

Emissions poster and case study

The latest poster in the Club's Clean Seas series of environmental awareness posters has been published. Entitled *Clean Seas – Emissions* it highlights the importance of adhering to regulations for preventing air pollution as set out in annex VI of the International Convention for the Prevention of Pollution from Ships (MARPOL).

The latest Signals Experience case study – *Local rules for low sulphur fuels* – also deals with an incident where a ship did not comply with environmental regulations because it was using fuel with a sulphur content exceeding the maximum allowed.

Copies of the new poster and case study are enclosed with this issue of Signals for all Members and entered ships. High resolution versions can be downloaded from the Club's website: www.nepia.com/loss-prevention/publications-and-guides/



Safe exchange of ballast water

The International Convention for the Control and Management of Ships' Ballast Water and Sediments does not yet have a date for entry into force, but many countries have introduced their own requirements. One of the most common ways of complying is to exchange ballast water on passage, but this can pose significant stability risks if a proper plan is not developed and followed on board. This issue spells out the risks, which potentially includes capsizing, and the measures to be taken to reduce them.

See page 7 for full story.

Nickel Ore Warning

There have been a number of recent casualties involving ships carrying nickel ore cargo:

LOST 'Hong Wei' – 10 seafarers drowned

LOST 'Nasco Diamond' – 21 seafarers drowned

LOST 'Jian Fu Star' – 13 seafarers drowned

LOST 'Jianmao 9' – entire crew rescued by passing vessel

Nickel ore from lateritic sources is inherently dangerous for shipment and the lack of proper testing and storage by some shippers increases the risks associated with liquefaction.

Members fixed to load such cargoes, or who may be considering such a fixture, should contact the loss prevention department or their normal contact at the Club for advice and assistance.

The Club's loss prevention briefing about the carriage of nickel ore is available on its website: www.nepia.com/loss-prevention/publications-and-guides/loss-prevention-briefings/

Sanctions and other new rules

This issue of *Signals* includes several articles on recently changed regulations, including comprehensive advice on issues arising from the implementation of sanctions on Iran, the introduction of the Migrant Workers Act in the Philippines and new regulations being introduced by the International Maritime Organization.

See pages 3, 4 and 10 for full stories.

Keeping seafarers slim and healthy

It is sometimes difficult for seafarers to remain slim due to their lifestyle at sea. However, gaining too much weight can cause long-term health problems and measures, such as slimming pills, can lead to other problems. The article in this issue looks at some healthier ways of achieving and maintaining an optimum body weight.

See page 3 for full story.

Fumigation and liquefaction

Two topics dealing with carrying cargo safely are covered in this edition of *Signals*. An article on fumigation looks at the safe use of phosphine fumigants, which are potentially highly explosive. The other article covers the topic of cargo liquefaction and masters' obligations, including obtaining proper information about cargoes before loading them.

See pages 8 and 9 for full stories.

New guide on collecting evidence

To mark the start of 2011, North has produced a new loss-prevention handbook for Members. *The Mariner's Role in Collecting Evidence Handbook* is a handy-sized guide to recording, collecting and preserving factual evidence. It provides comprehensive guidance and checklists on the factual evidence to record routinely on board and following a range of incidents.

See back page for details.



New exceptions to hours-of-rest regulations

The International Maritime Organization's diplomatic conference in Manila in June 2010 agreed amendments to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) and STCW Code, including amendments to hours-of-rest regulations applying to seafarers.

The basic framework of the regulations is relatively straightforward to apply and requires seafarers to have rest periods not less than

- 10 hours in any 24-hour period
- 77 hours in any 7-day period.

There should be a maximum of two rest periods a day, one of which must be at least 6 hours long, and periods of work should not exceed 14 hours.

However, it was argued by delegates in Manila that the STCW rest rules do not recognise operational circumstances where a departure from the regulations would be necessary to operate a vessel safely. Such circumstances are described as 'overriding operational conditions'. For example, during a long pilotage followed by a short turnaround port visit and subsequent long pilotage, it can be envisaged that both the master and chief engineer will be unable to comply with the regulations.

Normal Rest Hours



Exceptions to the basic framework were agreed in Manila and an exceptions clause drafted. Exceptions will be granted by a party to the convention, usually the flag state administration. Members should note each flag state will consider its own interpretation of the amendments and is likely to publish guidance before the entry into force of the amendments on 1 January 2012.

The interpretation of the exceptions clauses provided in the box below is for Members' general

guidance only. Obviously in emergencies involving the safety of the ship, persons or cargo, the master still has the right to impose any hours of work deemed necessary on a seafarer until a normal situation is restored.

Members with regular trading that is likely to make exceptions necessary should contact their flag state administration for guidance and approval of work patterns well in advance of the entry into force date.

Exceptions to hours-of-work regulations in overriding operational conditions

Under the exceptions clause, flag state administrations may allow exceptions from the required hours of rest provided that the rest period is not less than 70 hours in any 7-day period and on certain conditions, as follows.

1. Such exceptional arrangements shall not be extended for more than two consecutive weeks.

This may be interpreted as only permitting the 70 hours rest exception for two consecutive weeks.

2. The intervals between two periods of exceptions shall not be less than twice the duration of the exception.

If read in conjunction with 5 below this can be taken to mean the following.

For daily exceptions

- where one 24-hour period of exception is used, then 48 hours of operating within the basic framework is necessary before another such 24-hour period is used
- where two 24-hour periods of exception are used consecutively, then 4 days of operating within the basic framework will be required before any further exceptions are used
- a maximum of two daily exceptions are permitted in any 7-day period
- two daily exceptions can occur on unlimited consecutive weeks provided that the 77 hours of rest requirement is maintained and subject to flag state agreement.

For weekly exceptions

- where a 70-hour exception has been used in a 7-day period, then a further 14 days of operating within the basic framework is necessary before another 7-day period is used

Hours of Rest in Exception Period



- where a 70-hour exception has been used in two consecutive 7-day periods, then 28 days of operating within the basic framework is necessary before another 7-day period is used.
3. The hours of rest may be divided into no more than three periods, one of which shall be at least 6 hours and none of the other two periods shall be less than 1 hour.

The minimum rest in any exception period is 10 hours so a ratio of 6 hours, 2 hours, 2 hours or

6 hours, 3 hours, 1 hour (in any order) is likely to be acceptable.

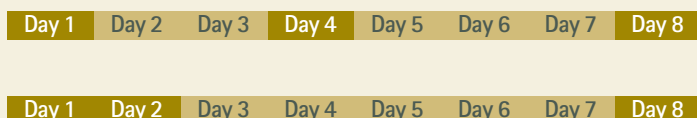
4. The interval between consecutive periods of rest shall not exceed 14 hours.

Maximum work period is 14 hours.

5. Exceptions shall not extend beyond two 24-hour periods in any 7-day period.

Exceptions shall, as far as possible, take into account the guidance regarding prevention of fatigue in section B-VIII/1 of the STCW Code.

Daily Exceptions in a 7 Day Period





Chubby crew: the hidden risks



A life at sea is not always conducive to healthy eating, with changing shift patterns and long hours often encouraging seafarers to plump for a high-calorie, high-fat diet.

Multiple cups of coffee and chocolate biscuits might seem appealing during a long night on watch but, over a period of time, an excessive intake of such foods can lead to serious health problems.

Weighty problems

One of the most immediate effects of over indulging in the wrong foods is weight gain. While this change in appearance may (or may not) be of personal concern, the underlying damage is potentially far more serious.

The health risks from being overweight include type 2 diabetes, coronary heart disease and stroke, metabolic syndrome, certain types of cancer, sleep apnea, osteoarthritis, gall bladder disease and fatty liver disease.

