

Preventing the three most common causes of business fires

Given the majority of business fires can be traced back to three root causes – electrical faults, hot work or arson – there are steps brokers and their clients can take to avoid becoming yet another statistic.

By Lester Lai, National Risk Surveying Manager



While there are literally hundreds of potential reasons that fires start, the majority can be traced back to one of three common causes: electrical faults, hot work and arson.

Let me give you some examples. In September 2007, the [Myer Hobart](#) building burnt down in broad daylight and, according to the Tasmania Fire Service's report to the Coroner, the most likely cause of the blaze was "overloading" and "failure of electrical wiring" in a ceiling space.¹ In January 2008, a spark from a welder ignited nearby ethanol fumes at [Drayton's winery](#) in the Hunter Valley causing a massive explosion that killed two people.² And in December 2011, the [Nerang Tennis Centre](#) in Queensland was destroyed by an arsonist in one of five suspicious fires on that day.³

These fires could potentially have been prevented if these risk factors had been adequately addressed. And given 43% of businesses that experiencing disasters, like a fire, never re-open and 29% close within two years, it pays to take precautions.⁴

Risk 1: Electrical faults

One of the most effective ways to identify potential electrical hot spots is to commission a thermal imaging survey of your premises. This non-intrusive technique detects electrical system and equipment hazards, such as corroded connections, damaged wiring and overheated circuits that are usually not visible to the naked eye.

Another common cause of electrical fires is high density discharge (HID) lights, which are commonly used in warehouses. These lights are highly hazardous when used over combustible materials because of their propensity to blow fragments of hot shards of glass on the surrounding area. Installing double-shrouded bulbs or covers can help to avoid this problem.

It goes without saying that you should immediately replace any electrical hazards that are visible to the naked eye, such as frayed chords, and only use appropriate equipment in wet/damp locations.

Risk 2: Hot work

Poor supervision of hot work (e.g. welding, grinding and cutting), which can create sparks or embers, is responsible for countless fires each year. Implementing a hot work permit system ensures appropriate checks and measures are taken when doing hot work, such as the removal (or shielding) of any combustible materials, surveying the site for any potentially explosive gases/fumes, and ensuring the area is adequately ventilated (flammable vapours), incorporating a fire watch 30 minutes after the hot works have been completed and have an appropriate fire extinguisher on hand in case of fire.

Only appropriately trained staff and tradesman should ever be permitted to do hot work on your premises, and they should always be fully supervised by an authorised person.

Risk 3: Arson

The best way to prevent arson is to increase security. To avoid arsonists from getting into your building, always ensure all access doors and windows are securely locked after hours. Pay special attention to letterbox openings, which are a popular place to start a fire. If your mailbox opens onto combustible surroundings, install an anti-arson letterbox that's purpose-built to contain a fire.

If your building is surrounded by a yard, secure the perimeter with a robust fence to help keep out intruders. And don't store combustible materials (e.g. idle wooden pallets, bins and other potential fuel sources) in close proximity to your building. Either store these materials inside your building overnight or position them well away from the walls in a secure storage compound or container.

Probably the best visual deterrent against both arson and theft is a CCTV camera and good lighting. If your business is in an isolated area or at high risk of arson, you should also consider installing CCTV cameras.

Ultimately, the way your business addresses risks, including fire, will also impact your company's insurability and premiums – why it's well worth the effort to get this right.

1 <http://www.abc.net.au/news/2009-04-20/myer-wiring-concerns-unreported-inquest-told/1656742>

2 <http://news.smh.com.au/breaking-news-national/welding-linked-to-drayton-winery-blast-20110516-1epm8.html>

3 <http://www.abc.net.au/news/2011-12-28/arson-suspected-in-nerang-tennis-centre-fire/3750438>

4 Source: McGladrey and Pullen (2004)

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