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Volume 33 Issue 4

May 2019

Sulphur regulations looming

Industry faces up to new future

- Supply chain risk analysed
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Maritime Risk International is published by Informa Law, Third Floor, Blue Fin Building, 110 Southwark Street, London SE1 0TA. Maritime Risk International provides detailed

coverage of legal, technical and insurance issues facing the shipping industry. This ensures you are fully aware of the implications of key court decisions as well as providing in-depth

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Cover image: NeagoneFo/Shutterstock.com

Print managed by: Paragon Customer Communications

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Registered in England and Wales No 1072954. In this issue

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IN BRIEF

Carbon alliance expands

The Panama Canal Authority and AP Moller-Maersk A/S are the latest entities to join the IMO-supported Global Industry Alliance (GIA) to Support Low Carbon Shipping, signing up at a recent GIA taskforce meeting. The GIA has 18 members, including shipowners and operators, classification societies, engine and technology builders and suppliers, big data providers, oil companies and ports. The GIA taskforce progressed several projects, including the validation of performance of energy efficiency technologies, assessment of barriers to the uptake of just-in-time operations and resulting emission-saving opportunities from its effective implementation, as well as work on the current status and application, and barriers to uptake, of alternative fuels.

Confidence rising

Confidence in the shipping industry has risen in the last three months despite geopolitical uncertainty, according to the latest Shipping Confidence Survey from BDO. The average confidence level rose to 6.2 out of a maximum 10 this quarter compared to 6.0 in Q4 2018. Confidence was up in Europe, from 6.1 to 6.3, and in North America, from 5.2 to 5.6. In Asia, meanwhile, there was a drop in overall confidence levels to 5.8 from the 12-month high of 6.3 recorded in the previous quarter. Brokers were behind much of the increase in confidence. Their score was up from 5.2 to 5.9. The rating for owners and managers was down from 6.4 to 6.3 and from 6.0 to 5.8 respectively. Charterers' confidence was also down, from 6.8 to 6.0.

Rollover check

Maritime users of the global positioning system standard positioning service (GPS-SPS) were urged to check systems ahead of the week counter rollover on 6 April 2019. It was feared some outdated GPS receiver systems would cease to function properly – with potentially serious impacts on navigation. The rollover occurs because the GPS system transmits time to GPS receivers using a format of time and weeks as a 10bit value, which started on 6 January 1980, and can only count 1,023 weeks.

3.2 million tonnes of potential pollutants saved by salvors in 2018

embers of the International Salvage Union (ISU) provided 224 services to vessels carrying 3,213,228 tonnes of potentially polluting cargo and fuel during operations in 2018, demonstrating the importance of ISU members' role in protecting the marine environment.

There was a significant increase in 2018 of vessels carrying crude oil and refined oil products to 1,302,988 tonnes – up from 933,198 tonnes – in 2017. The 2018 numbers also reveal a large increase in the number of containers involved in salvage cases, rising from 45,655 teu in 2017 to 59,874 teu in 2018. Bulk cargoes declined to 743,100 tonnes in 2018. This category includes products such as coal, scrap steel, grains, soya and cement. ISU members also provided services to bulkers carrying 497,973 tonnes of non-hazardous dry bulk – mainly metal ores. The data come from the results of the ISU's 2018 Pollution Prevention Survey, which showed bunker fuel, at 111,796 tonnes in 2018, was down from 135,995 tonnes the previous year.

ISU president Charo Coll said: "ISU wants to make sure that it promotes the full benefits that the salvage industry provides. Of course, we aim to save life, to save property and mitigate loss but our members' operations also protect the environment from great harm.

"We know that not all of these potential pollutants were at risk of going into the sea. Some cases will have been simple with limited peril, but many others will have carried a real danger of substantial environmental damage. One major incident can cause an environmental catastrophe with huge financial and reputational consequences.

"It is essential that there continues to be global provision of professional salvage services to respond professionally to maritime emergencies and that needs appropriate compensation."

Of the 224 services provided by ISU members in 2018, variants of wreck removal contracts were used in 26 services: Lloyd's Open Form – 33 services (in total, Lloyd's recorded 53 LOFs in 2018. That number includes LOFs performed by non-ISU members and there may be some under-reporting in the ISU survey); towage contracts – 61 services; Japanese Form – 38 services; fixed price – 4 services; day rate – 33 services; and other contracts were used in 29 services. *MRI*

US asking for switch-off clauses for North Korea trade to tighten sanctions

he US Office of Foreign Assets Control (OFAC) is asking marine insurers to consider "AIS switch-off clauses", invalidating cover where vessels thought to be trading with North Korea disable their automatic identification system (AIS), according to Lloyd's List.

If implemented, the move would effectively leave such ships unable to trade, constituting a significant disincentive to assisting the Pyongyang regime's energy import strategy. OFAC's stipulations are contained in an update to an existing shipping advisory note initially issued last year, adding the names of dozens of vessels believed to have engaged in ship-to-ship transfers with North Korean tankers, or to have exported North Korean coal. Attention is also drawn to the alleged falsification of vessel and cargo documents and alleged illegitimate alteration of vessel names and IMO numbers.

In addition, two Chinese concerns – Dalian Haibo International Freight Co and Liaoning Danxing International Forwarding Co – have been added to the list of designated entities for sanctions purposes. The two companies are accused of assisting North Korea in evading sanctions imposed in 2006, after the country's first nuclear test.

Industry reaction has been broadly supportive, but both lawyers and P&I Clubs have highlighted the need for discretion, given that there are a number of legitimate reasons for loss of AIS signal. In January this year, the International Group of P&I Clubs issued a collective circular urging owners to reassess any possible links with North Korean entities, revealing that unnamed "surveillance agencies" are on the lookout for instances of potential sanctions evasion. These could include both AIS switch-offs and unexplained diversions, the International Group said. *MRI*

Simple checks to defeat fraudsters

The International Transport Intermediaries Club (ITIC) said ship brokers and agents are among those most at risk of exposure to fraud in the shipping industry and has urged them to carry out simple checks to protect themselves. ITIC cites the case of a ship broker that received an emailed freight invoice from an owner for US\$120,000. The bank account detailed was the same as that previously used by the owner but, several hours later, a further email was received, apparently from the owner, advising a change to the details because the original bank account was "no longer available to receive payment due to an internal audit".

The message was not from the genuine owner, but from a very similar email address created by a fraudster, who had also provided a fake account registration form. The broker failed to notice the change and it was only after the owner enquired about the whereabouts of the freight that the scam was discovered. The charterer had to pay the freight again and claimed from the broker for negligence. The broker reimbursed the charterer and ITIC reimbursed the broker.

In another incident, a ship agent received an email purportedly from its principal explaining that the principal's bank details had changed and that funds were to be sent to a new bank account. Although the new bank account had no apparent link to the principal, the agent duly transferred \$53,000. The principal, however, did not receive the funds, and ITIC duly reimbursed the agent for the full amount.

ITIC continues to see a large number of such frauds. While most of the victims and intended victims have been ship brokers and ship agents, ITIC has also received reports from members carrying out a wide range of other activities. ITIC emphasised that anyone making a payment could be the target of fraudsters and warned any message purporting to change bank account details should be regarded with suspicion. It has urged its members when transferring funds to use the telephone to check account details with a trusted representative at the recipient's office. Simple checks, it says, will defeat the fraudsters. *MRI*

Reducing malaria transmission at sea

The UK P&I Club has reminded the sector of the importance of malaria prevention, detection and treatment at sea. Sophia Bullard, crew health programme director at UK P&I Club, said: "Recently, UK P&I Club members reported two deaths and two cases of serious illness due to malaria. These cases arose despite the crew member being on medication to prevent the disease. It was later found that the crew members either did not have the correct medication for the countries they were travelling to, or they were unsure about the correct dose they should be taking.

"Malaria is a life-threatening disease that is preventable and curable with early diagnosis and treatment. It is not contagious, but it is an infectious disease spread through infected female mosquitos, carrying one of several malaria microorganisms. Most malaria cases take place in sub-Saharan Africa; however, regions such as southeast Asia, eastern Mediterranean, western Pacific and the Americas are also at risk.

"If malaria is diagnosed and treated early, it is usually completely curable. However, if left untreated, it may lead to complications and, potentially, death. Some complications that can arise include kidney failure, liver failure, acute respiratory distress and circulatory collapse, as well as secondary infections. The severity of the complications of malaria mean it is imperative for vessels travelling within, or close to, the endemic regions to carry prophylaxes (preventative treatment).

"Prevention methods include carrying the correct medication for applicable geographic area on board in adequate quantities. Mosquitoes are attracted by light and areas with stagnant water – care should be taken to ensure there is no stagnant water anywhere on a vessel, and that the amount of light is reduced, where safe to do so. Ensure that no crew members sleep on deck and apply insecticides in cabins. Use mosquito repellent sprays and mosquito nets that have been treated with an effective insecticide and avoid exposing skin when possible.

"Despite falling cases of malaria and related malaria deaths worldwide, the disease continues to be a real threat to seafarers' welfare. As always, prevention is better than cure, and by adhering to and implementing recommended measures, shipowners can mitigate against the risk of crew contracting the infectious disease," she added. *MRI*

IN BRIEF

Overtaking video

The UK P&I Club has launched its fourth video in a series of free reflective learning training videos entitled "Collision When Overtaking". This video shows a scenario where a small tanker is being overtaken by a Capesize bulk carrier when approaching a traffic separation scheme. With neither vessel taking appropriate avoiding action in accordance with the collision regulations, a situation developed whereby the bulk carrier eventually collided with the tanker's port side, resulting in serious structural damage and flooding. The video goes on to analyse why the collision occurred and what could have been done to prevent it happening.

Information exchange

A mandatory requirement for national governments to introduce electronic information exchange between ships and ports came into effect from 8 April 2019, said the IMO. The aim is to make crossborder trade simpler and the logistics chain more efficient, for more than 10 billion tons of goods which are traded by sea annually across the globe. The requirement, mandatory under IMO's Convention on Facilitation of International Maritime Traffic (FAL Convention), is part of a package of amendments under the revised Annex to the FAL Convention, adopted in 2016.

Cyber system launch

Classification society ClassNK has released its cyber security management system for ships. As part of the ClassNK cyber security series, ClassNK regularly releases guidelines and standards that outline cyber security measures based on the recently released ClassNK cyber security approach that sets out ClassNK's basic approach to ensuring onboard cyber security. The cyber security management system for ships provides guidance on ensuring, implementing, maintaining, and continuously improving the cyber security management system of companies and ships with the goal of safe navigation. It includes management measures regarding protection against cyber risks not only at the navigation stage, but also in the construction/design stage of ships through security by design.

IN BRIEF

Qualship status

The Republic of the Marshall Islands (RMI) has been recognised on the US Coast Guard's (USCG's) QUALSHIP 21 roster for 2019-2020. The USCG programme rewards vessels for commitment to safety and quality when calling at ports in the US. Only flag states which maintain a port state control detention ratio of 1 per cent or less for a three-year period and also meet a stringent set of judgement criteria are eligible. "Maintaining QUALSHIP 21 status is of significant importance to the RMI; it delivers tangible benefits to shipowners and operators trading in US waters," said Bill Gallagher, president, International Registries Inc and its affiliates, which provides administrative and technical support to the RMI Maritime and Corporate Registries.