Furthermore, the Club has recently become aware of several instances where seafarers have tried slimming pills in a bid to lose weight but suffered serious consequences, including long periods of hospitalisation and permanent health issues.

Changing habits

A desire to be an optimum weight should not simply be for the sake of appearance, but arise from a wish to be healthy and happy. It is best achieved by making long-term changes to eating and activity habits, as follows

- Choose healthy foods such as vegetables, fruits, whole grains and low-fat meat and dairy products.
- Eat just enough to be satisfied.
- Aim for at least 30 minutes of moderate intensity physical activity on most or all days of the week.

Members should consider encouraging healthy eating and exercise on board their vessels: fit and happy crews make for much safer vessels.

Twist-locks: the threat from above

Two separate incidents involving twist-locks falling from containers onto stevedores have been reported, but with very different outcomes.

In the first case, a twist-lock fell from a container being discharged from a vessel in the USA and hit a stevedore on the head. Fortunately the stevedore was unhurt because he was wearing a good quality safety helmet. Unfortunately, the twist-lock bounced off the hat and hit a colleague in the knee, causing minor bruising!

In the second case, a twist-lock fell from a container being loaded. Again it hit a stevedore on the head,

causing him to fall from the hatch cover onto the main deck. He was not wearing protective clothing or a safety helmet and was reported to have sustained serious head injuries as well as injuries from the fall.

Wearing hard hats can be uncomfortable, hot and sticky, but these two cases and the regularity of similar incidents – some of which have resulted in brain damage – highlight the need for everyone involved in cargo operations to wear personal protective clothing and a good quality safety helmet at all times.



Maritime Labour Convention likely in a year

The Maritime Labour Convention 2006 will enter into force 12 months after 30 countries representing 33% of the world's gross tonnage ratify it. The tonnage requirement has already been reached, 10 countries ratified by November 2010 and the European Union has asked all 27 members to ratify it, if they have not already done so. As such the convention is expected to come into force in 2012.

The convention will apply to all commercial vessels. Vessels of 500 GT or more trading internationally will also need a Maritime Labour Certificate and a Declaration of Maritime Labour Compliance (DMLC), both of which must be carried on board.

The certificate will be issued by the vessel's flag state. It is evidence that the ship meets the requirements of the convention and that seafarers' living and working conditions meet the

requirements of national law. The certificate and DMLC together are to be taken as primary evidence by port state control that a ship complies.

As mentioned in previous *Signals* articles, the convention requirements will be easily met by most ship operators, though evidence of early compliance will be advantageous. It is recommended that Members begin as soon as possible – and prior to application for certification – to consider any shortcomings. Gaps in existing policies and procedures, vessel documentation or on-board living and working conditions need to be identified and addressed.

Members are also encouraged to talk to their flag states and classification societies to help establish what steps they need to undertake.

Insurance for Filipino crew

The Migrant Worker's Act (MWA) came fully into effect in the Philippines on 7 November 2010, and applies to all Filipino crew members joining vessels after that date.

The new regulations require that insurance is provided for the benefit of each crew member. This is outside the scope of normal P&I cover, so Members employing Filipino crew members need to take out a separate insurance policy for each such employee.

The Club recommends that any Member which has not yet made the necessary arrangements refers to the Club's circular dated 27 September 2010, and liaises with its manning agency to ensure insurance cover is obtained.

Members can obtain a copy of the Club's circular from its website: www.nepia.com/publications/clubcirculars/



New standard letters of indemnity published

In October 2010 the Club issued two circulars outlining changes to the International Group of P&I Clubs' standard form for letters of indemnity (LOIs). The changes to the standard wording follow a decision of the English High Court in 2009 in the case the *Bremen Max*.

Letter of indemnity dispute

The *Bremen Max* was chartered by its owner on an amended New York Produce Exchange form. The vessel was then sub-chartered on a back-to-back basis. The charterparty contained a provision which stated the owner was to allow discharge and release of cargo without production of bills of lading, against a letter of indemnity issued by the charterer.

The vessel loaded approximately 70,000 t of cargo at Brazil for delivery in Bulgaria. The bill of lading was marked 'to order' with a notify address of a company called Kremikovtzi in Bulgaria. Upon arrival at Bulgaria, the owner was requested to deliver the cargo to Kremikovtzi without production of bills of lading. The charterer and sub-charterers issued LOIs to cover the owner on the same form.

The cargo was discharged in Bulgaria but, following discharge, another company claimed title to the goods and arrested the vessel as security for a claim of mis-delivery. The vessel's owner asked the charterer to put up security under the terms of the LOI, but the charterer would not. The owner

therefore supplied security itself and the vessel was released from arrest.

A dispute arose on two issues, based on the owner having provided security and mis-delivering the cargo to Kremikovtzi.

Owner's entitlement to security from charterer

The first issue was whether, by having put up security to release the vessel from arrest in the first instance, the owner was then entitled to receive security from the charterer under the LOI. The charterer submitted it would be impossible to provide security to 'secure the release of such ship or property' as the owner had already done so and the vessel had been released from arrest, but the court held that the charterer had failed to carry out its obligation to issue security and the owner's actions did not discharge this obligation.

Although the court found in the owner's favour, it is important to note the judge stated the analysis could be different if the owner had placed security without first making a demand from the charterer.

As a result, the Club recommends that if Members deliver a cargo without production of a bill of lading in return for an LOI, and an allegation is made against them for mis-delivery accompanied by a security demand from the claimant, they should give

immediate notice to the issuer of the LOI before issuing security themselves. This should note that a claim has been made, security has been demanded from the owner, and that the owner now requires to be secured by the LOI issuer in accordance with the LOI. Doing this will ensure that Members do not prejudice their right to demand and receive security under an LOI.

Delivering cargo to party named in letter of indemnity

The other issue in dispute was whether the undertakings made by the charterer in the LOI were conditional upon the owner delivering the cargo to Kremikovtzi – the party named in the LOI. The charterer argued that for its obligations to be engaged, the owner must first have delivered the cargo to Kremikovtzi – a fact that was in dispute.

The owner submitted that its obligation under the charterparty was simply to allow the charterer to discharge and release the cargo, so that the charterer may then deliver it. The owner argued that the wording of the LOI should not be seen as an obligation upon the owner to deliver the cargo to the party named in the LOI. Doing so would place an unfair burden on the owner to take steps to identify the party to whom delivery should be made.

The court made a distinction between discharge and delivery: discharge, it was held, is the movement

EU publishes new regulation on Iranian sanctions

Since the last issue of *Signals*, the expected new EU regulation on restrictive measures against Iran has been finalised and came into force on 27 October 2010. Council Regulation (EU) 961/2010 applies within the EU to ships under the jurisdiction of a member state, companies and other bodies incorporated in a member state or providing services wholly or partly in a member state.

The new regulation deals with the following issues.

Restricted goods, persons and entities

Although the new regulation is not a general trade ban, Members nevertheless need to take care they do not carry any cargoes that fall within the list of prohibited or controlled materials, and do not deal with designated entities. The new regulation expands the existing list.

Energy

There are restrictions on providing equipment or technology for use in the explorational or production of crude oil and natural gas, and on refining and liquefaction of natural gas. It is understood this does not include the export from Iran of crude oil.

Asset freeze / IRISL and subsidiaries' cargoes

The existing asset freeze of designated entities has been extended. There is also now a ban on loading or

discharging of any cargo for Islamic Republic of Iran Shipping Lines (IRISL) or its subsidiaries at any ports in the EU.

