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Global Management
of Environmental Risk

CHUBB®

In collaboration with
CLYDE&CO

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The world is an increasingly small, interconnected place. Multinational organisations have created a global marketplace that defies national borders, while the continued rise of digital platforms and agile working practices has accelerated the pace of trade, and the pace of change.

But while the world has grown smaller, it has also grown more complex. This means that understanding the multitude of risks that an organisation faces is becoming increasingly important.

In this special report, we take a look at the different types of environmental risks facing a multinational corporation, and how traditional risk management techniques are leaving companies exposed to unnecessary risks - both financial and reputational.

We will also provide you with a four-point checklist of questions to ask when establishing your insurance and risk management programme, as well as overviews of the latest regulatory changes across a number of leading regional markets.

Introducing the multinational insurance programme

To help overcome the obstacles associated with effective risk management for an organisation operating across a number of different jurisdictions, we explore the concept of a multinational insurance programme.

Such a programme allows the risk manager to centrally control and manage the risk, ensuring consistent coverage across all areas of operation, and aligning cover to specific company requirements and strategies on a global and local level.

But while perils such as property and casualty risks have an established foothold in multinational insurance programmes, environmental risks have been slow to follow. And the threat from these environmental risks is growing.

According to the World Economic Forum's *Global Risks Report 2018*, man-made environmental disasters

are listed as a top-10 risk in terms of likelihood, rising seven places since 2016 to seventh position ahead of terrorist attacks and asset bubbles.

Environmental risk is a material risk for a company, affecting both operational ability as well as reputation when the organisation fails to properly plan for it.

But it is also a global risk. When operating multinationally, businesses face a unique set of risks with differing exposures across multiple jurisdictions, and an event that occurs in one country can have knock-on effects to that organisation's global operations.

And with the costs - financial and reputational - of dealing with such disasters on the rise, the consequences of failing to manage environmental risks properly are becoming increasingly severe.

There is almost no uniformity across EU member states in how the laws are implemented. 86% of enforcements under the Directive take place in Eastern Europe.



How to manage environmental risks

The first hurdle to overcome when managing environmental risk on a multinational basis is to understand the different jurisdictions under which a business operates.

Whether it is the need to purchase compulsory insurance or the ways in which pollutants must be safely stored, different territories across the world have different regulatory requirements. It is therefore essential to have a full understanding of these laws if an organisation is to conduct business safely, effectively and successfully across these different jurisdictions.

A decade ago, a typical multinational company would have been primarily focused on complying with the regulations of its home country, with less or limited knowledge of local requirements for its overseas operations.

Today, however, the rising level of environmental legislation across the globe is putting increased pressure on firms to prove compliance with rules and regulations across all its bases of operations. And all of this is done against a backdrop of little or no uniformity across jurisdictions.

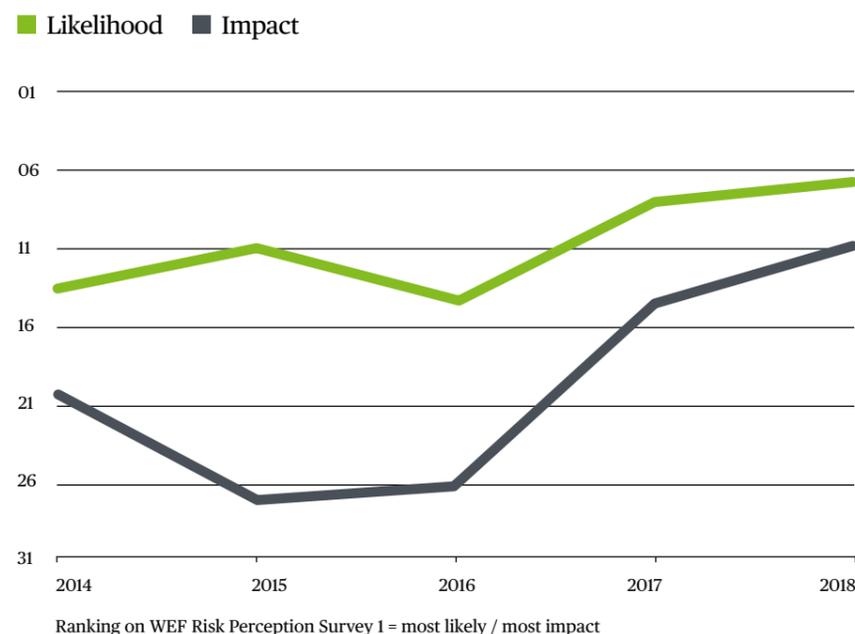
Even in Europe - which should have one set of environmental rules under the EU's Environmental Liability Directive - there is almost no uniformity across EU member states in how the laws are implemented. 86% of enforcements under the Directive take place in Eastern Europe. Cases in other countries are processed under their own - often very different - domestic laws. Eleven member states have recorded no remediation of Environmental Damage within the terms of the Directive between 2007 and 2013.

