

The state of ports and terminals and issues with handling hazardous cargo

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In recent times there have been several high impact and high profile casualties which have stemmed from the handling of hazardous cargo within port facilities. The disaster in Tianjin in August 2015 highlighted the question of how hazardous substances should best be managed at port facilities. Five years later, on 4 August 2020, a cache of approximately 2750 metric tons of ammonium nitrate precariously stored in the port of Beirut, Lebanon ignited and set off an enormous blast which destroyed large parts of the ancient city.

Beyond the devastating human toll, the Beirut blast has had other material effects; for instance, the physical destruction and broken supply chain. The investigation into the Beirut incident continues, hampered by political and legal duress and it will be some time before the true picture is available for the world to digest and debate for many years.

There have also been several instances of casualties on domestic soil (UK) as a consequence of perhaps unintentional mis-handling of non-hazardous and hazardous cargoes. In light of these ongoing losses, and the current and ever present challenges which operators who handle both hazardous and non-hazardous cargo face, increased awareness of the ways to prevent future losses is crucial.

The marine insurance sector saw a large drop last year in the number of hazardous cargo losses, however the industry continues to experience problems associated with non-declaration of hazardous cargo by shippers to carriers and / or warehousing facilities. There has also been an increase in losses stemming from non-hazardous cargo, such as grain and biomass, which have occurred because people are unaware of the dangers of supposedly neutral cargo.

Health & safety: a natural starting point?

Safety is often something we look at in isolation, rather than holistically and so surely that could be a starting point for improvement? We know that compliance with legislative controls minimises the risks arising from handling and managing hazardous and other dangerous substances. Research confirms that nearly all major incidents and accidents with hindsight, could have been predicted or prevented, whether the cause was simple or resulted from multifaceted non-compliances with health and safety provisions and common sense. That said, risks are entrenched through the industrial supply chain, and we need a diligent, joined-up approach to safety to prevent both large-scale disasters and smaller accidents.

Transporting hazardous cargo in containers aboard ships does not usually lead to people being exposed to such materials. Nevertheless, a ship is an unstable and isolated work area and so one would consider that the risks to vessels and those who work on board are greater, unlike a port facility which is able to control the majority of external factors. The varied aspects of cargo integrity are all important in not only safeguarding the cargo itself but also the wellbeing of those handling the goods at warehouses, during inland transport, at ports and of course at sea.

In addition to handling ordinary goods, port facilities are also a hub for hazardous cargo. The goods delivered by ship are usually stored temporarily in special warehouses from which they are then collected for further distribution. The advantage in operating via this system is first and foremost financial. Costs are significantly reduced, as the users of these single points of contact do not require their own warehouses for the cargo, nor transport from one storage facility to another. The construction of a warehouse for these types of cargo, can cost two or three times that of an ordinary warehouse, due to the special requirements imposed for the construction. In addition to storage, these sites also provide a number of other crucial services, e.g. sampling, fine commissioning, filling and cleaning containers, supply and disposal of packaging materials, and stowage of sea containers. Whilst we have to accept that no such operation is risk free, there should be special consideration given when handling hazardous cargo.

It is hard enough operating under normal conditions, ensuring continued compliance with health and safety and/or legislative requirements, let alone during a world pandemic when the increase on the global supply chain has increased exponentially. Due to an increase in consumer demand in recent times, there is an urgent need for port storage facilities specialising in both hazardous and non-hazardous cargo to keep up with the rapid growth in global trade. Given their large capacities and the range of products they are housing at any time, they require full loss prevention measures. The problems associated with warehousing become more difficult when there are different systems applied worldwide for classification and handling of hazardous cargo. As a result, some cargo may be classed and treated as hazardous in one country but not in another. This causes problems, not only for transport and trade, but also with regard to safety.

Cross-jurisdictional regulations

Aside from the fact that there may be differing rules across different jurisdictions, there is a common theme across the world which is that any operator should be aware of and complies with both their local and international regulatory obligations. We know that regulations are intended to help ensure that risks from the business are identified and managed to eliminate or minimise risk. The starting point is for organisations to take responsibility for key safety decisions including the appointment of competent staff who are able to set down the corresponding emergency and business continuity plans. These should take into account the risk of exposure to the likes of fire/explosion, natural hazards, terrorist attacks and cyber risks; these are just as important as compliance with the regulations on dangerous goods.

All of the above can also be supplemented through appropriate information and tracking systems which, for example, can identify dangerous levels or cases of combined storage. These systems also make it possible to check and verify compliance and can be used for both hazardous and non-hazardous goods. In an emergency, it is essential to have fast access to data on all relevant hazardous cargo to ensure that emergency services have all the information they need regarding the substances' location, type and quantity, as well as on the safety precautions taken to protect people and the environment. Once the strategy has been set, the key to risk prevention is then to ensure that such measures are maintained and enforced. This can be achieved through several platforms (i) compliance with local and international regulations, the latter of which should perhaps be extended to cover supposedly non-hazardous cargoes; (ii) keeping better records and making them accessible to everyone; (iii) training of staff so that they can understand and implement the controls and/or policies appropriately; and (iv) better communication.

Improvement as outlined above including improvement in education, increased regulation and a comprehensive risk management system could assist the long-term improvement in losses for both insurers and their policyholders.