Liberia added

The Liberian flag has been included in the US Coast Guard's (USCG) QUALSHIP 21 (QS21) roster for 2019-2020. Alfonso Castillero, chief operating officer of the Liberian Registry, said "We are very pleased to have made the QS21 roster. It is recognition for the many years of work that we, our clients, ship managers, and masters and crew have put into safety training and meeting environmental standards. We have a great team of dedicated staff – good people with at-sea experience – who are working closely with vessels on compliance as they come into the US."

Single window

A successful IMO project promoted by Norway to establish a maritime "single window" in Antigua and Barbuda has been completed - and the source code for the system will now be made available to other countries who need it. A maritime single window enables all information required by public authorities in connection with the arrival, stay and departure of ships, people and cargo, to be submitted electronically via a single portal, without duplication. This type of system is recommended by IMO's Facilitation Convention, the treaty which aims to reduce administrative burdens and make shipping and trade by sea more efficient.

EU ship recycling rules: protectionism

Nly nine shipyards, out of 26, on the EU list of approved recycling facilities are realistically open for ship recycling, and only three of the 26 could recycle a large ship (Panamax size or larger), a study commissioned by BIMCO shows. "The EU list is hard to take seriously. I called one of these 'recycling shipyards' a few months ago, and they hadn't even started building the yard yet," said Angus Frew, BIMCO secretary general and CEO. "The list looks a little like protectionism and clearly disadvantages European shipowners."

Regulation (EU) No 1257/2013 of the European Parliament and the Council on ship recycling came into force on 1 January 2019. It requires EU-flagged ships to be recycled at approved yards on the EU list. EU yards are apparently allowed on the list without fulfilling uniform criteria, whereas non-EU yards have to be inspected by European Commission-appointed auditors according to clear criteria before inclusion on the list. So far, only two Turkish and one US yard have been included.

BIMCO believes that audits should consider and reward improvements to health, safety and environmental protection that have been achieved at facilities in Asia. Furthermore, there should also be actual inspection of the EU yards. Currently, some Asian yards have waited two years for approval after submitting their application without any prospect or pathway to inclusion on the list.

Meanwhile, IMO's treaty for safe and environmentally-sound ship recycling has received another boost. Japan has become the 10th country to become a party to the Hong Kong Convention, which covers the design, construction, operation and maintenance of ships, and preparation for ship recycling in order to facilitate safe and environmentally sound recycling, without compromising the safety and operational efficiency of ships.

Under the treaty, ships are required to carry an Inventory of Hazardous Materials, specific to each ship. Ship recycling yards are required to provide a "Ship Recycling Plan", specific to each individual ship to be recycled, specifying the manner in which each ship will be recycled, depending on its particulars and its inventory. *MRI*

Shipping job security concern highlighted

More than half of shore-based maritime employees are actively looking to change jobs and nearly two thirds are worried about job security. Maritime industry recruiter Halcyon Recruitment, in collaboration with training provider Coracle, has published its 10th annual Maritime Employee Survey. 2,800 respondents took part and the results show that 62 per cent (compared with 56 per cent last year) of shore-based shipping industry employees are concerned over job security, particularly those employed in vessel operations. Job security was ranked as the most important aspect (57 per cent of respondents) when considering a career move, followed by the reputation of the employer. 54 per cent of respondents are actively looking to change jobs, a dramatic increase compared to last year's findings of 28 per cent.

Responses to the annual survey were drawn from all the key maritime centres and included respondents representing all major trades working in both commercial and operational roles. The research was undertaken between December 2018 and January 2019. Key highlights include:

- 70 per cent feel their employer could do more for a diverse and inclusive workforce.
- 25 per cent of all respondents believe they have been discriminated against at work.
- Less confidence in the shipping jobs market can be seen and job security is now the most important aspect for job seekers when considering a career move.
- The amount of survey participants receiving a bonus is similar to the last two years, but a greater percentage of people are unhappy with the amount.
- The Asia Pacific region is still seen by the majority to offer the greatest opportunity for work but considerably less so than in previous years with Europe and the Middle East gaining considerable ground over previous years.
- 54 per cent of participants are actively looking for a new job and a further 41 per cent are not looking but open to offers.
- 69 per cent of brokers/charterers/traders received a bonus within the last 12 months.
- Legal/P&I/insurance sectors fared best with respect to salary increases with 50
 per cent receiving a pay rise in the previous 12 months. MRI

Ariel Re NEW MARINE HEAD

Ariel Re, a member of Argo Group, has appointed David Martin as head of marine and energy, reinsurance, effective immediately. He will report to Matthew Wilken, deputy global head of reinsurance. Martin will work closely alongside Emily Leitch, senior specialty reinsurance underwriter, to build out the business.

David brings more than 30 years of industry experience to Ariel Re. He joins from Tokio Millennium Re where for the last seven years he served in two roles: senior marine and energy underwriter and, most recently, head of UK underwriting. David began his career in 1985 working as an underwriter for FLP Secretan. He had subsequent roles at SUM, later Equitas, before moving to Mid Ocean Re in 1998.

The Standard Club NEW LEGAL DIRECTOR

The Standard Club has appointed Jamie Wallace as legal director. Jamie brings 17 years' legal experience to the role, principally in the maritime sector. Previously a partner at Bentleys, Stokes and Lowless, Jamie's experience involves advising owners, charterers and cargo interests in global jurisdiction. While at Bentleys, Jamie was also responsible for the development of the organisation's P&I business.

Braemar Shipping Services CHAIRMAN NAMED

Braemar Shipping Services plc has named Ronald Series as its non-executive chairman with immediate effect. Ronald will also chair the company's nomination committee. He succeeds David Moorhouse CBE, who retired from the board in April 2019.

Ronald, a chartered accountant, is currently the executive chairman of DX (Group) plc, the deliveries and logistics company, and until recently was the senior independent director of Clipper Logistics. He has previously held senior management positions at Lonmin, the platinum group metals producer, Viridian Group, the energy company, and Dubai World, the global investment company.

BIMCO

OFFICE FOR ATHENS

BIMCO will open an office in Athens in early summer 2019. It said the objective is to have a stronger and closer dialogue with BIMCO's Greek membership and to recruit more Greek members. Greek shipowners are already the biggest group of BIMCO members measured by fleet size.

The office will only be staffed with one person – like BIMCO's office in Singapore – and the employee will report to BIMCO's head of membership and business development, Erik Jensby. BIMCO is in the process of hiring the right person for the office. The secretariat in Copenhagen will continue to be responsible for the day-today work on shipping policy and regulation.

HFW

PROMOTES RECORD NUMBER

HFW has elected partner Paul Dean as the new head of its global shipping practice and a member of the firm's global management board. Paul also heads HFW's global offshore practice and previously led its oil and gas practice. He replaces former head of shipping Craig Neame, who has now returned to fee-earning.

HFW has also promoted four new shipping partners and three new shipping legal directors across its international network – the largest annual promotion round of senior shipping lawyers in the firm's 136-year history. HFW's shipping practice now comprises 59 partners and more than 190 lawyers across the Americas, Europe, the Middle East and Asia Pacific.

This follows HFW's election of a new global management team, with Jeremy Shebson elected as the firm's new managing partner and Richard Crump re-elected for a fifth term as global senior partner.

shipping partners New include: Christopher Garley (shipping, London), who advises clients on "wet" and "dry" shipping disputes, focusing on issues arising from marine casualties including collisions, fires and groundings; Alessio Sbraga (shipping, London) who specialises in international commercial dispute resolution in the marine and offshore sectors, covering issues relating to charterparties, bills of lading, sale contracts, shipbuilding, MOA, grounding, unsafe port, offshore (FSO, FPSO, FAU, rigs), bunker and cargo disputes; Gudmund Bernitz (ship finance, London), who specialises in international finance and commercial transactions, particularly involving the shipping and offshore sectors. He is dual qualified as a solicitor in England and Wales, and an Advokat in Sweden; and William MacLachlan (ship finance, London), who specialises in transactional shipping

matters covering the full life cycle of a broad range of marine assets.

The new shipping legal directors include: Philip Carney (shipping, Piraeus); Erica Chan (shipping, Hong Kong); and Alex Sayegh (ship finance, London).

Survitec

CRUISE DIVISION

Survitec has created a new dedicated global cruise division to support the rapidly developing requirements of global cruise operators. Mark Baines, Survitec vice president, Americas, has taken on the lead for Survitec Global Cruise. Survitec Global Cruise is managed by a permanent team of 20 personnel with direct access to 1,000 Survitec technicians, offering coverage at 2,000 ports and 500 plus accredited service stations across the world.

Coldharbour Marine NEW CEO

UK-based Coldharbour Marine, the manufacturer of in-tank ballast water treatment systems, appointed Don Stephen as chief executive officer. With more than 30 years' blue chip industry experience, Don's career spans technical and leadership roles at De Nora Water Technology, Severn Trent Services, GE and Alstom both in the UK and internationally. Don will be based at the head office in Linby, England.

MVS

SERVICE TO MARK 25 YEARS

The Maritime Volunteer Service (MVS), a recognised national maritime training organisation founded in 1994 after the disbandment of the Royal Naval Auxiliary Service, has turned 25 years old and, to mark the event, the charity held a service of thanks in the very church where plans were drawn up for its formation.

The MVS has 25 active units around the UK providing training to nationally and internationally recognised standards, serving local communities especially in times of need or emergency and taking part in resilience exercises both ashore and afloat.

The service on 4 April took place at All Hallows by the Tower, the oldest church in the City of London, founded in 675AD. A number of founder members of the MVS were in attendance including volunteer officer Keith Newman from the Northumbria Unit based in Newcastle.

Towards zero CO₂

Simon Bennett, deputy secretary general, International Chamber of Shipping, examines the IMO's Initial Strategy on the Reduction of Greenhouse Gas Emissions from Ships

he Initial Strategy on the Reduction of Greenhouse Gas (GHG) Emissions from Ships, adopted by the IMO in April 2018 established ambitious targets – including the phasing out of GHG emissions "as soon as possible this century" and reducing annual GHG emissions from international shipping by 50 per cent by 2050, when compared to those of 2008.

In response, the International Chamber of Shipping (ICS) and the industry have put forward detailed proposals to be considered by the IMO's Marine Environment Protection Committee (MEPC) in May 2019.

ICS and its member national associations are committed to the phase-out of GHG emissions, consistent with the IMO strategy, says ICS deputy secretary general Simon Bennett, and he believes that the radical solutions required will eventually be found.

However, he says, the technologies necessary to achieve these ambitious IMO goals do not currently exist at a scale or in a form which is commercially viable for widespread use by international shipping, especially for transoceanic voyages. "ICS therefore believes that support for massive research and development activity needs to be at the centre of the implementation of the IMO strategy by member states," explains Bennett.

An important achievement

Bennett describes the IMO strategy as "the Paris Agreement for international shipping" and says that, given the complexities of the politics of climate change, this agreement represents a genuine achievement of diplomacy.

"It represents consensus between those nations, including EU member states, that wish to see dramatic CO₂ reductions as soon as possible and other IMO member states that have legitimate concerns about the possible impacts on trade and their national economies," he says.

Nevertheless, the target of a 50 per cent cut by 2050, regardless of trade growth, is very challenging indeed – and, before that, the industry also has to deliver a 40 per cent efficiency improvement by 2030.

The ICS is confident that the efficiency improvements can be achieved using existing technologies, but the pressure is on to make genuine progress in terms of delivering the 50 per cent cut in GHG.