Restrictions on transfers of funds

Of particular concern to Members based or operating in the EU, using banking or other financial services in the EU, will be the asset freeze and financial restrictions. If a ship is chartered to an Iranian entity, if the entity appears on any lists of designated entities then any payments to or from it will be subject to asset freeze and will have to be paid into a designated, blocked account and funds can only be released with permission of the relevant authority. Even if not designated, any payment to or from any Iranian entity, to or from Members in the EU, must be reported before payment is made or received if more than €10,000. If the payment is of more than €40,000, then prior approval is needed before the payment can be made or received.

Insurance

There are also potential implications for Members' insurance cover, not least their P&I cover. The regulations specifically confirm that insurance cover continues for ships that are temporarily in Iranian waters, for example, loading or discharging cargo at Iranian ports. Nor will there necessarily be any problems with cover if a Member has a ship on

charter to an Iranian entity, so long as that entity has not been specially designated or the trade itself is one that otherwise attracts sanctions.

Where the trade in question does attract sanctions, Members may lose their P&I cover automatically in accordance with the endorsements on their certificates of entry. Furthermore, if a Member has a ship on charter to a designated entity at renewal on 20 February 2011, the Association will be prohibited from renewing P&I cover. This particular part of the regulation will affect not just Members based in the EU but any Members, anywhere, doing business with Iranian charterers which are designated by the EU. In this regard the prohibition applies to the Association, as a company based in the EU, regardless of where in the world a Member may be based.

All Members doing business with any Iranian or Iranian-controlled entities, either in Iran or elsewhere, need to pay special attention to the new regulation, even if they are not based in the EU themselves. Members need to satisfy themselves that any business they may do complies with the regulation, and any other sanctions that may apply, and does not prejudice their P&I cover.

It should be borne in mind that there may be other, practical, problems with doing any business that



from the ship 'over the ship's rail' ashore, while delivery is the transfer of possession of the cargo to a person ashore. Delivery and discharge may occur at the same time but it is not necessary that they do. However, the court held that delivery – the transfer of possession of the cargo – is an activity performed by the shipowner.

The words of the LOI contained a clear request to deliver the cargo to a named receiver and an agreement by the owner to comply with that request in return for a number of undertakings given by the charterer. If the owner misidentified the party, and delivered to another party, there is the risk the owner would not be entitled to an indemnity as it had not satisfied the pre-conditions of the LOI.

The court found that the owner need not know whether the party named in the LOI is entitled to possession of the goods, only that the party to which it delivers the goods is the party the charterer requested.

The Club therefore recommends that, as well as inserting the name of the specific party to which delivery is to be made under an LOI, the following words should be included in the LOI

'X [name of party] or to such party as you believe to be or to represent X or to be acting on behalf of X.'

The suggested wording is designed to ensure, as far as possible, that if Members believe the party to which physical delivery of the cargo is given is X, or acting on behalf of X, they can rely upon the terms of the LOI.

Ship-to-ship transfer operations: a new chapter



Inherently hazardous ship-to-ship (STS) transfer operations are becoming more common, which in turn has led to larger and more frequent claims when things have gone wrong. However, new regulations and case law look set to make STS operations safer and less litigious in future.

New MARPOL requirements

The International Convention for the Prevention of Pollution from Ships (MARPOL) contains a new chapter 8 in annex I that came into force on 1 January 2011 and governs most STS operations.

A feature of the new regime is that MARPOL has directly adopted the standard of the International Chamber of Shipping (ICS) and Oil Companies International Marine Forum (OCIMF) *Ship to Ship Transfer Guide* rather than lay down a separate set of operational regulations and recommendations. The direct adoption of the ICS/OCIMF guide into an international convention emphasises the growing importance of industry-led initiatives over imposed solutions.

The new chapter applies to all oil tankers of 150 GT and above engaged in the transfer of oil cargo with another oil tanker at sea on or after 1 April 2012. It does not apply to

- bunkering operations
- oil transfer operations with fixed or floating platforms
- STS operations for the safety of life or property or to minimise pollution damage
- warships.

Oil tankers must carry and comply with an STS operation plan approved by the vessel's flag state and in line with the *IMO Manual on Oil Pollution*, section 1 (prevention), and the ICS/OCIMF guide.

While the safety of each vessel remains the responsibility of the master, the regulations require a qualified person to be in overall advisory control of the STS operation. Initial analysis suggests that the status of such a person will be analogous to that of a pilot.

Coastal state control

Regulation 42 of MARPOL annex I gives reporting control of STS operations to the coastal state within

territorial seas, generally 12 nautical miles, and the exclusive economic zone, which is generally 200 nautical miles.

Exclusive economic zones were established by the 1982 UN Convention of the Law of the Sea (UNCLOS), which gave coastal states limited jurisdiction over commercial activity and environmental issues while protecting the traditional freedoms of navigation for the benefit of all nations. Control of STS operations is a significant development and experience suggests that coastal states will use this new power to protect their commercial interests as well as the environment.

Liability between vessels

Traditionally, damage claims arising from STS operations were treated on the basis of 'knock-for-knock', but in recent years there have been attempts to apply the International Regulations for Preventing Collisions at Sea or no-fault liability, neither of which concepts fit easily into the factual or legal relationships in STS.

A recent judgment of the High Court of Hong Kong gives valuable guidance on the liability regime between vessels engaged in STS. The court held that the claimant vessel faces a high burden of proof in establishing the necessary causative negligence before such a claim can even be considered. STS operations are hazardous and, even with high standards of skill and care, accidents are foreseeable.

If an incident was an accident – there was no causative negligence – then there is no basis for a legal claim between the vessels and the correct approach is knock-for-knock. The judgment is particularly persuasive as each side was represented by experienced and well-respected international shipping law firms. In emphasising the concept of the accident over the growing trend towards strict liability, the court has given the marine sector and its regulators a valuable lesson.

Members can view the full judgment (reference HCAJ 133/2006) at the Hong Kong legal reference system website: http://legalref.judiciary.gov.hk/lrs/common/search/search_result_detail_frame.jsp?DIS=66472&QS=%2B&TP=JU



involves Iran and Members should regularly check *Industry News* on the Club's website: www.nepia.com/publications/industrynews/

The full text of the regulations can be found on the UK government's treasury website: www.hm-treasury.gov.uk/d/council_regulation_eu_961_251010.pdf

A useful commentary/guidance notice can be found on the UK government's treasury website: www.hm-treasury.gov.uk/d/public_notice_reg961_271010.pdf



Ultrasonic hatch cover testing: an update

Ensuring a ship's hatch covers are weathertight is an essential aspect of exercising due diligence to make a ship seaworthy and cargoworthy. This requires an appropriate method of testing to enable any potential problems or defects to be identified and resolved. In this article Walter Vervloesem of IMCS Group, and training instructor for SDT-IMCS Ultrasonic Hatch Cover Tightness Testing Training course, compares the principal methods of testing hatch cover weathertightness.

Weathertightness under dynamic conditions

Water will not infiltrate a hatch cover if there is physical contact between the packing rubber and compression bar. Whether the rubber is slightly touching the compression bar, or whether the packing rubber is being heavily over-compressed, will not make a difference.

However, it should be appreciated that in case of light contact and when in a dynamic condition at sea, minor distortion of the hatch covers will cause the panels to flex, thereby allowing water entry into the hold even in relatively clement weather conditions. In case of over-compressed rubbers, when packing rubbers are showing a deep permanent set or imprint, the packing rubber may lose its resilience and sealing performance. As a result, it will not be able to compensate for the movements of the ship and allow water entry into the holds. This entails a risk of wetting damage to cargo.

To achieve tightness when the ship is in a dynamic condition while at sea, it is important that the packing rubber exerts a required amount of compression on the compression bar. This is called the design compression, which is determined by the hatch-cover manufacturers in the design stage for the packing rubber to compensate for movements of a ship in a seaway.