Furthermore, eight countries have legal requirements for compulsory financial provision for environmental risks, and two have compulsory insurance regimes. The remaining EU member states have no such schemes in place.

As well as understanding the different regulations out there, it is also important to understand how these regulations have changed.

Globally, the changing nature of environmental risk is firmly in favour of increasing regulation. There is not a country in the world, with the possible exception of the US, that is winding back on environmental regulations.

The Rise of Man-Made Environmental Risks:
World Economic Forum's Global Risk Perception Survey (2014-2018)



The tightening of regulation is happening on a worldwide scale, including those jurisdictions that may in the past have been ambivalent about environmental protection, and is overwhelmingly the biggest change to environmental risks in recent years.

And in addition to the details of these various regulations, multinational businesses also need to be aware of how environmental regulations are enforced across different parts of the globe.

Latin America, for example, has tough environmental laws, but enforcement remains inconsistent.

In China, under a law introduced in 2015, enforcement is in the hands of local government, leading to a regionalised regulatory regime where some regions carry out stricter enforcement than others. Others have little or no appetite for taking regulatory action.

The UK's environmental regulations have been in place for a number of years but the way in which the Environment Agency is enforcing these rules has changed.

The Environment Agency is now more proactive in targeting non-compliant companies and the enforcement landscape has changed.

Since 2000, the average fine handed out by the Environment Agency has rocketed from £5,000 to £178,000 in 2017.

In March 2017 Thames Water was fined £20.3 million for releasing 1.4 billion litres of untreated sewage into the River Thames in 2013 and 2014, making it the biggest freshwater pollution case ever taken.

This increasing level of enforcement means that businesses and their insurance policies will need to adapt to this new regulatory landscape in order to stay up to date.

Other jurisdictions and territories have undergone similar changes, creating a more chequered regulatory landscape throughout Europe and the rest of the world.

France, for example, has introduced the idea of Ecological Prejudice. Ireland has increased the level of provision required to cover the risk of environmental disasters happening. More on the world's changing regulatory landscapes can be found on pages 10 and 11.

All of this makes it more important to have a multinational insurance programme in place in order to build in the local expertise required when operating across numerous territories and jurisdictions.

Such a programme helps the corporation to ensure that the correct coverage is in place across all jurisdictions, and that the coverage is appropriate and consistent. This protects the company's reputation in the event of a loss and helps the board to have oversight of the risks and how they are managed from a centralised location.

But the benefits of a well-structured, multinational insurance programme are not restricted to handling claims and reducing damage once a disaster has occurred. The expertise brought to the table by such insurers can also help prevent claims from occurring at all.

At Chubb, we actively engage internal and external engineers to provide loss-control reporting to the vast majority of our clients.

Our in-house risk engineers will use their specialist skills to provide second opinions on how best to manage your specific environmental risks and we have partnered with outside consultants to provide expert advice for specific projects or operations that require unique expertise.

Establishing these partnerships before a claim arises means that they will be more effective should they be called into action following a risk event. Having open and well-established lines of communication will mean that all the relevant teams will be in a better position to limit the damage to the environment and the organisation following a claim.

