

Fire Claims

The role and involvement of the loss adjuster in fire damage claims

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Fire is a naturally occurring phenomenon that our earliest ancestors harnessed millions of years ago.

In this article we explore the inherent destructive and equally constructive power of fire and the role it plays in Insurance claims.

We discuss the science of fire and explore some of the most common root causes observed in fire damage claims.

Finally, we address the role and involvement of the loss adjuster in fire damage claims and examine some of the common issues and complications that arise during the course of managing complex fire claims.

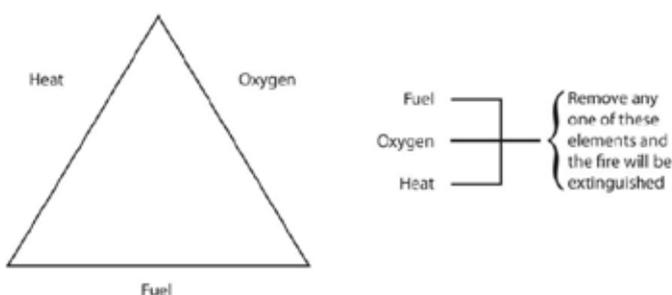
THE FIRE TRIANGLE

Fire is the result of combustion which is the process of oxidation, heat transfer and fuel chemistry. Fire itself is merely the detectable heat and light generated by such a reaction.

For fire to propagate there must be five basic and essential requirements present.

The first three elements are heat, fuel and oxygen. The fourth requirement is for all three elements to work in unison in a self-contained chain reaction. Finally, the heat source needs to reach the ignition temperature of the available fuel load.

Removal of any one element in the chain will stop the reaction. Most fire suppression systems within buildings and large machinery and equipment work on this principle. i.e the use of CO₂ to replace the Oxygen that is feeding the fire.





A SHORT HISTORY ON FIRE

Fire has the power to be equally destructive and constructive. It has been critical to the development of the human race. Archaeologists believe that our earliest ancestors learned to control fire approximately 1.9 million years ago.

The earliest applications of Fire assisted the advancement of our ancestors by helping them stay warm and protected them from their enemies and predators. Fire enabled cooking which made food more digestible leading to better nutrition, brain function and development. Fire also facilitated social interaction and communication between individuals and groups as they socialised around camp fires.

Fire played an integral role in the 18th century Industrial Revolution of Europe – arguably the single most important economic and social revolution in human history. Coal burning boilers generated heat and steam that powered piston steam engines that motivated our earliest forms of mechanised transport and manufacturing.

Without fire the world today would not have existed, however it can be as equally destructive. Through countless events and periods of our history it has brought massive destruction of property and loss of life as the following two historical events show.

The Great Fire of London

The Great Fire of London of 1666 started on September 2nd in a bakery and quickly swept through the city. The fire raged for four days and destroyed approximately 13,200 of 15,000 buildings (or 80% of those in the city) located within the city walls.

Amazingly only six people died as a result of the fire, although hundreds of thousands were left displaced and

homeless following the event. This event was one of the key inceptors of the concept of Insurance for property.

Fires in Australia

In Australia fire is a real and regular threat to life, property and livestock, particularly during the summer months when rainfall is often negligible and winds high.

On February 16, 1983, a series of bushfires swept across South Australia and Victoria resulting in the loss of 75 lives and the destruction of more than 3,000 buildings. These historic fires were dubbed the Ash Wednesday fires and there remains a strong chance of re-occurrence.

More than 180 fires broke out across both states that would eventually raze 400,000 hectares — an area four times the size of the Melbourne and its surrounding metropolitan area.

Along with the large loss of lives and property, more than 340,000 sheep and 18,000 cattle were lost in the fire with the damage bill estimated at approximately \$1.5 billion in today's monetary value.

COMMON FIRE CAUSES

Fire can result from a multitude of different causes and circumstances. Listed below are some common causes of fire damage claims involving Insured Property.

Spontaneous Combustion

Spontaneous Combustion results from a rapid rise in temperature within a body of combustible material that results from an increase in the heat being generated by a process taking place within that body.