Effectiveness of hose tests

A hose test carried out in accordance with the guidelines of the International Association of Classification Societies (IACS) is a long-recognised way of testing the apparent weathertightness of hatch covers. As its name suggests, it involves moving along a hatch-cover joint while directing a powerful jet of water at the joint to determine if any water passes through.

Hose tests show whether the physical contact between packing rubber and its mating surface is satisfactory in a static condition as any discontinuity or lack of contact will allow water infiltration. Contact and compression, as described above, are two different things. A hose test will not show if the compression of the packing rubbers is satisfactory and that the hatch covers will be weathertight in a seaway.

Ultrasonic tightness testing

An ultrasonic test involves placing a transmitter in the cargo space and measuring an ultrasonic signal received outside the space. It provides an idea of the compression of a sealing system and gives an indication of areas where the sealing system is compromised.

To check that the hatch covers are weathertight, a transmitter is placed in the hold and an open hatch

value (OHV) is taken. The OHV represents the strength of an ultrasonic signal that reaches the receiver in a direct line and represents a situation where there is no sealing at all. After closing and securing the hatch covers, the surveyor will then pass around the hatch-cover perimeter and over the cross-joints and check for ultrasound passing through the sealing system. When there is a good compression no, or almost no, ultrasound will pass. Whenever there are flaws or discontinuities in the sealing system, ultrasound will pass and be picked up by the receiver. The measurements thus obtained can then be compared with the OHV taken at the outset of the test and by doing so an idea can be obtained about the importance of the leak, which actually represents a certain loss in compression of the sealing system.

It is generally accepted that in areas where a reading of more than 10% of the OHV is found, there is lack of compression that requires further investigation and repairs or corrective action. The rationale behind this 10% standard lies in the fact that loss of compression in a sealing system will reduce the compensating capacity of the sealing system and, as such, there is an increased risk of water infiltration while on passage.

Classification societies agreed in 2001 that ultrasonic testing, when carried out with class type-approved equipment and qualified operators, was acceptable as an alternative method to hose testing for determining the weathertight integrity of hatch covers for class and statutory inspections. IACS developed standards and criteria under IACS UR Z17 for firms engaged in ultrasonic testing. This was necessary to ensure that surveyors checking hatch covers for class and statutory purposes were familiar with the theory of ultrasound and had practical testing experience and basic knowledge of hatch-cover design, maintenance and repairs. Classification society type-approved and calibrated equipment should always be used so that repeatability of test results is guaranteed.

The world's leading hatch-cover manufacturers have also recognised the benefits of ultrasonic testing. They are providing training programmes for their service engineers to allow them to use the equipment in a proper way for checking repairs and carrying out tests as class service suppliers in repair and new-building scenarios.

It should also be noted that, with ultrasound, the sealing system is checked for compression, which means that the physical condition of the packing rubbers must be such that they are still able to exert compression. Situations whereby the packing rubber is over-compressed, or where the compression bar is very thin and knife edged and therefore cutting into the rubber rather than compressing it, are two examples where ultrasound may not pass through the sealing system. This would give the false impression that all is in order, whereas actually the sealing situation is unacceptable. This is why it is recommended that an ultrasonic inspection is followed by a visual inspection whenever possible.

Comparing hose and ultrasonic tests

As mentioned above, ultrasonic testing allows hatch covers to be tested in a static condition in port but allows the operator to form an opinion as to



Ultrasonic test



Ultrasonic testing equipment

whether or not the hatch-cover sealing system will perform well when the ship is at sea in a dynamic condition. This is a major advantage when compared to the hose test and can be a very important tool when exercising due diligence to determine if a ship is cargoworthy and if hatch covers are weathertight.

Benefits of using ultrasonic testing

The use of ultrasonic testing equipment has other benefits, including the following.

- Ultrasonic testing is a reliable and non-destructive testing method, which gives an indication of the compression status of the sealing system.
- Ultrasonic testing allows easy detection with pin-point accuracy of damaged areas or areas where lack of compression exists. This significantly reduces the time needed to identify potential leaks.
- Once the correct location of the leak is known, the correct repair method can be determined and, as small and local damages can easily be identified, local repairs are often adequate.
- Ultrasonic testing is a 'dry' testing method without the risk of causing pollution of the dock, river or sea water.
- There is the possibility to produce a download of test results, which provides ship operators with a detailed test report.
- Ultrasonic testing equipment can be used in loaded or empty holds, which in certain cases allows repairs to covers during loading and checking of repairs during or after the loading period, but prior to going to sea.
- Ultrasonic equipment can safely be used under all weather conditions (even with sub-zero temperatures).

North of England is grateful to Walter Vervloesem, Chairman IMCS Group of Companies, for providing this article. Email: waltervervloesem@telenet.be



Avoiding instability during ballast exchange

Compliance with the International Convention for the Control and Management of Ships' Ballast Water and Sediments, which is intended to prevent the introduction and spread of harmful marine organisms, can pose significant risks to the safety of a vessel and crew if a proper plan for exchanging ballast water is not developed and followed on board.

Effects of free surface

One of the most common methods of exchanging ballast water while on passage is simply to empty and refill all ballast tanks, thus ensuring a complete ballast water exchange has taken place. However, this results in tanks becoming 'slack' or having a free surface.

The free surface in ballast tanks will cause a virtual loss of stability by effectively moving the centre of gravity (G) of the vessel upwards, thus reducing the metacentric height (GM) (the metacentre is a theoretical point through which the centre of buoyancy acts at various angles of heel). The reduction in GM will make the vessel much easier to incline and, when inclined, slower to return to its initial position due to a reduced righting lever (GZ).

If the vessel has a small initial metacentric height, then any reduction in GM due to the effects of the

free surface may result in a negative GM. This could cause the vessel to become unstable, resulting in an angle of loll (when the vessel returns to stable equilibrium but at an angle of heel). The diagrams below show an upright stable vessel with a positive GM (1), a vessel with a positive GM and righting lever at an angle of heel (2), and a vessel with neutral equilibrium at an angle of loll (3).

Correcting an angle of loll

An angle of loll is a very dangerous situation and should be corrected as soon as possible. However, prior to undertaking any corrective actions, their effects should be carefully calculated to ensure that matters are not made worse. Efforts should be made to remove all slack tanks, which will effectively eliminate the virtual rise of the centre of gravity due to free surface.

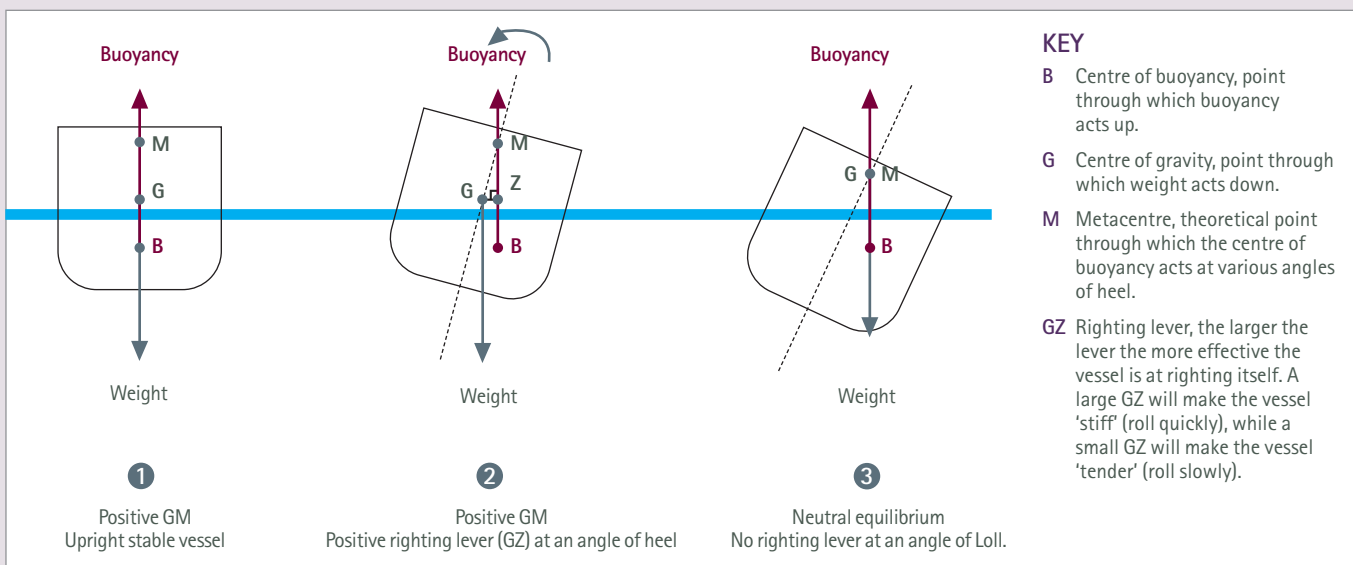
When a vessel with a positive GM is listed over, it is normal practice for ballast water to be loaded into the high side of the vessel to correct the list. However, in the case of an angle of loll, this may not be the most appropriate action. If the high side is loaded first, the vessel will start to right itself but could then roll suddenly over to the other side, taking up a greater angle of loll or possibly capsizing. It may therefore be more suitable to load

