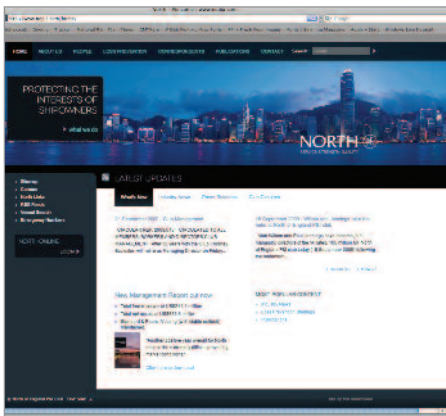


New website launched



North's new website went live in September and is intended to enhance the level of service to Members by improving accessibility – particularly to the Club's comprehensive range of loss-prevention initiatives. It is hoped that increased availability of industry news, technical and regulatory information, case studies, training guides and safety aids will help all Members in their efforts to reduce accidents and associated costs.

The site also provides detailed information on all aspects of the Club's services, finances, management and staff.

Members are encouraged to visit the site at www.nepia.com

See back page for further details.

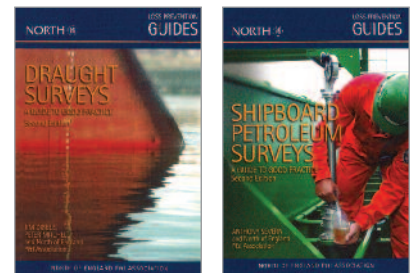
Updated loss-prevention guides

The latest additions to North's wide range of loss-prevention guides are second editions of *Draught Surveys* and *Shipboard Petroleum Surveys*.

Draught Surveys is intended to help surveyors and ships' officers in the conduct of draught surveys to enable accurate measurement of dry bulk cargo quantities and so reduce the risk of shortage claims and disputes. *Shipboard Petroleum Surveys* advises on how to monitor crude oil and petroleum product cargoes to reduce the risk of loss and contamination problems.

Both guides are also available electronically to Members in pdf format, which are fully searchable, indexed and cross-referenced electronically.

Copies of the loss-prevention guides – *Draught Surveys* and *Shipboard Petroleum Surveys* – are enclosed with this issue of *Signals* for Members and appropriate entered ship types. Members requiring electronic versions should contact Denise Huddleston in the loss-prevention department. Email denise.huddleston@nepia.com



Planned maintenance poster

Planned maintenance is the topic for the latest addition to North's loss prevention *Safe Work* poster series. Inspection, and any necessary repair and maintenance, of a ship's decks, closing arrangements, access arrangements, equipment, cargo and other areas is essential for the safe and efficient operation of the ship. This can only be carried out if there is a proper inspection and maintenance system included in the ship's safety management system, and if adequate resources are provided to carrying out the required work.

The poster illustrates an occasion when the lack of even a cursory inspection, and of any remedial work, has allowed a fractured fire-main to go unrepaired with obvious repercussions for the safety of the ship in the event of an emergency.

A copy of the new poster, *Safe Work, planned maintenance*, is enclosed with this issue of *Signals* for Members and entered ships.



Malaria – still a killer

Malaria remains one of the world's biggest killers and crewmembers continue to be diagnosed with malaria, occasionally with fatal consequences. The article in this issue looks at the symptoms and problems of malaria outbreaks and at the medication and precautions that should be taken.

See page 2 for full story.

Improving anchor safety

New information about damage to submarine cables indicates that much of the damage is caused by improper use and securing of ships' anchors. Some of the precautions to be taken when choosing an anchorage, and anchoring procedures to prevent such damage, are discussed in this issue.

See page 4 for full stories.

Inappropriate container cargo

Break-bulk and other non-containerised cargo has been shipped by container vessels for many years, and with good ship management procedures this should not be a problem. However, the effect of current market conditions means that operators may consider carrying cargoes in container vessels that would normally be shipped as break-bulk or bulk in other vessel types. The article in this issue looks at the precautions that should be taken, and also at the associated problem of carrying unsuitable cargoes in flexitanks.

See page 3 for full stories.



Malaria – still a killer

The Club is frequently involved with cases where one or more crew members of a ship are diagnosed with malaria, and unfortunately several cases occur every year where this has fatal consequences.

Despite being a largely preventable and curable disease, malaria remains one of the world's biggest killers. In addition to the human cost, vessels on which malaria-like symptoms appear may be quarantined and denied entry into port until the precise nature of the illness is known. There are likely to be further delays if all crewmembers need to be tested and, where necessary, treated and possibly replaced.

Malaria is caused by parasites which are spread to people through the bites of infected mosquitoes. Transmission rates vary enormously depending on local factors, such as the proximity of mosquito breeding sites to people, types of mosquito species in the area and rainfall patterns – mosquitoes breed in wet conditions. Some regions have a fairly constant number of cases throughout the year and are termed 'malaria endemic', whereas in other areas there are 'malaria seasons' that usually coincide with the rainy season.

Travellers from malaria-free regions, with little or no immunity, who go to areas with high disease rates are particularly vulnerable, although all seafarers should take necessary preventative action.

Prevention

Unfortunately anti-malarial medication is not 100% effective, but it will substantially reduce the likelihood of contracting malaria. Medication needs to be taken both before and during the period of exposure and medical advice should be taken as to which drugs are likely to be most effective for the area visited. The medication needs to be taken regularly and preferably after a meal, and should be continued for a short while after leaving the affected area.

People suffering from epilepsy, psoriasis, psychiatric problems, liver problems, kidney problems or who are taking beta-blockers for an irregular heart rate,



or warfarin, should take extra care as certain anti-malaria drugs may have an impact on some of these conditions. It is also important to be aware that medication can cause side effects such as nausea, diarrhoea, headache, rash, dizziness and mouth ulcers.