Practical solutions

In October 2018 the MEPC adopted an action plan, including consideration of a number of potential measures for the short, medium and longer term.

ICS says that when projections for future trade growth are taken into account, the industry simply cannot achieve the 2050 GHG reduction target using fossil fuels alone – and in March 2019,



in conjunction with other international shipowner associations, the ICS made a submission to the IMO to highlight this point.

"Using fossil fuels may require an efficiency improvement of around 90 per cent compared to 2008, which cannot be delivered with current propulsion systems," says Bennett. "If the 2050 reduction target is to be met, commercially viable low-emission ships need to start appearing on the market by the 2030s.

"To reiterate, the technologies necessary to achieve the ambitious IMO GHG reduction goals do not yet exist in a form which is viable for widespread use by international shipping, especially for intercontinental voyages. In the next decade, the sector is therefore going to require massive investment in research and development of zero (or near zero) CO₂-emitting fuels, propulsion systems and other new technologies.

"The ICS believes that new and innovative measures to encourage research and development must therefore be a key component of the longer-term measures that are considered by the IMO in 2020, and work on this needs to be completed before 2023."

Priorities

The immediate priority is for the IMO to make progress with short-term measures, including the adoption of new regulations that will achieve further CO_2 reductions from shipping before 2023, says Bennett. "We are acutely aware of the political importance that many governments attach to this 2023 date, if unilateral or regional rules are to be prevented. The ICS, in cooperation with other industry associations, has therefore

come forward with detailed proposals for full consideration by the MEPC in May 2019."

These industry proposals support a further tightening of the existing energy efficiency design index (EEDI) for new ships, which already requires ships built in 2025 to be 30 per cent more efficient that those delivered in 2013. They also propose the concept of the "Super SEEMP", whereby mandatory ship energy efficiency management plans will be subject to some form of external audit as part of the International Management Code for the Safe Operation of Ships and for Pollution Prevention (ISM Code).

A level playing field

"In making these proposals, ICS and the industry are trying to suggest viable alternatives to some frankly unrealistic suggestions from some IMO member states which, if accepted, would lead to serious market distortion," says Bennett. "These impractical and unhelpful ideas include operational efficiency indexing of individual ships, mandatory speed limits (as opposed to speed optimisation) and mandatory refitting of potentially unproven and immature new technologies which may be inappropriate for many ships and actually counterproductive."

"A ship which predominantly trades in the North Atlantic, the Bay of Biscay or the North Sea will superficially display far worse operational efficiency indicators than a ship which mostly trades in areas like the Gulf or the Adriatic"

The overriding concern of ICS is that many of these proposals confuse the CO_2 emissions generated by particular shipping routes and trades with the operational efficiency of individual vessels.

For example, says Bennett, the fuel consumed by two identical ships during two similar voyages will vary considerably – due to factors such as currents, ocean conditions and weather. Similarly, fuel consumed by individual ships, particularly those in tramp sectors, may vary considerably from one year to the next, depending on changing trading patterns and the nature of charters over which the ship operator has little control.

"A ship which predominantly trades in the North Atlantic, the Bay of Biscay or the North Sea will superficially display far worse operational efficiency indicators than a ship which mostly trades in areas like the Gulf or the Adriatic," he points out.

A clear pathway

"The ICS wants the IMO to make meaningful progress with shortterm GHG reduction measures as soon as possible to achieve measurable additional GHG reductions by 2023, in addition to the significant reductions already achieved by the sector since 2008," says Bennett. "But while these short-term measures will be very important, ICS also wants the IMO to move on to developing the critical longer-term measures that will truly help the industry to decarbonise completely. It is vital that these discussions begin in earnest during 2020."

ICS, its members and other international shipowner associations are engaged in "intensive discussions" on how global

GHG reduction R&D programmes might be accelerated – and there are hopes that detailed ideas will be brought forward in 2019.

Uniform global regulation is vital for shipping and it is hoped that the targets agreed by the IMO will be enough to discourage unilateral action, says Bennett. The objectives are to be revisited by the IMO in four years time; the mandatory Fuel Oil Data Collection System (DCS) established by the IMO in 2017 will be fully up and running during 2019, so that the review will have access to much-improved data by which to measure progress.



Under scrutiny

It is important that the sector demonstrates that progress – and not only to itself. The United Nations Framework Climate Change Convention (UNFCCC) is applicable to shipping but the sector is not covered by the CO_2 reduction commitments that governments are required to make on a national basis, because emissions generated by maritime transport cannot be attributed to individual countries.

Nevertheless, shipping generates about two per cent of global CO₂ emissions – comparable to an economy such as Germany. While adoption of the IMO strategy was greatly welcomed at the UNFCCC Climate Conference in Poland in November 2018, "progress by the IMO on behalf of the shipping sector is therefore being closely monitored by the international community," warns Bennett. Importantly, the IMO has agreed that any new regulations must apply to all ships equally, regardless of flag – a rule that is vital to prevent market distortion and trade inefficiencies.

Industry commitment

While the challenges and the debate continue, the ICS asserts that the agreed IMO targets are fully consistent with the UNFCCC goal of limiting temperature increases to 1.5°C compared to preindustrial levels and are far more ambitious that those so far agreed for aircraft by the International Civil Aviation Organization (ICAO), which has (to date) only agreed a goal of holding the aviation sector's emissions at 2020 levels.

"Indeed, based on the total impact of the commitments so far made by governments as part of the Paris Agreement, successful delivery of the IMO targets will decarbonise shipping at a much faster rate than the rest of the world economy, whose emissions are projected to continue increasing for at least a further 10 years," says Bennett. "International shipping emissions are believed to be about eight per cent lower than in 2008, subject to confirmation by the next IMO Greenhouse Gas Study which is being conducted in 2019." *MRI*

Shaking up the shipping industry

Duygu Doğan, at Kılınç Law & Consulting, discusses how sulphur regulations are just the start

he IMO's new regulations on low-sulphur fuel are changing how global shipping is powered. Yet these regulations appear to be just the vanguard of a coming wave of environmental regulation that may see the world's shipping fleet transformed in the decades ahead. In the race for cleaner, more efficient vessels, renewable fuel options such as biofuels are entering the fray, even as engineers are coming up with radical new designs for next-generation wind-assisted cargo vessels.

The environmental case for low-sulphur fuel is clear: just 15 large container ships can produce as much sulphur oxide as all the cars in the world. Shipping has long been one of the world's most polluting industries. However, from 1 January 2020, strict new limits will be imposed on shipping's sulphur oxide emissions.

The IMO will impose new regulations requiring the sulphur content of ships' fuel to be cut dramatically from 3.5 per cent to 0.5 per cent. Sulphur oxides have been linked with respiratory problems in humans and acid rain. The new regulations are a triumph in terms of protecting human health and the environment. However, analysts Wood MacKenzie estimate that these measures could cost the shipping industry US\$60 billion annually.

The new scope and reach of the new regulations provide a potent example of the power and reach of the IMO as an international regulator. Many in the shipping industry believe that this is just the beginning of a wave of environmental regulation which will impact the shipping sector. As a result, large shipping companies are even anticipating likely future trends in regulation when purchasing new ships or upgrading their fleet's powerplants. In 2018 the IMO announced a plan to lower shipping's greenhouse gas emissions to half of the 2008 levels by 2050. This makes future regulation as to greenhouse gas emissions highly likely. However, for the moment, it is the impending requirement to reduce sulphur emissions which is exercising ship operators around the world.

Shipping is responsible for 2 per cent of global carbon emissions, but 13 per cent of the world's sulphur oxide emissions. HSBC estimates that a single container ship burning 80 tonnes of fuel per day emits the same amount of sulphur oxides as 46 million diesel cars. This is because cars use highly refined fuel, where most of the sulphur has been removed, whereas ships use relatively unrefined heavy fuel oils.

The shift to low-sulphur emissions is causing significant costs and complications for ship operators who are racing to achieve compliance by the end of the year. The stakes are high. The owners of a non-compliant vessel could face fines, or might even have their vessel declared unseaworthy, which would mean that it could not put to sea until it is compliant. There are also risks that insurance could be invalidated by non-compliance.

The IMO's sulphur cap was announced in October 2016. Since then, ship operators worldwide have had to carefully consider



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how to best adapt their fleets. The main options being considered are to use more expensive low-sulphur fuel, to convert ships to liquefied natural gas (LNG) or to install abatement technology, which captures sulphur oxide emissions.

Abatement technology involves fitting "scrubbers" to existing ships, which remove sulphur from the exhaust fumes. These systems spray alkaline water over exhaust emissions, capturing sulphur oxides. These ships can then continue to burn cheaper high-sulphur heavy fuel oils. While abatement systems are costly, low-sulphur fuel costs around \$280 more per ton than standard heavy fuel oil. However, when demand for low-sulphur fuel rockets early next year, some analysts predict that this price differential could rise to \$380 per ton.

Should a large container ship burn 300 tons per day, and low-sulphur fuel costs \$380 per ton more than standard fuel, a scrubber will save \$1.14 million on fuel – in a single day. Such phenomenal savings suggest the scrubber option could make real economic sense. However, uncertainty around future fuel prices and future regulation makes these benefits difficult to predict.

A 2018 survey by maritime consultants Drewry found that 66 per cent of shipowners were planning to use more expensive low-sulphur fuels instead of fitting scrubbers. The main reasons cited were the \leq 5 million to \leq 10 million cost to fit a scrubber and fears that future environmental regulations may restrict or ban their use. Another survey by Swedish financial services firm SEB also found that just 2,000 vessels out of a total merchant fleet of 60,000 will have scrubbers fitted by the 2020 deadline.

LNG is becoming increasingly popular for new-build ships; however the network to fuel LNG ships remains limited. Maersk has confirmed that it is looking at converting ships to LNG. Hapag-Lloyd has announced plans to convert 17 vessels to LNG at a cost of \$20 million to \$25 million per vessel. Given such high conversion costs, it is understandable that many companies are reluctant to make the switch to gas. However, LNG is increasingly popular when new ships are being ordered. The Drewry survey found that 24 per cent of owners would consider purchasing new LNGready ships. However, ship operators' clearly favoured method to achieve compliance is to simply purchase low-sulphur fuel.

Another way to achieve compliance is to mix cheaper heavy oil fuels with existing 0.1 per cent low-sulphur fuel oils. 0.1 per cent sulphur fuels have been widely available on the market since 1 January 2015, when 0.1 per cent became the required sulphur level for ships in the existing sulphur oxide emission control areas (SECAs).

The existence of these areas means that ships entering the English Channel, or approaching the US coasts, for example, must switch over to fuel with less than 0.1 per cent sulphur content. Fuel that meets the 0.1 per cent requirements of the SECAs typically costs twice the price of standard fuel. Thanks to SECAs, ship operators have gained some useful experience in powering vessels with low-sulphur oil. However, there remains an element of uncertainty as to what technical and engineering challenges may emerge as the world's entire shipping fleet switches over to low-sulphur fuel on a permanent basis.

It is clear that further environmental regulations loom on the horizon. In 2018 the IMO adopted an ambitious target of lowering shipping's greenhouse gas emissions to half of its 2008 levels by 2050. LNG offers a CO_2 reduction of around 20 per cent when compared with oil. However, this apparent reduction is offset

by the fact that another greenhouse gas, methane, is emitted when LNG is produced. Low-sulphur fuel offers no significant CO_2 reduction over standard fuel.