water into the lower side first. When loading into the lower side, the list will initially increase, but the centre of gravity will be lowered. To minimise the increase in list and any additional free-surface effects, only the smallest tanks closest to the centreline of the vessel should be used.

Once the centre of gravity has been lowered, the list will start to decrease, at which stage it may be possible to begin loading into the high side to correct the list. Due to the increased weight in the lower side, the vessel should return to the upright position in a controlled manner. It must however be stressed that this operation must not be started until the master is assured that it can be completed in a safe and controllable manner.

Developing a proper plan

Given the potential risks associated with a deep-sea ballast-water exchange, it is critical that a proper plan, including the sequence in which the tanks have to be emptied and refilled and the weather limits to be observed during the operation, is carefully developed and implemented. Full use should be made of the vessel's stability book and loading computer in developing the plan.



Hatch cover information from North

This article is the latest in a comprehensive series of publications produced by the Club on the subject of hatch covers, which includes a loss prevention briefing, Hot Spots information sheet, and loss prevention guide - *Hatch Cover Maintenance and Operation*.

Details of these publications are available from the loss prevention publications pages of the Club's website: www.nepia.com/loss-prevention/publications-and-guides/

New IMO guidelines for protective coatings

The International Maritime Organization's maritime safety committee has recently approved the implementation of guidelines for maintenance and repair of protective coatings. These take into account the forthcoming amendments to the International Convention for the Safety of Life at Sea (SOLAS), chapter II-1, regulation 3, and chapter XII, regulation 6, and the performance standards for protective coatings for dedicated seawater ballast tanks in all types of ships and double-side skin spaces of bulk carriers, adopted by resolutions MSC.216(82) and MSC.215(82) respectively.

Specific guidance is given on

- how the coating condition is to be categorised and defined
- the areas which must be inspected, including the method of inspection
- the process of conducting maintenance and repair of the protective coating, both while the vessel is in service and during shipyard repair periods
- details of the information which must be recorded in the coating technical file.

The guidelines entered into force on 1 January 2011 and apply to all ships of 500 GT or over for which the building contract was placed on or after 1 July 2008.



Avoiding liquefaction of solid bulk cargoes

There have been a number of very serious marine casualties in recent months alleged to have been caused by bulk cargoes which have liquefied while at sea. Contributing factors include inadequate information on characteristics of cargoes presented for shipment, and inadequate assessment of cargoes before loading commences – particularly with regard to moisture content.

Statutory obligations

The International Maritime Solid Bulk Cargoes (IMSBC) Code has been written to facilitate safe stowage and shipment of solid bulk cargoes. It provides information on dangers associated with shipment of certain types of solid bulk cargo and on procedures to be adopted when shipment is contemplated. The code also describes statutory obligations on parties involved in the shipment.

The International Convention for the Safety of Life at Sea (SOLAS), chapter VI, regulation 2, also requires shippers to provide masters or their representatives with appropriate information on a cargo sufficiently in advance of loading to enable any precautions necessary for proper stowage and safe carriage to be put into effect.

Obligations of masters

In addition to other statutory obligations on the carriage of cargo, masters should not commence loading until in possession of cargo information and a cargo declaration from the shipper. In addition to the bulk cargo shipping name, this information should include the characteristics of the cargo and specifically whether the cargo has a propensity to liquefy (group A cargo) or possess chemical hazards (group B cargo). Also required are the precautionary measures necessary to ensure cargo can be carried safely.

Experience has shown that shippers' declarations cannot always be relied upon. In known problem areas it may be prudent and/or a local requirement to appoint a surveyor in advance of loading. The Club should be consulted before an appointment is made.

Group A cargoes

For a group A cargoes, masters should then undertake the following.

- Obtain certificates of moisture content and transportable moisture limit from the shipper. The code requires that the interval between testing for moisture content and loading should not be more than 7 days. Be wary of moisture content

certificates provided by the shipper's laboratory and moisture content percentages that are very close to the transportable moisture limit (TML).

- Consider whether a can test is appropriate. If in doubt about the reliability of moisture content certificates and/or the apparent condition of the cargo, they should carry out the can test as described in section 8.4 of the IMSBC Code. If moisture or fluid conditions appear during this test, arrangements should be made to have additional laboratory tests carried out before cargo is loaded.
- Monitor cargo operations from the outset. Masters or their representatives are required to monitor the loading operation from start to finish. Evidence of splattering or wet cargo should result in cargo operations being stopped until further testing and/or analysis can be performed. Further tests for excessive moisture should be performed at frequent intervals throughout the loading programme.

Cargoes difficult to assess

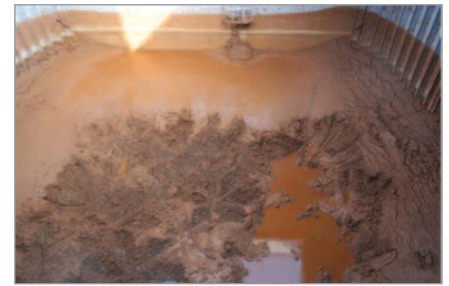
The definitions, tests and precautions in the IMSBC Code for cargoes that may liquefy are mainly associated only with homogeneous metal ore concentrates, for which their application is relatively straightforward.

However, any cargo with a mix of fine material and moisture could potentially liquefy – and the application of the IMSBC Code tests to such cargoes may not produce accurate results. This is particularly true for non-homogeneous low-grade lateritic ores – most recently these cargoes have included lateritic nickel ore and lateritic iron ore. Locating suitable testing laboratories and appointing surveyors for cargoes being loaded at mining projects in remote areas can prove difficult at short notice.

Cargoes not listed in IMSBC Code

For cargoes not specifically listed in appendix 1 of the IMSBC Code, shippers are required to provide the competent authority of the port of loading with the cargo characteristics and properties so that an assessment of carriage requirements can be determined. Based on the information received from the shipper, the competent authority is required to assess the acceptability of the cargo for safe shipment.

When it is assessed that a solid bulk cargo proposed for carriage may present hazards, such as those defined by group A cargoes (susceptible to



liquefaction) or group B (possess chemical hazard), advice should then be sought from competent authorities of the port of unloading and of the vessel's flag state. The three competent authorities will set the preliminary suitable conditions for the carriage of this cargo.

