



TT Club Loss Prevention

# 2023 – A year in focus

TT Talk: Clandestine **migration** in freight

Shore power: **changing risks and regulations**

TT Talk: **Death in spaces**

**Fire not the only risk** with lithium-ion batteries

Persistent and pervasive **pests** – an update

TT Talk: Asset management – a case for **drones**

TT Talk: Transporting **plastic pellets**





# Loss prevention: a year in focus

This publication highlights a range of topics relating to loss prevention guidance produced by the TT Club in 2023. The Club produces an array of risk management guidance materials throughout the year, a key selection of which we have chosen to profile in this review. This document also highlights the global scope of TT Club's loss prevention activity. Various links are available throughout the document to access further information online. The entire library of TT's loss prevention guidance can be found at [www.ttclub.com/loss-prevention/](http://www.ttclub.com/loss-prevention/) and you are invited to email us at [riskmanagement@ttclub.com](mailto:riskmanagement@ttclub.com) or get in touch with your usual contact should you have any queries, ideas or suggestions.

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This “Year in focus” brochure takes a look back over the full 12 months of 2023 at some of the key topics that TT has covered, the key events attended and the initiatives launched, all in the name of promoting safety, security and sustainability throughout the global supply chain.

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# 2023 – a growing team makes for increased loss prevention efforts



**Mike Yarwood**  
Managing Director,  
Loss Prevention, London

2023 was a year that witnessed a renewed focus and commitment towards loss prevention activities, with additional emphasis placed on the Club's mission statement to make the industry safer, more secure and more sustainable. Pivotal to TT's mutual ethos, the loss prevention function strives to guide those TT insures – and indeed the wider industry – in all aspects of risk through the container transport and global logistics supply chain.

Underlining the Club's ongoing dedication to providing valuable loss prevention guidance, a commitment of additional resource was made in 2023 with two new colleagues joining the function. Josh Finch joined in May as Logistics Risk Manager and Neil Dalus joined in June as EMEA Risk Assessment Manager. Josh and Neil bring a wealth of industry expertise to the team and will be invaluable in delivering against the Club's business plan and mission statement.

A more purposeful focus on Member engagement commenced in 2023 that will continue into 2024 and beyond. Increased Member visits, risk assessments,

engagements at industry events and consultancy style engagements on a global scale have all been possible with the increased resource.

TT's monthly loss prevention newsletter, TT Talk, passed a milestone of 300 editions in July. For over twenty-five years the monthly, online newsletter has extended awareness of, and offered advice on how to mitigate specific risks to an audience of the Club's Members as well as the industry at large.

The team is looking forward to delivering an increased impact through 2024 and beyond.

“

Increased Member visits, risk assessments, engagements at industry events and consultancy style engagements on a global scale have all been possible with the increased resource.

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# TT Talk: Clandestine migration in freight

In April's edition of TT Talk, we turned our focus once again to the risk that clandestine migration can pose to the global supply chain. As is evident in the media, there is an upward trend of illegal migration in many countries due to cost of living crises and outbreaks of war and conflict. As criminal organisations evade authorities with quickly evolving and evermore dangerous tactics, we explore the practical steps transport operators could consider to mitigate the risk to their operation.

“While other modes of transport are not without challenges, these risks are most prevalent through the road mode.”

As previously highlighted, risks associated with clandestine migration around the world include impact on the freight supply chain. Criminal organisations behind this illicit activity have long realised that the legitimate logistics operations present very efficient means of moving people, often undetected, across key borders.

General media across the globe frequently focus on migration, but rarely identify the exposure that is faced by logistics operators. While other modes of transport are not without challenges, these risks are most prevalent through the road mode. Trucks, trailers and containers are most easily accessible whilst being moved on public roads. They are prone to frequent stops – either in traffic or during necessary breaks – whilst on route to port facilities or border crossings, providing adequate opportunity for bad actors to intervene. Furthermore, there have been numerous cases whereby people have been discovered in concealed sections of trailers and trucks following far more purposeful activity.

There is a highly emotive human element to this aspect of criminality. Individuals paying (usually disproportionately) to be trafficked are typically seeking a better life for themselves and their families, whether avoiding war, poverty or both. Unfortunately, the criminals behind this activity are quick to exploit desperate circumstances and rarely care if those individuals reach the intended destination or not. The criminals are motivated only by the fee they charge for their “service”.

There have been several examples where multiple people have been discovered in trucks and trailers, tragically, cases of reported

fatalities are not uncommon. Further examples that those organising these movements are doing so without any concern for the wellbeing of the people being trafficked are common.

An incident in February this year noted the discovery of 40 people in an abandoned truck in Bulgaria. The migrants travelling from Afghanistan were discovered in a concealed compartment under a cargo of timber. Horrifically 18 of the immigrants were found to have suffocated during the journey.

In June 2022, 62 migrants were discovered in a truck in San Antonio, Texas. Of these, 46 appeared to have been overcome by the extreme heat during the journey and lost their lives, their bodies “stacked” in the cargo space by the 16 survivors; the bodies were reportedly hot to the touch upon discovery.

Such examples display the multinational scope of this activity. Some jurisdictions have sought to penalise logistics operators, not only in relation to migrants actually found, but also potentially in relation to perceived security deficiencies. By way of example, recent substantial changes in the level of penalty in the United Kingdom have necessarily given profile to the government Vehicle Checklist and guidance on preventing clandestine entrants (both in multiple languages). There is a useful commentary provided by BIFA, the UK freight association, in their recent newsletter article.

Other jurisdictions are likely to have different specific guidance and potentially, checklists. While there may justifiably be questions or comments on any of these, it is apparent that the risks need to be managed and, furthermore, that rigorous documentary records will support any operator in the event that any border control raises an issue.

Three fundamental steps are recommended:

- Provide adequate training for drivers on how to avoid becoming involved with clandestine migrants. This should involve producing written security procedures, including vehicle security checklists;
- Deploy robust security devices to secure the vehicle, goods and cargo space. Ensure that drivers are fully briefed on their use; and
- Monitor compliance with all procedures.

## Essential measures

Once procedures are established, there are practical measures to be implemented throughout the intended journey – before packing, during the packing process and finally, during transit.

Before packing takes place, ensure that the condition of the unit – particularly curtain-sided trailers – is such that unauthorised entry is prevented.

As far as possible, ensure that no persons gain entry during packing and instruct the driver only to sign a clean packing receipt when a proper check of the consignment is possible. Check the entirety of the seal cord (TIR Cord), in particular its ends and the seal strip, to ensure that it is intact and free from cracks, and has not been cut and put back together.

During transit, it is inevitable that the trailer or unit will at times be left unattended (such as during meals, overnight or at terminals). Drivers should be instructed to check for signs of any tampering on return to the vehicle and to complete a security checklist. For accompanied movements, deploying something as simple as a baby alarm in the trailer, with the control unit in the driver's cab, will provide an alert and security equipment, such as cameras, may also assist in detecting activity.

Whenever, despite following these recommendations, there is the slightest suspicion that someone has gained access to the trailer, irrespective of the location, the driver should immediately alert the local authorities (police, customs, ferry operator, etc.), but not seek to confront any clandestine migrants.

Whilst owners, hirers or drivers may contract with third parties to conduct the required checks on their behalf, they are likely to remain liable to any penalty incurred in the event of failure to have an effective system in place or to operate it properly. Due diligence in the selection of such contractors is therefore critical.

[Read more](#)



## Comment from Mike Yarwood – Managing Director Loss Prevention, London

“Whether due to humanitarian crisis brought about by conflict or simply people seeking a better way of life for themselves and their children, clandestine migration continues to pose challenges for the global supply chain.”

The supply chain is an obvious choice, particularly for criminal organisations who create smoke screens behind which they can traffic people often unnoticed, whether concealed within a container, truck or more elaborately within hidden compartments.

As governmental authorities' means of detection become more sophisticated, arguably the risk heightens for those being trafficked. Hidden in reefer trucks and containers for example, breathable air is minimal and largely without any circulation.

All stories of this nature are emotive, there have however been several tragic incidents in the last years where literally hundreds of people have been concealed within a cargo transport unit. The criminals behind this activity are typically uninterested in the well-being of the individuals being transported.



# Complications with customs: a look at recent claims and mitigation



**Alison Wixley**  
Senior Claims Executive,  
London



Alison Wixley joined TT Club as a Senior Claims Executive in March 2023. She has more than 15 years' experience in the freight and logistics industry, including cargo handling facility and transport operator claims management. Throughout 2023, Alison noted a pattern of claims relating to customs issues, especially for European Members acting in the capacity of customs agent in a post-Brexit landscape. Here, Alison notes the trend in claims and possible steps for mitigation.

After Brexit, the customs landscape in Europe changed significantly for the first time in a generation, giving logistics operators the opportunity to diversify and provide customs-related services. This does however mean that TT Club has received a number of claims and customs-related enquiries through 2023 from our European logistics operator Members, typically when acting in the capacity of customs agent.

Some of the claims received to date relate to customs clearing practices, where the logistics operator becomes liable as the Indirect Customs Agent for the actions of the shipper for matters relating to the under valuation of goods, failure to add freight costs to the import value and for inaccurate declaration of goods. TT has also seen challenges where Members operate bonded warehouse operations, particularly where prescribed deadlines to remove goods and bring duty into account are not met and where there have been failures in process to retain documents evidencing discharge of duty.

### Operational risk issues

Completing customs declarations and documentation is a fairly administrative and repetitive function, but even a minor error can have a high consequence outcome. The high volume of entries, combined with the thousands of different line items can make it difficult or impossible for an incorrectly declared value to be identified.

Even with all the appropriate terms and conditions in place, recovering under paid amounts from customers can be challenging as with the time delay, companies have potentially closed, liquidated or may simply not have local assets. Recovery of overpaid amounts from Customs to refund to a customer can also be difficult if the error is picked up going back more than three years.

### Risk mitigation

There are steps that Members can take to reduce their exposure to customs-related losses.

- ✓ Conduct frequent and thorough training of staff to reduce the risk of errors, particularly where there is high staff turnover.
- ✓ Write down all standard operating procedures to ensure that institutional knowledge is not lost. Where appropriate, they could be client specific and signed off by the client.
- ✓ Ensure oversight by senior management with regular spot checks and audits to increase the chance of picking up issues at the time. Mistakes that are not readily identified will quickly manifest into large exposures.
- ✓ Engage with local customs authorities on methods of valuation and tolerance levels for variation.
- ✓ Where possible, commercial invoices should be checked.
- ✓ Conduct thorough due diligence on any client, in particular where they are not based locally.
- ✓ In some circumstances (if commercially viable) a deposit or bank guarantee may provide additional comfort.
- ✓ The additional risk of indirect representation should be understood, and the risk factor priced into rates.
- ✓ Consider conducting regular internal and potentially joint audits to mitigate the possibility of uncovering an error that dates back more than three years.

# Five minutes with Josh Finch

Josh Finch joined TT Club in the role of Logistics Risk Manager in May 2023. Based in London, Josh held various operational management roles in the logistics industry and built a wealth of knowledge that he is now able to use in the context of risk assessment, management and mitigation for the TT membership.

Here we talk to Josh about the risks that kept him awake at night in his previous roles, and how he thinks this will help him support the Club's Members.

**Josh, you joined TT's loss prevention function in May having worked extensively in the logistics industry for 15 years, from the experience you amassed while in the industry, what would you say was most valuable coming into this role?**

During my time in industry, I spent a lot of my time developing knowledge around incident investigation and response. Incidents such as theft or health and safety accidents can be difficult and confusing for managers to investigate and address and my knowledge in this area served me in good stead over the years. Since joining TT Club, this knowledge has also proved valuable to my colleagues within the Club, as well as to the Members. I am able to analyse an incident and understand why it's happened and what can be done about it because I have likely lived something very similar.

**Looking back at your time in industry, in the context of risk, what would you say was at the top of the list of things that kept you awake at night?**

I would have to say that staff retention was at the very top of my list. I think this is a risk that is often underappreciated. People who have not managed an operation might perceive that poor staff retention impacts on operational efficiency but not appreciate the ways that it can increase the risk of theft and H&S accidents. Operations use standards such as operating procedures and safe working instructions to ensure that workers complete tasks in the safest, most efficient way possible. A constant flow of new workers means constant demands on the training team and a struggle to ensure everyone is following the correct procedures. Furthermore, every new hire is a potential bad actor who might compromise the security of your operation. All in all, I think that poor retention and difficulty hiring is the greatest challenge facing the industry.

**Obviously your own people present risk, particularly as you highlight where they might be new to the operation or not as well trained as you would like, but others can also influence operational risk. What about the demands of customers, for example?**

There are a lot of risks that are inherent in the supply chain and a good operator knows what those risks are and puts in place measures to mitigate those risks. However, one thing that is not always appreciated is that customers can place demands on an operation that introduce risk and it can be very difficult for even the most seasoned operator to account for and mitigate these risks. I had one customer who insisted on using bespoke pallets for all their goods. This variety of pallet dimensions might have improved their load fill and thereby improved their bottom line, but it also had a serious impact on load stability, which introduced new risk for my workers and drivers. I have seen examples of similar risks introduced by the customers of the Club's Members. In one example, the Member had a very effective security infrastructure on site, which their primary customer persuaded them to limit the use of because that customer did not want to go to the trouble of planning drivers

**Josh Finch**  
Logistics Risk Manager,  
London



in and out of the site. We all want to please our customers but, unfortunately, doing so can introduce unintended risks.

**Is there a particular area of risk in the logistics industry that you feel passionately about and why?**

My greatest passion has been and will continue to be working to ensure that workers are able to leave at the end of the day and return safely to their families. I am so pleased that I have been given a chance to join the Loss Prevention team at the Club and put my knowledge and experience to good use helping to improve the safety and security of operations all over the world.

**I am able to analyse an incident and understand why it's happened and what can be done about it because I have likely lived something very similar.**



# TT leading the charge at industry events

2023 saw a vast range of events take place across the globe covering a wide variety of topics. TT Club staff in all regions visited, exhibited at, and spoke on panels at industry events covering risks of lithium batteries, the transfer of invasive pests, the importance of safety innovation and cargo theft strategies to name a few. While there isn't space to note them all, here we look at a few of the key events of 2023.