This usually occurs as a consequence of either a biological reaction (bacteria in hay stacks or wheat silos) or chemical reaction (such as the oxidation of unsaturated oils and paints).

Paint drying agents, especially those in rapid dry paints, can from time-to-time undergo exothermic reactions when disposed in the confined space of a waste bin. If the material containing the residue paint is covered with other insulating materials, the heat being produced cannot safely dissipate into the atmosphere. The resultant build-up of heat can cause thermal 'runaway' ultimately causing spontaneous ignition of the material, setting the waste and bin alight before spreading to any other property in close proximity.

Electrical Equipment Failure

Electrical equipment failure is another common cause of fires.

All buildings will typically contain several electrically powered items of equipment and machinery i.e. air-conditioners, fans, cooking equipment and so on.

A typical electric motor construction contains a rotor (the moving part that rotates on an axle) and stator (the stationary part in which the rotor spins). The rotor and stator are usually encased within a metal frame and casing. The rotor contains conductors which carry currents that interact with the magnetic field of the

stator which contains windings. Electrical arcing can occur between the wires leading to the stator and metal outer casing/frame of the motor which can result in excessive heat build-up and subsequent outbreak of fire.

An electrical capacitor alters the current to one or more windings of a single phase AC induction motor to create a rotating magnetic field. Capacitors can overheat and melt their outer casing and can potentially break-out into a fire.

Commercial kitchens and mess halls contain a myriad of appliances used to prepare and cook food. The humble commercial deep fryer is one such appliance that can cause catastrophic damage in the event of its failure.

A commercial deep fryer can contain anywhere up to 40 litres (or more) of edible vegetable oil (usually consisting of a bean or seed oil extract) in their bowl(s). They are almost always electrically powered and contain a thermostat device to prevent an over temperature event occurring. Deep fryers commonly operate between 180-190°C which is the reported optimum temperature for cooking and the life of the oil. These thermostat devices are however designed to cut electrical power to the heating elements when the oil in the bowl(s) reach excessive temperatures (i.e. around 230-240°C). The cooking oils used in these deep fryers usually self-ignite at temperatures in excess of 300°C.

Deep fryer fires commonly occur when the thermostat device used to regulate the cooking oil heat either fails or has been tampered with. Without an actively working thermostat the oil in the fryer can continue to heat-up until it reaches its auto-ignition temperature and combust, potentially endangering life and damaging surrounding property.





Hot Works

A party working on a site carrying out hot works is legally required to take precautions to safeguard surrounding/ neighbouring property from being ignited by ignition sources generated by the works being carried out. Such work includes welding, cutting and grinding. These activities can be inherently dangerous and potentially result in an outbreak of fire.

Inherent Risks of operational property

Large diesel engines power a myriad of different machinery and equipment that usually work in challenging and remote environments. These machines and equipment can operate in areas surrounded by combustible organic material such as dry leaves, grass, wood chips and the like.

Turbo charged diesel engines that operate under heavy loading may sometimes show exhaust temperatures in excess of 600°C. Combustible organic material from the surrounding environment can smear the hot machine exhaust and ignite. Organic material like blue gum wood chips, usually have an auto-ignition temperature of a few hundred degrees which is well inside the surface temperature of hot exhaust componentry. These types of machines are usually worked very hard and are sometimes subject to minimal maintenance standards to curtail downtime and minimise costs. A slightly loose or defective exhaust component can lead to a catastrophic fire event. Hot embers being ejected through faulty or loose exhaust components may come into contact with combustible material situated nearby and ignite such.

It is not unusual for fuel and/or oil hoses within engines/machines to fail allowing the escape of combustible liquids that can be ignited by hot engine components.

Once a fire commences it can go unnoticed for several minutes until it reaches critical intensity and size and starts to damage the item of machinery or equipment. Most large machines contain a complex hydraulic system. Heat from the fire can split a hose or fitting, igniting the hydraulic oil/fluid which can engulf and devastate the equipment/machinery and endanger life.