Biofuels provide a promising option in terms of CO_2 emissions, as they are capable of providing CO_2 emission reductions of up to 90 per cent. Biofuels can be derived from the waste from agriculture or forestry, or from dedicated crops. Existing engines can be converted to run on biofuels. However, biofuels remain costly, and the infrastructure and technology are not yet sufficiently developed to be widely adopted.

Another low-carbon option is to return – in part – to the traditional method of powering ships: wind. Plans are already afoot to build a four-masted cargo ship, powered by a combination of diesel electric engines and sails. Engineers are exploring a variety of options to power ships with wind, including sails, kites and rotors. Wind is expected to once again play a significant role in powering the ships of the future.

The sulphur regulations that come into effect on 1 January 2020 will affect all ships regardless of size. In light of the IMO's 2050 CO_2 reduction target, it's likely that future regulations will focus increasingly on CO_2 reductions. This will lead to further challenges for ship operators, but may also lead to a new era in ship design.

The global switch to low-sulphur fuel offers a lesson for the industry: ship operators need to anticipate future regulatory trends before they happen and choose vessels that are easy to adapt when the regulatory environment shifts.

A cargo ship can have a lifespan of 40 years or more. This means that it is perfectly reasonable to expect that a ship commissioned today will still be plying the oceans in 2060 – 10 years after the IMO's target to halve CO_2 emissions will have elapsed. Given the pace of technological development, we cannot imagine how such ships will be powered. The adoption of modular ship design would mean that future ships could be easily adapted and retrofitted with new powerplants or even different superstructures.

Indeed, the future removal of bridges and crew accommodation to make space for cargo is a very real possibility, if automated shipping becomes as commonplace as some predict. Since selfdriving cars are already on American streets in experimental form, the reality of largely or completely autonomous ships may well be upon us sooner than we expect.

Environmental regulations are often viewed as a cost for ship operators. Yet there is a prize for those ship operators who innovatively adopt new designs, new powerplants and new technology such as automation. They may be the first to benefit from lower fuel costs and lower crew costs, thereby making their fleet more competitive – and more profitable. *MRI*



Duygu Doğan

Duygu Doğan, senior associate at Kılınç Law & Consulting

The perplexities of the IMO's 2020 global sulphur cap

Eva Kelesidou, at The Standard Club, considers the complexities of the impending sulphur cap

ith less than nine months before Regulation 14.1 of Annex VI of the MARPOL Convention comes into effect, there are many challenges associated with compliance and enforcement, which have cast uncertainty across the marine sector.

Legal framework

IMO regulations to reduce sulphur emissions from ships first came into force in 2005 and since then, the limits on sulphur content have been progressively tightened; the regulations apply to all ships flying the flag or entering waters of a member state. The current global sulphur limit (per MARPOL but outside emission control areas (ECAs)) of 3.5 per cent m/m will be reduced to 0.5 per cent m/m from 1 January 2020. It is important to note that between 1 January 2020 and 1 March 2020, a ship may have on board high sulphur fuel oil (HSFO), but may not use it. However, from 1 March 2020 there must be no HSFO on board, unless it is being carried as cargo or the ship is using a scrubber.

While a ship is operating inside ECAs, the sulphur content of fuel oil used on board that ship shall not exceed 0.1 per cent (in force since 1 January 2015). Therefore, ships that operate both outside and inside these ECAs will operate on different fuel oils to comply with the respective limits. According to Regulation 18.2.2 of MARPOL Annex VI, ships should not be required to deviate from their planned voyage or to delay unduly their voyage to obtain compliant fuel. Ships are, however, required to make every best effort to obtain compliant fuel.

In addition, under the general exceptions of Regulation 3.1, the regulations shall not apply to: (a) any emission necessary for the purpose of securing the safety of a ship or saving life at sea; or (b) any emissions resulting from damage to a ship or its equipment. The latter is on the condition that all reasonable precautions have been taken to avoid or minimise the emissions. Owners' intent to cause damage or recklessness or knowledge that damage would incur should not be involved either.

In the event that a ship is compelled to bunker and use noncompliant fuel due to the non-availability of compliant fuel or the unsuitability of available compliant fuels, this should be reported to the ship's flag state and the relevant port of destination using a fuel oil non-availability report (FONAR).

Options for compliance

There seem to be four main options available to a shipowner that allow compliance with the 2020 global sulphur cap:

- (1) Burn LNG subject to machinery modifications.
- (2) Install scrubbers.
- (3) Burn distillate fuels (MGO/MDO), "hybrid" fuels or blends.

(4) Use alternative "clean" fuels such as methanol, liquefied petroleum gas, biofuel etc.

It is of course an owners' decision as to the most efficient way to comply with the environmental regulations, on the basis of various parameters, ie the size and age of their fleet, their trading pattern and of course their financial situation. In certain circumstances, unfortunately, it seems that scrapping may be the only solution.

Regardless of the option chosen, increased costs are expected. Engine modifications or the installation of scrubbers requires significant investment. On the other hand, the supply of compliant fuels to the ship may result in high purchasing prices.

However, the considerable costs of whatever option for compliance is only one side of the coin. Compliant fuels will likely not be immediately and adequately available, especially in remote ports. Moreover, in the absence of a new ISO standard there is risk of quality, stability and compatibility issues. As a result, there may be incidents involving engine breakdowns, loss of propulsion, blockages of pipes or even explosion. Regarding scrubbers, delivery and installation challenges are expected to introduce additional challenges. The extent of the consequences is difficult to predict at this stage but certainly shipowners should be vigilant, carry out risk assessments and invest in sufficient crew training.

"While some ports may have the resources to carry out effective enforcement of the regulations, there will be other ports in remote areas or developing countries that lack the infrastructure required to enforce the regulations uniformly"

Hurdles of enforcement

Regulation 14.1.3 provides for the enforcement to be delegated to member flag and port states but how the regulations are to be enforced is to be left to each different contracting state to decide (Regulation 11). Therefore, there is currently no clarity or homogenous approach. The various local authorities would have the right to apply a fine (levels are unknown), ban the master or the company from all states' ports or even arrest a ship (the US Coast Guard is empowered to do so) or, rarely, permit, perhaps, some tolerances. Moreover, flag states that have ratified Annex VI are entitled to revoke or, at least, suspend ships' MARPOL certificates if they do not comply with the regulations.

While some ports may have the resources to carry out effective enforcement of the regulations, there will be other ports in remote areas or developing countries that lack the infrastructure required to enforce the regulations uniformly. Currently there are 72 contracting states (flag states and port states) to MARPOL Annex VI, hence there are areas of the world that are under no obligation to enforce the regulations. Ships flagged with a non-member flag state, which operate solely between non-ratifying port states, do not need to comply with Regulation 14.1.3. Nonetheless, owners are reminded that they would still need to comply with the localised sulphur regimes which are in force in countries such as China or Australia (note also the restrictions on the use of an open loop system in some ports).

It is obvious that in certain cases, enforcement of the regulations may be more onerous or not robustly enforced leading to uneven situations for the owners calling at different ports. This has led shipowners to support the view that random and frequent testing of bunker fuel held in shore tanks would be a practical and realistic means of ensuring only compliant fuel is delivered to ships.

Contractual pitfalls

BIMCO and INTERTANKO have published bunker clauses that address some of the issues of compliance with the 0.5 per cent sulphur limit. Owners and charterers may consider these as appropriate or not, so as to ensure timely and smooth compliance. However, the above clauses are not a panacea and the parties are recommended to consider the charterparty terms and conditions as a whole and satisfy themselves that there are suitable, well-structured and clear clauses protecting their position against disputes related to non-compliant fuels and associated complications.

The contract should contain an explicit provision for compliant low sulphur fuel oil (LSFO) to be supplied to the ship. The same result is also achieved if there is a wording that requires charterers to supply only suitable (thus lawful) fuel. Or arguably, it may be achieved through an implied indemnity but it is suggested one takes a cautious approach and amends the



contract to avoid uncertainty and confusion. Importantly, the charterers' obligation to supply compliant fuels should also cover the situation whereby bunkering ports are located in countries that are not parties to MARPOL Annex VI and thus not obliged to comply with the MARPOL regulations.

A number of other matters that need to be dealt with in a charterparty are sampling procedures, restrictions on the use of open loop scrubbers and disposal of residues, tanks' cleaning etc. Owners and charterers should additionally review dry-docking and off-hire clauses (laytime/demurrage for voyage trade) and how those clauses allocate the risk and costs related to installation, maintenance and repair of the scrubbers. Having said this, the owners are not legally obliged to install scrubbers unless there is a warranty within the charterparty that the owners will burn HSFO. In the latter case, owners will be responsible for the maintenance of the scrubbers and failures will naturally fall within the off-hire clauses.

Many blended LSFOs are of unknown composition and untested. As such, stability and compatibility issues may not be excluded. The mechanical problems arising from the quality of the bunkers, subject to the facts and evidence, would lie with charterers as a result of their obligation to provide suitable fuel. As of 1 January 2020, any charterers orders to burn noncompliant fuels will be unlawful unless the ship has a scrubber. If charterers offer a letter of indemnity, at least under English law, this will be unenforceable. Moreover, since LSFO is associated with higher consumption of fuels and lower average speed of the ship, any speed and performance warranties should be reviewed.

It is equally important that the parties consider the issue of the bunkers on redelivery, as the price of LSFO may have risen, but also the bunker supply contracts terms, which usually include provisions favourable to suppliers. These mainly contain very short claim notification clauses or waiver of claims if the ship co-mingles the fuel. Frequently, contracts also contain a requirement for only the bunker delivery note samples to have any evidential value. Lastly, parties should be alerted to the limitation provisions which would not allow full recovery of damages and/or consequential losses.

Comment

Parties involved need to develop a fuel strategy, and set an appropriate risk assessment and management plan that allows compliance with the 2020 MARPOL requirements. Furthermore, as the contractual position is far from straightforward, careful consideration should be given in the context of any existing and future contractual commitments to ensure that the practical and legal issues are accounted for with a view to safeguarding their interests. *MRI*



Eva Kelesidou

Eva Kelesidou, claims executive, European Division at The Standard Club

Where does the sector stand?

Magda Daskalou, of Prevention at Sea, asks how the shipping sector got to the 2020 sulphur cap and takes a risk management perspective

hip power systems emit a large amount of sulphur oxides with significant environmental impacts. To moderate these, international regulations have been issued to limit the sulphur content of ship fuels. In certain parts of the world, emission control areas (ECAs) are embedded within the MARPOL legislation, where stricter requirements are applied to the contents of bunker fuels being used. In the ECAs, new requirements were introduced in 2015 to limit the sulphur content of ship fuel to 0.1 per cent m/m. A new, lower global sulphur cap of 0.5 per cent m/m is planned for 2020.

As we approach the 0.5 per cent sulphur cap, we attempt to address the main issues and challenges that will arise on the road to compliance, presenting possible options to shipowners.

Does ISO 8217 cover 0.5 per cent sulphur compliant fuels?

Following concerns among the industry's stakeholders that ISO 8217 would not encompass future 0.5 per cent fuels, the International Organization for Standardization (ISO) made a statement to clarify that new blends of bunker fuels will fit within the related fuel standard. Namely, the ISO confirmed that the general requirements of ISO 8217:2017 along with the characteristics included in Tables 1 and 2 of ISO 8217:2017 cover 2020 0.5 per cent max sulphur fuels in the same way as they cover today's fuels, including the 0.1 per cent max, in an effort to reassure the industry that there would not be any significant safety issues if fuels become unstable or damage machinery.