**Peregrine Storrs-Fox**  
**Lithium Batteries in the Global Supply Chain,**  
**London, UK**  
15 March 2023

In March, TT Club co-sponsored a conference with the Cargo Incident Notification System (CINS) and the International Group of P&I Clubs (IG P&I) focussed on raising awareness of the dangers of transporting lithium batteries. Peregrine presented to the conference on lithium batteries in the maritime supply chain specifically, noting "the intermodal nature of containers means more actors other than shipping lines, be they manufacturers, packers, forwarders, logistics operators, warehouses and cargo handlers must all be cognisant of the safety issues we are addressing and play their part in ensuring the risks are properly managed." The event was repeated in Singapore in December with TT staff in attendance once again.



**Neil Dalus**  
**Port Electrification East,**  
**Jersey City, USA**  
8 Nov 2023–9 Nov 2023



**Mike Yarwood**  
**Bodily Injury seminar,**  
**Jersey City, USA**  
19 April 2023–20 April 2023

TT Club and UK P&I Club teams in New Jersey organised an invitation-only event for Members addressing key risks. Mike travelled from London to speak about the risks of slips, trips and falls as well as contributing to a session about lithium batteries with colleagues from the UK P&I Club. Speaking about the event, Mike said "it was fantastic to see so many of our Members in the region in attendance, there were many interesting discussions about key risks fostering a collaborative approach to risk mitigation".



**Guillermo Cancio**  
**Miami-Dade Police**  
**Department's Global**  
**Cargo Theft Symposium,**  
**Miami, USA**  
19 Sept 2023–  
22 Sept 2023

In September, partly in recognition of a spike in cargo theft incidents in North America, Guillermo Cancio, Senior Claims Executive based in New Jersey attended the annual Miami Dade Police Department (MDPD) Cargo Theft Symposium. Speaking about the event, Guillermo said "this event allows professionals to network and to encourage knowledge transfer from the MDPD's experienced cargo theft detective unit to other police departments and the wider supply chain industry. Speakers highlighted the exponential growth of "strategic theft" and the unprecedented costs incurred by the industry, especially brokers. All speakers emphasised the industry's need to collaborate to disrupt thieves."



**Dorota Jilli**  
**Association of Bulk**  
**Terminals Conference,**  
**Lisbon, Portugal**  
25 Oct 2023–  
26 Oct 2023

In October, Dorota attended the annual Bulk Terminals conference in Lisbon, alongside staff from one of the Club's Board Members. Dorota gave a presentation on the importance of an embedded safety culture in managing risk, reducing accidents and ensuring resilient operations.



**Andrew Peers**  
**British Ports Association**  
**Annual Conference,**  
**London, UK**  
17 Oct 2023–19 Oct 2023

This year the BPA's annual conference was in London and the Club purchased a stand to raise awareness of key risks for port and terminals. Andrew and his team challenged attendees to correctly allocate a claims budget for a fictional port, based on TT's real claims data. Mike Yarwood, also in attendance, spoke on panel about how AI and automation is impacting the safety of port operations.



**Mike Yarwood**  
**TAPA EMEA Resilience@Risk Conference,**  
**Amsterdam, Netherlands**  
15 June 2023–16 June 2023

This year, TT sponsored and presented the inaugural Young Supply Chain Resilience Professional of the Year Award, seeking to identify outstanding individuals excelling in the profession and support TAPA EMEA's aim to promote careers in cargo security and supply chain resilience.



**Mike Yarwood**  
**TOC Europe,**  
**Rotterdam, Netherlands**  
13 June 2023–15 June 2023

This year, at TOC Europe, the Safety Village was back and bigger than ever. The Safety Village hosted over 20 speakers presenting innovative solutions to safety and security concerns, this time offering five pods to companies working to make the global cargo handling industry safer.



**Leanne Cadman**  
**Transport Logistic,**  
**Munich, Germany**  
9 May 2023–12 May 2023



**Sandro Chu**  
**ASEAN Ports and Shipping,**  
**Bangkok, Thailand**  
31 Oct 2023–1 Nov 2023

Sandro is a Senior Claims Executive based in TT Club's Hong Kong office. In October he travelled to Bangkok to give a presentation on risks specific to bulk liquid terminals.



**Laurence Jones**  
**TOC Asia,**  
**Singapore**  
29 Nov 2023–30 Nov 2023



**John Thomson**  
**International workshop on**  
**pest risk mitigation,**  
**Brisbane, Australia**  
17 July 2023–19 July 2023

John Thomson, TT Club Senior Claims Executive based in Sydney, attended this workshop to build on the September 2022 International workshop on reducing the introduction of pests through the sea container pathway and develop recommendations for pest risk mitigation while facilitating international trade.



**Karim Bizri**  
**The Australian Grains Industry**  
**Conference,**  
**Melbourne, Australia**  
26 July 2023–27 July 2023



**John Thomson & Henry Steindl**  
**Port Industry Association,**  
**Invercargill, New Zealand**  
3 Aug 2023–4 Aug 2023



**Abdul Fahl & Mike Yarwood**  
**IAPH World Ports Conference**  
**Abu Dhabi, United Arab Emirates**  
31 Oct 2023–1 Nov 2023

The TT Club team was out in force for the IAPH World Ports Conference in Abu Dhabi. Abdul and his team tested attendees' knowledge of the most costly port and terminal claims with the Club's newly developed port risks game, while Managing Director Loss Prevention, Mike Yarwood, spoke on panel about the importance of embedding a sustainable safety culture.



**Andrew Watson-Steward**  
**Cool Logistics Global**  
**Conference, Genoa, Italy**  
10 Oct 2023–12 Oct 2023

This October, Andrew attended the Cool Logistics Global Conference and lead a session on cool Cargo Integrity.



[Read more](#)



# Look out below – slips, trips, falls and snap-back zones

**Kevin  
Albertson**  
Deputy Regional  
Claims Director,  
New Jersey



Kevin Albertson is TT Club's Deputy Regional Claims Director, based in the New Jersey office. He joined TT Club in February 2019 having spent time as an Associate Attorney taking an active role in all phases of maritime litigation. In April 2023, Kevin attended a bodily injury seminar hosted jointly by TT Club and UK P&I Club at the Thomas Miller Americas offices in New Jersey. Here, Kevin outlines his key takeaways from the seminar.

Look out below – no really look. That was the main theme of a bodily injury seminar I attended earlier this year in conjunction with the UK P&I Club, TT Club and Thomas Miller. Presented by the Loss Prevention departments of both Clubs, who spoke about bodily injury claims data from both marine and terminal risks. However simple, one would be surprised by how often these incidents actually occur.

## Slips, trips and falls

During the seminar, loss prevention experts from both Clubs walked attendees through the claims data, highlighting some of the recurring themes such as lack of situational awareness, lack of personal protective equipment ("PPE") and dangers of high-traffic areas. While such an oversight may seem simple and innocent, the consequences could range from a simple bruised knee to tragically ending one's life.

The theme may put the onus on the individual, but companies always play a role in workplace safety. Of interest are any high-traffic areas and staircases, which are subject to foreign debris brought in by employees, vendors or any other third-party traversing the area. These areas should be cleaned regularly and perhaps high-grip treads installed on all high-risk steps. Other recommendations included non-skid surfaces, black and yellow paint on tripping hazards and regular surveys to ensure clean work areas.

## Snap-back zones

Generally speaking, snap-back zones are areas near mooring arrangements on board vessels that have a high probability of

mooring line recoil. Worn or rotted mooring lines are prone to snapping back wildly with high speed, releasing a great amount of energy towards anything in its path – including people. Again, one must be aware of their surroundings at all times, but that does not mean terminal owners or operators cannot take steps to help protect line handlers. Some suggestions on mitigating bodily injury risk in these areas include:

- "Toolbox" talks prior to mooring operations. The talk should inform all involved on the specifics of the mooring arrangements and the general plan for line arrangements on terminal, all while identifying specific snap-back zones, which line handlers should avoid at all costs – regardless of the tension of the line or activity in the area.
- Signs on terminal warning anyone traversing the area they are entering a snap-back zone.

## Conclusion

Small steps, like looking ahead and down, and situational awareness can help prevent serious bodily injury. Coupled with the proper preventative measures by vessel owners or operators, these steps can formulate an effective loss prevention campaign against slips, trips and falls. However, this effort is always ongoing and real with the ongoing maintenance terminals and warehouses require. Thankfully, we have our loss prevention departments of the UK P&I and TT Club at the forefront of these issues to help Members stay ahead of the curve.

# Sustainability takes centre stage

In 2023, the Club's Board approved an amendment to the company mission statement in recognition of the growing importance of sustainability for its membership.

**The Club's mission is to make the global transport and logistics industry safe, more secure and more sustainable.**

TT Club's Loss Prevention team understands that not only is the transport and logistics industry dealing with an increased risk of loss due to flooding, windstorms and heatwaves, but also demands from their customers to reduce their impact on the environment and conduct business in an ethical and sustainable way. Over the course of 2023, our loss prevention team has attended conferences, visited Member operations and sought to partner with organisations to gather valuable insight, case studies and tools to support our Members in their sustainability objectives.

Here we look at some of the ways the Club has sought to prioritise sustainability this year.

## Sustainability report

This year, the Club launched its first Sustainability Report, which describes TT Club's impacts in the areas identified as being most relevant to the Club and sets out its plans for the future, which are focused mainly on support for Members and the global transport and logistics industry. The report outlines how the Club has embraced the full range of environmental, social and governance (ESG) related topics and associated regulatory and reporting requirements, including the United Nations (UN) Principles for Sustainable Insurance, UN Principles for Responsible Investment and UN Global Compact Sustainable Development Goals. The goals identified as being most relevant to the Club are:

- SDG 5 on gender equality
- SDG 8 on decent work and economic growth
- SDG 9 on industry, innovation and infrastructure
- SDG 12 on responsible consumption and production
- SDG 14 on life below water.

## ESG supply chain toolkit

A big focus for the Loss Prevention team towards the end of 2023 was the creation of an ESG supply chain tool kit, which is now live on TT's website. The resource looks to provide expert insight, educational content and support focused on a range of environmental, social and governance (ESG) topics that will assist TT's Members in pursuing their unique ESG journey.

The tool kit demystifies complex matters and provides signposts to strategies and solutions to challenges such as emissions calculation, reduction and reporting alongside social aspects such as attracting and retaining staff and maintaining their well-being.

Developing over time, the ESG supply chain tool kit will showcase success stories from both within the Club's membership and wider industry and demonstrate the art of the possible through a series of case studies, providing relevant and tested idea for Members to incorporate into their ESG strategy.

[Visit the toolkit](#)



## Finding partners in sustainability

At TT Club, we know that our expertise lies in underwriting, claims and loss prevention for the transport and logistics industry. We understand that sustainability is a very complex topic and that we cannot seek to give our Members guidance in this area without support from others. Throughout 2023, we have sought to partner with industry organisations, tech companies and consultants to ensure the best available guidance for our membership.

## Pledge.io



As a provider of sustainability tools built for freight forwarders, we identified Pledge as a key partner for in the delivery of the ESG toolkit. In particular, the addition of their emissions calculator which enables freight forwarders to add accredited emissions measurement, reporting and offsetting to their services. Providing global coverage across all modes of transport, Pledge's tools are a valuable resource for all in the freight forwarding community.

## BSI



TT Club and BSI have partnered for several years, particularly around the topic of supply chain security. BSI delivers world-class environmental, health and safety, security and sustainability services to the industry, offering consultancy services, e-learning courses, in-depth online blog articles as well as their digital "Connect Climate" tool.

## RightShip



RightShip is a key partner in delivering valuable insight and practical tools for Members on their journey to net zero emissions.

Focused towards port and terminal operators, RightShip provides access to a variety of risk solutions covering safety and sustainability. As a Profit for purpose organisation, there are many synergies between TT Club and RightSHIP, both passionate about the industry we serve and assisting in the delivery of a sustainable future.

## IAPH World Ports Sustainability Program



In September, TT Club joined forces with the British Ports Association and the International Association of Ports and Harbors (IAPH) to host

the first UK demonstration of the IAPH's Port Endeavor game. The aim of the game is to increase awareness among port management, staff and professionals working in port communities on how to apply UN Sustainable Development Goals to their business, to ultimately accelerate adoption of these measures in the port sector.



# Shore power: changing risks and regulations

**Halani Lloyd**  
Deputy Regional  
Claims Director,  
Sydney



Halani is TT Club's Deputy Regional Claims Director based in Sydney. She is qualified as a lawyer in both England and Australia and, prior to joining TT Club, worked in private practices in Sydney, London and Hong Kong.

Here, Halani explores the changing regulations that seem set to increase uptake of onshore power supply in ports and terminals, experience of related claims and key risks surrounding this technology.

“OPS appears to have the attention of ports, globally [...] not just as good corporate citizens and neighbours, but also under the increased scrutiny of stakeholders and financiers.”

In Australia, as elsewhere in the world, shore power or onshore power supply (OPS) has been in the news in 2023.

Known also as 'cold ironing' (a reference to days when ships had coal fired iron engines, that would cool, then become cold, as the ship lay at the berth), OPS for commercial vessels has been around since the early 2000s. Despite this, the challenges of implementation have meant that there has not been a large uptake so far globally – but is afoot.

Firstly, this year, we have seen regulatory changes mandating the use of OPS for certain vessels while in berth, for example:

- a. Under FuelEU Maritime rules, provisionally agreed in March 2023 and adopted by the European Council in July 2023, container ships and passenger vessels over 5,000 GT (regardless of flag, but subject to certain exemptions) will be required to use OPS while moored at berth in all 'major' EU ports from 2030. This will be rolled out to all other EU ports with OPS facilities by 2035.
- b. In California from 1 January 2023,<sup>1</sup> the California Air Resources Board (CARB) requires (amongst other things) that parties including (i) operators of cruise ships and container and refrigerated cargo vessels, and (ii) terminal operators in the state receiving 20 or more visits from such vessels in any year, use a CARB-Approved Emissions Control Strategy (CAECS) while at berth. CARB describes shore power as the 'gold standard in reducing emissions from ocean-going vessels in California'.<sup>2</sup>

Underpinning these regulatory changes is an acknowledgment of the undeniable environmental benefits associated with OPS. Quite apart therefore from regulatory changes, OPS appears to have the attention of ports, globally, as they examine ways in which they can reduce carbon emissions: not just as good corporate citizens and neighbours, but also under the increased scrutiny of stakeholders and financiers.