As anti-malaria medication does not guarantee prevention, it is also sensible to use insect repellent on the skin and in sleeping environments, and to wear trousers and long-sleeved shirts, particularly during early evening and night time when mosquitoes prefer to feed. If possible people should sleep under a mosquito net that has been appropriately treated, and keep doors and windows closed.

Symptoms and treatment

The common first symptoms of malaria are fever, headache, chills and vomiting, and these usually appear 10–15 days after being infected. If not treated promptly with effective medication, malaria can go on to cause severe illness such as kidney, liver, brain and blood complications, and is often fatal.

Early treatment of malaria will shorten its duration, prevent complications and avoid the majority of deaths, although an increase in parasite resistance to traditional anti-malarial medicines means that a combination of drugs may be prescribed.

Summary

Members should make every effort to ensure their crew members avoid malaria by taking the following precautions.

- Be aware if they are travelling to a high-risk area.
- Take appropriate anti-malaria medication.
- Dress appropriately and use necessary repellent sprays.
- If possible sleep under mosquito nets which have been treated.
- Seek medical attention immediately should symptoms appear.

Myth or truth – Staring at an eclipse makes you blind

Solar retinopathy is damage caused to the back of the eye when radiation from the sun is concentrated by the lens onto the retina. This radiation causes a burn and, while it can certainly result from staring at a solar eclipse, it is unlikely to result in blindness.

Over the last 10 years solar retinopathy has been increasingly studied in medical literature, and surprisingly the damage it causes is not as severe as previously thought. In one experiment only 50% of those studied suffered any eye discomfort and only 20% reported some damage more than six months after the event, though these were mostly people who had stared more directly at an eclipse.



So, it is a myth that staring at an eclipse will cause blindness, but it may still result in some permanent eye damage and is best avoided. Eclipses should ideally be viewed indirectly, using a pinhole camera. If viewing directly, only use specialist eclipse viewers, a shade number 14 welder's filter or, if you still have one on board, a sextant using the proper shades.

Wider usage of flexitanks

Cargoes in flexitanks have traditionally been restricted to non-hazardous chemicals, oils, wine and other bulk liquid foodstuffs. However, in the current market, instances have been seen of bunker sludge, slop oil and other chemicals being carried in flexitanks rather than the relatively harmless liquids they were originally intended for.

Flexitank construction

North published a risk assessment summary for the carriage of flexitanks in 20 foot (6.1m) general purpose containers in issue 70 of *Signals* and subsequently published a loss-prevention briefing. Briefly, the main problems appear to occur when cheaper two-ply or three-ply tanks are used rather than the more expensive four-ply construction, which are resistant to abrasion or puncture damage. Other problem areas include the use of side-valve fittings instead of top-filling valves – resulting in leaking valves, valve damage and expansion leaks as well as terminal handling damage.

One of the factors limiting the carriage of liquids in flexitanks is specific gravity. When flexitanks are offered for shipment, Members should question whether the specific gravity of the liquid is within the recommended parameters of the flexitank manufacturer for the size of flexitank proposed. Only four-ply flexitanks are recommended for sea transport so, if the flexitank is of inferior construction, issues such as specific gravity increase the likelihood of damage and consequently increase the risk.

Hazardous liquids

It is also important to ensure the liquids proposed for carriage in flexitanks comply with regulations such as the International Maritime Dangerous Goods (IMDG) Code, EU regulations on shipment of waste or the Basel Convention, under which signatory states undertake not to import wastes loaded in a non-signatory state.

In a recent incident, a leaking container contained a flexitank carrying 'harmless chemicals' which was not declared as hazardous. However, the material safety data sheet showed at least two constituents listed in the IMDG Code. Only by luck was the container stowed on deck, where the leak could be contained by a round-the-clock operation by the ship's crew until the container could be safely discharged.

Stowage planning

Members should endeavour to require that containers carrying flexitanks are declared as 'specials' and given planned stowage positions in a similar way to IMDG, reefer or other special containers. While a leak of 24,000 litres of orange juice or wine could cause a significant problem, a leak of 24,000 litres (over 20 t) of bunker sludge or slop oil would be a much more serious matter.

North's loss-prevention briefing about the carriage of flexitanks is available to download from the Club's website: www.nepia.com/loss-prevention/publications-and-guides/loss-prevention-briefings



Assessing new cargoes for container ships

Suitable break-bulk and out-of-gauge cargoes have been shipped in container vessels for many years. By following proper ship management procedures, best-practice guidelines and relevant regulatory requirements, such cargoes can be accommodated on container ships with relative ease.

However, the effect of current market conditions means that some container-ship operators are carrying, or considering carrying, cargoes that would normally be shipped as break-bulk or bulk in other vessel types. Such cargoes can be divided into those unsuited to routine non-containerised practice, requiring structural modification to hold tank tops and bulkheads, and those that can be loaded into containers but are more frequently carried as bulk cargoes.

For a carrier to satisfy contract-of-carriage obligations, the vessel must be 'fit and safe for reception, carriage and preservation of the cargo'. Should the ability of the vessel be in any doubt, the operator must ensure the flag state and classification society are satisfied the vessel is suitable to carry the intended cargo without modification, or that alterations are required and have been implemented fully. Considerations to make when assessing such cargoes include the following.

Cargo stowage and securing

Ensuring a vessel is loaded according to the ship's approved Cargo Securing Manual is of critical importance and often overlooked. Adhering to the requirements of the manual, which is issued by the

flag state, is a non-delegable responsibility that rests with the owner.