When it is assessed that a solid bulk cargo proposed for carriage presents no specific hazards for transportation, carriage will be authorised by the load port authority. The competent authorities of the port of unloading and of the flag state should then be advised of that authorisation.

The competent authority of the port of loading is required to provide masters with a certificate stating the characteristics of a cargo and the required conditions for carriage and handling. The authority is also obliged to submit an application to the International Maritime Organization within one year from the issue of the certificate so that the cargo can be added to appendix 1 of the IMSBC Code.

Where the IMSBC Code requires that a particular provision for transport of a solid bulk cargo shall be complied with, one or more competent authorities (port state of departure, port state of arrival or flag state) may authorise any other provision by exemption if satisfied that such provision is at least as effective and safe as that required by the code. Acceptance of an exemption authorised under this section by a competent authority not party to it is subject to the discretion of that competent authority. Accordingly, prior to any shipment covered by the exemption, the recipient of the exemption shall notify other competent authorities concerned.

The Club has produced a comprehensive set of loss prevention briefings on liquefaction, iron ore fines and the carriage of nickel ore. These can be downloaded from the loss prevention pages of the Association's website: www.nepia.com/loss-prevention/publications-and-guides/loss-prevention-briefings/

Plastic contamination of Chinese fertiliser



It appears that cargoes of bulk fertiliser are sometimes being delivered to loading ports in China in plastic bags and then loaded onto vessels by slitting the bags and allowing the contents to pour into holds. This is apparently cheaper than using mechanical means to load the cargo.

However, the method results in plastic scraps, string and fibres becoming inter-mixed with the fertilizer cargo, which has led to rejection of such cargoes at

discharge ports. The reason for rejection is that the fertiliser is usually required to pass through machinery, which is prone to clogging or damage by plastic fibres. The fertiliser must then be screened for removal of the plastic waste, which can be very costly.

Members should therefore, if at all possible, seek to avoid loading fertiliser cargo using this method.



Shipper's bulk cargo declarations

The presentation of cargo declarations by shippers to masters prior to loading has been a statutory obligation of the International Convention for the Safety of Life at Sea (SOLAS) for quite some time. However, a significant number of recent casualties involving bulk cargoes with hazardous characteristics have highlighted the importance of masters assessing this information and the condition of the cargo before allowing loading to commence.

Mandatory application of the International Maritime Solid Bulk Cargoes (IMSBC) Code from 1 January 2011 provides for and details the information required to be provided and assessed before loading can begin. In order that conditions for safe shipment can be determined and implemented, no cargo should be loaded until the following information has been provided and suitable precautions taken.

- Bulk cargo shipping name (BCSN).
- Cargo group (A, B or C).
- IMO class of cargo, if applicable.
- UN number preceded by letters UN for the cargo, if applicable.
- Total quantity of the cargo offered.
- Stowage factor.
- Need for trimming and the trimming procedures, as necessary.
- Likelihood of shifting, including angle of repose, if applicable.
- Additional information in the form of a certificate on the moisture content of the cargo and its transportable moisture limit in the case of a concentrate or other cargo which may liquefy.
- Likelihood of formation of a wet base (see sub-section 7.2.3 of the IMSBC Code).
- Toxic or flammable gases which may be generated by cargo, if applicable.
- Flammability, toxicity, corrosiveness and propensity to oxygen depletion of the cargo, if applicable.
- Self-heating properties of the cargo, and the need for trimming, if applicable.
- Properties on emission of flammable gases in contact with water, if applicable.
- Radioactive properties, if applicable.
- Any other information required by national authorities.

Information provided by shippers must be accompanied by a declaration. Electronic data processing (EDP) or electronic data interchange (EDI) techniques may be used.

Fumigant explosions and how to avoid them

The practice of fumigating cargo holds on vessels carrying grain cargoes is usually conducted without incident. However, there have been a number of recent cases where this routine operation has resulted in an explosion.

While rare, fumigant explosions have the potential to injure crew members seriously and have been known to cause extensive damage to vessels, such as hold structures being deformed or ruptured and hatch covers being damaged or displaced.

This article provides a reminder of how phosphine fumigant explosions can occur and the procedures that should be followed to prevent them.

Phosphine fumigants

Phosphine, a popular choice as a grain fumigant, is a colourless gas which is highly toxic. Phosphine is also a difficult gas to handle as it can corrode certain metals and will form an explosive mixture with air at concentrations greater than 1.79% per volume in air and may be liable to spontaneous combustion. This risk of spontaneous combustion is attributable to impurities, notably diphosphine, which are generated along with the phosphine.

As phosphine is an odourless gas, most commercially available tablets contain contaminants to give the gas a garlic odour. The tablets will also generate non-flammable ammonia and carbon dioxide, which is intended to act as an inerting agent and reduce the risk of potentially flammable localised concentrations of phosphine.

Aluminium phosphide tablets are a common method of generating phosphine gas for fumigation due to their relative ease of handling and application without the need for specialised equipment. Phosphine gas is generated through a chemical reaction between the tablets and the moisture in the air and/or cargo. Therefore, the higher the temperature and humidity of the air and/or cargo, the greater the rate that the tablets will decompose and produce phosphine.

Phosphine is heavier than air with a small mobile molecule which will readily penetrate bulk grain cargoes, whether it is introduced on the surface, sub-surface or into the bottom of the stow. The US Department of Agriculture Fumigation Handbook (2006) recommends that surface applications are only suitable for grain depths of up to 12 m – greater depths of stow will require sub-surface application.

Safe fumigation

The qualified fumigator in charge of the operation should, in conjunction with the vessel's master and crew, develop a plan for the most suitable method of application, based on the size of the cargo spaces and the quantities of cargo to be loaded. It is critical that the planned method of application

is carefully followed to minimise the potential of explosions occurring.

A safe and effective fumigation requires the total amount of gas produced to be sufficient to reach all parts of the cargo. However, it also requires that the generation of gas from the aluminium phosphide tablets is in balance with the rate of dispersal of the phosphine gas through the grain, so that the gas generated is able to dissipate into the cargo quickly enough to ensure that there is no possibility of localised explosive concentrations developing.

The manufacturer's instructions relating to handling and use of the fumigation tablets must be carefully followed to minimise the risk of explosion. All potential sources of ignition must be removed from the space to be fumigated. To prevent phosphine being generated at an excessive potentially hazardous rate, the tablets should not be allowed to come into contact with any liquids or be heaped together into piles but should be evenly dispersed over the whole surface area. In cases where there will be very little headspace above the cargo, a sub-surface application should limit the rate of generation of the gas and facilitate its dispersal throughout the cargo.

The following points should be among those considered when planning the operation to ensure that the fumigation operation is conducted safely and efficiently without risk to personnel or the vessel.

- A suitable plan should be developed and carefully followed by both ship's staff and fumigation contractors.
- Fumigation should only be carried out by suitably qualified personnel.
- All local regulatory requirements and or guidance should be carefully followed.
- The manufacturer's instructions and guidance relating to the recommended dosage rates, exposure times and temperatures and application methods should be followed.
- The fumigant material safety data sheet precautions and exposure limits should be carefully followed.
- Warning signs should be posted and personnel allowed on deck near to the cargo holds being fumigated kept to a minimum.

Members can obtain further information and guidance from the following publications: IMO MSC.1/Circ.1358, Recommendations on the safe use of pesticides in ships.

USCG Regulation 46 CFR 147A, Interim Regulations for Shipboard Fumigation.

Code of Safe Working Practices for Merchant Seamen, Chapter 27, Safe use of pesticides.

Fire risk from refrigerated units

A recent fire on board a ferry carrying refrigerated trailers has prompted a safety bulletin from the UK's Marine Accident Investigation Branch (MAIB).

The fire on the main vehicle deck started in the middle of the night and was contained by the ship's crew using a drenching water system and boundary cooling. However, they were unable to put it out.

