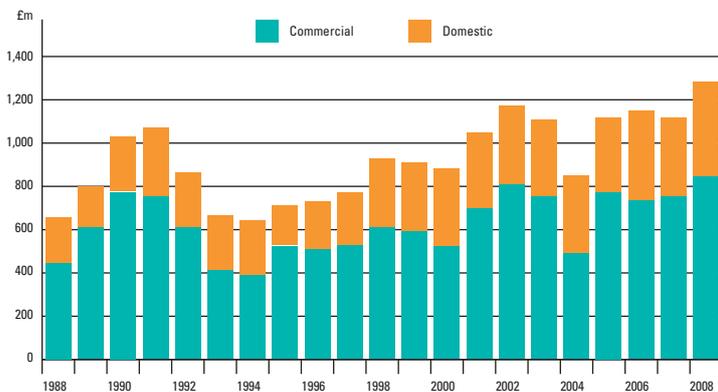

Figure 1: Cost of fire claims notified in the UK, £M, 1988-2008

Figure 2: Break down of fires in other buildings, Great Britain 2013-2014

1. Property claims statistics update - Q3 2013, Association of British Insurers, January 2014.
2. Business Continuity Statistics: Where Myth Meets Fact, Continuity Central, April 2009.
3. The consequences of fire, National Fire Protection Association, website accessed October 2015.
4. Fire Statistics: Great Britain April 2013 to March 2014, Department for Communities and Local Government, January 2015.
5. Fire Statistics Great Britain 2010-2011, Department for Communities and Local Government, November 2011.

Fire safety auditing and regulation

The growing and increasingly diverse risks faced by those responsible for commercial buildings make it more important than ever to have a robust evacuation strategy in place. It is both a legal and a moral obligation for the managers and owners of buildings to uphold, which not only means having the right systems in place, but also ensuring they are properly maintained so that, if the worst happens, they switch into action. In 2013-2014, 67,266 fire safety audits were carried out in non-domestic buildings in the UK, of which over 25 per cent received informal notifications (18,733), while 2,050 received enforcement notices.[6]

The most common cause of non-compliance in non-domestic buildings in 2013-2014 was the failure to conduct risk assessments (at 13.7 per cent), closely followed by problems relating to emergency routes and exits (at 11.8 per cent).[6] This shows that there is clearly a question mark over the proportion of building owners and managers who are fulfilling their obligations under the Regulatory Reform (Fire Safety) Order, not least with regard to the completion of risk assessments.

Figure 3. Top 5% areas of non-compliance in 2013-2014

Perhaps an even more worrying threat for executives is embodied in the Corporate Manslaughter Act. While this has yet to be rigorously tested in the UK regarding fire, the Act allows for court proceedings to be brought against senior individuals within a company.

Other reasons for evacuation: the changing nature of risk

For many decades, the primary safety risk faced by commercial buildings was fire. While this still is the most common reason for evacuation, emerging threats such as terrorism, social activism and crime should also be considered as potential evacuation triggers. Terrorism, rather like fire, is unique in its capability of putting hundreds of peoples' lives at risk instantaneously. The threat to the UK from international terrorism has increased significantly – it is now on level four of the five (in terms of likelihood), labelled severe which means "an attack is highly likely".[7]

One need not look too far back into history to remember specific events. London's flagship shopping center, Westfield in Stratford, for example, suffered a bomb scare in September 2014, which caused all staff and visitors to be evacuated. This incident came just a few days after a similar evacuation at Luton Airport in Bedfordshire.[8] The tragic events that took place in Paris in 2015, both in Charlie Hebdo's offices in January 2015 as well as at the Bataclan concert hall the same year, are a stark reminder of how private commercial buildings are prone to these kinds of threats in the 21st century.

In the event of a bomb scare or terrorist threat, the number one priority is the safety of human life, which is usually maintained by safe, efficient mass evacuation in a very short space of time. Following the terrible attacks on the Bataclan in Paris in 2015, the French government promptly circulated new guidelines to event organizers. These guidelines reminded organizers to ensure that their evacuation systems comply with requirements (checking statutory equipment, keeping fire lanes and evacuation routes clear) and reminding their staff of fire safety procedures, especially those regarding evacuating members of the public.[9]
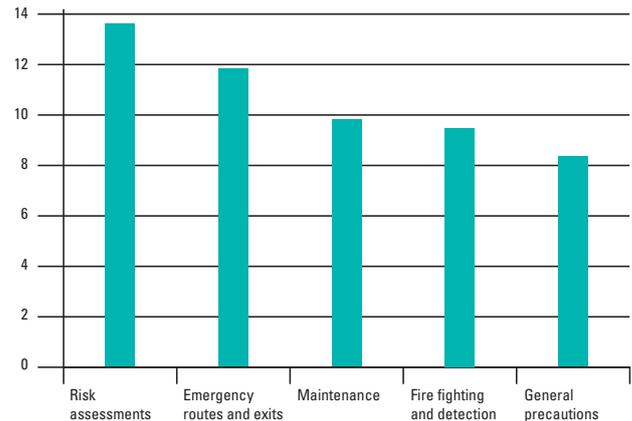
Power outages are generally perceived as less 'business critical' events when compared to the likes of fire and terrorism. However, a power outage can have serious implications to both a business and its occupants. As of July 2015, the closure of some power stations left spare capacity within the grid at just 1.2 per cent - the worst for a decade.[10] This is also expected to rise with the impending shortage of power stations in the future.

A retail center would likely be plunged into darkness during a power outage if it had no natural or borrowed light, and if emergency lighting isn't suitably installed, evacuation could lead to injury of both customers and staff, which would have big reputational consequences. At the same time, if the retail center contained high-value goods and was plunged into darkness, an opportunist thief could take advantage of the emergency situation. Therefore, a relatively minor event like a power outage can have serious business implications if evacuation isn't carried out efficiently.

6. Fire and Rescue: Operational Statistics Bulletin for England: 2013-2014, Department for Communities and Local Government, August 2014.
7. Terrorism and national emergencies, GOV.UK, website accessed October 2015.
8. Thousands of Westfield Stratford shoppers and staff evacuated after discovery of 'suspicious package', Daily Mail, 16 September 2014.
9. Communication regarding cultural events. Ministry for Culture and Communication, 19 November 2015.
10. Electricity blackouts risk up, says National Grid, BBC.co.uk, 15 July 2015.

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If you would like to find out more, please contact us at

buildingsuk@eaton.com

Disclaimer

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