This preventative aspect of risk management is vital for a multinational company looking to protect itself against environmental risks, and the centralised skills that come with a multinational insurance programme can aid that process.

A multinational programme can provide access to a network of specialist environmental professionals, and help establish routine and preventative maintenance programmes that are embedded into the risk management framework of the company, as well as taking into account the intricacies of the insurance policies contained within the programme.

+3,460%

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The general public has become more environmentally conscious and is increasingly vocal online about environmental issues.

Mind the gap

Across all territories, one of the biggest environmental risks facing companies is the gradual release of pollutants into the natural environment.

But this is often where traditional insurance cover falls short.

Traditionally, only sudden and accidental pollution is covered by general liability insurance policies, and the more difficult and costly claims relating to historic issues or gradual environmental damage are excluded from the cover. Such risks are the very purpose of EIL cover.

Dedicated multinational environmental risk policies have the additional benefit of providing first party cover for environmental risk events. They also provide cover and assistance in the event of regulatory action being taken.

This means that, without a specific environmental risk policy, many risk managers are operating under the incorrect assumption that their environmental exposures are picked up by general liability insurance. But they are typically not for several reasons:

1. Liability policies do not cover the cost of decontaminating a company's own property, because it only covers third-party liability;
2. Liability policies will not protect against statutory-imposed decontamination costs; and
3. Liability policies will usually exclude gradually-occurring pollution releases altogether.

Even if businesses are aware of the risks, they may be operating with gaps in cover, believing that a general policy will pick up their environmental risk exposure.

A more social world

In a more globally connected world, the environmental risk landscape has expanded beyond the tangible threats of pollutant clean-up operations and regulatory penalties and moved online.

The rise of social media platforms such as Twitter has made news coverage instant and provided anyone and everyone with a chance to provide an opinion on world events.

For businesses, this means that environmental risk events are no longer confined to the damage inflicted upon the local natural environment - they have gone global, with reputations on the line.

The general public has become more environmentally conscious and is increasingly vocal online about environmental issues. This is putting companies under an increasing amount of pressure to act in a more environmentally friendly manner.

Failure to do so has consequences.

The reputational damage that can occur following an environmental risk event is significant, as evidenced by the widely publicised 2010 marine oil spill in the Gulf of Mexico. The large oil and gas company involved was criticised not only for the spill itself, but also for its subsequent handling of the crisis in the media.

Its perceived failure to provide the public with adequate information resulted in a parody account surfacing on Twitter, which amassed more than 10 times the number of followers than the company's actual account.

The parody account continued to send out satirical, comedic tweets despite the company campaigning for Twitter to ban the account.

Sometimes the environmental damage could be the result of legacy issues that occurred before your company became responsible for the storage, maintenance or operations at a particular site.

But social media is an unforgiving place, and such details will rarely dampen the backlash and reputational damage that can occur once an issue finally comes to light.

As such, businesses must be quick to react in the event of an environmental disaster, no matter what the cause of the damage.

Having experts in place to manage the situation and mitigate the damage is essential. Businesses need to ensure they have a thorough crisis management plan in place that not only addresses the immediate environmental concerns in the wake of a disaster, but also the reputational and business continuity issues that can arise.

To help mitigate these reputational issues, Chubb offers a crisis management extension to its policies that deploys a specialist crisis management team in the event of a claim, and the team will also provide expert coaching to directors and officers on how to respond in a crisis.

□ The penalty for companies that fail to comply with the French Civil Code is a fine of up to €10 million.



The changing regulatory landscape across the world

1. France

In 2016, the concept of Ecological Prejudice was introduced into the French Civil Code, paving an additional way for companies to be subjected to penalties in the event of environmental damage occurring.

The code states ‘any person liable for an ecological prejudice is obliged to repair it’, while an ‘ecological prejudice’ is defined as ‘sizeable damages to the elements, or to the functions of the ecosystem or to the collective assets of environment from which men benefit’.