The vessel berthed at noon, after which the trailers had to be progressively removed to gain access to

the seat of the fire. It was finally extinguished with assistance from the local fire service after 18 hours.

The fire was caused by an overheating plug on a power lead from the ship to a trailer's refrigeration control system.

MAIB recommendations

The MAIB's recommendations to all ship owners carrying refrigerated containers and trailers are to

- take immediate action to ensure that all power

supply cables and fittings provided for refrigerated containers and trailer units are in good condition and that electrical protection devices activate at an appropriate level

- make additional checks of refrigerated containers and trailers powered by ships' electrical systems to provide early warning of any overheating.

Members can obtain copies of MAIB Safety Bulletin 03/2010 for the MAIB website: www.maib.gov.uk/publications/safety_bulletins.cfm

IMO update



MARPOL annex I: sludge tanks

Amendments to annex I of the International Convention for the Prevention of Pollution from Ships (MARPOL) came into force on 1 January 2011. These include a requirement for every vessel of 400 GT and above to be fitted with a tank or tanks to receive the oil residues (sludge) which cannot be dealt with in accordance with the requirements of annex I (IMO resolution MEPC.187(59)).

Sludge tanks are required to be an appropriate size for the machinery fitted and the anticipated length of voyage. They are also to be provided with a designated pump for disposal separated from the vessel's bilge system.

MARPOL annex V: garbage discharge

IMO resolution MEPC.191(60) will amend MARPOL annex V, regulation 5, to state that garbage discharge requirements for the Wider Caribbean Region special area will come into effect on 1 May 2011.

IMO circular MEPC.1/Circ.675 states that cargo-hold washing water containing cargo residues should not be treated as garbage under MARPOL annex V within the Gulfs and Mediterranean Sea areas. Provided the cargo residues in the washing water are in small quantities and do not originate from a cargo classified as a marine pollutant in the International Maritime Dangerous Goods (IMDG) Code, the washing water may be discharged at distances of greater than 12 nautical miles from shore within these areas.

MARPOL annex VI: exhaust emissions

With the adoption of resolution MEPC.176(58) to amend MARPOL annex VI, regulation 13, the operation of marine diesel engines on new vessels constructed on or after 1 January 2011 is only permitted when the nitrogen oxide emissions meet tier II engine limits relevant to the rated engine speed.

Amendments to MARPOL annex VI, regulations 13 and 14, will enter into force 1 August 2011 to reflect the adoption of the North American emission control area. The size and complexity of the new emission control area is described in a new appendix VII.

IMDG Code: new entries

IMO resolution MSC.294(87) details adopted amendments to the International Maritime

Dangerous Goods (IMDG) Code 2010 which come into force on a voluntary basis on 1 January 2011. The amendments will become mandatory with effect from 1 January 2012 or earlier if required by the vessel's flag state.

The amendments include a number of new entries which have been added, including but not limited to

- calcium hypochlorite (UN 3485, 3486 and 3487 under class 5.1)
- hydrazine (UN 3484 under class 8)
- lithium hypochlorite (UN 1471 under class 5.1)
- alkali metal dispersion (UN 3482 under class 4.3)
- iodine (UN 3495 under Class 8)
- batteries, nickel metal hydride (UN 3496 under class 9).

There is also a new limited quantities mark and a new chapter 5.5 covering the special provisions applicable to fumigated cargo transport units (UN 3359).

Copies of the 2010 edition of the IMDG Code are available from IMO Publishing, 4 Albert Embankment, London, SE1 7SR, United Kingdom. Email: sales@imo.org Website: www.imo.org/Publications/Pages/Home.aspx

SOLAS: carriage of dangerous goods

In December 2010 the IMO maritime safety committee approved revised formats for the document of compliance required by the International Convention for the Safety of Life at Sea (SOLAS), chapter II-2, regulation 19, which applies from 1 January 2011. The document of compliance must be on any ship carrying dangerous goods to confirm the vessel's construction and equipment comply with SOLAS requirements.

The revised standard format should be used when renewing documents of compliance for existing ships subject to SOLAS, chapter II-2, regulation 1.2.3. The validity period of the document of compliance should not exceed 5 years. It should also not be extended beyond expiry of a vessel's cargo ship safety construction certificate issued under the provisions of SOLAS, chapter I, regulation 12.

The annex to IMO circular MSC.1/Circ.1266 – Carriage of Dangerous Goods – contains standard formats to be used for documents of compliance.

Tougher drug rules in Venezuela



Recent amendments to drug legislation appear to have increased the risk of ships being detained in Venezuela. Rules dating back to 2005 have been changed to include new procedures for the seizure and release of assets used in connection with drug trafficking, and more serious penalties for offenders.

Any person found guilty of involvement in drug trafficking – including concealment and carrying in any means of transport (including ships) – can find themselves facing 15 to 25 years in prison.

There are also penalties for judges who fail correctly or adequately to apply the new legal provisions. As a result judges may feel under pressure to apply the 'letter of the law', with little or no leniency.

Ships found to be transporting drugs may be seized, initially for at least three months until the case comes to court, where a decision will be taken on release or confiscation.

Shipowner Members must be cautious when calling at Venezuelan ports. North has issued a Club circular about illegal narcotics onboard vessels in Venezuela.

The Club is grateful for information in this article provided by Mr José Alfredo Sabatino Pizzolante of Venezuelan correspondents Globalpandi SA.

Members can obtain a copy of the Club's circular from its website: www.nepia.com/publications/clubcirculares/

Paris MOU new inspection regime

Members are reminded that the Paris Memorandum of Understanding (MOU) on Port State Control's new inspection regime came into force on 1 January 2011.

Paris MOU has recently published a list of flag states which meet its criteria for low-risk ships. So far only five flag states have met the criteria and Members with vessels flying other flags cannot at present have their ships designated as low risk. The list is expected to get longer as more flags undergo IMO's voluntary member-state audit scheme.

If they have not already done so, Members trading to ports in the Paris MOU can visit the Paris MOU

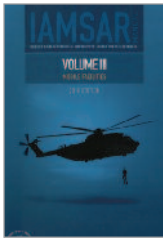
website and calculate both their ship risk and company risk profiles. This will allow them to judge the likely frequency of Paris MOU port-state inspections of their vessels.

Members can obtain more information about the new inspection regime from the Paris MOU website: www.parismou.org/ParisMOU/New+Inspection+Regime/default.aspx

Members can also obtain up to date information from the Industry News pages on the Club's website: www.nepia.com/publications/industrynews/ships/worldwide/801/



IMO publishes new edition of search and-rescue manual



The International Maritime Organization's maritime safety committee (MSC), at its 87th session in May 2010, approved amendments to the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual.

The IAMSAR Manual comprises three volumes, each written with specific search-and-rescue (SAR) system duties in mind. Volume III can be used as a stand-alone document or in conjunction with the other two volumes as a means to attain a full view of the SAR system.

Volume I on organisation and management discusses the global SAR system concept, establishment and improvement of national and regional SAR systems, and co-operation with neighbouring states to provide effective and economical SAR services.

Volume II on the mission co-ordination assists personnel who plan and co-ordinate SAR operations and exercises.

Volume III on mobile facilities is intended to be carried aboard rescue units, aircraft and vessels to help with performance of a search, rescue or on-scene co-ordinator function, and with aspects of SAR that pertain to their own emergencies.

The 2010 edition incorporates amendments that were adopted through 2009 by the International Civil Aviation Organization (ICAO) and the MSC.

The 2008 amendments entered into force on 1 June 2009, and the 2009 amendments on 1 June 2010.

The 2010 amendments become applicable on 1 June 2011 after which vessels will be required to carry the updated version of the manual.