In view of the fact that the 0.5 per cent "blended fuel" supply is scarce in the market as well as limited in usage, and it is difficult to determine whether or not its characteristics are in full compliance with the internationally recognised standard ISO 8217, the ISO is in the process of developing new standards for the 0.5 per cent "blended fuel".

Sulphur cap compliance options for shipowners

There are three main compliance options for shipowners: using low-sulphur fuels, scrubbers and liquefied natural gas (LNG) as fuel. (Alternative "clean" fuels (eg methanol), are also a possibility.) These three compliance options and the conditions under which these options make sense are described below.

Low sulphur fuels

About 80 per cent of the total bunker fuel is heavy fuel oil (HFO), which contains a share of sulphur that is higher than what will be allowed. To meet the sulphur content limits of fuel oils (ie 0.5 per cent m/m), the types of marine fuel oils that can be used are low-sulphur heavy fuel oil (LSHFO) or 0.5 per cent "blended fuel".

To produce such low-sulphur distillate fuels, oil refineries often de-sulphurise fuel oils with special technologies and procedures, leading to significant changes to many characteristics of lowsulphur distillate fuels. Since the fuel oil system and machinery installations of ships are normally designed for HFO/marine diesel oil (MGO), the changeover to low-sulphur distillate fuels will possibly cause failure of the fuel oil system and equipment or even lead to the risk of losing power for the ship.

A few considerations that could be addressed are as follows:

- Mismatch of the cylinder oil alkalinity used in diesel engines with the sulphur content of fuel oil can lead to combustion chamber corrosion or cylinder scraping.
- Cross-contamination of fuel oils with different sulphur content (such as HFO and low-sulphur distillate fuel) can lead to non-compliance with requirements.
- Low viscosity can lead to difficulties in oil film establishment (especially for marine distillate fuel) while serious wear and internal leakage of fuel pumps lead to diesel oil supply failure.
- Incompatible fuel oil mixture may form sludge or cause asphalt precipitation, resulting in filter and oil separator blockage as well as fuel supply failure.
- Too many catalyst fines may lead to serious wear and tear of fuel oil pumps, fuel oil valves, nozzles and fuel supply failure.

Scrubbers

Consistent with Regulation 4 of MARPOL Annex VI, the prohibition on the carriage of non-compliant fuel oil is not applicable to ships fitted with "equivalent" means of compliance. Therefore, highsulphur fuel oil (HSFO) will still be an option after 2020. However, to be in compliance, it will require the installation of exhaust gas cleaning technology commonly known as SOx scrubbers. No changes will have to be made to the engines or fuel treatment plant, but the installation of a scrubber could be complex, especially for retrofits. There is a significant investment cost for the exhaust gas cleaning plant, and there will be operational expenses related to increased power consumption and the possible need for chemical consumables and sludge handling.

There are in essence two different types of scrubbers: wet scrubbers with sulphur oxides being absorbed in water, or dry scrubbers where sulphur is reduced through reactions and chemically bound to a solid substance. Most of the scrubbers used on ships are wet scrubbers. Three types of wet scrubbers can be distinguished: open loop scrubbers, closed loop scrubbers and hybrid scrubbers. The difference between these scrubbers is the type of water they use to absorb sulphur oxides.

The investment costs of scrubbers range from $\notin 2$ million to $\notin 10$ million per ship, depending on the ship type, scrubber type and new build/retrofit. In addition to investment costs, the operation of scrubbers increases fuel consumption, estimated to be around 1 per cent to 3 per cent (European Maritime Safety Agency, 2010). Moreover, scrubbers need space on a ship, which is often scarce. Along with scrubbers, peripheral equipment, such as equipment for wash water, pumps, pipe systems and monitoring systems need space. This makes it easier to install scrubbers on large vessels.

Liquefied natural gas

LNG is expected to gain a more favorable position as an alternative for marine fuel for complying with the global sulphur cap. LNG as a ship fuel is now a technically proven solution and



the LNG bunkering infrastructure is developing rapidly around the world. While conventional oil-based fuels will remain the main fuel option for most existing vessels in the near future, the commercial opportunities of LNG are interesting mainly for new buildings, and in some cases also for conversion projects. Taking the leap to LNG should only be made on the basis of the best possible information and a thorough analysis.

Although the price of LNG is currently lower than for MGO and HFO, the costs of distributing LNG to ports and ships is very high. These distribution costs depend on the distance from LNG import terminals, the method of distribution and LNG volumes, which currently make LNG a more expensive fuel than MGO or HFO. This might change if the LNG bunkering network was expanded and more ports were able to offer LNG bunkering possibilities.

Besides the commercial aspects, the main argument for choosing LNG as a ship fuel, and a replacement of conventional oil-based fuels, is the significant reduction in local air pollution – ranging from emissions of SOx and NOx to particulate matter (PM). The complete removal of SOx and PM emissions and a reduction of NOx emissions of up to 85 per cent favours the use of LNG, especially in the ECAs. In addition, LNG can reduce greenhouse gas (GHG) emissions by 10 per cent to 20 per cent, depending on engine technology. As a fueling option, LNG offers multiple advantages to human health and the environment. It also has a positive impact on the energy efficiency design index (EEDI) of the ship.

Remember the following tips

To help operators switch to low-sulphur fuels, while maintaining safe operation, the following aspects should be considered:

- Establishment of best practices. Operators should buy fuel that meets the latest ISO 8217:2017 specification and buy it from reputable fuel suppliers.
- A written procedure for fuel oil changeover should be maintained and followed, and allowing sufficient time for the fuel oil service system to be fully flushed of all fuel oil exceeding 0.1 per cent, prior to entry into a sulphur emission control area (SECA).
- Monitor for sludge. If sludge starts to form, ensure there is no further fuel blending before any action is taken, as this may worsen the problem.
- Compatibility checks. There is a risk that two compliant fuels will not be compatible, causing sludge. The fuels should be ideally tested in a laboratory.

- If fuels of more than one sulphur grade are to be loaded through the same bunker hose/line, it is recommended that the fuel grade with the lowest sulphur content be loaded first, followed by other grades in ascending order of sulphur content.
- In addition to cleaning tanks, all of the pipework in the fuel oil service system needs to be flushed, since it may be a further contamination hazard. Flushing the remaining pipework and fuel oil service system after all tanks have been cleaned could take another one to two days.
- Test for catalyst fines. 0.5 per cent fuels could contain high levels of catalyst fines which could damage the engine.
- Adherence to a comprehensive and well-considered shipspecific ship implementation plan (SIP) is of the utmost importance, ensuring that the change to compliant fuels is achieved on time and as smoothly as possible.

Conclusion

Undeniably, operators need to consider the available options and work closely with trusted fuel and lubricant suppliers to make sure that come 2020 they can navigate the changes. In addition, the shipping industry should take advantage of the little time left until enforcement and try to clarify the existent grey areas that may compromise compliance once the legislation comes into place. Therefore, the need for harmonised standards with respect to compliance options such as LNG, LNG bunkering, shore power and scrubbers is unquestionable. Sanctions imposed on non-compliant ship operators in the past have been very limited. Despite some differences between countries, a common trait seems to be that fines imposed rarely ever exceed the cost advantage ship operators gain by ignoring existing sulphur emissions restrictions. *MRI*



Magda Daskalou

Magda Daskalou, senior maritime advisor/analyst, Prevention at Sea

Managing risk through the **cool supply chain**

Stuart Edmonston, at UK P&I Club, reports on ways to manage risk through the cool supply chain

he temperature-controlled cargo supply chain can present operational challenges as these cargoes are among the more sensitive transported. There are a number of common errors and misconceptions which can result in deterioration or total loss of the cargo, as well as damage to the carrying equipment. As demand for the carriage of temperature-controlled cargo continues to increase, it is important all stakeholders in the process are aware of guidance on equipment selection, maintenance, inspection and cleaning in line with the IMO/ILO/UNECE Code of Practice for Packing Cargo Transport Units (CTU Code).

Equipment selection

Key factors in selecting the correct equipment are the volume and mass of the cargo to be shipped, the nature of the journey and the required transport temperature. It is common for both trailers and reefer containers that each equipment provider will offer a selection of equipment and service levels to suit industry needs on all trade routes. Below is a list of the more common options:

- The majority of reefer CTUs will have some form of monitoring to provide running information. However, some providers will be able to offer additional remote temperature and condition monitoring potentially accessible by the shipper or consignee. This form of monitoring is becoming more common.
- Specialist reefer CTUs adapted to transport cargoes that need to be hung, for example meat carcasses.
- Specialist dual refrigeration units which are particularly useful in the shipment of sensitive chemicals and pharmaceuticals.
- Specialised reefer CTUs capable of super-low temperature cargoes which need to be transported at temperatures as low as -50°C (-58°F).

Common types of reefer container			
Common ISO reefer size codes	Description	Est volume capacity	Payload
45R1	40' High Cube	67 to 68.7 cbm	Approx 29,900 to 30,500 kg (65,918 to 67,240 lb)
42R1	40' Standard	56 cbm	Approx 28,500 kg (62,831 lb)
22R1	20' Standard	29 cbm	Approx 26,000 to 27,500 kg (57,320 to 60,627 lb)



Where there is a requirement to transport cargoes with different temperature specifications within the same CTU, a dual refrigeration CTU will be required. It is possible to use a dual compartment trailer as a conventional single compartment trailer. When doing this, the following points need to be taken into consideration:

- The split wall must be properly stowed; when not in use, it is important that the split wall is locked in place completely flat against the ceiling. If the wall is loose or slanting downwards, this can cause blockage or restriction of the proper airflow through the trailer compartment.
- Only the primary refrigeration unit must be operated; the primary refrigeration unit is capable of providing the required temperature control for the whole compartment when the trailer is not split. If the two refrigeration units are operated simultaneously in one compartment, they will be distributing cool air towards each other, which will hamper the natural airflow through the cargo compartment and cause uneven temperature conditions.
- Potentially lower stacking height; both the secondary refrigeration unit and split wall take up space at the ceiling, meaning that the maximum stacking height of the cargo is less than for single-compartment trailers. This must be taken into consideration when configuring the cargo to be shipped.

Maintenance

To ensure the efficient operation of the reefer CTU, it is essential to keep the equipment in a sound state of repair. Improper maintenance can cause inconvenient downtime, costly repairs and potential loss of cargo. Establishing a preventative maintenance schedule can prove extremely valuable. Under the CTU Code, the CTU operator, generally the shipping line or leasing company, is responsible for providing a reefer CTU which is fit for purpose.

The structure of all containers, including reefers, should be examined and maintained within the parameters of the operator's maintenance scheme as required by the International Convention for Safe Containers (CSC) as a matter of course. While general damage (for example to the side walls) to the container may be acceptable within the parameters of the CSC, such damage may be detrimental to the effective operation of the reefer container and must not be overlooked.

The refrigeration machinery will, in addition, require regular maintenance and servicing in line with the manufacturer's recommendations and guidelines. The service manual for each model will state how frequently specific components, such as the compressor and evaporator, should be fully serviced, and how often filters and other wear and tear components should be replaced.

The reefer container has its own power cable which, when not in use, should be coiled in the designated area at the front of the unit. Failure to do so may result in the cable and plug being damaged during transport that may in turn compromise the electrical integrity of the refrigeration machinery. If the insulation or conductors within the cable or plug are damaged, there is a serious risk of injury to persons operating the reefers or a fire. Regular checks should be made before connection and while in operation to ensure that the power cable is in sound condition and not showing any signs of discolouration.

