

JULY 2004

the Loss Prevention newsletter for North of England Members

# Seminar on criminalisation of seafarers

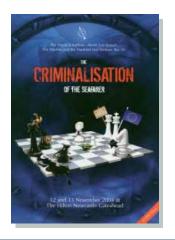
North of England P&I will again act as a main sponsor of the prestigious annual 'Mariner and the Maritime Law' seminar - which is now in its 14th year. The subject for this year's programme is both emotive and topical - The Criminalisation of the Seafarer. The venue is the new Hilton Newcastle Gateshead Hotel overlooking the Newcastle Quayside. Spanning two days, the event runs from lunch time on Friday 12 November to lunchtime on Saturday 13 November.

The organisers have endeavoured to provide a balanced and wide-ranging set of perspectives and opinions from a first-class panel of speakers. Acting in his capacity as president of the Nautical Institute, the seminar will be chaired by the Association's head of risk management, Dr. Phil Anderson.

Members and their staff, both shore and sea personnel, are strongly encouraged to participate in this important event. A limited number of delegate places for serving seafarers and students are available at substantially reduced fees as a result of the sponsorship being provided by the Association and other sponsors.

Full programme details and registration form are contained in the brochure accompanying this issue of Signals.

Additional copies of the brochure and further details can be obtained from Denise Huddleston at the risk management department.



### On line news digest launched

The North of England website at www.nepia.com has been substantially redesigned and now includes a new news service called NewsNet that can be found on the news pages.

NewsNet aims to provide Members with information about a wide range of contemporary issues. However, it will not seek merely to repeat maritime, insurance and transport related news that is already widely available online and through traditional media. The intention is to distil the vast amount of information available, gathering

relevant news, reports and intelligence to provide Members with a focused selection of important news items in a condensed form.

Extensive links will direct visitors who want more detail on particular topics to more specialised sites and, where possible, primary sources.

Knowledge and reliable information are vital tools which can be used to manage risks more effectively - but information overload can be detrimental in managing risk. NewsNet is designed to help Members in their risk management endeavours.

### Help for masters picking up persons in **distress**

In May, the 78th Session of the Maritime Safety Committee (MSC) at the IMO adopted amendments to both the SOLAS and SAR (search and rescue) Conventions that should help masters disembark people rescued at sea.

The problem up until now has been that although there is both a legal and moral obligation for ships to go to the assistance of persons in distress, there has been no corresponding requirement obliging states to allow them to be disembarked.

The new amendments should overcome the situation because they mandate co-ordination and co-operation between states to assist the ship's master in delivering persons rescued at sea to a place of safety. The regulations also reinforce the master's obligation to assist persons in distress, regardless of their nationality or status.

Hopefully this will avoid a reapeat of incidents such as the Tampa in 2001, and the Cap Anamur last month, where the ship's officers who carried out their legal and humanitarian duties then faced problems with the authorities.

The MSC also adopted related guidance to governments and masters about their humanitarian obligations and obligations under relevant international law. The SAR amendments are due to come into force on 1 January 2006, and the SOLAS amendments on 1 July 2006.

Further information is available from the IMO website: www.imo.org



UNHCR

### **ENTRY INTO ENCLOSED** SPACES SUPPLEMENT **SEE PAGES 6-9**

### **INSIDE:**

### PERSONAL INJURIES

### People claims - a **reminder**

It is important Members remember to forward to the Club all relevant information which may have an effect on their P&I cover, particularly in relation to people claims.

### Seafarers

The Club covers liabilities, costs and expenses incurred under terms of crew agreements or other contracts of service for employment, but only to the extent that the terms have previously been approved by the Managers in writing. Ideally contracts of employment should be forwarded prior to being signed so the Club can provide comments as well as review them in relation to Club cover.

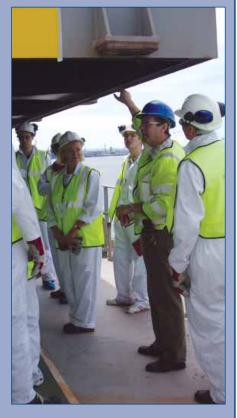
#### Passengers

A proviso of Club cover in relation to passenger claims is that the passenger ticket shall limit the Member of liability, costs and expenses to the maximum extent permitted under the appropriate law. Any Members who may be uncertain as to whether their passenger ticket complies with this proviso should also consult the Managers.