The Cargo Securing Manual is described in the International Convention for the Safety of Life at Sea (SOLAS) at chapter VI, regulation 5, and should include, as a minimum, the information specified in the Code of Safe Practice for Cargo Stowage and Securing (CSS Code). Chapter 5 of the CSS Code and its associated annexes outline the recommendations for stowage and securing of non-standardised cargo, and appendix 2 contains the International Maritime Organization maritime safety committee's circular MSC/Circ.745 Guidelines for the preparation of the Cargo Securing Manual.

Tank-top load limits and the provision of suitable securing arrangements may require alterations in the hold that could involve hot work. Suitable risk assessments will have to be performed and precautions taken, bearing in mind there may well be fuel oil in adjacent compartments. The vessel may also have to be provided with additional lashing equipment, which will have to be included in an amended and approved Cargo Securing Manual.

Stability

Lashing forces, calculated for the purpose of ensuring container lashings are suitable in number and design, may be significantly affected by the vessel's stability during a voyage. A detailed assessment of the effect unusual cargo distribution has on the ship's stability is thus needed to ensure the vessel's movement in a seaway does not exceed

safe operating parameters of lashing equipment and other cargo units on board.

Suitability of container

The International Convention for Safe Containers (CSC) is intended to ensure containers are constructed and maintained to international standards appropriate for tier and stack weights used during loading and to withstand dynamic forces during the voyage. However, particularly dense cargoes traditionally carried in bulk can place undue strain on container stows if weight distribution is not carefully assessed.

Stuffing of containers with high density cargoes must be carefully supervised to ensure they are not overloaded and that the cargo is suitably secure and distributed evenly throughout the container.

Characteristics of cargo

Many cargoes routinely carried in bulk require monitoring and ventilation, and may contain moisture levels that are difficult to manage in containers. Propensity of cargoes to self-heat and an obligation to satisfy the requirements of SOLAS chapter VII regulation 2 (carriage of dangerous goods in packaged form) – as well as the International Maritime Dangerous Goods (IMDG) Code – may rule out containerisation of cargoes with hazardous properties.

Controlled testing should be carried out to ensure potentially hazardous cargoes can be carried safely in containers.

Slow progress for liquid cargo claims in Pakistan

In October 2000, an article in *Signals* (issue 41) noted there were increasing numbers of bulk liquid cargo claims in Pakistan ports despite owners adopting the usual safeguards of joint draught and ullage surveys. Receiver's claims for shortages in shore tanks were being upheld by local courts, so claims were being settled quickly rather than wasting time and money on pointless legal proceedings.

However, the article finished on a positive note, citing a case where there was good evidence of the quantity of cargo on board exceeding the bill of lading quantity. The Pakistan High Court held that where joint survey or ullage figures on arrival confirm the quantity is the same or more than the bill of lading figure, and provided that a dry-tank certificate is issued on completion of discharge, the shore-tank figures will not be binding on the carrier.

Unfortunately Pakistan cargo interests immediately lodged an appeal and, nine years later, the Pakistan appeal court has still not given a decision – though the original judgment has not been suspended. Furthermore, subsequent judgments by lower courts have been inconsistent, such as taking shore tank figures as final with no trade allowance, or recognising ship's figures from joint surveys on arrival with a trade allowance of 0.25% for vegetable oil.

Shortage claims now defensible

However, almost all judgments in 2009 have ruled in favour of carriers and upheld ship figures and trade allowance. These include some decisions by appeal courts which reverse original judgments in favour of consignees. In view of the change, North considers bulk liquid cargo claims are defensible in Pakistan provided that the bill-of-lading quantities have not been overstated and the discrepancy between bill-of-lading and ullage figures on arrival do not exceed the trade allowance.

Despite the equitable trend, it appears unlikely that a 0.5% tolerance in a charterparty would be recognised by the courts. More importantly, claimants should not be ignored as they might well obtain a default judgment – where a decision is given against a party for non-appearance in court – which can be enforced against a ship upon return to Pakistan or against the agent's assets in Pakistan, where a shipowner and its agent are held jointly and severally liable for cargo claims. Even if the ship is sold, the agent will still need defending.

Shipowners can either settle shortage claims out-of-court or defend them in court. If the latter option is chosen, Members are recommended to agree a fixed fee with their lawyer beforehand, which normally can be capped within 10% of the claim amount, so that disproportionate costs of defence can be avoided. Getting a decision in a Pakistan court can

take up to ten years; there is no guarantee that interest will be awarded; and eventually both sides will bear their own costs regardless of outcome.

Reducing risk of shortage claims

To reduce the frequency and consequences of liquid cargo shortage claims in Pakistan, Members should beware situations where a surveyor is appointed to attend a joint survey at the shore tank. Apparently this action can be taken to signal acceptance of the measurement, making it binding on the shipowner.

Making charterers ultimately liable for cargo claims by a suitable charterparty clause or by a charterer's letter of indemnity are also options. However, these options will be subject to charterers agreeing in the first place, or to owners being able to enforce the indemnity.

A cargo co-mingling clause is unlikely to help. The usual practice is to discharge into a shore tank first, then for respective consignees to take delivery of the portion of cargo belonging to them by presenting bills of lading to the agents in exchange for delivery orders. Separation of cargo after discharge is the duty of the shore-tank operators and these liquid cargo claims have nothing to do with incorrect separation of cargo.

Members requiring more information about bulk liquid cargo claims in Pakistan ports should contact the P&I claims department at the Club.



Approximate re-delivery notices

A recent case in the UK High Court has highlighted the importance of carefully looking at the wording of re-delivery notices. The case of the *Zenovia* related to the status and effect of a notice of an approximate date of re-delivery that was given by a time charterer to an owner under a New York Product Exchange charterparty.

