



May 19, 2017 | Graham McFarlane

Port of Tianjin Explosion: A Catalyst for Enhanced Business Continuity

Just as the Chinese word for crisis contains the characters for danger and for opportunity, a disaster there was the catalyst for creating an enhanced business continuity management system and a more robust supply chain offering.

Challenges in supply to China

There are challenges in supply of gases and chemicals to China. Import/export lead times are inconsistent—by a few days or even months if products are stuck in customs. Import of empty gas cylinders is a challenge. A deposit is required when there is a temporary import and the duration of stay and type of cylinders is restricted. The average lead time from import to release of the goods is more than two weeks. Air shipments and ocean shipments have different regulations and procedures. Additional lead time must be considered and regulations and documentation requirements must be studied beforehand.

Further challenges after a crisis

A series of explosions occurred August 12, 2015 at a hazardous chemicals container storage station at the Port of Tianjin in a densely populated area in northern China. An immediate evacuation was ordered and a month afterward, as a result of these explosions, there were 173 people killed, 8 missing, and 797 non-fatal injuries. A follow-up investigation uncovered an egregious lack of compliance with safety regulations and many people were sent to jail for illegal activities.

Aftermath

After the Tianjin explosions, the Tianjin port stopped accepting hazardous cargo, including export and import cargo. For hazardous cargo already on board, the containers changed destination to Qingdao, the alternative port to Tianjin. However, there were still some restrictions of class 4 and class 5 hazardous cargo at the port of Qingdao. The hazardous cargo that was accepted by Qingdao port could not be stored at the DG (dangerous goods) warehouse. It required direct loading and discharge, starting on September 1, 2015.

More Chinese ports restricted the movement of hazardous chemical cargo at their facilities. Fortunately, Shanghai port still allowed loading and discharge of hazardous cargo. Port authorities there now carry out more frequent custom inspections based on new regulations.

Carriers also have more restrictions when accepting hazardous cargo. Each MSDS (Material Safety Data Sheet) needs to be current and a proper DG declaration form must be signed. If a hazardous label is missing or the cargo is found to be damaged, the captain has the right to refuse loading the containers. Missing documents and labels can cause unexpected off-load and delay of the shipments. Most DG



Graham McFarlane,
Head of Global
Electronic Special
Gases, Linde
Electronics

goods must be picked up immediately after customs releases and there are additional logistics costs and lead times.

After the Tianjin incident happened, Linde Electronics, which sells gases and chemicals for the electronics industry, told their regions to expect delays from additional scrutiny of their cargo and stricter regulations. They went to work evaluating and developing alternative source and trade lanes. Since the import/export procedures varied at different ports, it was a challenge to export shipments after the explosion.

Enhanced business continuity and supply chain

As a result of this explosion, changes were instituted to assure continuous supply chain in China:

- Working with experienced third-party logistic partners, trade lanes were evaluated on various metrics including cost and cycle time.
- A primary and secondary DG trade lane were established for each bid involving import/export to China. Both trade lanes became a feature of the product offer.

Customers responded well to the inclusion of a Business Continuity Process (BCP)—also called a Business Continuity Management System (BCMS)—into the bid and business was awarded due to this feature of the bids.

Business Continuity Management System

What is a BCMS? It is a holistic management process that identifies potential threats to an organization and the impacts to business operations that those threats, if realized, may result in business disruptions. The BCMS builds organizational resilience with the capability for an effective response that safeguards the interests of its key stakeholders, reputation, brand, and value-creating activities.

The benefits of an effective Business Continuity Management program are that the organization:

- Proactively identifies the impacts of an operational disruption
- Has in place an effective response to disruptions, which minimizes the impact on the organization
- Encourages cross-team working with plants, technical experts, quality, and supply organizations
- Is able to demonstrate a credible response through a process of exercising

Summary

To uphold a reliable supply chain, a supplier should always provide a business continuity plan, which includes the use of both primary and secondary trade lanes so that each lane is ready—and supply chain is continuous—should an incident such as the Tianjin explosions occur again. Also, working with third-party logistics companies, which have a huge network of resources to most in-house supply chains, can provide fast and excellent service and solutions. They are knowledgeable about new governmental rules and regulations and can aid in shortening the lead time of importing and exporting in China and elsewhere.