Perhaps indicative of this, we see have seen increasing examples in the news in 2023 of OPS facilities being constructed, or other commercial ventures reached with a view to increasing the utilisation of shore power. In Australia for example, the Port Authority of NSW is currently installing and supplying a shore power facility, powered by renewable energy, which will be the first in the world for a dry-bulk precinct and a first in the Southern Hemisphere for a cruise terminal.<sup>3</sup>

Feasibility considerations and concerns remain, nevertheless, and are well documented. They include economic, technical, regulatory and environmental considerations, and uncertainty about the future of OPS as the shipping industry moves towards increased use of alternative fuels.

## Claims examples

TT Club was recently asked to offer a further perspective on feasibility concerns, as a liability insurer of ports.

Although OPS is mature technology, it may be unsurprising that few claims have been noted Club-wide to date, arising from the provision of OPS.

One claim concerned a medium-sized European port authority member with significant ro-pax traffic, who had installed shore power facilities about 10 years ago, partly in response to complaints from local residents over noise and emissions.

The shore power equipment was installed by a reputable service provider, the transformer plant was supplied by a major manufacturer, and the equipment was checked and approved by national authorities.

However, a transformer failure put the shore connection out of service. Temporary repairs did not succeed and the Member discovered there was a long wait for spare parts (19-20 weeks). During the period that the port could not provide shore power services, it lost income. The relevant part of the transformer that had failed was only just out of warranty at the time of failure. Together with the cost of repairing the transformer and increased cost of working, the incident cost our Member approximately 1.5% of its annual turnover. Various complaints were also received during the period that OPS was down, concerning smells emanating from vessels' exhausts.

“Together with the cost of repairing the transformer and increased cost of working, the incident cost our Member approximately 1.5% of its annual turnover.”

A second incident of which we are aware concerned routine connection of a container ship to OPS at a US port, when there was an explosion in the shore side connection terminal box unit.

The damage and cause were investigated and fault was considered likely to lie with the ship side plugs rather than the terminal. Severe damage was found to have been caused to the High Voltage Shore Connection cable plugs, requiring repairs. Fortunately, no additional claim materialised – and most importantly, no injuries arose from the incident.

“Most importantly, no injuries arose from the incident.”

## Risks

Besides these specific examples, and subject of course to jurisdictional differences including appetite for litigation, one could perhaps foresee potential claims being made against port authority Members providing OPS in two key scenarios.

First, by ships or cargo interests, where there is an interruption to power supply from the port side or surges in power, resulting in damage to cargo or sensitive temperature-controlled cargoes being compromised, or where there are delays for which vessels seek recompense.

And second, by third parties, such as neighbours of port precincts, affected by increased noise and smell emissions, or in connection with safety issues (noting that workplace health and safety fines are not insurable in many jurisdictions within Australia and elsewhere).

With increased electrification of port assets and infrastructure as ports pursue decarbonisation efforts, demands for power will be unprecedented and the risk of interruption in the supply of power considered in this first risk scenario would appear to be very real – illustrating the fundamental shift in responsibility arising from the provision of OPS for port authority Members.

These are risks that can be managed or mitigated contractually, and with insurance. They are risks that probably do not, in our view, add to existing feasibility concerns.

<sup>1</sup> At Berth Regulation of 2020, which appears at sections 93130 through 93130.22 of Title 17, California Code of Regulations.

<sup>2</sup> CARB, 'At Berth Frequently Asked Questions' (revised version, 8/11/23), section 7

<sup>3</sup> <https://www.portauthoritiesnsw.com.au/sustainability/net-zero-energy/shore-power/>





# TT Talk: Death in spaces

Enclosed or confined spaces claim numerous lives each and every year across all industry sectors. The risks are well known by those who manage risk, however it is typically front line personnel who suffer the consequences when exposing themselves to the associated dangers.

Here we consider some of the common areas of risk and mitigation strategies.

There will be innumerable spaces found through the global supply chain that should be considered enclosed or confined, some more obvious than others. Unfortunately these spaces claim many lives each year when ill-prepared workers enter them, often for reasons never to be fully understood.

Let's start by seeking to demystify the terms.

Generally on land the term used is 'confined spaces', whereas the maritime industry would typically adopt the form 'enclosed spaces'. Inevitably, precise legal definitions around the world differ, but most reflect the essence given in IMO's Resolution A. 1050(27):

"Enclosed space means a space which has any of the following characteristics:

- limited openings for entry and exit;
- inadequate ventilation; and
- is not designed for continuous worker occupancy"

Some definitions outline the range of risks that may be encountered by those entering such a space, including fire and explosion, lack of oxygen or presence of hazardous or toxic substances.

The key risk is that workers may not readily recognise spaces that could present danger. For example, a stairwell within the cargo hold

of a ship is a space that could lack oxygen or contain toxic fumes, dependant on the cargo being carried. Containers and other cargo transport units pose similar risks; there may be a lack of knowledge of the cargo packed or whether fumigants have been used. Similarly, tank units (whether a road barrel or tank container) certainly qualify as enclosed spaces.

### What is the enclosed space problem?

Put simply, without sufficient oxygen the human body starts to shut down very quickly, with two primary implications being heart failure and brain damage. In the event of heart failure the brain can survive for approximately six minutes, but after five minutes irreversible damage can be sustained. Any rescue operations are therefore time critical and even with an immediate deployment the risk of serious injury or fatality is elevated.

One of the primary causes of reduced oxygen levels is the increased presence of other gases, such as carbon dioxide. This may arise from rusting of the ship's structure or metal cargoes, oxidation of cargoes such as coal or the decomposition of biodegradable cargoes (organic cargoes including fish meal, logs, bark, or wood pellets) – this list is not exhaustive. All these lead to carbon dioxide – and potentially other gases – being released, simultaneously depleting the oxygen.

Other associated hazards include flammable or toxic vapours from leaking cargoes, leaking pipes or hoses on machinery and dust, for example from dry bulk cargoes such as grain or coal.

The air we typically breathe contains approximately 79% nitrogen and 21% oxygen; imbalances increase the associated risks and physical effects on the body very quickly. If oxygen levels are

depleted to a range of 4%-6% a person could fall into a fatal coma in less than a minute. Carbon dioxide has a density higher than air, but critically is colourless, odourless and tasteless. Consequently, when entering such a lethal space there are no obvious red flags. In terms of symptoms there are no warning signs such as coughing or feeling breathless or nauseous, where the oxygen levels are sufficiently depleted the first sign is the individual will simply pass out.

This can happen so quickly the individual is unlikely to have the opportunity to raise an alarm, nor undertake the simplest of tasks such as reaching the exit if the space. The quick onset and catastrophic nature of these symptoms often leads to others rushing to the aid of the casualty, unaware of the reason for their collapse. Statistically, over 60% of fatalities connected to confined and enclosed spaces are suffered by those who observe the casualty without appreciating the cause and enter the space to attempt a rescue – people innately seeking to help.

### How can workers be protected within confined spaces?

This silent and invisible killer emphasises the importance of raising awareness of the risk, developing robust procedures and undertaking drills, practicing rescues.

Since the risks in general may not be immediately apparent and because natural human responses prevail, it is critical to ensure your workforce are thoroughly aware, through initial training, regular toolbox talks and specific situational briefings. Procedures are likely to be informed by local health and safety regulations, but need to be thoughtfully aligned to your operations.

Drills and practice rescues will help cement understanding; physically rescuing a person from within a space such as a tank container is extremely difficult in itself, but it is of course not just the physical challenge. It is immediately recognising that a collapsed/unresponsive person within the space could have been overcome by a hostile environment and making decisions not to enter without following procedure and wearing appropriate PPE.

While not exhaustive, many of the following risk mitigation strategies are applicable, whether on board ship or on land:

- Always assume that confined spaces are unsafe
- Create awareness of the risks and continually invest in staff training (recognising particularly the emotional reaction of would be rescuers)
- Procedures need to be robust but not overly burdensome or complex (impeding the tendency for short cuts is important)
- Embody a culture where time and resource are fully aligned to safety, regardless how minor the immediate task
- If entry is unavoidable, undertake a risk assessment to ensure that there is a safe system of work, including making sure there are emergency arrangements in place before work starts (always prepare for the worst)
- Where possible, ventilate the area before entry and ensure good general ventilation during work activities (use breathing apparatus if the air inside the space cannot be made fit to breathe)
- Test the air before entry; monitor it and the workers during the procedure, deploying a watcher who is physically present
- Ensure that people inside the space can communicate with those on the outside
- Restrict access to authorised personnel - such as implementing a permit to work system
- Ensure that the workers selected are competent and physically able to do the task; air quality monitoring or safety equipment is of little benefit if the users are insufficiently trained to use it
- Perform emergency rescue drills, providing practice in the process of safely removing an injured or unconscious person

These basic suggestions have either no or very little cost implications, and can save lives, keeping a company's greatest asset, their people, safe.



### Comment from Kuba Szymanski – Secretary General, InterManager

InterManager maintains a compresence database of enclosed space accidents which it analyses to identify trends specifically in this area. The background to why these types of accidents continue to occur within the marine industry is complex as is the action needed to break the chain of events that eventually lead to such accidents. Comprehensive investigation of accidents remains key as does sharing any accidents in the drive to improve safety onboard ships.

The identification of enclosed spaces within the ship, and the potential for the atmospheric conditions to change dependent upon the cargo carried, particularly on bulk carriers is key to understanding the hazards when considering entry. As is the implementation of a simple, understood, implemented and effective safety management system to protect those having to enter such spaces.

Equally important is having sufficient crew onboard the ship, being given adequate time and being well rested, trained, competent and provided with all necessary information appertaining to the cargo carried to undertake the task being asked of them.

Currently the IMO are undertaking a comprehensive review of the existing recommendations for entering enclosed spaces A050(27) and InterManager along with many representatives of flag states and other industry bodies are working hard to improve the current recommendation's based upon previous accidents, the learnings from those accidents and the change within technology to improve the safety of entry into enclosed spaces.

[Read more](#)



# Five minutes with Neil Dalus

Neil Dalus joined TT Club in the position of Risk Assessment Manager in June 2023 having previously been employed for over a decade at a prominent UK port operator Member. Based in Newcastle, Neil has a vast knowledge of port and terminal operations and has benefitted from exposure while in industry to a wide range of operational and engineering challenges, many of which our Members face on a daily basis. Here we talk to Neil about the sort of risks he thinks ports and terminals should be focused on in the coming years.

**Neil Dalus**  
Risk Assessment Manager,  
Newcastle, UK



**Neil, one aspect of your previous roles was adapting port infrastructure to deal with climate change and the potential impact that could have, particularly on port and terminal operations. Can you please tell us a little about your experience around that topic?**

The effects of climate change are truly a global issue and due to the location of ports, they are potentially some of our most affected critical infrastructure from significant changes to climate. Adapting our port infrastructure to take into account the changes that we are already seeing can be a daunting proposition at first.

However, the first step in developing a climate change adaptation strategy is understanding the regional changes and how this will impact your facility. This can be as simple as recording climate related outages and their effects on your operation, so that you can consciously monitor the influence that these changes are having on your operation.

Building the operational data and support from specialists within this field is key to developing resilience to climate change. Unfortunately, this is not a quick process and often needs buy-in from a multitude of internal and external stakeholders. Also, regular review of adaptation plans that considers the latest collected operational data and the local climate models is crucial to maintain efficient climate resilience strategies.

**Drones were something that you were involved with in a previous role. In your opinion how can these devices be used to good effect in the port and terminal sector?**

The use of drones or uncrewed aerial vehicles (UAVs) within ports and terminals provides many benefits both in terms of safety, in terms of removing staff from potentially dangerous areas, but also enrichment in the data that is being collected. The use of this technology in the port industry is expanding quickly as many are beginning to appreciate the many benefits. First, drones can help conduct surveys and inspections more safely. With drones there is no need for personnel to work at height or around dangerous machinery, and the data retrieved with photogrammetry, thermal imaging and LIDAR for example, is hugely beneficial. Second, drones can play a key part of crisis management processes. Dealing with any crisis can be challenging, however dealing with a crisis without a full picture of what is happening on the ground can compound these challenges. Lastly, drones can play a crucial part of any port's security arsenal. They provide an additional 'eye-in-the-sky' that can be equipped with thermal imaging, loudspeaker, and additional lighting to help identify possible security breaches and assist security personnel on the ground.

The implementation of the technology can at first sight appear daunting, but with a defined use-case and the support of the industry specialists, the deployment of drones within the port and terminal environment follows a logical roadmap.

**Safety culture is a topic that we have discussed extensively over the last months and one that appears close to your heart. In your first-hand experience, what impact can a mature safety culture have on an operations' safety performance?**

At its core, safety culture recognises that safety is not an isolated aspect but an integral part of every activity, decision, and process within an organisation. It acknowledges that a positive safety culture is crucial for preventing accidents, injuries, and other adverse events. By prioritising safety, organisations can protect their employees, the public, and their assets while achieving optimal operational performance and productivity.

However, safety culture is not built overnight and requires a consistent environment where anyone in the organisation can raise safety concerns and issues. I feel it is persistent promotion of this culture that can have the greatest impact in terms of safety. Having the ethos where everyone is empowered to highlight concerns and look out for their colleagues' safety without reprisal provides a deeper reach into the safety performance of an operation.

**Looking to the future, which topics do you feel should be attracting the attention of those responsible for safety in the ports and terminals sector?**

We are at a real paradigm shift within the industry. With the drive to reduce carbon emissions through the transition to new cleaner energy sources, the drive to automate and digitalise our operations, and the drive to innovate and deal with the effects of climate change, this is in equal measures an exciting and challenging time.

Considering a single area of focus, I would say that collaboration in this time of change is most important. Collaboration between all aspects of the supply chain and the supporting suppliers of energy, plant and equipment, technology, professional services, and cyber security will help make these transitional changes a success. I do feel however that the maritime industry is one of the truly global industries, so we are well placed to navigate these challenges.



**“At its core, safety culture recognises that safety is not an isolated aspect but an integral part of every activity, decision, and process within an organisation.”**

**“Regular review of adaptation plans that considers the latest collected operational data and the local climate models is crucial to maintain efficient climate resilience strategies.”**



# Fire not the only risk with lithium-ion batteries

**Neil Dalus**  
Risk Assessment  
Manager,  
Newcastle



TT Club, the specialist international freight insurance provider is seeking greater emphasis on the critical dangers of toxic gas emissions associated with lithium-ion battery fires. The failure of such batteries has the potential to occur with no prior warning, or with such speed that there is typically no time to react to any warning signs.

Devastating consequences of rapidly spreading, and often challenging to extinguish fires involving the batteries particularly in electric vehicles (EV) on board ships, and other parts of the supply chain have been well-documented in recent months. There is however less awareness of the highly toxic combustion products that are released and their respective impact to the health and wellbeing of those exposed to the gases.