The charterer had the vessel on period charter for 'minimum 11/about 13 months'. The earliest date the charterer could re-deliver was 20 September 2007 and the latest date it could re-deliver was 22 November 2007. The charterer gave a first notice of re-delivery on 5 October 2007, which was a 30-day approximate one. The exact wording of the notice was 'approximate notice of redelivery... at DLOSP 1sp China on about 4 Nov 2007 basis agw, wp, wog, uce.'

The charterer then realised it could squeeze in an extra voyage and, ten days later, on 15 October 2007, it revised the re-delivery date to about 20 November 2007. However, the owner said the charterer could

not revise the date as the ship had already been fixed for the next employment.

Charterer wins on appeal

The dispute went to arbitration, where the arbitrators found in favour of the owner. However, the charterer appealed and was successful in the High Court.

The judge found for the charterer because he was of the view that its notice was so qualified – with terms such as 'approximate', 'all going well', 'weather permitting', 'without guarantee' and 'unforeseen circumstances excepted' – that no owner could have relied on it. The charterer had not given a clear promise to the owner that it would re-deliver on that date and, therefore, could revise its estimate.

The case does not change the established position that a notice of expected re-delivery has to be given honestly and in good faith. It was more that the judge felt the charterer's wording of its approximate notice meant it had not unequivocally promised that the voyage would be the last employment.

Keeping anchors clear of submarine cables

Damage to economically important submarine power and telecommunications cables can be very expensive – and recent research indicates that nearly half are caused by improper use of ships' anchors.

The research overturns previous assumptions that fishing was mostly to blame, and highlights the importance of keeping anchors properly secured when underway as well as taking extra care during anchoring.

Positional data reveals causes

The International Cable Protection Committee has been monitoring damage to submarine cables since 1958, with the suspected cause of damage being recorded for each incident. More recently (since 2007), the committee has been using the positional data available from automatic identification system (AIS) transmissions to determine the cause of damage to submarine cables around the UK. Although the data set is small, relating to 21 incidents around the UK during 2007/2008, it indicates that nearly half were due to improperly secured ship's anchors.

Previously almost 70% of damage had been attributed to fishing, whereas the data since 2007 indicates that almost 50% of the incidents involved anchor damage to submarine cables. All vessels involved were underway at the time of the incident. Additionally, a number of incidents involved damage to more than one cable.

A costly risk

Claims arising from submarine cable damage can be very costly as not only does the expensive cable have to be repaired, consequential loss of use of the cable – particularly power and telecommunications cables – may also need to be compensated. Ship operators thus need to be fully aware of the risks of damaging cables and how these risks can be reduced.

There are two typical situations in which anchor damage to a submarine installation may occur

- where the anchor is deployed intentionally and circumstances lead to damage
- where the anchor is deployed unintentionally leading to damage.

Avoiding cables when anchoring

Most mariners will be aware of the dangers of anchoring too close to a submarine pipeline or cable. However, errors are still made and all masters are urged to take the utmost care when selecting an appropriate anchorage.

The other main risk with anchors intentionally deployed is where a vessel is dragging anchor. There are many factors a master must take into consideration when selecting an anchorage and still others if the vessel should start to drag. The proximity of submarine cables and pipelines is certainly one of the most important and must be factored into any decision-making process.

The selection of an appropriate anchorage, and the considerations to be taken into account when dragging anchor, is dealt with in more depth in previous *Signals* articles, *Anchoring – luck or judgement* (see *Signals* issues 73 and 74).

Keeping anchors secure

The unintentional deployment of anchors may be avoided by following good seamanship routines. The following procedure could be considered for use as a minimum for securing anchors.

- Brakes are to be tightened and the operating handle lashed to prevent the brake from working loose.
- A minimum of two wire rope or chain strops of appropriate strength and in good condition, led through different links on the cable, must lash

Keeping contemporaneous records

The best form of factual evidence in any dispute is an original contemporaneous document, one that dates from the time of the event. Documents dated after the event have less evidential value.

In recent cases, Members have presented the Club with ships' records, in particular sounding records from tankers, which could be discredited as not being contemporaneous or original. What appears to happen is that crewmembers sound the tanks, record the figures in a notebook or on a piece of paper and then copy the figures into a spreadsheet. When the owner is asked for records, the relevant part of the spreadsheet is printed out and stamped with the ship's stamp.

This exposes an owner to allegations that

- there might have been errors made in transferring the figures from the notebook or scrap of paper to the spreadsheet
- the figures in the spreadsheet were altered before being printed out and stamped.

While it is understandable that crews want to minimise the amount of paper records kept and also want to produce figures in a neat and legible form, the Club recommends that the original hand-written paper records are always kept to support figures in electronic form. As a matter of best practice, the same principle should be applied to all ship's records.

each anchor and be tightened to equal tension, with independent turnbuckles.

- Each bow stopper must be fully seated with locking bolt secured in place.
- If appropriate, the windlass gear may be engaged after housing and lashing the anchors, taking care that the brake, lashings and the bow stopper are all bearing equal stress.
- The brake system must be regularly checked for proper condition and optimum adjustment.
- The anchor lashings must be checked at sea on a daily basis, and adjusted if necessary. This is particularly the case prior to, and after, encountering bad weather.

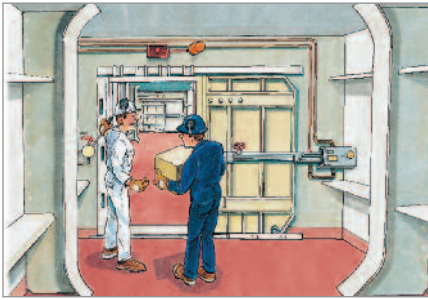
Using such a routine greatly reduces the risk of the anchors working loose at sea and, should they work loose, this will be picked up during the daily check.