These regulatory changes mean the scope to bring an environmental claim has increased. Now, any person or group of people that benefit from the environment can bring a claim if that benefit has been damaged or reduced.

The same year also saw France introduce the concept of corporate duty of care into its civil code, which applies to all large companies incorporated in France.

It requires companies to have a number of measures in place to prevent environmental damage, including in-depth risk mapping, due diligence, mitigating strategies and implementation systems.

The new regulations implement a code of good governance and require French corporations to check sub-contractors, controlled companies and suppliers to ensure they too are taking adequate steps to protect the environment.

The penalty for failing to comply with these requirements is a fine of up to €10 million.

The law change also permits non-governmental organisations (NGOs) and other organisations to take action against a French company for environmental damage, providing the claim is made within five years.

These changes mean that previous freedom-of-services policies may no longer be suitable for the French market, making local policies more appropriate.

2. Republic of Ireland

In 2015, the Irish Environmental Protection Agency revised guidelines for financial provisions for environmental risks, requiring any holder of an environmental permit to put aside higher financial provisions in case any damage is caused to the environment.

The guidelines protect the public purse in the event of a company going bankrupt. Funds from tax payers will therefore not be used to clean up land contaminated as a result of a company’s operations as funds will still be available to meet the company’s liabilities.

Since the revision of the regulations, funds can now be held in the form of a properly structured insurance policy, providing it complies with a set of 18 different criteria.

This generally makes such an insurance policy more cost effective than a bond that pays out in the event of an environmental disaster, and more advantageous than tying up capital in balance sheets.

It has so far been difficult to get an environmental policy approved, however, but a number of carriers, including Chubb, have been successful, meaning a properly structured multinational programme could be a viable alternative to bonds or holding cash reserves.

Other European Union member states are looking at the possibility of adopting similar measures to those introduced in Ireland, and the European Union Network for the Implementation and Enforcement of Environmental Law has commissioned a working group to further explore this area and produce details of financial provisions, which could be useful for both regulators and operators.

3. United States

The new Trump administration in the US appears to be reducing environmental regulation at federal level and reducing America’s international commitments, but the majority of this has not filtered down to individual states, which continue to maintain higher levels of environmental regulation.

In fact, by contrast, individual states have continued to increase their environmental regulation in a number of circumstances, going against the trend set by the federal government.

The United States Climate Alliance, which includes California and Washington along with 12 other US states as members, has even committed to upholding the objectives of the 2015 Paris Agreement on climate change within their borders, despite President Trump withdrawing the US from the agreement.

The effects of these changes at a federal level is still to be felt, but the varying nature of regulation across the different states makes it important for businesses to seek expert local advice.

Furthermore, liability in the US is heavily based on class action lawsuits, creating a volatile environmental risk landscape in which to operate.

Companies must ensure any definition of environmental law in their insurance policies is robust enough to pick up both state and federal regulatory requirements.

4. China

The Environmental Protection Law that came into force on 1 Jan 2015 is a huge step forward for China in terms of environmental regulation.

The new law has provision for imposing unlimited fines on businesses, and holds local governments accountable for implementing environmental policies. It also allows NGOs to bring public interest lawsuits in an effort to add further pressure on local governments to enforce the new regulations.

Domestically there is a determination in China to make improvements to its environmental regulatory regime, an initiative that was driven in no small measure by the Tianjin explosions at a chemical plant in 2015.

Following the explosions, the Ministry of Environmental Protection took control of auditing chemical installations across the country.

China has also seen the opportunity to lead on environmental risk regulation on a global scale and is seeking to exercise international leadership on a number of environmental issues.

Structuring a multinational environmental impairment insurance programme

When setting up a multinational insurance programme for environmental risks it is important to do the proper research. While an insurance policy can bring a degree of certainty to a risk management portfolio, it is only effective if it is the right type of policy for the company's specific risk portfolio. It is important to note that no two risks are the same, so neither should any two environmental risk policies be.