Based on the evidence of past fires the time between the initiation of a failed battery igniting to a discharge of toxic vapour can be measured in seconds rather than minutes. This is due to a process known as thermal runaway. The rapid sequence of events typically occurs where an internal electrical short within one of the battery cells generates heat; this breaks down the internal structure of the battery, increasing the rate of the reaction in an ever-increasing cycle. There is often a dramatic release of energy in the form of heat and a significant emission of toxic gases.

Neil Dalus of TT endeavours to paint a picture of the dangers. "During a lithium battery thermal runaway event, research has shown that significant amounts of vapour can be produced per kWh (kilowatt hour). In many common supply chain scenarios, including ships' holds and warehouses, the reality is that such vapour clouds are likely to accumulate. Even when the clouds are able to disperse, the potential toxic effects may occur at lower concentrations."

Drivers, stevedores, ships' crews and first responders attempting to control the blazes encounter what might appear to be smoke but is in fact a mix of toxic gases, generated quickly and in large volumes. These gases once in the atmosphere behave differently to smoke, often pooling at floor level due to their density. "Traditionally where fires and smoke are concerned one would stay low to avoid inhalation, doing so where lithium battery fires are concerned is likely to prove problematic," observes Dalus.

“Drivers, stevedores, ships’ crews and first responders attempting to control the blazes encounter what might appear to be smoke but is in fact a mix of toxic gases.”

The toxicity of gases given off from any given lithium-ion battery differ from that of a typical fire and can themselves vary but all remain either poisonous or combustible, or both. They can feature high percentages of hydrogen, and compounds of hydrogen, including hydrogen fluoride, hydrogen chloride and hydrogen cyanide, as well as carbon monoxide, sulphur dioxide and methane among other dangerous chemicals.

In terms of hazards to the wellbeing of those in the vicinity of such an incident, one particularly problematic component is hydrogen fluoride (HF). Although HF is lighter than air and would disperse when released, a cloud of vapor and aerosol that is heavier than air may be formed (EPA 1993). On exposure to skin or by inhaling, HF can result in skin burns and lung damage that can take time (hours to weeks) to develop following exposure. HF will be quickly absorbed by the body via skin and lungs depleting vital calcium and magnesium levels in tissues, which can result in severe and possibly fatal systemic effects. The hydrogen content of the released gases can give rise to vapour cloud explosion risks which have the potential to cause significant damage.

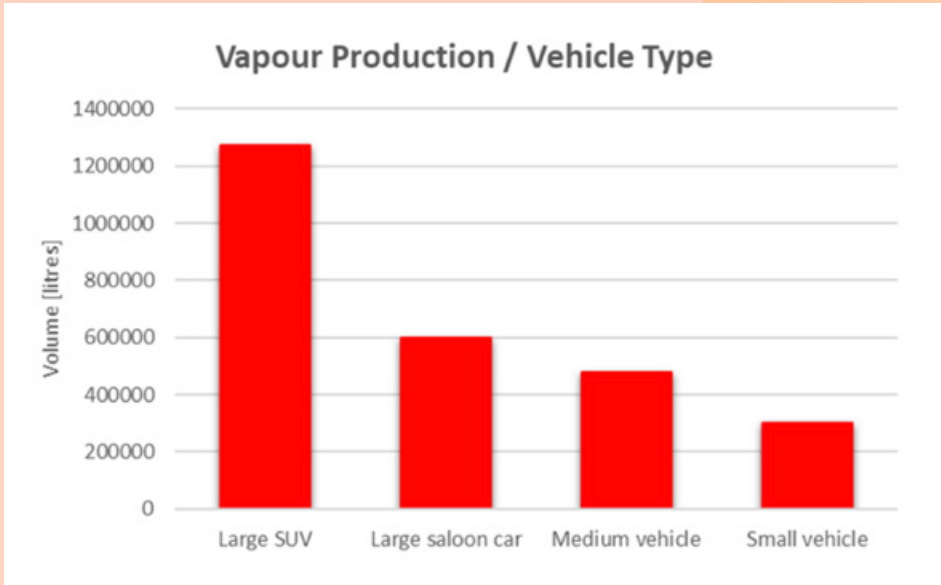
TT advocates a range of measures to mitigate the risks. A prudent starting point would be to perform a fire risk assessment, considering the specific hazards presented by lithium-ion batteries. Risk mitigation considerations thereafter could include providing operatives with certified full-face self-contained breathing apparatus, chemical-resistant boots among other protective equipment, as well as drench showers for post-response decontamination. Strategic positioning of fire-fighting equipment should also be a key consideration.

Early detection of such an incident can also be pivotal in managing the response, camera and thermal imaging could enable an expedient response. Such equipment might have already become commonplace for some modes, however conducting a thorough risk assessment for example when cargo is stored in warehouses would be prudent. As Dalus comments however, "Given the hazardous nature of this vapour, if any of these measures are not in place then the best course of action is to evacuate the area and leave the incident response to the emergency services, ensuring that the known risks are appropriately communicated."

Consideration should also be given to the location of any incident that might include clean up and entry. The gases produced potentially leave toxic deposits on all surfaces and in the atmosphere. Therefore, once the incident is under control, potential hazards remain.

[Read more](#)

“Given the hazardous nature of this vapour, if any of these measures are not in place then the best course of action is to evacuate the area and leave the incident response to the emergency services, ensuring that the known risks are appropriately communicated.”





# Exploring the risks of storing lithium-ion batteries

**Dorota Jilli**  
Senior Underwriter  
– Western  
Mediterranean  
(Iberia and Italy) &  
C. Europe, London



Throughout 2023, as the risks around the transport, handling and storage of lithium-ion batteries became more apparent, a growing number of transport operator and logistics Members approached the Club seeking guidance as to good practices for the storage of lithium-ion batteries.

Of course, it is inevitable that batteries, whether standalone or within electronic devices or vehicles, will have many touch points throughout the supply chain, not least at some point entering storage warehouses, even for short periods.

While risks exist for new and unused batteries, they increase where used, damaged, critically damaged and end-of-life batteries are concerned. For the manufacturers of these cargoes, there is a return logistics challenge to overcome and despite the known risks, these services are typically incorporated into outbound logistics contracts. This can place a logistics operator in a challenging situation and certainly one where it would be prudent to understand the risks fully.

While not exhaustive, as a logistics operator involved in the storage of lithium batteries, consideration should be given to the following:

“While risks exist for new unused batteries, they are elevated where used, damaged, critically damaged and end of life batteries are concerned.”

- ✓ **Fire suppression systems** – understand the volumes of water that can be deployed.
- ✓ **Segregation** – is it possible to segregate batteries from other cargoes?
- ✓ **Storage systems** – a lithium-ion battery fire can burn at extreme temperatures, hot enough to melt aluminium and steel racking.
- ✓ **Monitoring** – early detection is crucial, consider cameras, thermal imaging devices and gas detectors.
- ✓ **Training** – ensure all staff recognise the risks and appropriate emergency response.
- ✓ **Personal protective equipment (PPE)** – is appropriate PPE available if a fire were to break out?
- ✓ **Breathing apparatus** – is there breathing apparatus available for trained first responders?
- ✓ **Specialist containment equipment** – consider purchasing specialist containment equipment to house critically damaged batteries.
- ✓ **Warehouse design** – can the warehouse be compartmentalised?
- ✓ **Emergency services** – consult with local emergency services to understand response times.
- ✓ **Ventilation** – ensure appropriate ventilation to reduce vapour cloud explosion risk.
- ✓ **Contractual services** – are there expectations to charge or perform maintenance on the batteries while in your facility?
- ✓ **Ambient temperature** – consider temperature ranges through all seasons.
- ✓ **Damaged and critical batteries** – are these sufficiently segregated from the warehouse?

# Windstorm and ship movements

**Laurence Jones**  
Risk Assessment  
Director, Sydney



Most people now accept that climate change is happening. We are now seeing severe windstorms in locations they have seldom occurred before. As a result TT Club is urging ports and terminals globally to establish sound practice systems, procedures and equipment to withstand severe storms.

Although there are many issues to consider, there are two clear leaders – quay cranes being blown over or along the berth and ships at the berth breaking mooring lines and causing damage.

Here we will focus on ships at the berth. TT Club's statistics indicate that this type of incident accounts for approximately 10% of the cost of weather caused claims.

Most Port Authorities have emergency procedures for forecast storms that include sending ships out of the port to ensure they do not cause damage to themselves and/or port facilities. This action is normally only required of large ships that can more comfortably ride out the storm at sea. I would urge those ports to ensure that procedures are in place and tested, even more so where there is little history of severe weather.

Every port should have documented plans and procedures. Most have contingency procedures to prevent berthing or de-berthing when wind speeds are above a certain speed, usually 12 to 15 m/s (metres per second). Ports in hurricane, typhoon or cyclone prone areas additionally have specific plans in case more severe wind speeds are to be experienced. For example, if a wind storm is forecast to be hurricane strength of above say 33 m/s, all ships are de-berthed and sent out of the port before the wind gets too severe to prevent de-berthing. Since we are seeing severe weather occur anywhere today, all ports should have this additional procedure to send ships to sea if severe weather is forecast.

As ever, procedures need to allow consideration of potential exceptions, such as where the ships are too small, there are other dangers in de-berthing or greater risks of having ships in open water. For example, in some river ports there may be more danger of the ship dragging anchor and grounding in the river, blocking the channel, than there is of damage to the ship or berth whilst alongside. However, in most cases, to protect port and terminal assets, all Port Authorities should have clear and specific procedures to send big ships out to sea when a severe storm is forecast.

Many terminal managers believe it is the responsibility of the Port Authority to determine ship movement when severe weather is forecast. However, when I ask, “if a ship is at your berth and breaks its mooring lines and damages your berth or knocks over one of your cranes, will this affect your business”, the answer is obvious. As a result, it is clear that terminals should be intimately involved in and with Port Authority plans and procedures for severe weather preparedness and recovery. If there is not this kind of engagement, discussions between terminal interests and the Port Authority around the benefits of such procedures should urgently be had.

A further issue that can result in severe conditions is a ship repeatedly breaking its moorings and, as a result, literally running out of mooring lines. Generally, the supply of lines is the ship's responsibility; ports and terminals have no involvement except to provide linesmen. However, an untethered ship being blown along a berth can cause great damage to port infrastructure. The normal procedure in this situation would be to utilise a tug or tugs to hold the ship. This is not always possible, so for the sake of business continuity it would be prudent for a terminal or a port, to hold a supply of mooring lines for emergency use.

In summary, all operations in a port can be affected by incidents during severe weather conditions. The Port Authority and all terminals should work together to establish contingency plans and be aware of the various best practice systems, procedures and equipment to withstand severe storms.

## Further information:

For more risk management information in the event of on windstorm TT Club has produced a Windstorm handbook to assist in developing and implementing procedures to mitigate the effects of severe weather. This handbook is available free of charge. The Windstorm handbook can be found on the TT web site ([www.ttclub.com](http://www.ttclub.com)).



# Cargo misdeclaration



**Sandro Chu**  
Senior Claims  
Executive,  
Hong Kong



Cargo misdeclaration is a topic TT Club has covered many times over the past year and in various contexts, from bad actors putting dangerous cargo into the supply chain to simple mistakes by shippers. Our Asia Pacific claims teams says freight forwarders can play a vital role in mitigating the risk.

Freight forwarders can and should play a crucial role in improving safety in the global supply chain. As the vital link between shippers and carriers, they probably understand more than anyone the risks and challenges faced by the various contracting parties.

For example, a carrier may introduce onerous restrictions in the booking process for certain cargoes. While this can make everyone's lives more difficult, the freight forwarder should understand why the restrictions are in place and encourage their customers to comply fully.

“  
**Know-your-customer procedures can play a crucial role in helping freight forwarders reduce the risk of cargo misdeclaration.**”

Unfortunately, there are still too many examples of large-scale losses caused by dangerous cargoes that have been misdeclared. While there are bad actors out there seeking to avoid freight surcharges or avoid detection, sometimes mistakes are made or communications overlooked that can lead to cargo being incorrectly placed into the supply chain.

## Know your customer

Know-your-customer (KYC) procedures can play a crucial role in helping freight forwarders reduce the risk of cargo misdeclaration.

Thorough KYC checks will enable freight forwarders to collect and verify key documents – such as passports, identification cards and business licenses – and check business reputation and history. This allows freight forwarders to get accurate and up-to-date information about their customers and know if they are dealing with legitimate and trustworthy companies. Analysing the credibility and compliance history of shippers and consignees will help to identify any 'red flags' or suspicious activities that may indicate a risk of cargo misdeclaration.

Implementing robust KYC procedures helps create a culture of compliance relating to customs requirements, hazardous materials regulations, export control restrictions and so on, reducing the likelihood of unintentional misdeclaration due to lack of knowledge or awareness. Also, by exchanging information and sharing insights about potential risks or fraudulent activities obtained through KYC process, freight forwarders can work together to reduce cargo misdeclaration.

Finally, no matter how well freight forwarders know their customers, it is vital to establish clear contractual agreements which hold shippers liable and/or impose a penalty if a cargo is found to be misdeclared.

## Integrity of booking process

Suki Kwan, one of our Senior Claims Executives in Hong Kong, says maintaining the integrity of booking process is essential to avoiding misdeclaration. 'Freight forwarders need to ensure that the relevant contractual partners are always updated with the latest information about a cargo. While this might cause additional work, cost or delay, the impact will be far worse if, after a large-scale loss, it is discovered the freight forwarder knew of an issue but failed to pass on the information.'

He Yufeng, a Senior Claims Executive in our Shanghai office, warns that under no circumstances should the freight forwarder's staff prepare a booking note on behalf of the shipper. 'The booking note should always be prepared by the shipper. This helps to maintain the integrity of information passed through the contractual chain and could provide protection to the freight forwarder in the event of a misdeclaration being identified.'

Yufeng points out that it is the shipper's legal obligation when submitting the booking note to assure the carrier of the accuracy of the name, mark, number of packages or pieces, weight or volume of the cargo provided. 'If the carrier and its booking agent require photographs and other details of the cargo to be shipped, the freight forwarder should forward the actual cargo information provided by the shipper or the warehouse. While such enquiries can be protracted, there is likely to be a good reason for the request and processes should not be bypassed.'

Yufeng adds a final warning that freight forwarders' staff should never categorise the cargo by HS Code or amend the cargo details on the customs clearance documents.