A submarine cable damaged by an anchor



Shutting the risk from watertight doors



Recent investigations into accidents involving the use of watertight doors have identified a number of recurring contributory factors, particularly on passenger vessels.

Current regulations contained in the consolidated 2004 edition of the International Convention for the Safety of Life at Sea (SOLAS) chapter II, regulation 15, *Openings in watertight bulkheads in passenger ships*, and part B-1, *Subdivision and damage stability of cargo ships*, are applicable to ships built after 1 February 1992. Requirements for door control, closure rates, alarms and signage are contained in regulation 15 of part B and are also only applicable to passenger vessels.

For vessels built before 1992, SOLAS 1960 part B, *Subdivision and stability*, regulation 13, also only applies to passenger vessels and is less onerous in its technical and operational requirements.

SOLAS chapter II, regulation 15, paragraph 7 requires that doors are kept closed when a ship is at sea, 'apart from limited periods when absolutely necessary as determined by the Administration'. However subparagraphs 9.2 and 9.3 go on to describe certain conditions when it is permissible to open doors for transit or when deemed necessary for the safe operation of the ship or movement of passengers.

Duplicate systems lead to confusion

Complex design criteria required to satisfy regulatory requirements often result in a door control system that is not fully understood by all of the crew who are obliged to use them. Existing regulations require that power-operated closing and opening controls are duplicated, with one set located adjacent to the door (local control) and another remote set located on the navigating bridge

(remote or doors-closed control). Each of these has quite different operational implications, and in many accidents have been misinterpreted, particularly when the remote or doors-closed mode has been selected.

Selection of the doors-closed setting on the bridge will still allow a crew member to pass through the door using the local control lever mounted adjacent the access. However, regulations require that if this lever is released for any reason, the door will automatically close.

When local control has been selected, complete control of the door-closing mechanism is transferred to the individual door; should the control lever be released at any time during closing or opening, the door will stop moving. Current regulations do not require any visible indication at the door identifying whether the door is operating in the remote or local control setting.

A clear understanding of the circumstances that dictate which doors should be closed at particular times during a voyage and what mode of operation is being used at any given time is of paramount importance for their safe operation. Poor signage adjacent the door and a lack of control mode indication often result in crew members becoming trapped during transit. Company safety management systems should include clear training and operational procedures to avoid any confusion on watertight door operation.

Advantages of door categorisation

To clarify which mode of control is appropriate for any given set of operational circumstances, the UK has categorised watertight doors according to their importance to a vessel's watertight integrity. Appendix 9 of the UK Maritime and Coastguard Agency (MCA) publication *Instructions for the Guidance of Surveyors* contains model instructions for the control of watertight doors that satisfy the requirements of the UK Merchant Shipping (Passenger Ship Construction: Ships of Classes I, II(A)) Regulations 1998 and define the door categorisation procedure.

The MCA method is one way of identifying the likely mode of operation of a specific watertight door at any given time. Anticipated voyage conditions

are split into 'potentially hazardous situations' and 'normal conditions'. Opening and closing arrangements are then identified by the category of each door. The doors-closed mode of operation is restricted to emergency situations, training and testing purposes.

UK and IMO guidance on usage

MCA also published MGN 35 *Accidents when using power operated watertight doors to provide guidance on the safe use of doors and procedures for their operation and crew training*.

Advances in ship design have seen an increasing number of watertight doors fitted to machinery spaces of other vessel types. This has been reflected in the content of International Maritime Organization circular MSC.Circ.1176 *Unified interpretations to SOLAS Chapters II-1 and XII and to the technical provisions for means of access for inspections*. This includes both passenger vessels and cargo ships in its scope – and encourages member governments to consider the installation of visual indicators at a watertight door to indicate when it is being operated in the remote setting.

How much are your ships actually worth?

Members will be aware that if the liabilities and costs incurred as a result of collision between an entered ship and another ship are in excess of the amount recoverable under the entered ship's hull policies, cover for the difference may be provided by the Club (rule 19(10)(c)).

A similar provision applies to P&I cover relating to the value of an entered ship when it is being assessed for contribution in relation to the ship's proportion of general average, special charges or salvage (rule 19(18)(a)).

However, Members should also remember that in each case such cover is conditional on the entered ship being insured for a 'proper value' under its hull policies.

Regular valuations

The Club's rules give guidance as to how the Directors are to determine whether the ship was insured for a proper value, and require that they

'be satisfied that the said policies have been the subject of *periodic review* in the light of *proper advice* on market conditions. A proper value will be a figure which is reasonably close to the equivalent of the free uncommitted market value of the Ship at the time of the [collision] [*general average act*]' (italics added for emphasis).

When ship values are volatile, and in particular if they start to rise again, it is thus important that Members seek advice in writing from an independent person or company with the necessary and relevant expertise. Members then need to ensure that their entered ships are insured in accordance with that advice in order to avoid the risk of not being able to make a full P&I recovery in the circumstances described above.

Members with any queries or requiring further information should contact the underwriting department at the Club.

Seafarers expose owners to US prosecutions

A small minority of seafarers who continue to ignore or deliberately bypass US oily-water-separator and ballast-water regulations are damaging both the reputation and financial viability of shipowners.

Despite considerable efforts by the shipping industry to improve seafarers' familiarity with US accident-reporting procedures and lessons learned from previous cases over the past 16 years, prosecutions for violations of oily-water-separator regulations seem to continue unabated in the USA.