"Improper maintenance can cause inconvenient downtime, costly repairs and potential loss of cargo. Establishing a preventative maintenance schedule can prove extremely valuable"

Pre-trip inspections

One of the objectives of the pre-trip inspection (PTI) carried out on every reefer CTU prior to release for packing with cargo is to ensure the refrigeration machinery is in working order. Many reefer CTUs will have an automatic pre-trip mechanical test completed by the machinery controller. However, there are instances when the machinery fails during transport. If this takes place on board ships, the engineering staff may seek to rectify the problem by undertaking urgent repairs. This is not always possible due to weather conditions or the container's location.

Most controllers for the refrigeration machinery will include one or more diagnostic routines within the software. Each of these routines may be referred to as a PTI in some format, for example "Brief PTI Test" or "Full PTI Test" or just undertake function tests. They are diagnostic procedures to check the components are operating within the normal parameters and should not be considered as a replacement for a correctly undertaken PTI.

A "before power on" inspection would seek to ensure that the CTU and refrigeration equipment are:

- Free from physical damage and in good condition.
- Not missing components which are key to the operation of the equipment.
- Sufficiently clean, including ensuring that the CTU is free from signs of mould, plants, pests and other invasive species.
- Free from any debris such as old labels, placards or remnants of previous cargoes is identified.
- Sufficiently filled with refrigerant and lubrication.

During the "power on" inspection, the efficient operation of the refrigeration machinery should be checked. This is normally initiated by the inspector by selecting the appropriate diagnostic routine on the machinery controller display. The choice of routine selected will determine the diagnostic checks undertaken and on completion of the automatic checks the controller will illuminate either a pass or a fail. While this is being undertaken, the inspector should ensure there are no abnormal noises from components and the rotation of the condenser and evaporator fans are evident and in the correct direction. The inspector may also initiate a manual defrost routine.

In the event a reefer CTU fails the PTI, the unit should be marked for repair or maintenance immediately and not released into use. A CTU operator should determine and document the period of time that a PTI is deemed valid; it would normally be considered valid for a period of 30 days.

Cleaning

As part of the PTI, the cleanliness of the CTU should be checked to ensure it meets the requirement of the shipper. The presence of pest or pest contamination should also be checked visually. There are generally three levels of cleanliness in this context:

- Physically clean the surface areas appear clean to the naked eye. This could be achieved through sweeping and washing with cold or hot water.
- Chemically clean all surface residues which could support microorganisms are removed. This could be achieved through the use of appropriate soaps/chemicals applied to internal surfaces, left for a period and then rinsed clean.
- Microbiologically clean surface residues are free from viable microorganisms, including food-borne pathogens. There is a need to use more aggressive disinfectants to achieve a deeper clean.

Under the CTU Code, the CTU operator is responsible for providing a reefer container, which is clean and free of debris, cargo residues, noxious materials, plants, plant products and visible pests.

During the cleaning process, where applicable, operators should ensure:

- The floor drains are opened.
- There are no obvious signs of damage to non-welded joins (breaks in sealant) that could allow water ingress into the insulation.
- Any debris collected in or blocking the drains is removed.
- There is no evidence of the presence of pest or pest contamination.
- The equipment is thoroughly rinsed and, if washing liquids or soaps are used, ensure there are no residues remaining.
- The equipment is dry following the cleaning process there is a risk, otherwise, of freeze damage, ice blockages being formed and corrosion damage when turned on.

It is crucial shipowners, crew and all other stakeholders involved in the cool supply chain process follow the stipulated guidance on equipment selection, maintenance, inspection and cleaning. In doing so, they can successfully mitigate the risks to cargo, seafarers and any associated claims. *MRI*



Stuart Edmonston

Stuart Edmonston, loss prevention director at UK P&I Club

A unified approach

Peregrine Storrs-Fox, along with others in the cargo handling and container transport industry, is spearheading a campaign to bring awareness to issues that undermine safety in the intermodal supply chain and to improve the safety for people, ships and the environment

he campaign for cargo integrity focuses on all stakeholders recognising and doing the right thing. It is a diverse project seeking, at its roots, significant cultural/behavioural change. Certain elements may require legislative change and technology deployment, but much concerns the perception of risk. TT Club records indicate that as much as 66 per cent of incidents related to cargo damage in the intermodal supply chain can be attributed in part to poor practice in the overall packing process, including not just load distribution and cargo securing, but also the workflow from cargo classification and documentation through to declaration and effective data transfer. Critically, many of these attritional incidents could be avoided; these are calculated to cost marine, aviation and transport insurers in excess of US\$500 million each year.

There are weekly reports of fires and, on average, there is a major ship fire every 60 days that involves loss of life, or damage to the ship, disruption and costs. In the first three months of 2019 significant fires have occurred on no fewer than four container ships: *Yantian Express, APL Vancouver, Grande America* and *ER Kobe*. While it is not yet known in each case what caused these fires, it is most likely that the fires started in containers with undeclared or mis-declared dangerous goods.

Historically, there have been several well publicised shipboard explosions and fires involving such laden containers in the past few years. The tragedies of *MSC Flaminia* in July 2012 and *Maersk Honan* in March 2018 both sadly cost multiple lives, likely resulting in insured losses in the hundreds of millions of dollars and overall economic loss to the industry of multiples of the insured element.

As the size of container ships increases, so does the potential risk and consequence of a large explosion or fire incident. Despite certain regulatory and technical advances, there is little doubt that the capability to respond to a cargo-related fire at sea has not progressed in proportion to ship capacities and the variety of commodities being carried. This burden of loss has been tolerated in part because fragmentation in each stakeholder segment means that most entities bear a portion of their own losses within risk appetite, but also because the global intermodal supply chain has developed complex practices, some of which detract from safety and certainty of outcome.

All types of cargo can be mishandled. However, wrongly classified, declared or labelled dangerous goods (DG) are seen as the primary hazard. The representative body of cargo handling and container terminal operators, ICHCA International, has extrapolated statistical evidence of the extent of the problem. It calculates that of an estimated 60 million packed containers transported around the globe each year, 10 per cent are declared to contain DG; that is six million containers that need varying degrees of special handling, positioning in terminals

and stowage onboard ships. Information from government inspections, which are biased towards declared DG shipments, suggests that more than 20 per cent are poorly packed or incorrectly identified in some way. That ratio converts to 1.3 million potentially unstable declared DG loads per year. 326822

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And that's just declared DG loads. It is more challenging to estimate the amount of DG cargo that goes undeclared. An initiative by Hapag-Lloyd, now being further developed by IBM, has seen the deployment of a screening system, Cargo Patrol, which attempts to identify cargoes that may be undeclared DG at the time a shipper books the move with a shipping line, leading to more detailed investigation before acceptance. From the "potential hits" thrown up by the system it would seem that between 2 per cent and 5 per cent transpire to be more than likely undeclared DG cargoes. Extrapolating these findings across the total annual global container trade, it might be reasonable to estimate that there are some 150,000 ticking container time-bombs each year carrying potentially volatile undeclared or mis-declared cargo.

Working with ICHCA, TT Club has been seeking, as one part of the cargo integrity campaign, to focus on the IMO inspection programmes for CTU/ containers, where it has been admitted that the level of reporting is not sufficient to draw concrete conclusions, improve compliance or increase safety. The volume of inspection results is far from compelling and submitted by few countries. But these inspections are slanted towards declared DG consignments with the majority undertaken by the US, the IMO report showed. Even so, worrying deficiencies are discovered each year.

Of 79,780 units that were inspected in 2017, 52 per cent of all incidents involved placarding and marking of container transport units, while 9 per cent related to the marking and labelling of packages, according to filings to the IMO by Sweden, Finland, Chile, the US, China, Canada and South Korea.

On analysing reports submitted to the IMO in the past, TT Club has established that the number of member states reporting on their inspections, in comparison with those with membership of the IMO, has always been less than 10 per cent and currently stands at about 2.5 per cent; on average only four or five of the 170 member states regularly report. Of the inspections that are carried out, as many as 75 per cent are typically in the US. Obviously, this is an extremely low rate of inspection and is insufficient to enforce the regulations, derive change requirements or provide evidence of frequent transgressors in terms of shippers and commodities.

The Cargo Patrol initiative and the efforts of IBM to make it accessible to all lines is an example of a communal approach to improving safety surrounding the transport of containers both on land and at sea. This sort of cooperation among the shipping lines and others (including TT Club) began some seven years ago with the founding, by five of the top liner operators, of an organisation aiming to capture key incident data to provide an early warning of worrying trends, whether relating to cargoes that display dangerous characteristics or unsafe practices in the container supply chain. The cargo incident notification system or CINS (www. cinsnet.com) now has a membership that includes some 18 liner operators, representing more than 70 per cent of container slot capacity.

Nor is the need for more transparency limited to shipping lines; many other actors in the supply chain, most notably shippers and forwarders who are responsible for packing of the containers and the crucial initial declarations of what they contain, as well as ports and terminals, must become more knowledgeable about safety procedures and more vigilant in minimising errors. Procedures governing DG handling around the world, for instance, are complex. Each consignment has to navigate the chosen carrier's own house policies, physical ship constraints and any restrictions applied at ports/terminals at the point of loading, transit, transhipment and discharge. The complexity and lack of standardisation can be bewildering even to the most experienced of shipper and exacerbates the possibility for error or failure to update.

It is also intensely inefficient and hugely burdensome for the lines and other stakeholders. As a result, Exis Technologies, with the support of TT Club and its sister insurance mutual, UK P&I Club, has developed a portal integrating information on such restrictions. The Hazcheck Restrictions Portal is designed to simplify the end-to-end management of DG booking processes, taking account of port, terminal, carrier, ship and partner line restrictions. Cooperation is urged, ports/terminals and liner operators can upload their DG handling policies and restrictions into the portal free of charge, allowing use by shippers, forwarders and others involved in the movement of such goods.

The need to deliver the message of cargo integrity throughout the supply chain is clearly evidenced, so, additionally, TT Club has updated and revised the "Book it right and pack it tight" publication, which provides a thorough introduction and guidance on the provisions of the IMDG Code.

While training to achieve "competence" – or the ability to do a job properly – is critical and

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required by law, it needs to be followed through. This means that the training records not only should be maintained but also available. A lack of enforcement undermines the effectiveness of the system. The importance of carrying out due diligence was set out in relation to the CTU Code (www.unece.org/trans/wp24/ guidelinespackingctus/intro.html) in the IMO Circular MSC.1/ Circ.1531. While this envisages checks being undertaken to seek assurance in relation to a contractor, it also provides a good model for such a service "provider" to "know your customer".

The CTU Code stands as non-mandatory international law. Structured so that it may be incorporated into national legislation, the entire freight industry should recognise that many jurisdictions will rely on this detailed guidance in any litigation as demonstrating good industry practice. TT Club stresses that all stakeholders need to become familiar with the contents of, and develop ways to implement and encourage compliance with, the CTU Code.

An increased level of training of those employed by shippers, consolidators, warehouses and depots to pack containers and other transport units is repeatedly demonstrated by the consequences of inappropriate load distribution and badly secured cargo within CTUs, including bodily injury. As a result, TT Club commissioned Exis Technologies to develop e-learning training courses for the transport industry, CTUpack e-learningTM.