While a Freedom of Services-issued policy in the European Union may have been good enough in the past, businesses now need to be more aware of the individual regulations and applications of insurance in different territories, and it is therefore important to get expert advice on how to properly set up and establish a multinational insurance programme.

There are two main ways to cover multinational risk exposures. The first, and best, option is to purchase local language policies that cover the countries of operation, ensuring the coverages are fully compliant with all local laws and regulations.

The second option, which should only be used when there is no coverage available in the local market, is to purchase a parent-level master policy insuring the overseas financial interests of the main holding company in the event of an environmental disaster.

While this second option provides financial redress in the event of a claim, it also means that the insurer has little ability to control the claim on site. The possible tax consequences of such an approach to covering overseas subsidiaries and affiliates need to be addressed and managed at both the parent and subsidiary level.

So choosing an insurer with a network covering a large number of local territories is vital. Having a properly structured programme in respect of local laws and regulations not only ensures appropriate and adequate insurance cover, it also helps in being able to quickly and properly respond to an environmental disaster in the event of a claim.

Such a multinational programme helps ensure compliance with any compulsory insurance requirements that may be in force in certain jurisdictions, which can be very complicated. China, for example, has compulsory insurance for some sectors and not others, as does India.

A multinational insurance programme provides reassurance that the insurer understands the local legal systems in which you operate, so the product is tailored for those environmental regulations.

The most important aspect of handling an environmental insurance claim, however, is to get the emergency response on site as quickly as possible. The end costs are a function of how rapidly they can reach the disaster site and get the right specialists to help contain the event and reduce the extent of the damage.

What a properly structured multinational insurance programme provides is specialist knowledge to help deal with the regulations required in that particular jurisdiction, whether it be specialist lawyers, loss adjusters, engineers or crisis managers. If there is no such programme in place, businesses are not able to implement those controls in the quickest possible manner.

This is not only costly to the insurer, but also the insured if their policy does not cover certain aspects of what they are doing on the site or has exclusions for

reputational damage and business interruption. The danger is this can lead to businesses being underinsured as a result of a lack of risk management tools being in place.

While some companies do not understand the extent or how quickly the cost of environmental claims can rise, they may believe a £10 million limit is sufficient to cover their risk exposure. That can be quickly eroded in the event of a claim if it is not managed promptly and properly.

