# Safety in store

by Andrew Peers, *Deputy Underwriting Director, TT Club*

**Major incidents caused by explosive materials at storage facilities are relatively uncommon throughout Europe. Though, catastrophic incidents elsewhere – Tianjin in 2015, Beirut in 2020, and more recently, the tragic event in Chittagong – inevitably attract substantial attention. However, less startling accidents, together with near-miss events, deserve greater publicity in a congested supply chain world, as they each may have the potential to be just as damaging. A clear focus should therefore be placed on taking proper care of explosive goods, particularly how they are handled in storage facilities. Fortunately, a wealth of advice on the subject is available.**

Whether located in port areas or inland, warehouses are a fundamental component of the global supply chain: be it short- or long-term cargo storage, modal interchange, or facilitating added value activities such as re-work or co-packing.

Arguably, warehouses have become increasingly important nodes, as just-in-time supply chain models are being adjusted with a more conservative approach to longer-term inventory storage. Some operators will have been forced to demonstrate agility over the last two years, perhaps embarking on new or increased warehouse capacity requirements to meet evolving business needs. However, those exploring dynamic warehousing options should not be complacent and, instead, develop an understanding of the associated risks.

As part of its TT Brief series, TT Club has identified key risks, providing compact, visually-led guidance to mitigate the identified risks in establishing or choosing a warehouse as well as its operation. These documents, targeted at the operational workforce, seek to provide contentful messaging to support toolbox talks and good hands-on practices.

### No one-size-fits-all solution

Initial practical considerations for establishing a warehouse will inevitably relate to location, proximity to transport networks, size, availability of labour and rental prices and/or land costs. The first and most crucial decision will be whether to own or lease the property. There will likely be considerable differences in responsibilities – therefore liabilities to maintain and repair the warehouse – resting on this decision. When entering any contract, it is critical to fully understand your obligations to mitigate risk.

A consideration of growing importance is climate change, the risk of exposure to weather-related losses and the likelihood of flooding (e.g., roof and drainage systems capable of withstanding the ever more severe downpours experienced in many regions). The associated losses of such incidents can be far-reaching. Water is unforgiving and can penetrate and damage just about any area or commodity. Flood water is inherently dirty, which increases the likelihood of damage. Additionally, in many cases where local sewers have been flooded, the water can be unsanitary, further elevating the seriousness of the damage and the health risk.

Perhaps a less obvious consideration might be the activities of other storage units or facilities adjacent to the intended operation. Are there contamination risks or hazards associated with incompatible cargoes to consider? For example, the ammonium nitrate in the Beirut blast was stored beside fireworks, the ignition of which set off what is regarded as one of the most powerful non-nuclear explosions in history.

While insurance may provide a degree of protection, studies have shown that there can be a significant difference between an insured loss and the total economic loss. The latter includes indirect costs, such as lost management time and reputational damage (in Beirut, the blast-damaged grain silos have lately caught on fire, posing a threat to neighbouring residential areas). Your insurer must have a sound understanding of your operational activities, your property, what cargo you are storing (the Beirut warehouse was used by authorities to store various confiscated goods), what equipment is on-site at any given time and a reasonable valuation of it all.

Some obvious physical measures concerning warehouse security include perimeter fences, video surveillance and barriers. However, effective security measures also include procedural aspects like ensuring due diligence when hiring personnel, issuing security badges, and providing company uniforms and information security. There is no one-size-fits-all solution to warehouse security; much will depend on the goods being stored and the frequency of cargo movements.

### Who, where, when and why

Industry statistics illustrate an uncomfortable number of bodily injuries sustained in the warehouse environment. There are many moving components in play, and the advent of automation introduces complex safety challenges. For example, according to statistics from the UK's Health and Safety Executive, approximately 28,000 workers in the country sustain non-fatal injuries at work each year. Slip, trip and fall incidents account for 32% of these injuries, and being struck by a moving or falling object accounts for 11%. The average annual fatal injury rate in the transport and storage sector is around twice the average rate across all other industries. Creating a safe and secure environment can not only reduce the risk of injury to staff but also reduce cargo damage and its impact on profitability.


Photo: Canva

Control of personnel, as well as visitors and contractors, is a fundamental step to sustaining safety. Understanding who is within the premises, when and why, restricting access to areas where they do not need to be, and ensuring adequate induction training will all assist in mitigating the risk. Effectively segregating people and handling equipment is another critical challenge in operational zones.

Finally, warehouse fires are amongst the more significant claims in terms of both cost and operational impact. The primary causes of warehouse fires include electrical failure or malfunction, hot works, maintenance-related issues and poor enforcement of no-smoking policies. Many incidents can be avoided entirely by periodic risk assessment, effective maintenance and training, policy enforcement, and good housekeeping. Due diligence relating to the cargo being stored and understanding the potential risks they present is vital.

## Versed in safety

TT Club would also like to draw the attention of those involved in warehousing and storage to the recently published ***Warehousing White Paper: Storage and handling of Dangerous Goods in preparation for, or after, sea-transport*** (issued by four industry organisations: ICHCA International, IVODGA, National Cargo Bureau and World Shipping Council). This publication valuably seeks to bridge any gaps between international regulations and local practices, setting out detailed good practice guidance for all those taking part in handling and storage of dangerous goods that are at rest in transit, somewhere between the point of origin and the intended destination, typically in a port area.

In a world where significant volumes of dangerous goods are transported internationally – generally understood to be in the region of 10% of all packaged goods, with an estimated additional 5% reflecting the murky criminal underbelly of misdeclared cargo – the reality is that the interchange between different modes of transport necessarily involves periods of storage.

The *Warehousing White Paper*, and its accompanying Checklist, detail the risks involved in storing and handling dangerous goods and, importantly, the measures to be taken in containing them. Topics covered include competency and training of workforces; property construction; fire protection; security equipment; and protocols and emergency response procedures. It is intended as a practical guide to systematic and documentable processes for those managing and operating storage facilities to ensure the ongoing safety and that incidents are containable if they arise.

Ports, terminals and logistics operators must be fully versed in the local and national regulations regarding all operational aspects. Since these entities are also necessarily dependent on complete and accurate dangerous goods declarations, thorough risk assessments need to take the presence of such freight as a primary concern. This will include ensuring that all neighbouring stakeholders (such as operators, emergency responders, enforcement agencies, etc.) are appropriately equipped and trained for any eventuality. Naturally, in all communities where warehouses and storage facilities are located, there are reciprocal responsibilities – each potentially presenting risk as well as vulnerability. ■

TT Club specialises in the insurance of intermodal operators, non-vessel owning common carriers, freight forwarders, logistics operators, marine terminals, stevedores, port authorities and ship operators. The company also deals with claims, underwriting, risk management as well as actively works on increasing safety through the transport & logistics field. Please visit **www.ttclub.com** for more info.