## Employee training

Suki Kwan in Hong Kong says freight forwarders should always provide comprehensive training to their employees on cargo handling, regulations and the potential consequences of misdeclaration, emphasizing the importance of thorough checks and attention to detail.

'We recommend in particular that training should be given to all staff handling the booking process on the importance of timely and correct inputting of cargo information on the booking system, with regular refresher training. They should also be made aware of industrial updates on cargo import, export and transshipment restrictions, particularly in the trade lanes they are focused on.'

Suki adds it is also important to develop and train employees on the remedial actions to take if prohibited cargoes are noticed following the booking procedure. 'We have seen a number of occasions where new knowledge or information about a cargo or shipment has become available after the booking process has been completed, or even after the cargo has been shipped.'

## Physical checks

By following the procedures outlined above, the risk of misdeclared cargoes entering the supply chain should be minimised. However, as a final precaution, freight forwarders should also work with terminal operators to undertake random or regular physical inspections of shipments.

They should consider the use of advanced cargo-screening technologies such as X-ray machines, scanners and hazardous material detection systems. These can help to identify discrepancies between the declared and actual cargoes and flag potentially problematic shipments for further inspection.

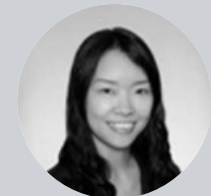
By implementing a multi-layered approach that combines maintaining the integrity of the booking process, knowing their customers, employee training and physical checks, freight forwarders can play a key role in mitigating the potentially huge risks of misdeclared cargoes entering the supply chain.

## Contributors

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**Freight forwarders need to ensure that the relevant contractual partners are always updated with the latest information about a cargo.**”



# TT Talk: Developing a safety culture



**Josh Finch**  
Logistics Risk  
Manager, London

Typically when we consider the cause of operational risks associated with any operation human behaviours come into question. Did somebody take a short cut, did they circumvent procedure, did somebody leave an area untidy or a spill unattended leading to a slip, trip or fall.

The importance of culture within an organisation, particularly where safety is concerned cannot be underestimated, whether it is leading by example from the top, to ensuring that everybody has a voice in safety matters, a strong safety culture will positively impact safety performance. Safety is everybody's responsibility, in this article we explore the various components of a mature safety culture and how they can impact safety performance.

Compliance with regulations and related requirements is a given for all businesses. Failure to comply will place your business in an extremely difficult position, should a serious incident occur. However, adherence with the law should be seen as the baseline in the context of developing a mature safety culture. Furthermore, achieving the minimum may not ultimately be good enough for your business.

Inevitably, there are a range of factors that need to be taken into account in developing an appropriate safety culture for any business. Not least, the underlying environment, including corporate resources and operational throughput, will fundamentally impact the aspirations that drive the business.

As so often, this requires reflection and assessment – preferably a '360 degree' process that takes into consideration your stakeholder universe. Such a comprehensive assessment of the existing safety culture will provide a baseline understanding of the organisation's strengths, weaknesses, and areas for improvement.

It clearly is not necessary for every similar organisation globally to reach the same conclusions around safety. It is, however, crucial that safety issues are adequately considered, leading to the development of policies and procedures that support a 'progressive' or continually improving safety culture. The result will be something tangible, clearly communicated, understood, adopted and appreciated by all stakeholders. So, where might you start?

## Committed leadership

The first step in implementing safety culture improvements is to secure strong leadership commitment. Leaders must visibly demonstrate their dedication to safety, communicate safety expectations clearly, and allocate resources to support safety initiatives. They should actively participate in safety programs, set measurable safety goals, and hold themselves accountable for safety outcomes.

Leadership is by example, seen to be 'walking the walk' and not just 'talking the talk'. The whole organisation should feel that doing the right thing is the only way to work, and this must be led from the very top. Where the leadership team is seen to take safety seriously and be accessible where safety matters are concerned, then the entire workforce will follow suit.

## Workforce involvement and engagement

Actively involve the workforce in shaping the safety culture and driving the improvement process. Encourage participation in safety committees, implement hazard reporting systems and consider suggestion programs. Seek input in decision-making processes related to safety and empower to take ownership of safety initiatives.

Involvement fosters ownership. Ownership of risk at all levels is a key component. Each individual understanding their respective role, exactly what is expected of them and recognising the impact that a safety incident might have on the operation and business, but more

importantly their peers, colleagues and friends. An operation where everybody owns the safety of themselves, others and the business will be able to demonstrate a good safety culture.

## Establish clear safety policies and procedures

Develop and communicate clear safety policies and procedures that align with regulatory requirements and industry good practices. These should be easily accessible to all the workforce and provide specific instructions for safe work practices, hazard identification, incident reporting, and emergency response.

Effective communication is crucial for building and sustaining a strong safety culture. Establishing communication channels are an adjunct to safety protocols, facilitating exchange of safety-related information, encouraging reporting of hazards and near misses, and promoting open dialogue between management and workforce.

## Training and skills development

Provide ongoing training and skill development opportunities for all levels of workforce. This can include safety-specific training, leadership development programs, and specialised training for supervisors and managers to reinforce their role in promoting and maintaining a strong safety culture. Invest in training resources and ensure employees have the knowledge and skills required to perform their work safely.

Provide regular safety training to ensure all the workforce have the knowledge and skills necessary to work safely and recognise potential risks. This is all far beyond simple functional skills training or what is statutorily required.

## Create understanding focused on 'why' the desired behaviours are important.

Create understanding focused on 'why' the desired behaviours are important. An individual who has clarity on how an incident might arise and the potential wider impacts that such an incident might have will likely perform more safely. Training in this context influences an individual's risk perception, resulting in positive behavioural change. Equally, make time for such training – it should not come second to operational activity.

## Safety performance measurement

Following training, the importance of supervision should not be underestimated. Where training is an enabler for safe operations – and may serve regulatory requirements – ensuring that individuals continue to perform every day as expected requires constant

monitoring, attention and supervision. A mature safety culture is not something that will follow a two-day training course; it is lived through every shift, all day, every day.

Thus, establish key performance indicators (KPIs) to measure safety performance and track progress toward safety goals. Regularly monitor and analyse safety data, such as incident rates, near miss reports, and safety audits. Use this information to identify areas that require attention, implement targeted improvement strategies, and celebrate successes to sustain momentum.

## Continuous improvement, communication and feedback

Foster a culture of continuous improvement by learning from incidents and near misses. Conduct thorough investigations, involving the relevant workforce, to identify root causes and implement corrective actions to prevent recurrence. Share lessons learned across the organisation to enhance safety awareness and promote learning.

Maintain regular communication with the workforce about safety initiatives, updates, and achievements. Encourage feedback and actively respond to it. This two-way communication ensures that safety remains a priority and helps identify emerging safety concerns that may require attention.

## External collaboration

Engage with external stakeholders, such as insurers, industry associations, regulatory bodies, and professional networks, to stay informed about emerging safety practices and collaborate on safety initiatives. Share good practices with others and learn from their experiences to enhance safety culture and performance further.

## Conclusion

TT will continue to develop this safety culture concept – it is applicable to all types of organisation. Thoughtfully adapting such steps as here to your organisation's specific needs can foster a robust and sustainable safety culture that prioritises the well-being of the entire workforce and ensures a safe working environment. A good safety culture goes beyond mere compliance with regulations and standards; it embodies a collective commitment to prioritising safety, preventing incidents, and promoting well-being.

*We gratefully acknowledge collaboration with [ICHCA International](#) in developing this edition of TT Talk.*

## Comment from Richard Steele – CEO, ICHCA International



“In environments like ports and terminals we rely on one another to ensure that everyone gets to go home at the end of their working day. Nobody is 100% focused on what they are doing 100% of the time. Brains are not wired that way. To successfully control risk everyone has to be empowered to be a safety champion. The positive actions of each and every one of us should be the bedrock of health and safety culture of our organisations.

Empowerment can only happen if leaders at all levels create the right conditions for it. There is no one-size-fits-all method of doing leadership and empowerment right. But there are some common features of good health and safety leadership that are recognised as contributors to continuously improving the health and safety performance in an organisation. Be visible, lead by example and integrate safety.

Creating and nurturing an effective health and safety culture is a marathon, not a sprint. In the end, the safety culture of an organisation is not a separate thing it is really 'just' the culture of the organisation as a whole.







# Understanding the future of “smart ports”

**Oscar Egerström**

Underwriter – UK & Ireland, Nordics and Benelux, Digital Lead, London



Oscar Egerström is an Underwriter for the UK, Nordics and Benelux team, but also the Club's dedicated digital scout. Oscar is tasked with keeping on top of key digital developments in both the insurance and transport and logistics industries. These include anything from AI and big data to automation and digitalisation of documentation, but here, Oscar looks at the concept of “smart ports”.

Modern ports can be seen as structured geographical systems of productive accumulation of a complex nature, with links to the larger geographical area in which the port is physically located. These regional multimodal crossroads of the global supply chain, using complex infrastructure, regulatory frameworks and international business transactions to transport cargo around the world face increasing pressure to optimise performance and minimise their impact on the environment.

“There is some significant learning, research and development required to realise the opportunities these new technologies bring.”

The developments in the last decade within the ports and maritime industry have been characterised by dynamic and complex changes in the industry through digitalisation and automation, through the introduction of Blockchain, artificial intelligence (AI), Internet of Things (IoT) and automation. These technologies can make the industry cleaner, safer and more efficient, through the way in which humans interact with the technology. These benefits are well recognised by the national governments, which can be seen by their focus on developing this area.

The subject of digital transformation and its application in the ports and logistics sector, with the development of what is being widely termed “Ports 4.0” is vast. Much like most industries which are at various stages of their digital maturity and their transformation to “Industry 4.0” ways of working, there is some significant learning, research and development required to realise the opportunities these new technologies bring.

It is apparent that the digital maturity of the port sector is in its infancy; however, there is a concerted drive from the industry and governments alike to try to capitalise on the emerging technologies to increase the productivity and efficiency of the supply chain of which the ports play an important part. Likewise, the prosperity that global trade can bring to both the macro (national) and micro (local) level is apparent to national governments and businesses alike. Therefore, this impetus on the sector and the digital transformation is warranted.

As with any technology implementation, there is a serious strategic dilemma for both business and government alike to be a pioneer

as opposed to an early adopter of these technologies or systems. This dilemma is being amplified by the ever-increasing rate of development and the high capital costs of the port infrastructure, which make the strategic decisions on the direction of travel difficult.

This point is understood by governments and can be demonstrated through the various funding streams provided to help support innovation in the various areas of this transition. This support is an important step in the realising the opportunities that transition to a Port 4.0 way of operating can bring. However, this is not without risk for smaller businesses, who may struggle with the high upfront capital costs required to maintain their competitiveness in this market.

Together with our Members and the industry, TT Club is committed to supporting innovation within industry which can be seen through initiatives such as the annual Innovation in Safety Award, TOC Safety Village and our involvement as an anchor partner with the Lloyd's Register SafetyTech Accelerator programme.

The complicated web of connectivity in the macro environment through global trade will require a high degree of cooperation between nations and individual ports to standardise communications systems through the use of technologies such as blockchain, however this will require a degree of flexibility from all to move away from, or modify their already mature but independent systems.

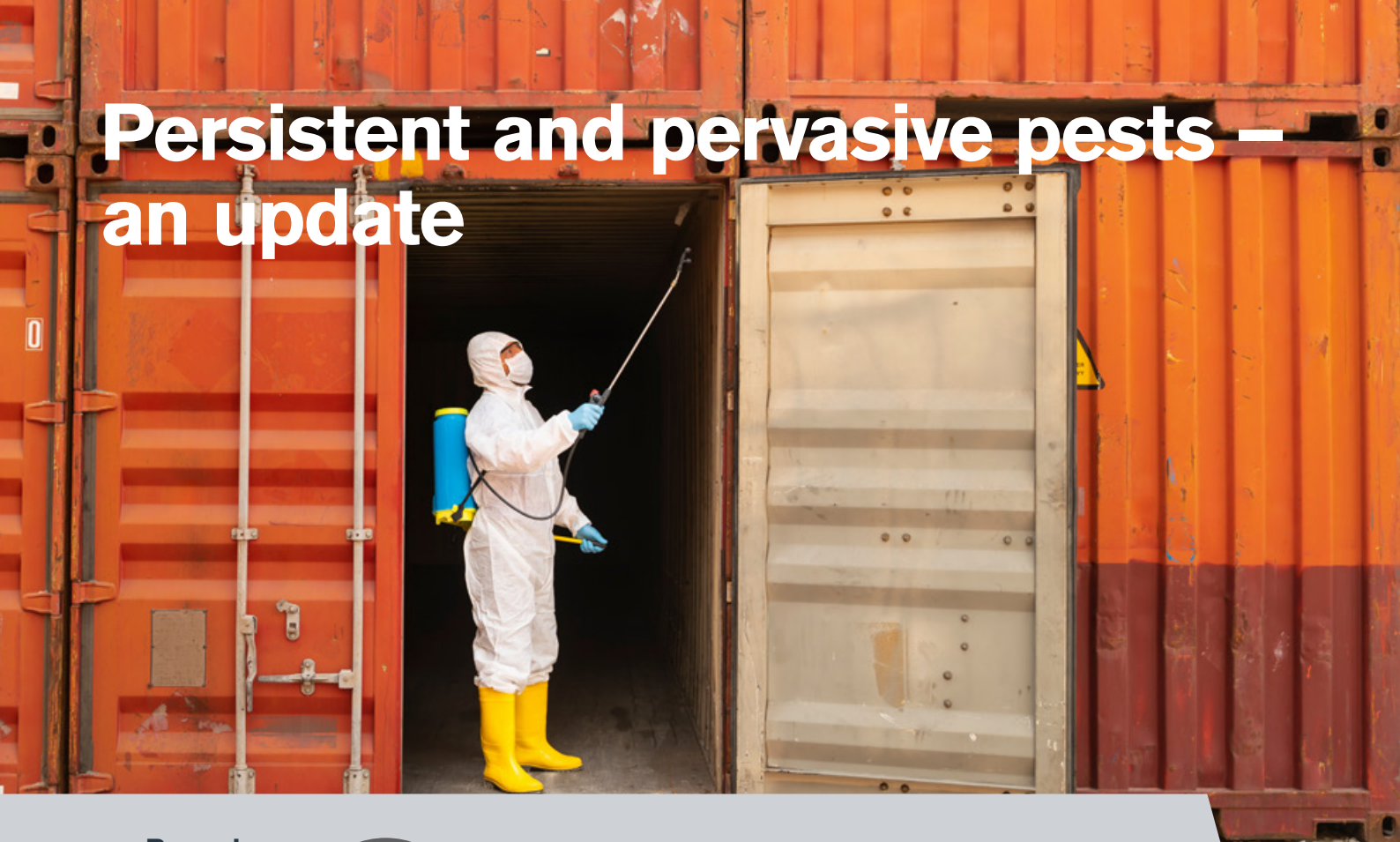
“The complicated web of connectivity in the macro environment through global trade will require a high degree of cooperation between nations and individual ports to standardise communications systems.”