While the IMDG Code is mandatory and all IMO member states are required to incorporate its requirements in national law, enforcement is little known and inspections (on which evidence of transgression is reliant) are few and far between.

TT Club, working with partners, will continue to put pressure on UN agencies, governments and the full range of direct and indirect stakeholders involved in the intermodal supply chain, recommending changes to improve safety and identify practices and behaviours that can undermine certainty of outcome for trade in general and presents increased risk for people, ships and the environment.

It is clear that the effectiveness of TT Club's call for cargo integrity must take a broad approach, not relying on the power of regulation or the vigilance and discipline of carriers or port operators, but carrying the safety message far and wide, including engaging with entities involved in fiscal, health, security and anti-trust regulation, and embracing technical innovations that can assist in monitoring and condition reporting, for example. Those involved in inspections, surveys and advice to the packing industry globally are thus among key potential agents of the significant culture change that is required.

This is an extract of the full article, which is available online at www.maritime-risk-intl.com MRI

Peregrine Storrs-Fox

Peregrine Storrs-Fox, risk management director of the TT Club

Immovable islands, bills of lading, time bars and title to sue

Derek Luxford, at Hicksons, reviews a recent case on bills of lading

ith apologies to William Shakespeare and Macbeth, the bridge team on *MV Ikan Jahan* carrying a mixed cargo of copper concentrate and zinc ingots from two east coast ports in Australia (Newcastle and Townsville) to discharge ports in Thailand and India, did not exclaim on the morning of 18 December 2011 "Is that an island which I see before me ...?".

Had they done so the vessel might not have grounded on Manuk Island in Indonesia without anyone on the bridge team seeing the island or even being aware of its existence. After an expensive salvage operation by Japanese salvors the cargoes were eventually delivered to their buyers in early 2012. The salvors were duly paid pursuant to a salvage agreement made in October 2014 and subsequently the shipowners claimed contribution towards the general average adjustment (GA). The copper cargo had been loaded in Newcastle, NSW and discharged in India.

After several years of negotiations and extensions of the 12-month time bar applicable under article III rule 6 of the Australian version of the Hague-Visby Rules (HVR) incorporated into the Australian Carriage of Goods by Sea Act 1991, the copper cargo interests commenced proceedings in the Federal Court of Australia (FCA) in July 2017 claiming damages in the form of an indemnity in respect of the payment that they had made to the salvors, and a declaration that they were not liable to contribute to GA. The cargo interests alleged that the vessel was unseaworthy. The owner that issued the bill of lading as carrier, pursuant to which the cargo interests made their claim, denied liability, denied the vessel was unseaworthy and relied on the nautical fault exception to carrier's liability under article IV rule 2(a) of the HVR.

The proceedings

At the time of filing the defence the owner applied for summary judgment on the basis that the many extensions of time granted on behalf of the shipowner to the cargo interests from December 2012, finally expiring in mid-July 2017, were invalid and that the claim was time-barred. A related argument raised by the owner was that the three named plaintiffs in the proceedings did not have title to sue for the damage to the copper cargo, with financial loss being the payment to the salvors and potential financial exposure under the GA in any event. They also argued surprisingly that the plaintiffs had not suffered any loss, evidently because it was their insurer which had paid the salvors.

The parties agreed for the court to hear five separate questions relating to the time bar, title to sue and entitlement to claim damages as preliminary points. If the defendant owner succeeded that would be the end of the plaintiffs' claim. If the plaintiffs succeeded, then the case would proceed on the underlying issues of unseaworthiness and nautical fault. The plaintiffs' claims were worth approximately US\$6 million. The plaintiff cargo interests succeed on all questions. The defendant owner did not appeal and the case will now proceed on the underlying unseaworthiness and related issues.

The judgment is very fact sensitive, but it gives rise to issues which frequently occur in cargo claims brought under bills of lading including a chain of sales of traded commodities where in effect the claims are being made on behalf of the subrogated marine cargo insurers (in this case in Lloyd's) against the owners' P&I Club). The time bar arguments raised by the owner were very technical and largely based on a narrow construction of the words actually used by the parties in email correspondence when the time extensions were sought and granted initially in December 2012 and then crucially in December 2015.

The main issue for the FCA was whether there was agreement as to which parties the extensions had been granted, and whether the extensions had been granted to the correct parties. Significantly when the negotiations were between the cargo interest's London lawyers and the Club, the Club had asked for details of the cargo interest's insurers and sought letters of authority from them. Those insurers had already provided standard salvage and GA security to owners.

At no stage in that period were the cargo interests' lawyers asked to identify the relevant insureds who had title to sue at all material times. However, when the owner's London lawyers came on the scene in December 2015, they asked the cargo lawyers to identify the relevant "insureds" of the cargo insurers. The cargo lawyers again repeated the details of the relevant insurers who had provided security and also of one of their insured's clients, "J P Morgan" (JPM). Specifically, the owner's lawyers had said that their clients were "minded to" grant the extension of time for 12 months pending confirmation of the identity of the insureds. Once JPM was identified the time extension was confirmed on 11 December 2015.

The proceedings were commenced in the name of three plaintiffs: Tritton being the shipper named on the bill of lading, Sterlite Industries being the ultimate purchaser and receiver of the copper cargo, and the third being JPM which had in the meantime changed its name to Freepoint as the endorsee of the "to order of JPM" bill of lading. Importantly JPM had paid Tritton for the cargo prior to the grounding and JPM endorsed the bill of lading to Sterlite in February 2012 after completion of the salvage services to enable Sterlite to receive the cargo. Accordingly, at the time of the grounding JPM had title to sue under the bill of lading.

The plaintiffs' claims were brought in contract under the bill of lading. The owner argued that there being no pleaded claim in tort, JPM, which at the time the salvage payment was made by the cargo interests' insurers in late 2014, no longer had title to sue under the bill of lading and the relevant party with title to sue was the receiver Sterlite. It argued, under the NSW Sea-Carriage Documents Act 1997 (SCDA), prior holders of the bill of lading such as JPM/Freepoint surrendered their rights to sue to the ultimate holder of the bill of lading (Sterlite). After this argument was raised the plaintiffs sought leave to amend the statement of claim to plead an alternative claim in negligence. The court granted leave to the plaintiffs to file an amended statement of claim.

The owner's basic argument was essentially that none of the extensions of time to sue under the bill of lading had been granted to the plaintiffs in the proceedings and that none of them had title to sue. The plaintiffs' case was that until the December 2015 time extension they had only been asked to identify the relevant insurers and to provide authority from those insurers all of whom had provided security and that as no specific request had been made to identify the putative plaintiffs there could be no complaint about the time extensions not being valid.

When the owner's London lawyers came on the scene in December 2015 they specifically requested the identity of the insureds and the cargo plaintiffs' lawyers provided the name of one of the insureds (JPM). The owner's lawyers argued that the time extension was only valid in relation to JPM and not to the two other plaintiffs including Sterlite. Initially it seems that the owner's insurers did not appreciate that Freepoint, the third plaintiff in the pleadings, was in fact JPM, although that connection appeared in the plaintiff's pleadings.

As often occurs in cargo recovery cases against shipowners under bills of lading, the relevant security documents provided by both parties all referred to the generic description of "cargo interests" without naming any putative plaintiff. Indeed, that was also the case in the salvage agreement with the salvors whereby the cargo interests were described as "owners and underwriters of the cargo". These descriptions of cargo interests are common practice in the marine insurance and shipping community.

In many respects there was nothing particularly unusual about these time extensions other than they continued for many years and that until the extension given in December 2015 there had been no requests for the name of an individual insured. The argument from the owner was that there had only been a time extension in favour of JPM and not the two other plaintiffs. The court rejected this and accepted the plaintiffs' evidence. The court also found that had there not been a proper contractual extension of time to commence proceedings; an estoppel would have operated against the owner preventing it from relying on the running of time. In other words the court found that the cargo interest lawyers relied on the contractual time extension being given to all cargo interests having entitlement to claim under the bill of lading and not just to JPM, and for this reason had not commenced proceedings before 18 December 2015, which otherwise they would have done.

The result

The court acknowledged there was some ambiguity in the communications but that, based on the proper construction of the communications and on the evidence of the cargo interests, there had been a valid extension of time for commencing the proceedings up to and including the time the proceedings were commenced in July 2017, and all three plaintiffs had the benefit of that time extension including the plaintiffs with title to sue being JPM/Freepoint and Sterlite.

Conclusion

The Ikan Jahan judgment (Tritton Resources Pty Ltd v Ever Rock Navigation SA [2019] FCA 276) makes no new law. Rather it

applied existing law to a specific fact situation. The lessons for parties is to be very careful in the way the request and responses are framed, identifying accurately on whose behalf the request for a time extension is sought. With transfers of title between parties under bills of lading it will usually be appropriate to frame the requests as occurred in this case on behalf of all cargo interests claiming under the bill of lading and it is probably best to avoid identifying particular insureds or putative plaintiffs.

"Ambiguities in the terms of an agreement can lead to expensive litigation even if ultimately what appears to have been the commercial and usual common sense position prevails in court"

Both cargo and carrier/owner parties also need to be careful that there is often no similarity between the identity of the parties claiming under the bills of lading and those providing security, especially where insurers provide security. This is particularly important in relation to the cargo interests in traded commodities, where the identity of the party owning the cargo and with title to sue is likely to change with the passage of time before and possibly after security is provided.

Care needs to be paid to every word used in correspondence constituting evidence of the agreement to extend time. Ambiguities in the terms of the agreement can lead to expensive litigation even if ultimately what appears to have been the commercial and usual common sense position prevails when the issues are determined by the court. From a cargo plaintiff's perspective differentiation between a law firm's insurance "clients" on the one hand and the actual cargo interests who will be the putative plaintiffs in any proceedings can be important in these circumstances. Grouping them together as "cargo interests" claiming under the bill of lading will often be the most prudent description.

It will be interesting to see what happens in the underlying unseaworthiness dispute now to be determined by the FCA. In another recent FCA judgment, *The Thor Commander* per Rares J (*Mount Isa Mines Ltd v The Ship "Thor Commander"* [2019] 1 Lloyd's Rep 167), the cargo interests were successful in a case involving vessel unseaworthiness.

 Hicksons acted for the successful plaintiffs in the Ikan Jahan proceedings. This is an extract of the full article, which is available online at www.maritime-risk-intl.com MRI



Derek Luxford

Derek Luxford, consultant at Hicksons

Confusion needs to end

End confusion around the prudent uninsured test, urges claims expert at the spring 2019 seminar of the Association of Average Adjusters

hipowners dealing with repairs and other essentials after a marine casualty are often asked by their insurer to treat such expenses as carefully as if they were a "prudent uninsured". How prudent is such a demand? The wisdom of this approach was closely examined at the latest London seminar organised by the Association of Average Adjusters in conjunction with the International Underwriting Association.

The speaker, Nigel Rogers, engagingly entitled his talk "Dear Prudence", as he posed the question: "How valid is the prudent uninsured test?"

The claims expert's conclusion was that "when an owner has a casualty, he may not only hope for but expect assistance and proactive service – something a bit more helpful than the time-honoured diktat" that he acts as if under the constraints of having no insurance.

"In other words, rather less – 'act as if prudent uninsured' – and a bit more 'Dear Prudence – let's talk," urged Rogers, who is a past chairman and a Fellow of the Association of Average Adjusters and partner with Rogers Wilkin Ahern, a City marine claims consultancy and provider of adjusting services.