#### Third parties

It is not unusual for Members to entertain small gatherings on board ship and it is advisable to always notify the Club of such occasions in advance.

Any queries in respect of the above issues can be addressed to either the personal injury department or the underwriting department.



# The importance of radio **medical advice**

Radio medical advice is available from a number of places around the world and may, on occasion, be obtained from other ships in the vicinity which have a doctor on board. The Association strongly recommends that Members make use of these facilities should a crewmember be injured or taken ill at sea.

While some conditions may be considered straightforward and not require professional assistance, if there is any doubt whatsoever then external assistance should be sought.

Increasingly the Association is seeing claims where the shipowner is accused of negligence for not having cared in the appropriate manner for a crewmember on board who required medical assistance. It is often easy to look at the treatment of a crew with the benefit of hindsight and find fault. In reality however, those administering medical assistance on board are not qualified doctors and have to make decisions on the information available to them at the time.

Seeking external medical advice enables the ship to provide the best possible care available on board to the patient. In extreme cases this can be the difference between life and death. More commonly it means that the crewmember has a better chance of recovering in full and more quickly.

By taking radio medical advice, Members are also able to demonstrate the seriousness with which they treat crewmembers health and that they took all appropriate measures as recommended by independent medical personnel.

#### Necessary information

Before requesting radio medical advice, the appropriate form or notes should be completed. Any advice given should be taken down in writing as received and repeated back in order to avoid misunderstanding.

Members should ensure they have all relevant information to hand, most importantly

- routine particulars about the ship and its position
- routine particulars about the patient
- details of the illness or the injury
- · results of examination of the patient
- details of all treatment given.

#### Communicating with doctors

Whenever crewmembers are sent to see a doctor, as a matter of courtesy, information and a letter or form should always be sent with them. They will be strangers to the doctor and there may also be language difficulties. A written communication is often easier to understand than a spoken one and, in medical cases, clarity of meaning is particularly important. The letter should include routine particulars about the crewmember (name of ship, port, name of agent, owner) and should provide detailed information regarding the illness or injury. Also to be included are **copies** of any information from doctors in previous ports.



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# Central American bananas

The Association has had two cases recently of bananas from Central America arriving over-ripe. Fortunately, the resulting claims have not fallen on the Members involved since it was possible to show carriage was performed correctly and the problem must have occurred pre-shipment.

Whilst most carriers of bananas are well aware of all the pitfalls and proper method of carrying bananas, those who are new to the trade should exercise caution. Newcomers should ensure they obtain full carriage instructions from shippers, and ensure masters and chief engineers carry out these



instructions to the letter and keep full and verifiable records of this.

*Further information can be obtained from Julie Fisher in the claims department.* 

### Pre-cooling of fruit for Japan

The Japanese authorities have very strict requirements of pre-cooling of fruit, especially from South Africa. The pre-cooling is to prevent any possible survival of fruit flies in the cargo.

The Japanese require that relevant fruit cargoes are pre-cooled to a certain low temperature for a fixed period of time before they will allow discharge. The ship must be able to prove that the pre-cooling has been carried out by producing an unbroken run of temperature records showing this. If a temperature recorder printer or a sensor fails during the pre-cooling so that the run of temperature records is broken, the Japanese authorities do not appear willing to accept that the pre-cooling has been properly carried out. They will insist that it is re-done before discharge takes place, resulting in delay to the ship. There is no chance of persuading the Japanese authorities of accepting that pre-cooling has been carried out unless there is an unbroken run of records.

Further information can be obtained from Andrew Cooke in the claims department.

## Soya beans into China

There have been a number of cases recently where soya beans being imported into China from Brazil have been rejected by Chinese health authorities. The reason given is that the beans were coated with Carboxin germicide which, under Chinese law, is deemed to be harmful to human health. So far the Association is aware of three cases where cargoes have been rejected and whose charterers had to make alternative arrangements for disposal of the cargo.

There are indications that the soya beans were unwanted seed stock, which is the reason that they had been coated with the germicide. There are, however, allegations that the rejection may also be linked to the present world-wide drop in soya bean prices and receivers' attempts to avoid delivery of cargo bought at previous high prices.