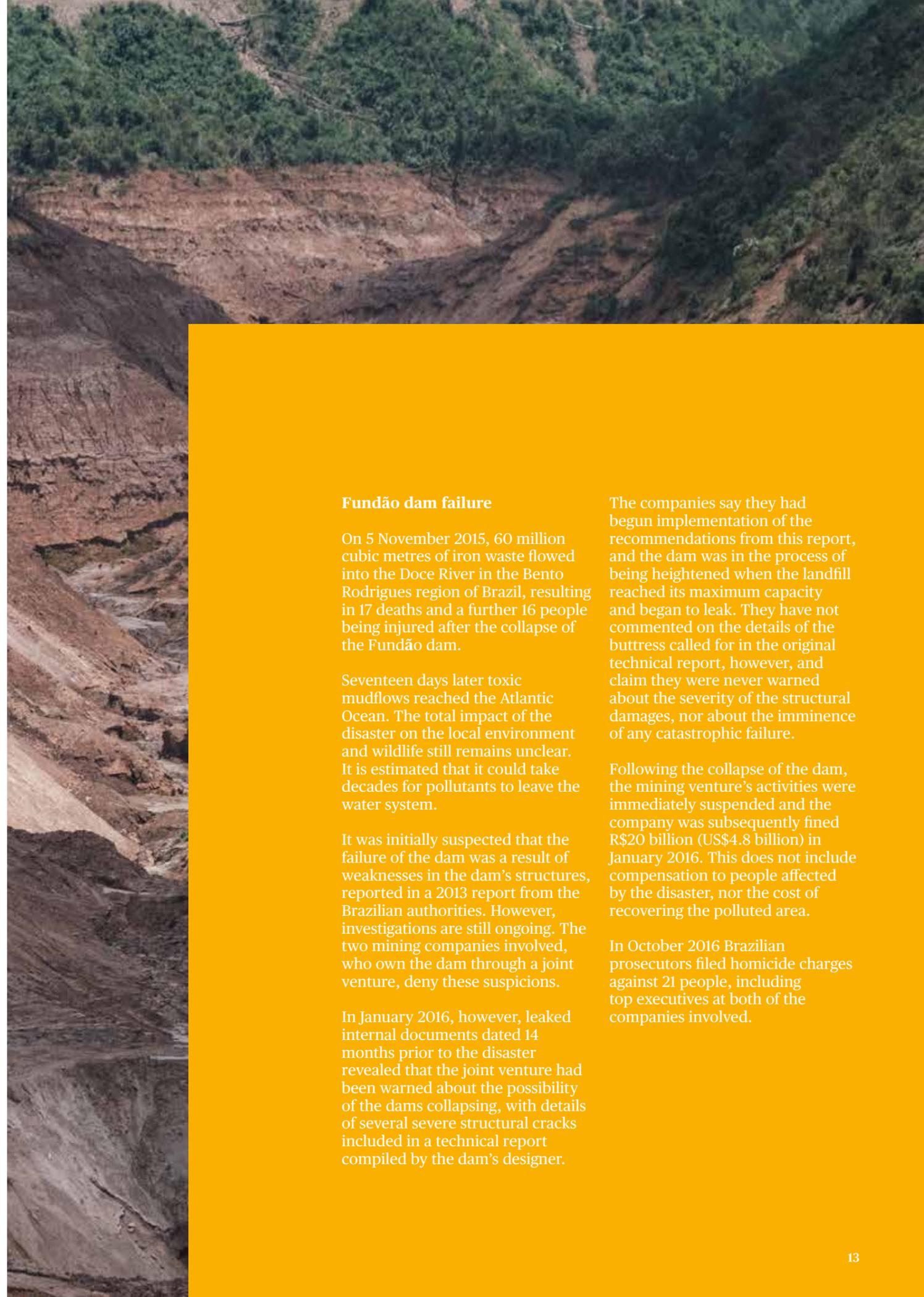
As such, it is important to ensure risk is placed with a company that can act swiftly, because businesses that don't control claims can quickly become underinsured. But if they promptly deploy specialists then the insurer is able to reduce the cost of the claim and keep it within the limits of the policy.

Here at Chubb, we have a 24/7 claims reporting service, and that is very important to our customers. It means we can deploy our network of environmental consultants in the UK and Europe in the event of a claim and those consultants can act immediately to contain the event and liaise with regulators or claimants to manage the event and mitigate the claimed amount.

Don't forget the add-ons

It is also possible to purchase extensions to provide additional coverage as part of your multinational package.

Some of the most common add-ons include an extension to provide crisis management support, to help mitigate reputational damage by providing expert coaching for directors and officers, as well as first party business interruption coverage to cover lost revenue in the event of business operations being suspended while the environmental risk is brought under control.



Fundão dam failure

On 5 November 2015, 60 million cubic metres of iron waste flowed into the Doce River in the Bento Rodrigues region of Brazil, resulting in 17 deaths and a further 16 people being injured after the collapse of the Fundão dam.

Seventeen days later toxic mudflows reached the Atlantic Ocean. The total impact of the disaster on the local environment and wildlife still remains unclear. It is estimated that it could take decades for pollutants to leave the water system.

It was initially suspected that the failure of the dam was a result of weaknesses in the dam's structures, reported in a 2013 report from the Brazilian authorities. However, investigations are still ongoing. The two mining companies involved, who own the dam through a joint venture, deny these suspicions.

In January 2016, however, leaked internal documents dated 14 months prior to the disaster revealed that the joint venture had been warned about the possibility of the dams collapsing, with details of several severe structural cracks included in a technical report compiled by the dam's designer.