Expensive consequences

A tanker operator was recently fined over US\$2 million with a three-year probationary period for several incidents of illegal discharge of oil-contaminated waste. While the fine may not match the US\$27 million imposed during the first such case

in 1993, it shows some seafarers are still not getting the message – and with expensive consequences for shipowners.

It was also reported recently that the first individual has been convicted for a ballast-water offence in the USA. The ship failed to inform the US Coast Guard of a cracked rudder stem that was apparently leaking ballast – a situation which prompted a full inspection by the Coast Guard, during which a further leak of fuel oil into the ballast system was discovered. The ship's officers were aware of the second leak but had not informed the Coast Guard.

Members can check the Club's website for relevant *Industry News* items: www.nepia.com/publications/industrynews



Update on environmental regulations

The International Maritime Organization's (IMO) marine environment protection committee held its 59th session (MEPC 59) in July 2009. Subjects discussed included amendments to the International Convention for the Prevention of Pollution from Ships (MARPOL) annex I, recycling of ships, the human element of shipping, ballast water management, a revised MARPOL annex VI and Technical Code on Control of Emission of Nitrogen Oxides from Marine Diesel Engines (NOx Technical Code), and greenhouse gas emissions from ships.

MARPOL annex I

Amendments of MARPOL annex I, ship-to-ship (STS) transfer operations, include a new chapter 8 on the prevention of pollution during STS oil cargo transfer operations and will apply to oil tankers of 150 GT and above.

Expected to enter into force on 1 January 2011, the new regulations will require tankers involved in STS operations to have an STS plan on board that has been approved by the vessel's administration. Notification to the coastal state is required not less than 48 hours in advance of the scheduled STS operation, although some relaxation to this rule is allowed in certain very specific cases.

Other amendments to MARPOL annex I are related to the on-board management of oil residues.

Definitions for oil residue (sludge), oil residue (sludge) tanks, oily bilge water and oily bilge water holding tanks are now provided with the aim of facilitating crew compliance with regulatory requirements.

Amendments to the supplement to the international oil pollution prevention certificate, forms A and B, and to the oil record book were also adopted and are expected to enter into force on 1 January 2011.

Recycling of ships

Following the adoption of the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships in May 2009, the committee adopted guidelines for the development of an inventory of hazardous materials.

Progress was also made on developing draft guidelines for safe and environmentally sound ship recycling. These are the first two guidelines intended to assist implementation of the convention and are crucial for voluntary implementation prior to the convention's entry into force.

Human element of shipping

The joint working group with the IMO maritime safety committee on the human element met during MEPC 59 to consider human-element issues.

MEPC agreed proposed draft amendments to revised guidelines on implementation of the International

Safety Management (ISM) Code, for submission to the IMO assembly's 26th session in December 2009 for adoption.

Ballast water management

It was noted by the committee that the number of ballast-water treatment technologies amounted to six 'type approved' systems, with four additional systems being granted final approval at this session. This led the committee to determine that there are sufficient type-approved ballast water-treatment technologies available for ships subject to regulation B-3.3 constructed in 2010 and agree that no changes to IMO assembly resolution A.1005(25) are needed. It should be noted that all approved systems are using active substances.

Guidance to ensure safe handling and storage of chemicals used to treat ballast water and the development of safety procedures for risks to the ship and crew resulting from the treatment process was also approved.

To date, 18 states have ratified the Ballast Water Management (BWM) Convention, representing about 15% of the world's merchant shipping. The convention will enter into force twelve months after the date on which not fewer than 30 states, the combined merchant fleets of which constitute not less than 35% of the gross tonnage of the world's merchant shipping, have become parties to it.

US oil pollution liability rises again

Shipowner liabilities for oil pollution incidents in US coastal waters have risen again this year following substantial increases in 2006. However, the higher limits should help protect the US\$2.7 billion Oil Spill Liability Trust Fund (OSLTF), which faces growing pressure from ever-increasing US clean-up costs.

Inflationary increase

The US Coast Guard has introduced an interim rule increasing limits of liability under the US Oil Pollution Act 1990 (OPA 90) to reflect significant increases in the US consumer price index.

Effective from 31 July 2009, the new limits of liability are as follows.

- For a single-hull tank vessel less than or equal to 3,000 GT, the greater of \$3,200 per GT or \$6,408,000.
- For a single-hull tank vessel greater than 3,000 GT, the greater of \$3,200 per GT or \$23,496,000.
- For a tank vessel less than or equal to 3,000 GT, other than a single-hull tank vessel, the greater of \$2,000 per GT or \$4,272,000.
- For a tank vessel greater than 3,000 GT, other than a single-hull tank vessel, the greater of \$2,000 per GT or \$17,088,000.
- For any other vessel, the greater of \$1,000 per GT or \$854,400.

Within 90 days – that is before the end of October 2009 – owners and operators must establish evidence of financial responsibility at least equal to the increased total amount.

The interim rule also establishes the methodology the Coast Guard uses to adjust OPA 90 limits of liability

for inflation, including the frequency with which such adjustments may be made.

Polluter-pays principle

The 2009 increases are intended to preserve the deterrent effect and polluter-pays principle embodied in OPA 90.

OPA 90 was enacted in the wake of the *Exxon Valdez* oil spill to provide for a more robust US federal response to spills, to increase the polluter's liability and to provide compensation for those that incur removal costs and damages. Responsible parties are held strictly liable for removal costs and damages resulting from a discharge up to certain statutory liability limits. In general responsible parties are only liable without limit if the discharge is a consequence of gross negligence, willful misconduct or a violation of operation, safety, or construction regulations.

Section 603 of the Coast Guard and Maritime Transportation Act of 2006 increased OPA 90 liability limits for vessel discharges substantially.