“There is a concerted drive from the industry and governments alike to try to capitalise on the emerging technologies to increase the productivity and efficiency of the supply chain.”





# Persistent and pervasive pests – an update



**Peregrine Storrs-Fox**  
Risk Management  
Director, London



Peregrine is TT Club Risk Management Director, and has worked at TT for nearly 40 years. He currently leads TT's participation in the Cargo Integrity Group encouraging all supply chain stakeholders to commit to the highest safety standards in packing, handling and communicating information about unitised cargo worldwide.

Here, Peregrine provides an update on a crucial part of Cargo Integrity: pests.

“

**Everyone involved in the packing and movement of CTUs have a duty... to ensure that the CTU is free of plants, plant products, insects or other animals.**

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[Read more](#)

The previous two 'Year in Focus' publications from TT have highlighted the risks relating to the movement of invasive pests through the sea container pathway, recognising concerns raised over many years by the International Plant Protection Convention (IPPC), an agency acting within the Food and Agriculture Organization of the United Nations (FAO).

## Governmental activity

Much background work has continued during the last twelve months, although the most obvious activity has been the IPPC's second Workshop on 'Pest Risk Mitigation of Sea Containers and their Cargoes and the Facilitation of Trade – defining a way forward', held in Brisbane in July. This workshop followed up on the outcomes from the earlier one held in London in September 2022, reporting specifically on the work of a Sea Containers Focus Group (SCFG) and seeking input into the revised Commission on Phytosanitary Measures (CPM) Recommendation 6 (Sea Containers R-06)<sup>2</sup>. As TT attendee, John Thomson from the Sydney office, stated, "Importantly, in the context of shaping effective risk mitigation measures, attendees at this workshop represented industry and government in roughly even proportions".

The workshop was followed by a consultation process on the draft CPM Recommendation (that closed at the end of September), which may be publicly available in March 2024, ahead of the next session, the 18th, of CPM (CPM-18) in April. This meeting will also receive a report on further work undertaken by the SCFG.

## Industry activity

Earlier in 2023, the World Shipping Council (WSC) and other industry partners had updated the 'Prevention of Pest Contamination of Containers: Joint Industry Guidelines for Cleaning of Containers'<sup>3</sup>, particularly picking up on the concept of 'Chains of Responsibility' set out in Chapter 4 of the CTU code. The essence is that everyone involved in the packing and movement of CTUs have a duty, delineated by their specific roles and responsibilities in the supply chain, to ensure that the CTU is free of plants, plant products, insects or other animals.

In advancing this concept in relation to the potential for invasive pests to 'hitchhike', this document introduced the term 'custodial responsibility', identifying specifically the responsibility of each container custodian in the supply chain to ensure the unit is clean and free from visible pests at any point of interchange and that the next custodian should ensure that this is done.

This new approach to managing the growing concern about the transfer of invasive pests on and inside freight containers, including their cargoes, was jointly presented at the workshop by WSC and the Global Shippers Forum (GSF), providing a powerful industry coalition that will be important for the follow-through of any voluntary solutions. Assigning responsibility for keeping a container and its contents 'pest-free' to each party that handles it during a transport clearly includes the shipper and the carrier, but will also extend to those involved during inland movement (road and rail operators) and the terminal operator at the port where the container is loaded and unloaded.

This industry-led program was discussed by national government experts and industry representatives, leading to further collaborative work across the industry in order to clarify how the different stakeholders (or 'custodians') can satisfy the responsibilities and strengthen the mitigation outcomes. It may be expected that another revision of the Joint Industry Guidelines, benefiting from broader industry engagement, will be issued in early 2024 in advance of CPM-18.

## Further consideration

Data concerning the precise degree of risk continue to be collected, but the workshop heard about certain pilot projects, of note being findings from one curated by the Australian and New Zealand National Plant Protection Organisations (NPPO). A number of the issues raised should spark further consideration – for example, the most common insect pests found on containers were all in the top 100 of the World's Worst Invasive Species list in the Global Invasive Species Database<sup>4</sup>. Logically, this should pressure concerned agencies, both nationally and internationally, to ensure that quality information is available to support visual identification of contaminants for both export and import operations, together with simple, clear instructions on actions to be taken. Further, strengthened coordination between governments globally would assist in understanding geographical and seasonal pathways that present most concern.

The same presentation noted, in relation to the containers surveyed, that the risk of contamination on external container surfaces was greater than that of cargo within the units. And the most common contaminant detected was soil caught on the undercarriage of the container. Apart from the longer-term potential to refine the undercarriage design (amongst other container design and construction attributes), it is also note-worthy that revisions were published in July for the Unified Container Inspection and Repair Criteria (UCIRC)<sup>5</sup>, for use by depots, specifically taking account of pest contamination risks.

## Where next?

Much of this typifies the labyrinth presented in the intermodal supply chain, displaying the diversity of actors involved and the challenges presented by multimodal and multi-national movement of laden and

empty units. Regardless of any regulatory outcome, there is much need for awareness-raising materials, specific advice and guidance, and enhanced tools to support both good practice and compliance.

John Thomson commented, "While during 2022 TT produced its set of invasive pest animations to highlight certain key risks through the supply chain, substantial progress was on display from Wisetech Global at the Brisbane workshop demonstrating the 'art of the possible', embedding key container packing decision points within a mobile app". One of the most exciting aspects of this development was setting the pest concern in a broader context of container packing and 'cargo integrity', including adopting the concepts in the Cargo Integrity Group's 'Container Packing Checklist'. Furthermore, there are an increasing number of technology, AI-enabled, devices being trialled that could assist in improving safe, secure and sustainable performance in this specific area and more generally.

The broader context is significant, since issues relating to plant pests necessarily sit alongside other matters affecting biodiversity<sup>6</sup> and food security, as much as general safety, general security and illicit trades (drugs, illegal wildlife trafficking and counterfeiting, to name a few). Gaining alignment across such a range of interest areas – and governmental agencies – remains hugely difficult and generally illusive.

1 International workshop on pest risk mitigation of sea containers and their cargoes and the facilitation of international trade – defining the way forward – International Plant Protection Convention (ippc.int) [<https://www.ippc.int/en/core-activities/capacity-development/sea-containers/international-workshop-on-pest-risk-mitigation-of-sea-containers-and-their-cargoes-and-the-facilitation-of-international-trade-defining-the-way-forward/>]

2 [https://assets.ippc.int/static/media/files/publication/en/2023/01/12\\_CPM\\_2023\\_01\\_SeaContainers\\_Draft\\_CPM\\_recommendation\\_2023-01-12.pdf](https://assets.ippc.int/static/media/files/publication/en/2023/01/12_CPM_2023_01_SeaContainers_Draft_CPM_recommendation_2023-01-12.pdf)

3 [https://static1.squarespace.com/static/5ff6c5336c885a268148bdcc/t/641c85c80b171970243dc24a/1679590858303/Cleaning+of+Containers\\_Joint+Industry+Guidelines\\_+EN.pdf](https://static1.squarespace.com/static/5ff6c5336c885a268148bdcc/t/641c85c80b171970243dc24a/1679590858303/Cleaning+of+Containers_Joint+Industry+Guidelines_+EN.pdf)

4 GISD ([iucngisd.org](http://iucngisd.org)) [[https://www.iucngisd.org/gisd/100\\_worst.php](https://www.iucngisd.org/gisd/100_worst.php)]

5 UCIRC\_Revision\_3.pdf ([ics-shipping.org](http://ics-shipping.org))

6 See, for example, <https://www.cbd.int/>

“

**Strengthened coordination between governments globally would assist in understanding geographical and seasonal pathways that present most concern.**

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# Safety innovation it's a continuous cycle!

**Mike Yarwood**  
Managing Director  
Loss Prevention,  
London



TT's Loss Prevention team understands that whether in the context of safety, security or sustainability, innovation is pivotal in moving the discussion around risk forwards. If we do or accept what we have always done or had, then we will get what we have always got. Here, Mike Yarwood, TT's Managing Director Loss Prevention, looks back at how the Club has sought to promote safety innovation throughout 2023.

As a loss prevention function, we are increasingly scanning the horizon for new and innovative ways for the industry to manage and mitigate risk. While many innovations are physical in nature, an item of machinery or a technological device for example, processes, procedures and software solutions are equally important in achieving this goal.

For many years now, TT Club has closely collaborated with ICHCA International in its goal of improving safety practices in the global cargo handling industry. 2023 saw this collaboration continue with two important initiatives in this space: the TT Club Innovation in Safety Award and the TOC Safety Village.

### Innovation in Safety Award

In February 2023, the Innovation in Safety Award was presented for the first time at a dedicated, live ceremony hosted by TOC, at the Informa Markets building in London. The ceremony attracted a wide range of attendees, from industry experts and associations to technology accelerators and port and terminal operators, all looking to celebrate and collaborate to improve safety in the cargo handling industry.

The evening began with a keynote address from Morten Engelstoft, TT Club's Chairman and ex-CEO of APM Terminals with over 36 years in various positions within Maersk. In his later years at Maersk, Engelstoft held overall responsibility for safety, security, resilience and crisis management, which meant that safety "is really very close to my heart". Speaking at the event, Engelstoft

said, "of course it is important to make money and deliver progress on many different fronts, but at the end of the day there is, in my opinion, nothing as important as keeping colleagues and partners safe from harm so that they can return home from work. Unfortunately, this is not the way it is in many places in the global transport industry and this is a great concern of mine. Where managing safety effectively is concerned, as well as adopting proven strategies, there is great importance in safety innovation."

The event continued with two panel sessions. The first session was "Managing personal injury and machine/pedestrian interface risks" with Richard Steele, CEO at ICHCA International, Lee James, Safety and Environment Manager at DP World and Evert Bulcke, CEO at Rombit. The second was titled "Reducing damage in carriage of cargoes and containers" and welcomed Mike Yarwood, Managing Director Loss Prevention at TT Club, Rich McLoughlin, Head of Maritime Engagement at Safetytech Accelerator, and Nicholas Gallie, Co-Owner at ConexBird.

Engelstoft then announced that the three top entrants were: APMT's Vessel Inspection Mobile App, Exis Technologies' Hazcheck Detect and Intermodal Telematics BV's innovative Tank Container Temperature Monitoring solution. After each entrant presented their innovation to the audience, the winner was announced to be APMT's Vessel Inspection Mobile App.

The well-established [TT Club Innovation in Safety award](#) is now in its sixth year and continues to showcase the tireless endeavours of those innovators who strive to make our industry safer. At the time

“If you want evidence of industry commitment, look no further than the TT Club. Not just sponsors in name but actively rolling up their sleeves and proactively driving an innovation and continuous improvement agenda.”

Richard Steele,  
CEO ICHCA International

### 2023 Safety Village presenters



of writing, judging for the 2023 award is underway, with 28 entries received from across the globe – a record number in a single year with the vast majority showcasing brand new initiatives.

The winner will be announced at a live ceremony, once again hosted by TOC in London, on 22 February 2024.

### TOC Safety Village

In June, TT Club and ICHCA International joined forces with TOC to host the Safety Village at TOC's flagship event in Europe in Rotterdam. Back for a second year, the Safety Village was bigger and better, hosting "pod" exhibitors and presentations from over 20 speakers.

The Safety Village hosted five sessions over the three-day conference: using data to manage risk in ports and terminals, mitigating the risk of fires in ports and terminals, preventing machine/pedestrian collisions, safe lifting, handling and stacking of cargo, and managing confined spaces and working at height.

The Safety Village provides a platform for both established and start-up innovators to demonstrate state-of-the-art solutions and receive feedback from an engaged audience. TOC Europe attracts over 4000 attendees in the port and terminal sector, so it's a fantastic opportunity for new innovators to test their solutions.

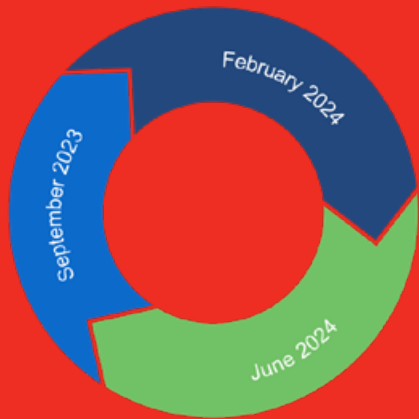
TT Club and ICHCA will be hosting the TOC Safety Village once again this year to continue the yearly cycle of safety innovation. Join us from 11-13 June 2024 at the Rotterdam Ahoy!

### Creating the cycle

Innovation in safety never stops. At TT Club, we recognise that innovation is a constant process of improvement and development, so we have pledged to create a cycle that encourages and celebrates safety innovation continuously throughout the year.

### 4 September 2023

Every year in September, ICHCA's TT Club Innovation in Safety Award opens for entries. The award seeks to celebrate anyone that can show that a product, process or other innovation has resulted in a demonstrable improvement to safety in the global supply chain. Entries closed on 13 November 2023.



### 22 February 2024

In February, the winner is announced at an awards ceremony in London. Innovators, operators and industry experts gather to discuss key industry concerns and hear from the outstanding entrants.

### 11 - 13 June 2024

In June 2024, the Safety Village returns to TOC Europe to demonstrate the best of safety innovation with a jam-packed schedule of risk management presentations.



# TT Talk: Asset management – a case for drones



Ports, terminals and similar facilities use a wide range of handling equipment assets to serve the global supply chain in the movement and storage of cargo. Given the nature of the operations, these assets regularly see significant wear and tear over their service-life. Therefore, to ensure safe and efficient operations, managers must be able to make informed decisions based on the condition of their assets.

An asset manager needs to build knowledge of asset performance, and plan maintenance interventions appropriately, which makes the quality of the data gathered vital. However, given the typical location of these assets, being over/near water or close to busy operations – together with their sheer size – access can present danger.

The use of drones within asset management strategies offers significant benefit in terms of safety by reducing the requirement to place personnel in high-risk locations. Likewise, there are tangible benefits in terms of the quality of the data that can be gathered through the utilisation of this technology.