The companies say they had begun implementation of the recommendations from this report, and the dam was in the process of being heightened when the landfill reached its maximum capacity and began to leak. They have not commented on the details of the buttress called for in the original technical report, however, and claim they were never warned about the severity of the structural damages, nor about the imminence of any catastrophic failure.

Following the collapse of the dam, the mining venture's activities were immediately suspended and the company was subsequently fined R\$20 billion (US\$4.8 billion) in January 2016. This does not include compensation to people affected by the disaster, nor the cost of recovering the polluted area.

In October 2016 Brazilian prosecutors filed homicide charges against 21 people, including top executives at both of the companies involved.

Questions to ask before setting up a multinational environmental impairment insurance programme

Building a multinational insurance programme is a complicated task. Here are some questions you should be asking before establishing your own programme to protect against environmental risks.

Where do you think you are most likely to have a claim, and where are the strictest environmental regulations?

It is important to build a multinational environmental impairment insurance programme from the local policy level up, and then look at individual limits - keeping in mind that you are building a global programme with aggregated limits.

For UK or European multinational clients with exposures in the European Union, think about where your overseas operations are based and if a single master policy from your jurisdiction on a Freedom of Services basis is the best way to cover those exposures, or if you need a more specific local language policy for countries within the EU.

Are you covering the minimum regulatory requirements for insurance provisions?

Certain jurisdictions require a business to hold compulsory insurance to cover environmental damage if it operates in particular regions or industries.

It is therefore vital that any multinational programme meets these minimum requirements in order for the business to remain compliant with environmental regulations across all of the regions they operate in.

You also need to make sure that the programme covers first party remediation costs, because most

environmental laws stipulate that the policy holder can be required to clean up its own land, even if the damage doesn't spread to neighbouring land.

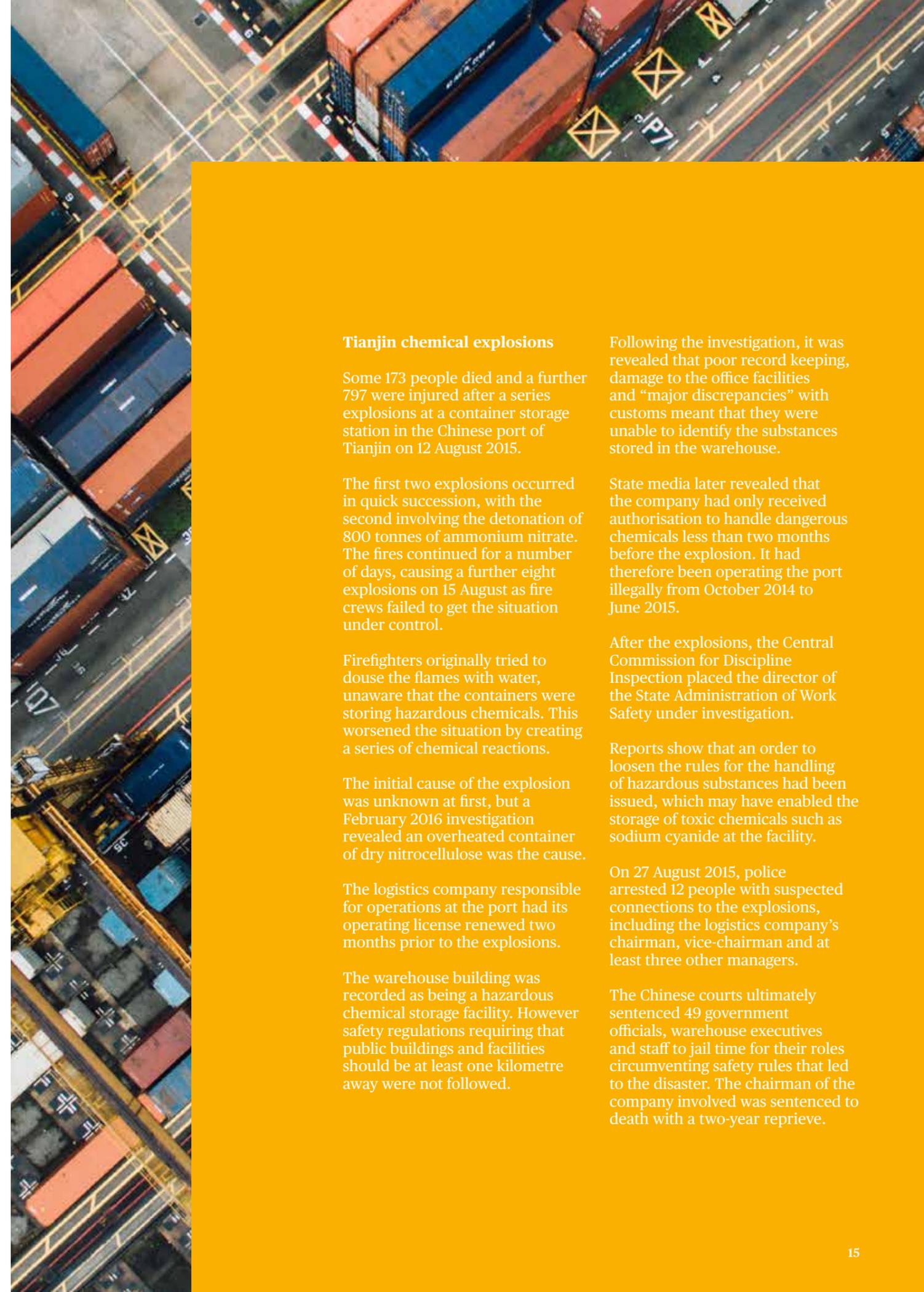
Does your insurer have adequate local knowledge?