THE LOSS ADJUSTERS ROLE

Once a fire loss occurs it is imperative for an Insured to notify their broker and Insurer so that the appropriate action can be taken promptly. The Insurer will usually appoint a Loss Adjuster to assist them in the handling of the claim and their role is to conduct enquiries and manage the claim on their behalf. Conversely the broker and Insured (with the consent of the Insurer) can seek to have a (or select their preferred) Loss Adjuster appointed to the matter if they so choose.

Once an Adjuster is appointed they will commence their enquiries. This will involve contacting the Insured to arrange a site meeting to inspect the damage personally and interview the Insured and any witnesses to understand the circumstances pertaining to the loss.

It is imperative to secure the site (once first response emergency services have vacated the premises) to safeguard evidence and inhibit any unauthorised site access. Security usually consists of a security fence and a static guard and is usually organised by the Loss Adjuster and /or Insured in co-operation.

It is often necessary to engage a forensic fire investigator immediately so that the root cause of the fire is established quickly. In this way consideration of policy trigger and response can be determined before serious reinstatement expense is incurred. Furthermore important



evidence is collected should a recovery avenue be identified following settlement of any valid claim.

The Loss Adjuster will assess the condition of the damaged insured property to evaluate the extent of damage, the quantum and whether any external consultants are required to comment on structural/mechanical integrity/safety issues, the nature, extent and scope of any immediate works required and the final repair/reinstatement works warranted as a result of damage from an insured event.

At this early stage of a fire claim the adjuster may also, in parallel with the damage assessment, assist the Insured with the engagement of a suitable restoration company to try and remove soot and residue such that property might be saved. In some cases such early intervention can prevent the onset of acidic corrosion or at least allow for some property to hold residual value that might be sold as salvage.

The assessment of the damage and setting a quantum is critical to assisting Insurers with their own internal reserve setting. It also assists with managing the Insured's expectations once we have a preliminary understanding on the nature of the damage and repairs required.

Adjusters (with the approval of Insurers and cooperation of the broker and Insured) can arrange to engage the services of suitably qualified accountants to assist with the calculation and preparation of claims for Business Interruption and loss of income.

COMMON ISSUES

Scene of the fire

No single indicator of fire travel is usually sufficient to give an accurate origin and cause on a fire. A complete analysis and review of the scene is required to come to any firm conclusions on the cause of the fire. The investigation of the scene should commence from the areas of least damage to the area(s) of most damage. The areas showing most damage is usually the fire's point of origin.

Surveying the outer perimeter of the fire scene, where the damage is less intense, may help to uncover any points of unauthorised access and possible arson indicators at site.

The burn pattern of damage is a good indicator of the path of the fire travel. Fire usually travels upwards and outwards which is often evident by the presence of a 'V-pattern'. Fire usually burns longer at the base of this area which usually indicates the origin of the fire. However there may be other contributory factors involved and an adjuster must be aware that the existence of a V-pattern at site may not actually indicate the location of the fire origin, but a secondary heat or fuel source.

Fire investigators will also look at melted metals and other materials to determine the heat experienced in certain locations. This information will also feed into pin pointing the origin of the fire.



Claim Complications

Arson and Insurance Fraud

Unfortunately, some fire events are malicious in nature and are created for financial gain. In the event that a fire has been deliberately lit the authorities will investigate the loss to ascertain the cause of the fire, how and who started it and the reasons behind such. Charles Taylor Adjusting has been involved in several large insurance fraud claims where damage has been created through arson.

Adjusters will also conduct investigations into the cause of the loss and circumstances pertaining to such. Investigations will usually involve interviewing the Insured, employees and witness's to the events. Common indicators of fraud usually include the following:

- An Insured not willing to assist with the Adjuster's enquiries
- Conversely, the Insured appearing to be overly cooperative and helpful
- The Insured seems nervous when being interviewed
- An Insured questions the line of enquiry and the need for detailed information
- The Insured may like to "go off on tangents" or change subject
- Inconsistencies in the story of recollection of events – especially when compared to other individuals/witnesses
- The Insured is currently experiencing financial difficulties
- Previous claims or criminal record
- Personal or Family issues
- Early cash settlement being requested
- Seeking a prompt/expeditious settlement of a claim

Adjusters must be aware of policy coverage issues that can arise from Insurance fraud in the event that there are multiple named Insured's under the same policy. In the event one of the named Insured's is responsible for igniting the fire and damaged to the asset, the other

named Insured's could still be entitled to indemnity under the policy (if on the balance of probabilities, it can be shown that they were not complicit to the crime). Note that not all property policies operate in this way. In most large fire loss claims involving arson Insurers will usually engage the services of a Lawyer to protect their position and assist with the management of the claim. In most cases the adjuster will work under the direction of the lawyer in circumstances such as this.