A well-managed drone operation, adhering to sound industry practice and relevant regulatory controls, can prove beneficial. However, the implementation of in-house or third party drone capabilities within a port and terminal environment needs to be done carefully to avoid introducing new risks.

A well-managed drone operation, adhering to sound industry practice and relevant regulatory controls, can prove beneficial

## Background on drones

Drones, also known as UAVs (uncrewed aerial vehicles), are being developed at a rapid pace for deployment in a wide array of

industries across the globe. There is rapid adoption for anything from asset inspection to support for emergency services. It is this growth and development which is unlocking potential for the use of drones within the ports and terminal industry.

Drones, with the correct equipment, training and management, can not only reduce risk in your facility – for example avoiding the need to work at height – but also may improve operational efficiency due to the ease of deployment and the minimal disruption to operations.

However, there are several regulatory requirements that must be fulfilled to get your own drone operation 'off the ground'. The process flow below reflects UK requirements; you will need to engage with your own national aviation authority to verify applicable regulatory requirements.

Fortunately, as an expanding market, there are many local providers with experience in delivering appropriate training in their respective regions to assist in getting drone operations up and running.

## Asset Management Use-cases

As already mentioned, the use of drones can remove the need to place people in these high-risk areas. Nevertheless, care is required to ensure the data collected are of sufficient quality for the asset managers to make decisions over the service life of the asset. Here is a summary of the tools typically able to be deployed by drones.

## Inspection & Survey

Inspection is pivotal in asset management, preserving and optimising resources. Drones can be employed to monitor asset condition proactively, enhancing safety and reliability. Inspections provide data

for informed decision-making, resource allocation, maintenance scheduling, and upgrades. Since port assets represent significant investments, inspection is essential for sustainable and cost-effective asset management.

## Photogrammetry

Photogrammetry uses the images taken by the drone camera, the global positioning system (GPS) data and using specialist software to produce accurate 3D images and analytics.

The process involves flying a drone over the area or asset to be surveyed, capturing images at set intervals. The number of photographs required is large, due to the extent of the photograph overlap required (typically 80%). This provides the processing software the data necessary to determine the position of the individual pixels, enabling the 3D data to be produced.

Where this technology really comes into its own is the ability to survey large or awkward assets (or cargoes) accurately. Further, the data are enriched compared to the traditional approach, since the 3D model can be interrogated using propriety software to extract dimensional or volume data. By running a series of such surveys, it is possible to compare the information over time to identify degradation of the assets or changes in volume.

## LIDAR

LIDAR (light detection and ranging), produces a similar data output to photogrammetry, but uses quite different methods to capture the data. Where photogrammetry involves taking images and processing to determine the three-dimensional location of the individual pixels, the LIDAR uses laser technology and the measurement of rebounding light points.

LIDAR does lend itself to coverage of larger areas, and is more of a surveying tool which has the ability to collect enhanced data

in heavily wooded areas. Consequently, this technology may have limited application in the typical facility environments.

## Thermal imaging

The use of thermal imaging provides an ability to detect possible issues that are not visible to the naked eye. This may give some data enrichment over the use of the regular cameras.

Already used in other industries, this technology can provide insight into possible electrical overheating faults, allowing engineers to investigate and rectify before the issue escalates into an asset fire. Likewise, with the expansion in the use of photovoltaic systems to generate electricity and the use of lithium battery technology to store this energy, it is likely that thermal imagery may assist early detection of potential issues.

## Conclusion

The use of drones in the port industry is expanding quickly, with the industry realising multiple benefits of deployment. The implementation of the technology can at first sight appear daunting, but with a defined use-case and the support of appropriate drone industry specialists, the deployment of drones within the port and terminal environment can follow a logical roadmap.

The use of drones is not only expanding in the port industry, but also within wider industry, in which a significant amount of research and development is underway. Therefore, we are likely to see ever-increasing use-cases and technological advances over the coming years.

Drones can eliminate placing the workforce in dangerous environments, while gathering enhanced data at regular intervals. This technology simply cannot be ignored within the port industry.



## Comment from Neil Dalus – Risk Assessment Manager, Newcastle

“Developing a drone operation was indeed a steep learning curve, not only for myself as the Accountable Manager registered with the UK CAA (Civil Aviation Authority) but also for the drone operators themselves. It is fair to say once up and running, the actual on-site deployment of drones is relatively quick and straightforward.

However, the requisite training, qualification and maintaining competency of the drone operators requires the most in terms of effort and resource. Partnering up with a good training and hardware supplier, I was able to get over the training and qualification hurdles. Through really understanding the drone deployment use-cases the training was shaped so that it was bespoke to what we required.

Undertaking all of the practical training within a port environment, I feel was hugely beneficial as it put the trainee drone operators in the environment in which they would be deploying this technology. It also contextualised the scope of what we were trying to accomplish with the training provider during the course of the training.

As I have said above the on-site deployment is quick and straight forward, however there is a lot of pre-flight planning required before the drone leaves the ground and is often more time consuming than the drone flight itself. This pre-planning is an important step to ensure a safe and successful flight, but it is a step that needs to be factored in terms of time resource within the team.

In order to maintain competency, the drone operators need to maintain a minimum number of 'flight hours'. So considering the number of trained and qualified operators with the full clarity and benefit of hindsight; a smaller team, with more of their 'day' dedicated to drone operations would help maintenance of competency flying hours and help develop their expertise faster.



[Read more](#)



# Five minutes with Mike Dunning: Risk Bytes

In October the loss prevention function launched a new series of guidance called RiskByte. The first topic addressed in the series was good neighbour agreements, typically short term, informal and frequent agreements between two operators to loan each other equipment or personnel. These agreements can be beneficial from an operational perspective but can, in the event of an incident, become problematic where liability and insurance is concerned.

The catalyst behind this series of guidance was a series of repeat enquiries from brokers and Members and a realisation that there would be value in developing tangible assets that could be distributed when enquiries arrived. Michael Dunning, Underwriter in New Jersey was pivotal in developing the series and here provides some additional background.

Mike Dunning  
Underwriter,  
New Jersey



“  
For a risk to be minimised it is essential for them to be first discussed internally and then with their insurance broker/insurer.”

**The majority of loss prevention guidance TT publish is focused on operational challenges faced by Members and the wider industry. The Risk Byte series adopts a slightly different approach, are you able to outline the primary goals?**

The concept of the Risk Byte series was designed to highlight and provide advice on the potential insurance and cover-type issues that our Members, and the wider transport and logistics industry, may face. This centred around the insurance policy not responding as the insured believed it should do following an incident, and we wanted to provide advice to help minimise the chances of this happening.

Whilst we produce a lot of loss prevention material focusing on operations, sometimes incidents do happen. This series will hopefully help ensure that when they do, members are adequately covered and because of this, we can help our Members get back to running their own businesses. Coming from an insurance background, rather than an operational one, this was a way in which my own personal expertise would add value to the Membership.

**Who is the target audience?**

The series is really targeted at those individuals with management responsibility within the Member's organisation. This would typically be individuals with some responsibility of purchasing and managing the insurance policies as well as operational managers who are in charge of the operations that are being insured.

Hopefully all those with management roles will read our Risk Bytes because, and as the readers will see, for a risk to be minimised it is essential for them to be first discussed internally and then with their insurance broker/insurer.

**What can readers expect from documents in this series?**

The aim of the series is to highlight a complex issue that is common to many, if not the majority of our Membership.

Each topic will be summarised in an easy to read and digestible way. We will then go through what the topic is, the risks associated with the topic, guidance on how our Members can best mitigate these risks and then show all of this in a relevant case study.

**How often would you as an underwriter be approached with these types of query from Members and brokers?**

This varies depending on the topic but the range is from a few times a year for those less common up to once a month or more. However,

what is perhaps more relevant is that many of our Members may not know that they should discuss these topics with us and hopefully this series will encourage more to do so.

**In terms of topic areas, the first edition focused on good neighbour agreements, what gave rise to the focus on this topic?**

Good Neighbour agreements are something that we, as insurers, will not necessarily be aware of until something goes wrong. I also received 3 related queries within the space of a month, all similar in that to cover the new operation would mean extending cover past its normal position. I thought about how many of our other Members could be doing something similar not realising the potential repercussions of doing so, and not discussing with us first.

**What future topics are we likely to see from this series?**

- Letters of indemnity
- Cargo v liability insurance
- Agent v Principal
- Enhanced liability contracts
- Contractual risk management

**How important is it that TT are able to articulate guidance around these topics?**

I think it's vitally important. Perhaps most importantly to our Members and other operators, the guidance contained within the series, if followed, could be the difference between a claim falling inside or outside of cover.

Whilst some of our Members will already be aware of the topics discussed, others may not be. As mentioned already, we review and discuss some of them on a weekly basis, and so we hope that our Membership and the wider industry will benefit from our knowledge and experience.

“  
The guidance contained within the series, if followed, could be the difference between a claim falling inside or outside of cover.”

[Read more](#)



# Member engagement

Member engagement continues to be a high priority for the loss prevention function and encapsulates Member specific visits, risk assessments and presentations as well as interacting at industry events and offering less formal consultancy style guidance against a range of topics globally. Here we take a visual look at some of the Member engagement that took place through 2023.



## Storage of lithium-ion batteries

Lithium-ion batteries remained a topic of interest through all modes during 2023. Several logistics operators explored how the storage of such products might affect risk in the event of a fire incident that either started with lithium-ion batteries, or where lithium-ion batteries were affected by an unrelated fire. The different characteristics of a fire involving lithium-ion batteries can prove challenging if the associated risks are not fully considered.

## Lithium-ion batteries – Emergency response

An increasing number of port operator Members through 2023 recognised the need to consider risks that could emanate from a ship side fire involving lithium-ion batteries, particularly electric vehicles. Several Members elected to develop a training simulation event to stage such an incident to develop their operational risk assessment, response and resilience.

## Port and terminal risks

Insuring over 65% of the top 100 ports and terminals globally, operational port risks are a constant area of focus for the loss prevention function. Risks range from cargo handling, training, slips, trips and falls through to maintenance and repair of cargo handling equipment.

## Climate risk

Climate risk (correctly) often features in Member engagements. There is no doubt that the climate is changing and this manifests in myriad risk exposures for the Membership across all Member types. For ports and terminals it might be higher water levels, storm surge, increased frequency and intensity of windstorms, for their inland counterparts, periods of severe drought and for logistics operators flooding, wildfires and managing everything in between.

## Logistics operator risks

Logistics operational risks vary widely by operator, specialism and geography. The loss prevention function were able to engage with Members on a variety of key topics amongst which were cargo theft, supply chain security and the management of temperature controlled cargoes.





# TT Talk: transport of plastic pellets

Focus in maritime transport has been turned towards the safe transport of microplastic pellets following well-publicised incidents. While the debate rages as to how to mitigate the risks to the maritime ecosystem, those arising through the entire freight supply chain need to be recognised.

Microplastic pellets, often referred to as nurdles, form the building blocks used in the production of most plastic products. They typically measure just a few millimetres in diameter – about the size of a lentil. The release of nurdles into the sea, other waterways or the environment in general have severe ecological implications, since the pellets may be eaten by fish or other sea creatures, as well as by birds and small mammals.

By accumulating in the stomach of the creature consuming it, the plastic has an impact on nourishment. Additionally, these pellets may, due to their unique chemical composition, also absorb toxins from the environment, presenting additional risks to the food chain. Further, reports have surfaced recently of insects and microbes that have evolved to consume plastic, but may naturally be consumed by birds and small mammals.

Once a spill has taken place, nurdles can rapidly be dispersed in water due to their small size, resulting in complex and costly clean-up efforts. The maritime industry is rightly focused on ways to make such events less likely, although there are uncertainties over how

this can best be done. However, focusing only on these maritime incidents understates the scope of the risk involved in the end-to-end supply chain of microplastics. There are also significant and diverse landside risks involved in the packaging, handling and packing of this type of cargo. Additionally, many of the same environmental risks that occur in the oceans are also present on land.

### Common packaging solutions

There are several different packaging methods used to ship nurdles.

- Tank containers
- Dry bulk containers
- Cardboard boxes with plastic lining
- Polypropylene sacks (25 kg–1,000 kg)
- Large Cloth Bags
- Intermediate bulk containers and drums

Each of these has its own unique characteristics and benefits, presenting opportunities for the varied stakeholders involved.

### Supply chain risks

Apart from the risks to the marine environment, other risks exist through the transport and storage supply chain.

### Stability

Certain packagings, in particular large bags stored on pallets, can become unstable and have a tendency to shift during transit, including during sea voyages. Additionally, bags often split due to the shifting weight of the pellets inside them and there is currently no standard to which bags must be maintained. Unstable cargo, shifting weight and collapsing packages present challenges at all stages of the supply chain.

### Weight distribution

When weight is unevenly distributed, there are increased risks of vehicle overturns. However, such dangers also extend to the warehouse operations through which the cargo passes, as bags

may shift during packing or unpacking, endangering workers. Where cargo has shifted, simply opening the doors of a container, with weight pressed against them, may be highly dangerous.

### Environmental risk

At whatever point of transit, including handling and transport over land, the occurrence of a spill necessitates adequate containment and clean-up. By some estimates, as many as one in ten containerised consignments experiences a spill. Additionally, packing of bulk road and rail tank containers, often undertaken outside, often incurs incidental spillages.

### Risk mitigation

While acknowledging that supply chain operators may have limited control over the types of packaging used, the use of cardboard boxes, large supersacks and ton bags should be discouraged. Spillages and instances of collapsing cargo using these types of packaging are alarmingly common, putting the workforce at risk, regardless of environmental hazards. If packed and secured correctly, smaller 25 kg sacks are less likely to shift and the quantity of nurdles to clean up when a sack is damaged or otherwise splits is far less than with larger bags. It would also be helpful if a minimum standard of quality was established to limit the use and subsequent impact of poor quality sacks.

### Containment

Supply chain workers should be made aware of the risks. Where spillages have happened in a container or in the yard, every attempt should be made to prevent plastic pollution from entering the environment. Nurdles should never be allowed to enter the water supply, either intentionally or as natural runoff. Where there is a danger of this happening, spillage equipment such as socks and filters that fit over drains should be used to prevent it.

Where tank containers are filled and emptied, operators should consider the use of pellet catching pans and mobile barriers to limit the chance of spillages entering the local environment, most especially the water supply.