OSLTF under pressure

Despite the 2006 increases, clean-up costs have continued to exceed liability limits and put increasing pressure on the OSLTF, which was authorised to collect revenue and cover unpaid costs following enactment of OPA 90. Claims to the fund are payable only from the fund, and payments are limited by the available balance.

The US Energy Policy Act of 2005 increased the maximum size of the fund from US\$1 billion to US\$2.7 billion, the primary revenue for which is a tax

of 5 cents a barrel on petroleum produced in or imported to the USA.

However, recent analysis has identified an increasing average annual potential fund liability despite the 2006 liability increases. Since enactment of OPA there have been 49 oil discharges or substantial threats of discharge from vessels that resulted in removal costs and damages exceeding the revised limits. The total costs of these incidents is about US\$1.5 billion, of which approximately US\$960 million – or an annual average of US\$97 million – is in excess of the 2006 liability limits.

Rotterdam Rules signed

Fifteen countries, including the US, signed the "United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea" at an official ceremony in Rotterdam, Netherlands, on 23 September 2009. The rules embodied in the convention are known as the Rotterdam Rules and aim to create a contemporary and uniform law providing for the maritime carriage of goods. The Rotterdam Rules are intended to replace current rules including the Hague Rules, Hague-Visby Rules and Hamburg Rules and will officially come into force one year after 20 countries have ratified them.

Up-to-date information about the implementation of the Rotterdam Rules will be provided on the Industry News pages on the Club's website: www.nepia.com/publications/industrynews/



Low-sulphur fuel regulations – a global update

New European regulations

The European Union (EU) directive on the sulphur content of marine fuels (2005/33/EC), which sets a 0.1% sulphur limit for fuel used by ships when moored or anchored in EU ports, comes into force on 1 January 2010.

The directive provides very little flexibility for ships that cannot find a supply of suitable fuel. Despite this, Members should ensure they can demonstrate that all reasonable steps were taken so as to negotiate any possible exemption available under International Convention for the Prevention of Pollution from Ships (MARPOL) annex VI, regulation 18, paragraph 2.2, 'the ship should not be required to deviate from its intended voyage or to delay unduly the voyage in order to achieve compliance'.

Paragraph 16 of the directive refers to International Maritime Organization (IMO) resolution A.926(22), which invites governments in regions where sulphur oxides emission control areas have been designated – for which the sulphur limit is currently 1.5% – to ensure the availability of low-sulphur fuel in the areas within their jurisdiction. They should also call on the oil and shipping industries to facilitate the availability and use of low-sulphur fuel. IMO member states are further required to take action as appropriate to ensure local suppliers make compliant fuel available in sufficient quantities to meet demand.

MARPOL annex VI, regulation 18, paragraph 7 places an obligation on parties to the MARPOL protocol of 1997 to ensure that suppliers adhere to fuel sulphur content requirements and notify a vessel's flag state administration and IMO should non-compliant fuel be delivered to a vessel in contravention of the regulations. Owners and masters should support this obligation with ship's documentation that includes a suitably worded note of protest from the master and a copy of the bunker delivery note.

Examples of such wordings are given in appendix II of North's loss-prevention guide Bunker Claims Prevention, which is available to download from the Club's website: www.nepia.com/loss-prevention/publications-and-guides/electronic-guides.php

Switching fuel in auxiliary boilers

The EU directive makes no provision for the safety aspects of switching from residual to distillate fuel in auxiliary boilers, particularly those in oil tankers used to power cargo pumps, nor does it impose any requirement for upgrading boilers and associated systems. It only requires the use of 0.1% sulphur fuel.

Shipowners are therefore urged to consult their classification societies and engine manufacturers at their earliest convenience to determine what modifications to auxiliary boilers may be required.

Sulphur content on bunker receipts

The International Bunker Industry Association (IBIA) has warned its members of the dangers arising from failure to put authentic sulphur content results on bunker delivery receipts. This does not comply with MARPOL requirements and may create a problem for

shipowners in terms of selecting correct feed rates and total base numbers (TBN) of cylinder oil. Knowing the sulphur content of fuel is essential for engine efficiency, overall safety and compliance with emission control areas.

The ship's chief engineer should be vigilant in studying the sulphur content in bunker receipts and bunker delivery notes, and use the appropriate cylinder oil feed rate and TBN oil. Engine manufacturer guidelines should be obtained and followed.

IBIA states that in some ports low-sulphur fuel is delivered even when it has not been specifically requested, because low-sulphur is the only type of fuel available. For example, some ports in South America, West Africa and Canada only have residual fuels with sulphur content of less than 1% readily available.

Furthermore, IBIA advises that if a bunker receipt has the sulphur reported as less than 4.5% and yet the sulphur content is known to be less than 1.5%, some administrations may still not consider this fuel compliant for operations in emission control areas. It is thus essential for ships to ensure that the actual sulphur content is reported on the bunker delivery note.

New US emission control area

In July 2009, a joint proposal from the USA and Canada to amend MARPOL annex VI to designate specific areas of coastal waters as an emission control area, was accepted in principle by the IMO marine environment protection committee.

In addition, France has joined the proposal on behalf of its island territories of Saint-Pierre and Miquelon, which form an archipelago off the coast of Newfoundland. The proposal will circulate among member states for six months. In March 2010, member states that are parties to MARPOL annex VI will vote to adopt an amendment designating the North American emission control area.

The North American emission control area could go into force as early as 2012. From March 2010 until 2015, fuel used by all vessels operating in all emission control areas cannot exceed 1% sulphur.