He began by saying that the call to show prudence in the marine insurance context was nothing like as seductive as in the Beatles ditty *Dear Prudence*, and was more in the nature of a reprimand, evoking a mystified response from shipowners, who either declared "But I did" or "But I *am* insured".

Rogers questioned how satisfactorily the prescription provides guidance to shipowners in the commercial environment. When insurers instructed the policyholder to "act as if prudent uninsured", this meant that the owner should make the same decisions as if the costs were borne by owner's account. "This can lead to confusion, and differences in opinion between insurers and shipowners when commercial issues intrude, and an owner needs to get the ship back trading as soon as possible."

He conceded that "there is much that is good and sensible in the idea that an owner spends money that he intends to claim from underwriters as carefully as if it was his own and hence selects the cheapest viable repair yard, research the market to source parts appropriately, reserve rights against errant third parties and in general to take all measures to mitigate the cost of repairs."

There could, however, be confusion as to what a prudent uninsured would do in certain circumstances, "and also the phrase does not always suffice for many owners in this day and age who require rather clearer guidance and better assistance following a casualty."

After an insured casualty an owner is entitled to the reasonable cost of repairs and it is sometimes assumed that if the owner is instructed to act as prudent uninsured that would lead towards that reasonable result. But there might be a lack of connectivity between the two mantras – reasonable cost and prudent uninsured – since the owner will be making decisions

with an eye to his commercial position. The owner might wind up saying when part of his claim is rejected: "But I did act as if uninsured – I did what I was told. If I were paying all the repair costs myself then I would without hesitation pay these extra costs to return my vessel to full freight earning operations. Mine is a time-sensitive trade. I have valued customers. And in this internet and social media age, I can't afford the reputational damage that would arise from an avoidable delay."

This raised the question as to exactly what was insured. It is frequently described as "hull and machinery, materials, equipment and everything connected therewith nothing excluded". But is the ship a physical object or, as the owner might have it, "a nice little earner"?

There were stark differences of legal opinion on this point, with some favouring the view that the ship is just a ship, a physical object, and others saying that its capacity as a freight-earning instrument should be considered.

While this divergence might seem academic, said Mr Rogers, the issue comes into focus when dealing with the costs of what are termed expediting expenses or temporary measures – for example excess costs of overtime (extra payment to make a ship available for work), temporary repairs, temporary generator hire, etc.



For an underwriter taking the physical object approach, maintaining that they are responsible for the reasonable cost of repair but not for commercial considerations, the approach in earlier times would have been to pay further costs only where there were savings. There were instances though of underwriters prepared to entertain commercial considerations where an owner was always going to spend what it took to get a vessel back into operation as quickly as possible.

The lines started to become blurred when insurers might see their physical object cover shading into a "loss of hire" area if they became liable to pay expenses to mitigate such an aspect. A solution would need to be found to address the disconnect between the physical and commercial imperatives.

Rogers said that through the years he had dealt with many owners who were excellent at running ships but were challenged in dealing with a major casualty repair. They might lack knowledge of repair facilities in the relevant region; lack commercial clout with the repair yards; have limited experience sourcing spare parts; have difficulties in financing or cash flow; and have no in-house insurance expertise.

For such an owner an instruction to act as if uninsured would probably be extremely unhelpful, particularly when the local office of the attending underwriters' surveyors was likely to have much greater local knowledge and experience than the owner.

Rogers insisted that it was best both for the owners pleading that they were acting as if prudent uninsured and those who were pointing out that they were insured and needed help, to have early engagement and dialogue with insurers so that issues could be identified and addressed before key decisions were made, so that an owner "knows exactly where he stands". MRI



The question of commercial considerations impacting on the cost of repairs can potentially go far wider than the typical examples of excess cost of overtime and temporary repairs, said Nigel Rogers. He cited some examples:

- A main engine turbocharger rotor sustains damage which is significant but repairable. A new rotor is available in a few days, but repairs are forecast to last for a month. The new rotor is purchased and fitted at higher cost than the repair and the owner is advantaged by now having a damaged rotor that he can repair and retain as a spare.
- Damage to a component of hydraulic deck machinery (a pump or motor) results in metallic contamination of the oil system. A delay for spares persuades owners to defer repairs and carry on with trading commitments. Continued use of the machinery under such conditions results in additional and foreseeable damage being sustained by other pumps and motors by the time a convenient repair window is reached. Significant aggravation of damage would not be covered per se, but what if such aggravation is limited, serving to avoid what might be termed an unreasonable delay?
- Due to bow thruster damage, additional tugs are required for manoeuvring purposes in port to enable the vessel to continue to operate until parts are received and repairs can go ahead. In practice, this would be viewed in a different way to, say, temporary generator hire. The latter is deemed to be the temporary restitution of the operational integrity of the ship (the subject matter insured) whereas the former is an enhanced trading cost and is not of the ship, a proposition the owner might reject.
- In the builders' risk context, a casualty occurs during final trials. The yard works round the clock to address the issue and incurs substantial costs in doing so. The insurers might well be minded to say that the yard did this to avoid the significant penalty payments due for late delivery under the building contract and their policies don't include delay in delivery cover. The yard might in response argue with some force that they would always move heaven and earth to mitigate a delivery delay and have done so in other instances whether or not the contract contains penalty provisions. The yard would reason "ergo, it's our normal practice and not directly contingent on contractual terms."

Rogers drew attention to a comment from the judgment in the case of Helmville Ltd v Yorkshire Insurance Co Ltd (The Medina Princess) [1965] 1 Lloyd's Rep 361:

"I think it would be wrong to hold that certain categories of expenditure must of necessity fall without the reasonable cost of repairs. I think it is a question of fact in every case what the phrase includes." This brought us, said Rogers, into the territory of "each case on its merits."

Will Stellar Daisy **lessons be learned** too late?

Given the time it takes for recommendations to be made and agreed at the IMO, will the lessons learned from the *Stellar Daisy* sinking be absorbed quickly enough to be effective, asks **Nidaa Bakhsh** from *Lloyd's List*

ill the lessons learned from the sinking of the very large ore carrier *Stellar Daisy* simply be too late to make a difference? It has already been two years since the 266,141 dwt vessel, which had been converted from a very large crude carrier, sank in high seas in the South Atlantic on its way to China from Brazil. Two crew members were rescued out of 24 on board.

The Marshall Islands, which flagged the 23-year-old vessel and which was the lead investigator, recently published its accident report, noting "catastrophic structural failure". A spokesperson for the flag state administration told *Lloyd's List* that it has submitted its findings to the IMO for review during a working group on casualty analysis in the Implementation of IMO Instruments sub-committee which next meets in July.

In addition, the spokesperson said they are also in the process of submitting the recommendations in the report to the IMO for consideration at the Maritime Safety Committee meeting to be held in May next year.

The IMO confirmed that any specific proposal to amend a code, including the Safety of Life at Sea Convention, needs to be put forward for consideration by the relevant body. A two-thirds majority is also needed for any amendments to be approved. The time it therefore takes from proposal to adoption, and entry into force would be a minimum of 24 months, according to the IMO, which added that if an issue is deemed urgent, member states can call for an extraordinary meeting.

Too late?

"By the time any changes to the regulations are made, converted VLOCs will be retired or scrapped due to age or end of charters," the Dry Bulk Terminals Group executive director Nicholas Ingle said. The process could be simpler and therefore quicker, he said, adding that the biggest issue would be getting input and agreement from all member states.

"As the Stellar Daisy report shows, there are safety risks associated with these types of VLOC conversions"

"Our regulator has no teeth and as a result relies on member states to bite," he said.

The IMO told *Lloyd's List* that "the process is the process" and was set up by member states in 1974. "The system is set." But if a member state wants to change the process, it needs to raise the issue at the relevant committee or sub-committee.

There are 45 converted vessels still trading in the fleet, posing risks to seafarers. Most were built as single-hull tankers

in and around 1993, meaning they are more than 25 years old as of today. By 2021, that number will have dwindled as the natural end-of-life cycle occurs. But as the *Stellar Daisy* report shows, there are safety risks associated with these types of conversions.

Recommendations

The Marshall Islands has identified some areas for improvement to avoid similar tragedies, including aligning bulk carrier inspection regimes with those of tankers.

The IMO's 2011 ESP code states that water ballast tanks on bulk carriers be inspected annually if the condition of the coatings is "poor", while for tankers, annual checks are required if the condition is "less than good", meaning it is more stringent.

"While acknowledging the environmental consequences of a major oil spill are significantly different than the environmental consequences associated with the loss of a bulk cargo, the potential loss of life associated with the loss of a tanker or a bulk carrier is the same," according to the report.



A revision to the International Maritime Solid Bulk Cargoes Code has also been recommended to make it mandatory for independent third-party laboratories to test cargo moisture as per the Transportable Moisture Limit rules which are in force to avoid liquefaction. It also recommended an amendment to SOLAS Chapter XII that requires bulk carriers of more than 150 m carrying Grade A cargoes to have sufficient stability and strength to withstand liquefaction in one or more holds.

Although the SOLAS Chapter XII regulation does require water level detectors, it does not currently have a reference to "liquefaction" or to Grade A cargoes. These are, however, noted in the mandatory IMSBC code.

Intercargo recently identified liquefaction as the major cause for loss of life on bulkers.

Conversion safety

The International Association of Classification Societies, which found no safety issues with converted VLOCs, said it is initiating a review of the *Stellar Daisy* investigation report "imminently". It could not say how long it would take to conduct its review.

The group said in its 2017 annual report that "no safetyrelated critical structural damages have been identified and there is no clear justification for any IACS work on these vessels".

It said in an email that IACS does not have rules for VLOCs, although individual members will have their own rules.

The Korean Register (KR), which was responsible for classing 30 converted VLOCs, 18 of which were in the Polaris Shipping fleet, said that it complied with all relevant rules and regulations concerning the conversions and has, in large part, agreed with the Marshall Islands' recommendations.



It noted that "any proposal of a new work programme suggesting the development of new requirements or amendments to existing requirements of IMO mandatory instruments must be made through IMO member states; they are not for individual class societies or NGOs to initiate".

Since the design of *Stellar Daisy* was similar to that of the other converted VLOCs in terms of structural configuration, compartment arrangement, reinforcement, hull materials, longitudinal strength, transverse strength and local strength, KR carried out emergency inspections on 29 vessels following the *Stellar Daisy* incident.

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Based on the surveys, "proper repairs" were carried out, while a dozen other vessels were inspected by the South Korean government, the Marshall Islands and a different classification society, it said.

Flooding risk

A number of bulk carriers were lost due to flooding in the 1990s, according to KR, which led to revisions in the SOLAS regulations. The worry for converted VLOCs is that they have large water ballast tanks (WBTs), which "increases the potential for a major structural failure and loss of buoyancy in the event that a WBT floods when the ship is in a laden condition", KR noted in a response to questions from *Lloyd's List*.

The current SOLAS regulations, however, only consider flooding of cargo holds, but not WBTs, it said, adding that this is the gap in the additional safety measures that is mentioned in the Marshall Islands report.

KR said that: "with any action taken by IMO, IACS and its member societies [they] will need to revisit the IACS requirements already in place to ensure that they are adequate to effectively prevent tragic accidents. KR, as an involved society, will also carry out a thorough review of its own rules and procedures to see whether there are any areas to improve the safety of converted VLOCs."

KR added: "The results of our findings will be fed back to IACS so that potential changes to global practices can be assessed and strengthened." *MRI*



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