### Manual handling

When handling smaller sacks, workers should be alerted to exercise caution and use proper manual handling techniques. Because they shift easily, it is not unusual for the centre of gravity to shift unexpectedly while handling a sack of nurdles. Indeed, manual handling injuries are common in the plastics industry.

[Read more](#)

### Load Restraint recommendations

Due to the way that nurdles shift inside their packaging, safely restraining cargoes of nurdles can prove challenging. However, there are solutions that provide an adequate measure of restraint and prevent collapses.

Large sacks should be banded to the pallets on which they sit. Where such pallets are double stacked, the weight should be spread by using a plywood board between the stacked pallets.

The use of an adaptive lashing solution, capable of re-tensioning itself, is recommended to prevent loads collapsing due to shifting. Any transversal gap should be closed with dunnage.

Where pallets are secured to the bed of a curtain-sided vehicle using over-pallet strapping, prevent the strap from damaging the bag by using a pallet protection solution that sits between the strap and the bags. Even a wide strip of cardboard can be adapted for this purpose, though commercial products also exist, including wide strap solutions.

Where 25 kg bags are palletised, ensure that bags are stacked in staggered layers to create a stable pallet load. Consider using corner protection to increase the stability of the pallet and to provide protection from damage to the bags.

### Summary

There are no easy solutions to the challenges presented by the transport and storage of plastic pellets. Tank containers are costly. Bags split and shift. The world is still grappling with the challenge of transporting nurdles safely to prevent serious ecological consequences.

However, it is worth noting that the challenge is larger than is commonly understood and impacts on the safety and efficacy of every stage of the supply chain. The environmental repercussions are not limited to events at sea.

It is worth considering the full scope of the challenge, not least the safety of the workers in the supply chain, as the industry considers how to address it, particularly at the IMO. A proactive approach to risk mitigation is advisable.

“the challenge is larger than is commonly understood and impacts on the safety and efficacy of every stage of the supply chain.”



### Comment from Josh Finch – Logistics Risk Manager, London

“Having worked as an Operations Manager in the supply chain industry, I understand the challenges of managing the unloading of nurdles from containers. There are significant risks associated with handling this product, both for the operation and the environment. The main issue I found is that nurdles are difficult to pack securely in a container due to their small size and low friction, which causes them to shift inside the sacks they are stored in. This often leads to sacks collapsing and presents danger to the workers handling the product. Unlike grains or aggregates, spills of nurdles can have serious environmental consequences. To reduce this risk, shippers can use tank containers to transport nurdles, or if this solution is too costly, smaller sacks of nurdles palletised with corner posts is less likely to spill than super sack. The IMO is currently considering whether to regulate the transport of nurdles under the IMDG code, I would encourage the industry to take up the cause as well. The safety of supply chain workers as well as local environmental safety depend on it.”



# Five minutes with Rhys Richards: Grain

**Rhys Richards**  
Senior Underwriter,  
Australasia



## Can you please provide an overview of the grain initiative you have been working on in Australia?

The grain industry in Australia presented an opportunity for the Club to provide conventional liability insurance to transport, storage, and handling operators, as well as first party cover for property, business interruption and cargo.

Across the western and eastern 'grain belts', Australia produces around 40 million tonnes of grain per annum, with approximately 70% exported overseas. While only a handful of large operators used to service the Australian grain industry, there has been a recent shift towards small and medium sized storage and transport companies establishing their own market share in rural, inland 'on farm' locations. These factors opened up a significant market opportunity for TT to insure storage facilities, domestic transport operators, and exporters.

It was identified that many operators handled both customer grain (a potential liability exposure) and owned a portion of the grain themselves (therefore requiring a first party, cargo/stock cover). In response to the above factors, we went about establishing a product that offered both.

Through market research, engagement with the industry, and input from supportive brokers and expert consultants, we familiarised ourselves with the risks involved in insuring both the liabilities

of those operators in the grain space, and insuring grain as a commodity.

The existing TT Club cargo handling facilities (CHF) and transport and logistics grain (TLG) covers could suitably be applied to these service providers. The TT Club cargo cover was then adapted to account for the first party exposures from grain in storage and transit (domestic and export).

A combined offering gives the Club a competitive edge in the Australian market.

## Why grain?

Grain was initially identified for as a target due to the potential market share. As an AUD 13bn industry it presented as a great opportunity in the bulk and containerised cargo space.

Our enthusiasm to develop the product continued as we familiarised ourselves with the risks involved.

Grain is a fairly hardy commodity; the theft risk is relatively low given the values and bulk nature; the smouldering risk can be managed through technology; and, there is often salvage opportunity in the event of loss/damage. For example, wet damaged grain can be dried and/or comingled with higher quality grain to achieve a product grade that is suitable for stockfeed and maintains some monetary value.

Furthermore, the aggregated exposures at many sites is managed through multiple and segregated storage units. The industry is also well-regulated through documented accepted standards which operators must abide by.

## How big is the potential market?

As mentioned, an AUD 13bn industry that produces around 40 million tonnes of grain is big business in Australia.

With over 250 Members of Grain Trade Australia, even if only a third are suitable for TT Club to insure (others may include traders, law firms, or businesses unsuitable for TT Club for another reason) a reasonable prospect pool still remains.

The Club's Member count is currently around 50 in this space and we feel that there is a greater market share to be had.

## Why Australia? Could this be applied globally?

There are a few nuances that mean insuring grain and associated liability risks in Australia suited TT Club;

- Growing conditions: growing conditions across west and east coasts mean there is generally a decent yield (and therefore requirement for insurance!) each year, despite potential environmental or climatic impacts.
- Operator size: The aggregated value of commodity per site or conveyance is usually manageable for small- to medium-sized operators.
- Industry engagement: The operational guidelines and regulation within the industry manages the risks well. We have had good engagement with the association 'Grain Trade Australia'.

Despite these unique conditions within Australia, this product could potentially be applied overseas if other TT Club offices deemed the market conditions and risk exposures involved were suitable. There are obviously other large grain growing regions around the globe including North America, South America, and Europe.

## So what activities are our Members actually undertaking in this context?

In respect of liability cover, current TT Club members under this grain initiative are storage and handling operators, and transport operators.

The services of storage and handling facilities include grain receipt, testing, fumigating, storing in bunkers, sheds and silos, monitoring and further testing before either loading trucks/trains/ships with grain in bulk, or packing containers for onward transport. The transport operators insured by TT in this space are mainly road hauliers.

Operations are not limited to marine terminals, but also inland facilities which accumulate grain from local rural growing regions, before arranging transport to the coastal export terminals.

The Club's existing CHF and TLG Wordings suit the activities undertaken and exposure faced by these companies.

Those requiring grain cargo cover include growers, exporters, as well as those storage/handling operators that take an insurable interest and require first party cargo cover.

## In terms of risk, what would you see as the top three risks for this type of operation?

From a cargo perspective we would consider wet damage from floods or storms to be one of the main risk exposure, both in terms of frequency and size of potential claim. While there are often salvage and down-grade options for the product, these can be dependent on the severity of the initial event and continued weather conditions.

Explosion and/or smouldering within storage units has caught headlines in the past, and while this is still an exposure liability in Australia, it is generally well-mitigated through moisture testing prior to storage, ventilation and heat sensors within storage units, regular monitoring, maintenance of equipment such as conveyor belts or augers, and dust suppression systems.

Bodily injury is a notable risk exposure on the liability side. Although there are generally low numbers of people on site and automation is growing, the exposures seen at other bulk cargo handling facilities remain.

Factors that need considering include the dangers of handling of tarps used to cover bunkers and protect grain from the elements, which can be heightened in high winds, as well as the nature of bodily injury claims in Australia, as they can be quite large with costly legal fees.



“Operations are not limited to marine terminals, but also inland facilities.”

[Read more](#)



# TT Talk: Importance of standard trading conditions

**Suki Kwan**  
Senior Claims  
Executive,  
Hong Kong



A businesses' standard trading conditions are a fundamental risk management tool, used to good effect STC's can serve to provide clarity to otherwise complex contractual provisions, limit liability and deliver certainty as to which law and jurisdiction will apply in the event of a dispute. The primary function to protect the business.

What happens however, when there is a loss or dispute and a business has failed to recognise the importance of their STC's or has not adequately incorporated them into the contact with their customer?

In this article Suki Kwan explores some of the pitfalls.

The global supply chain is fraught with potential risks, so disputes are perhaps inevitable. The exposure to financial consequences can be minimised, however, by maintaining a robust risk mitigation policy. Risk mitigation extends not only to the proactive steps taken to improve operational safety and security, but also to ensuring, from the outset, that adequate contractual protections are in place.

Supply chains are typically complex, spanning diverse jurisdictions and subject to multiple complex contractual relationships, including between the shipper, freight forwarder, shipping line, port, terminal and those providing first and last mile transport. Some of these contractual relationships will naturally be governed by international law – typically conventions – while in other situations the parties might be free to agree between themselves the terms setting out their obligations.

## Negotiating applicable contract terms

In some situations, this freedom will lead to the parties negotiating specific contractual terms, often developing a detailed set of

bespoke documents for the services to be rendered. In other situations, the parties might seek to rely on the service providers' Standard Trading Conditions (STCs). When forming an international contract, it is prudent to recognise that local laws might also dictate to what extent you are free to negotiate contractual terms. However, generally speaking it is the reliance on STCs that creates risk to stakeholders in the supply chain.

The following case study example serves to highlight a number of the associated risks and the importance of due diligence when negotiating contracts, particularly when seeking to rely on your STCs.

## Case Study

In this instance, the freight forwarder "IFF Inc" arranged the transport of machinery from Spain to Kazakhstan on the basis of door to door delivery, including ocean carriage. The ocean voyage was completed without incident. However, during the local haulage to the consignee's warehouse, the driver of the subcontracted truck carrying the machinery considered that an unrelated third party vehicle was driving too close whilst proceeding along a busy stretch of the road. In an attempt to avoid a traffic accident, the driver manoeuvred the truck sharply to one side, intending to ensure that a safe distance could be maintained.

Unfortunately, in this manoeuvre the vehicle partially overturned and the laden container fell onto the ground, causing severe

damage to the machinery that was packed inside the container. The value of machinery was USD1.5 million and the repairs related to the damage incurred were said to exceed USD900,000.

There was allegedly no fault on the part of the subcontracted truck driver. However, since the involved third party vehicle could not be identified or traced and there was no official authority investigation report confirming the subcontracted driver had no negligence, IFF Inc was not in a strong position to repudiate liability. Furthermore, recovery against the subcontracted haulier was unlikely to succeed since the trucker was a small sole proprietor who had not provided liability insurance details.

In the event, IFF Inc received a subrogated claim from cargo insurers in the sum of USD750,000. IFF Inc's contract with their customer referred to their Standard Trading Conditions limiting liability to 2 SDR per kilo of the goods damaged, which was calculated to be approximately USD150,000.

## Impact of local law

IFF Inc's liability insurer sought legal advice from lawyers in Kazakhstan and was advised that under local laws the transport service provider's liability for physical loss of or damage to the goods could only be limited to the lower of repair costs, the cargo value or the reduction in value of the cargo as a result of the physical damage. In other words, it was not possible to limit liability on the basis of weight, as might be usual in many jurisdictions.

Further, any agreements for transport service providers with their customers to restrict or limit liability other than as established by the local laws would be null and void, meaning that IFF Inc were not able to limit their liability according to weight of the goods as they had perhaps expected.

Notwithstanding this unpromising legal advice, during a negotiated settlement, IFF Inc and their liability insurer made reference to IFF's Standard Trading Conditions and successfully persuaded the claimant to accept approximately 80% of the STC limitation amount.

## In place and incorporated

It is recommended that freight forwarders and logistics operators always ensure that standard trading conditions are in place and sufficiently incorporated into all contracts. Even though general terms like STCs or indeed specific contract terms to limit liability might not be applicable or enforceable under local laws in some jurisdictions, an operator's STCs are a fundamental risk management tool covering not just limitation of liability, but also

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**In the context of standard trading conditions, it is important to bear in mind not only the terms that govern your relationship with your customer, but also the terms upon which your subcontractors seek to trade with you.**”

critical other terms such as time bar provisions. Whilst STCs, even when appropriately incorporated into contractual negotiations, as in this instance, may not be fully operative, they may in any event prove pivotal in any settlement negotiation process.

STCs are extremely important for freight forwarders and other logistics operators, particularly where providing services in addition to international carriage of cargoes (for which the carrier's liability would generally be governed in accordance with accepted international conventions). The risks of physical loss of or damage to the goods will continue to exist to the point of delivery, even if the local carriage and physical handling occurs within a few kilometres of the destination port.

In TT's experience, it is often these short journeys, as an adjunct to the total movement, where less formal contracts are entered into, giving rise to potentially unlimited exposures. It is recommended that STCs (whether bespoke or adopting national association forms) are in place to protect their interests for all operations and explicitly incorporated into all transactions.



## Comment from Justin Reynolds – Regional Claims Director (EMEA), London

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First and foremost, it is vital to take the necessary steps, “up the chain”, to incorporate your own standard trading conditions with your customer to ensure that you can rely successfully upon their terms. A failure to do so might well lead to a “full” liability.

Remember there is, however, a secondary consideration “down the chain.” It is possible that your subcontractors will take steps to incorporate their own standard trading conditions into the contract with you. Care has to be taken to make sure, wherever possible, that you and your subcontractors' standard trading conditions are on “back to back” terms. In other words, that both have the same key liability clauses including, by way of example, defences, limitations, time bars and law and jurisdiction clauses. A failure to contract on “back to back” terms may leave you exposed to pay more than you can recover, or may mean that your recovery claim is time barred or if not, that you have to pursue your subcontractor in a Court or jurisdiction that is less favourable to you.

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# Call to action

The TT Club Loss Prevention team strives to identify topics and initiatives that add value to the TT offering and support the wider mission of helping to make the industry safer, more secure and more sustainable.

Delivering tailored content arguably provides the greatest value. Working together to understand individual business and industry needs is vital to ensure that loss prevention activities remain relevant and valuable.

While the loss prevention function lead the development of the guidance created, it works in close collaboration with colleagues in other business functions globally". The running message throughout this publication is that each and every initiative has been driven by Member and broker feedback and on-the-ground input.

We would like to take this opportunity to thank you for your support and engagement over the last twelve months and would greatly encourage you to engage further with the loss prevention team in the coming years.

Whether it be suggesting topics for webinars, podcasts or guidance documents or developing strategic relationships to better understand emerging risks, together we can achieve great things.