New regulations in California

All ships calling at Californian ports are now required to use diesel oil or gasoil with a sulphur content of 0.5% or less in all main diesel engines, auxiliary diesel engines and auxiliary boilers within 24 nautical miles of the coast.

The Californian Air Resource Board (CARB) provides two options for non-compliance with the regulations, either by demonstrating the need for essential modifications to comply or by payment of a non-compliance fee.

Interanko recently advised that until 1 January 2012 (phase I), ships can comply with CARB by using DMA grade gasoil with a sulphur content of up to 1.5% or, if they use diesel oil (DMB grade), the maximum sulphur content should be no more than the prescribed 0.5%.

Pilot incident reports

Incidents, such as collisions and damage to property, continue to occur when there is a pilot on board. The Club gathers information about such incidents and would be grateful if Members could report any incidents or near-misses involving a pilot. The information is collected in a database to identify whether there are any geographical or incident trends that would benefit from future loss-prevention measures. Specific incident data will not be shared with any other organisations.

A pilotage incident report form that can be used to report incidents and near misses can be downloaded from the Club's website:

www.nepia.com/loss-prevention/publications-and-guides/forms-and-checklists

Dangers when loading iron ore fines in India



A number of very serious incidents have occurred recently involving iron ore fines cargoes loaded in India. Several vessels have sunk or experienced a heavy list, most probably as a result of liquefaction of such cargoes.

Members should exercise extreme caution when fixing to load iron ore fines from India during the monsoon season. Experience has shown that the current testing and certification regime for these cargoes may be inadequate and reliance on shipper's certificates alone should be avoided. Members are strongly advised to engage the services of a suitably qualified and experienced surveyor to assist the Master in determining the suitability of the cargo to be loaded.

Up-to-date information is provided on the Industry News pages on the Club's website: www.nepia.com/publications/industrynews/



New website launched



North's new website was launched in September and provided the opportunity for a revision of the loss-prevention pages to provide an improved service to Members. In particular the website-based information services have been updated, as summarised below.

Industry News – provides Members with information about current issues, changing legislation and any potential difficulties with particular cargoes or trades.

www.nepia.com/publications/industrynews

Loss-prevention briefings – provide comprehensive ready-made packages of information about single topics.

www.nepia.com/loss-prevention/publications-and-guides/loss-prevention-briefings

Signals newsletter – electronic copies of the Club's Signals newsletters can be viewed or downloaded, along with a comprehensive index of articles published during the last five years.

www.nepia.com/loss-prevention/publications-and-guides/signals

RSS feed (really simple syndication) – News feeds that enable Members with an internet connection to receive up-to-date information directly from the Club to their desktop as soon as it is published, without having to remember to visit the site every day. A guide to using the RSS service, and the news feed itself, can be obtained from the Club's website.

www.nepia.com/sitewide/rss-feeds.php

Signals Search 21

Questions

- 1 What is a major cause of damage to submarine cables?
- 2 Wording on which notice given by charterers should be carefully checked?
- 3 What have been used to carry inappropriate bulk liquids?
- 4 What have the liability limits under OPA 90 been adjusted for?
- 5 What ship's value should be used for insurance purposes?
- 6 Which North service has recently been re-launched?
- 7 Which type of watertight door control should be used with particular care?
- 8 What acronym is used for the manual providing instructions on cargo stowage?
- 9 Which disease is spread by mosquitoes?



- Signals Search is open to all readers of Signals.
- Send a photocopy of your completed search, along with your name and, if appropriate, name of ship, position on board, company and address to Denise Huddleston at the Club.
Email: denise.huddleston@nepia.com

- All correct entries received by the closing date will be entered in a prize draw.
- Closing date Friday 4 December 2009.

Prizes will be awarded to the first correct entry and two runners-up drawn.

Details of the winner and runners-up will appear in the next edition of Signals.

Your copy of Signals

Copies of this issue of Signals should contain the following enclosures:

- Safe Work poster – Planned maintenance (Members and entered ships only)
- Signals Experience case study – Maintenance is a must (Members and entered ships only)
- Loss prevention guide – Draught Surveys (Members and appropriate entered ship types only)
- Loss prevention guide – Shipboard Petroleum Surveys (Members and appropriate entered ship types only).

Signals Search No. 20 Winners

Winner: Yeo Chon Meng,
Harrisons Trading (Sarawak) Sdn Bhd

Runners-up:
S Gh Ghaemi, IRISL
John HW Chou, Taiwan Maritime Services Ltd
Per-ake Kvick, University of Kalmar
Emilie Teyssier, Marseille Fret

Answers to Signals Search 20

- 1 Hot
- 2 Report
- 3 Master
- 4 IMSBC
- 5 Mediterranean
- 6 Significant
- 7 Inspection / NIR
- 8 Medication
- 9 Bedding
- 10 Bunker

• In this publication all references to the masculine gender are for convenience only and are also intended as a reference to the female gender. Unless the contrary is indicated, all articles are written with reference to English Law. However it should be noted that the content of this publication does not constitute legal advice and should not be construed as such. Members with appropriate cover should contact the Association's FD&D department for legal advice on particular matters.

• The purpose of the Association's loss prevention facility is to provide a source of information which is additional to that available to the maritime industry from regulatory, advisory, and consultative organisations. Whilst care is taken to ensure the accuracy of any information made available (whether orally or in writing and whether in the nature of guidance, advice, or direction) no warranty of accuracy is given and users of that information are expected to satisfy themselves that the information is relevant and suitable for the purposes to which it is applied. In no circumstances whatsoever shall the Association be liable to any person whatsoever for any loss or damage whatsoever or howsoever arising out of or in connection with the supply (including negligent supply) or use of information (as described above).

NORTH 

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