Having the required expertise to manage claims across numerous different territories is fundamental to the successful implementation of a multinational environmental risk programme.

Not only will such experts allow you to ensure that you have the correct risk management and insurance measures in place, it will also ensure you are best placed to handle a claim and reduce costs should the worst happen.

Could your operational sites be exposed to legacy contamination issues?

You need to be aware of any historical land usage for sites you operate from, and whether or not that presents any contamination risks that you may be liable for if the original polluter cannot be found in order to assume liability itself.



Tianjin chemical explosions

Some 173 people died and a further 797 were injured after a series of explosions at a container storage station in the Chinese port of Tianjin on 12 August 2015.

The first two explosions occurred in quick succession, with the second involving the detonation of 800 tonnes of ammonium nitrate. The fires continued for a number of days, causing a further eight explosions on 15 August as fire crews failed to get the situation under control.

Firefighters originally tried to douse the flames with water, unaware that the containers were storing hazardous chemicals. This worsened the situation by creating a series of chemical reactions.

The initial cause of the explosion was unknown at first, but a February 2016 investigation revealed an overheated container of dry nitrocellulose was the cause.

The logistics company responsible for operations at the port had its operating license renewed two months prior to the explosions.

The warehouse building was recorded as being a hazardous chemical storage facility. However safety regulations requiring that public buildings and facilities should be at least one kilometre away were not followed.

Following the investigation, it was revealed that poor record keeping, damage to the office facilities and "major discrepancies" with customs meant that they were unable to identify the substances stored in the warehouse.

State media later revealed that the company had only received authorisation to handle dangerous chemicals less than two months before the explosion. It had therefore been operating the port illegally from October 2014 to June 2015.

After the explosions, the Central Commission for Discipline Inspection placed the director of the State Administration of Work Safety under investigation.

Reports show that an order to loosen the rules for the handling of hazardous substances had been issued, which may have enabled the storage of toxic chemicals such as sodium cyanide at the facility.

On 27 August 2015, police arrested 12 people with suspected connections to the explosions, including the logistics company's chairman, vice-chairman and at least three other managers.

The Chinese courts ultimately sentenced 49 government officials, warehouse executives and staff to jail time for their roles circumventing safety rules that led to the disaster. The chairman of the company involved was sentenced to death with a two-year reprieve.

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