Heritage Issues

Adjusters also have to be aware of the heritage requirements involved in the reinstatement of fire damaged property. Some Insurance policies provide cover to restore the fire damaged building back to a condition substantially the same as, but not materially worse or better than its condition when new. However, some of these fire damaged buildings may have been renovated or amended from their original state prior to the loss. As such the Insured may be entitled to claim for the cost to restore the building back to its original state when new, not its pre-loss state. To assist with drafting an appropriate scope of works and claim quantum, Adjusters will need to engage the services of a suitably qualified heritage architect and engineer. This is something that Charles Taylor Adjusting does regularly for such matters.

Asbestos

Many older buildings in excess of 40 years old contain potentially harmful asbestos products. In the event of a fire loss the adjuster in co-operation with the property owner must arrange for these exposed and damaged asbestos products to be appropriately wrapped, secured and disposed of to mitigate the chance of contamination. The cost to temporarily secure, remove and dispose of asbestos can be expensive.



Fortunately many policies provide cover for such and an Adjuster will appropriately manage these reinstatement works in cooperation with the Insured and expert consultants. The biggest issue that asbestos causes in the context of a claim is the large expense which attaches. Careful reserving is required in such circumstances.

Costs for Uninsured Property

Insured's may also be faced with significant out of pocket expenses after a fire. For properties that are rented out by a third party, the cost to remove and dispose of fire damaged contents may end up being absorbed by the building owner if their tenant has no contents cover under their policy. Issues like this need to be identified by Adjusters and raised with both the Insured and Insurer to manage expectations.

Conclusion

Fire can sometimes result from the most inconspicuous of causes; however its impact can be devastating.

The key to any well managed claim and an efficient and timely outcome is to engage an experienced loss adjuster to handle and settle the matter in a fair and reasonable manner. Due to the complexities that can arise from a fire loss (mitigation, cause investigation, recovery & subrogation and business interruption), it is imperative to have an independent loss adjuster manage the claim in co-operation with the Insurer(s), broker and Insured.

About Us

CTA is one of the leading loss adjusting businesses in the market. We provide loss adjusting services across energy, marine, aviation, property, casualty and special risks along with average adjusting services for ship owners. The business primarily focuses on larger and more complex commercial losses arising from major insured incidents and claims. CTA is a business of Charles Taylor Plc (www.ctplc.com) which is quoted on the London Stock Exchange (CTR).

Charles Taylor plc is a leading provider of professional services to clients across the global insurance market. The Group has been providing services since 1884 and today employs over 3,000 staff in 107 locations spread across 29 countries in the UK, the Americas, Asia Pacific, Europe the Middle East and Africa.

The Group offers services, principally on a fee-based model and operates through three businesses – Management, Adjusting and Insurance Support Services. It also own insurers in run-off. Charles Taylor's vision is to become the professional services provider of choice to the global insurance market

Charles Taylor Adjusting (CTA) Expertise:

CTA has qualified engineers on staff throughout all Australian offices with diverse backgrounds ranging from “big picture” Project Engineering / Construction right through to detailed design work. Our Engineering Adjusters hold Adjusting qualifications and are members of the Australian Institute of Chartered Loss Adjusters (AILCA), the Australian & New Zealand Institute of Insurance and Finance (ANZIIF), or other UK-based professional bodies of equivalent or higher standards.

We ensure outcomes are concisely reported to Insurers to match their requirements in documenting the circumstances of the loss in a clear and logical manner, allowing them to reach a conclusion in respect to policy response.

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