Copies of the new edition of IAMSAR are available from IMO Publishing, 4 Albert Embankment, London, SE1 7SR, United Kingdom. Website: www.imo.org/Publications/Pages/Home.aspx

European advance cargo declaration regime

As Members will be aware, the EU Advance Cargo Declaration Regime entered into force on 1 January 2011. BIMCO have recently published appropriate clauses for both time and voyage charterparties.

Members can download the clauses from BIMCO's website: www.bimco.org/en/Corporate/Documents/BIMCO%20Clauses.aspx

Spending the slush fund hand over fist



In modern English a 'slush fund' is a reserve money account used for illicit purposes, especially political bribery.

However, the term is nautical in origin and comes from the legitimate practice of selling slush for cash. In this context slush was not melted snow but rather the fat left over after a ship's salt meat had been boiled.

Salt meat was a main staple of a seamen's diet for much of the eighteenth and nineteenth centuries, and cooks would skim off the fat from empty barrels and cooking pots, store it in barrels and then sell it at a convenient port to soap and candle makers. The proceeds went into a slush fund, which was

then used to buy small luxuries for crew members and to subsidise shore leave in port.

After very long voyages, the slush fund may have been spent 'hand over fist'. Originally 'hand over hand', this term referred to the actions of heaving on ropes, particularly on ships, and at first meant making steady progress. Over the years it changed to hand over fist, which is a better description of hauling on a rope. It since evolved into a term usually applied to making or spending money quickly.

So 'spending the slush fund hand over fist' these days means spending a reserve fund of money quickly and perhaps for less than strictly legal purposes.

North's commitment to marine education continues

North's distance learning course in P&I insurance and loss prevention continues to attract post-graduate students from around the UK, with four leading British universities now involved.

In the eighth year of collaboration with Newcastle University, 2010 saw a further 20 postgraduates complete a module on marine liability insurance and law as part of a one year master of science (MSc) degree in marine transport and management. Interest in the module has increased, with the 2010/11 intake – including seven naval architecture undergraduates – choosing the subject as an elective unit.

Glasgow and Strathclyde Universities' joint school of naval architecture and marine engineering continues to adopt North's course material with a further 19 students completing the latest version of the distance learning course. The course forms part of a marine contracts and insurance module that contributes towards a MSc in technical management of ship operations.

2010 also saw the successful culmination of North's new collaboration with Northumbria University, participating in the delivery of a marine insurance module for the faculty of law's commercial LLM course.

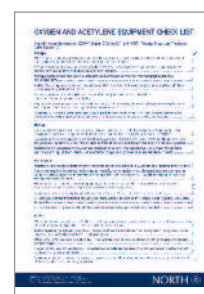
New Hot Spots sheet on oxy-acetylene equipment

North has published the fourth in its series of Hot Spots reference sheets, which covers the subject of oxygen and acetylene welding and cutting equipment.

The aim of the latest Hot Spots is to consolidate guidance and recommended practice from the Code of Safe Working Practice for Merchant Seamen, classification societies, equipment manufacturers and other sources into a single sheet that provides practical hints and tips on using oxy-acetylene equipment for welding and cutting metals.

Hot Spots sheets aim to help avoid incidents, claims or port state control deficiencies, or to help prepare for inspections and surveys. They are designed to be placed with spares or alongside equipment where they can provide a quick reference to all, which might not be the case if they were filed.

A copy of *Oxygen and Acetylene Hot Spots* is enclosed with this issue of *Signals for Members* and entered ships. A high resolution version, suitable for printing, can be viewed or downloaded from the Club's website: www.nepia.com/loss-prevention/publications-and-guides/hot-spots.php





New evidence handbook published

North has written and published a new loss-prevention handbook on recording, collecting and preserving factual evidence to help raise levels of responsibility and professionalism within the shipping industry.

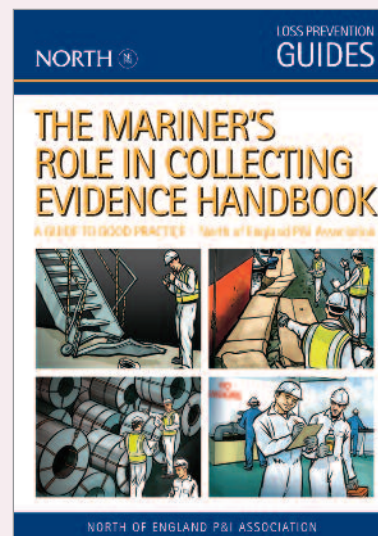
The handbook provides comprehensive and up-to-date guidance and checklists on the factual evidence which professional mariners should record on a routine basis as well as collect and preserve following a range of types of incident. It includes the latest technological developments in data storage and collection.

The handbook has also been published under the imprint of The Nautical Institute, which launched the book at its seventeenth 'The Mariner and the Maritime Law' seminar near Newcastle upon Tyne on 12 November 2010. Delegates from all over the world

attended the seminar – which was dedicated to the launch of the handbook – with speeches, role-play and presentations explaining and emphasising the importance of collecting evidence.

North's joint managing director Paul Jennings said at the launch, 'Shipping is one of the safest and most sustainable forms of global transport but we face increasingly punitive legislation and liabilities. We thus need to do everything we can to demonstrate to politicians, regulators and the media that seafarers are responsible professionals – which includes responding correctly to and learning from any mistakes. This new handbook will help us all to do just that.'

A copy of the Club's version of *The Mariner's Role in Collecting Evidence Handbook* is enclosed with this issue of *Signals* for Members and entered ships.



Signals Search 26 ?

Questions

- Which code details the information required before loading bulk cargo can begin?
- What type of standard form letters have recently been amended by the International Group?
- What does North's new handbook describe how to collect?
- How many hours should a seafarer normally be able to rest each day under the STCW Code amendments?
- What type of test gives an indication of the compression status of a hatch cover sealing system?
- What should be worn at all times on deck to prevent injury?
- What sort of fund originated from left-over fat?
- Which MOU has introduced a new inspection regime?
- What type of exchange can pose a risk to a ship's stability?
- What sort of pills have caused serious health problems for seafarers?

- *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 March 2011.

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*.

H Q B F G S M V Y I I Q I C W
P A A W L N P D N C G M Z R R
A I P U R B I D O X T K S S X
R Z S P F Q E M M M S G U B Y
I H L E Y M K Y M K A U L Q C
S M K H N N Y J O I L R T K E
R V N I H G E Q T B L R R H K
N O T K S I R W N D A S A P Y
P Y K T X N T J Y E B B S S D
T J E C N E D I V E T R O Z L
E B U F M A Z U D B A U N N P
Y N O L S A F E T Y H R I U O
C X E N W Y I N B S B M C C H
T H C A R E C A R E C A R E J
V M H S F B R M L W Q O Q J E

Answers to Signals Search 25

- | | |
|----------------|-------------|
| 1 Monkeys fist | 6 Onderweg |
| 2 EHIC | 7 MARPOL |
| 3 Himalaya | 8 Manila |
| 4 IMSBC | 9 Hot spots |
| 5 Lateritic | 10 Evidence |

Your copy of Signals

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

- The Mariner's Role in Collecting Evidence Handbook (Members and entered ships only)
- Clean Seas poster – Emissions (Members and entered ships only)
- Signals Experience case study – Local rules for low sulphur fuels (Members and entered ships only)
- Oxygen and Acetylene Hot Spots – (Members and entered ships only)

Signals Search No. 25 Winners

Winner:

Michelle Pang – LCH (S) Pte Ltd, Singapore

Runners-up:

Tiago Silva – Pinto Basto, Portugal

Captain Porus Pervez Dalal, Master "Kota Laju" – Pacific International Lines Pte, Singapore

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