Any Members who finds themselves in a position where cargo is rejected by receivers should

immediately contact the Association for advice and assistance. Further information can be obtained from Tony Allen and Peter Scott, in the claims department or Charles Baker in the FD&D department.



### Beware **unknown** cargoes

The Association has previously highlighted the problem of shippers failing to notify owners of any hazards associated with the cargo they have placed on board. A recent case involved a radioactive cargo being booked on board with totally incorrect information having been given to the owner.

Not only was the name of the cargo improperly spelt but the wrong UN number was given. The owner passed a query onto the Association, identified the cargo as being radioactive and provided an appropriate information form to be filled out by the shipper. The International Group Clubs have retained an expert in radioactive cargoes who is able to give advice very quickly on the associated dangers. Based on the expert's advice, the owner was able to properly protect himself, his crew and his ship. Members should feel free to contact the Association for further advice if they are at all unsure.

Members are strongly advised that they should not accept any cargoes that they do not recognise from previous experience. Members should also have a copy of the latest IMDG Code, which is available from the IMO.

### Silver nitrate tests

A common misconception held by many surveyors and masters is that a positive reaction to a silver nitrate test proves the presence of sea water.

A silver nitrate test shows only the presence of chlorides. Chlorides, though present in sea water, are also naturally present in the environment. Even drinking water which may taste perfectly sound can contain sufficient chlorides to give a positive result in a silver nitrate test.

If the silver nitrate test shows only small patches of milkiness, this is more likely to be the detection of naturally occurring chlorides. If sea water is present, the test will give a strong and immediate milky reaction.



Photograph courtesy of McAusland & Turner

# Fine **business** in Togo

The Association has previously notified Members about the impositions of fines in Togo. The Head of Port Customs has now gone further to impose time limits on the settlement of customs fines.

Any negotiation on the fine must take place within 21 days of the date of receipt of the outturn report and payment of the fine is to be made within 8 weeks of the date of the negotiations. If these time limits are not respected, Customs will impose the full amount of the fine as originally calculated and will, furthermore, block all activities of the ship's agent or owner in the port of Lome. Members must thus expect that agents, often charterers' agents, will be inclined to be more diligent not only in obtaining security from owners for any possible eventual fine but also in ensuring that the time limits mentioned in the directive are complied with.

If Members are notified at any stage of an alleged shortage or some other event which might give rise to a customs fine, they should notify the Association immediately or face having the agent summarily paying the fine, not always in the owner's best interests, and demanding reimbursement under the security.



### Shipowners liability cover

Experiences with cargoes rejected by Chinese receivers has led the Association to re-examine the terms of SOL (Ship Owner's Liability) cover which is available to Members in certain circumstances.

Members require SOL cover when their P&I cover for cargo liabilities has been breached by reason of a deviation. Deviations can either be geographical; that is a departure from the direct geographical or usual route between load port and discharge port, or any other departure from the contractually agreed voyage, such as an extended period of delay.

To be a breach of P&I cover, the deviation has to be unreasonable and the usual rule of thumb is that if a deviation is made for the sole benefit of the Member, it is probably unreasonable. A deviation for the benefit of others, such as to land a sick seaman or to go to the rescue of a ship or crew in distress, is usually not unreasonable.

SOL cover is designed to take over from the shipowner's P&I cover. It therefore covers Members liability for the physical loss or damage to the cargo arising out of a fortuity. It does not cover, just as

the P&I insurance does not cover, liabilities for losses arising out of delay, loss of market or inherent vice of the cargo.

This is somewhat unsatisfactory for the owner, who may have expected a voyage to last 30 days but who is suddenly presented with a situation in which the cargo has been on board for considerably longer, with consequential loss of quality and condition. The owner may then be forced to deliver the cargo against a clean bill of lading and face a claim for damage as a result. The owner will probably also have a significant claim for demurrage and/or hire.

If the charterer is unable or unwilling to settle the cargo claim in the first instance and/or pay the extra demurrage/hire, the owner may find itself considerably out of pocket without insurance.

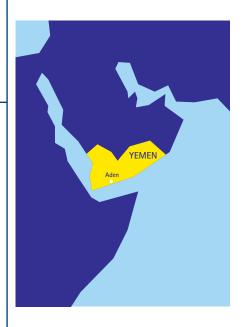
Should Members find themselves in a situation where they believe they may be departing from the contractual bill of lading voyage, they should contact the Association immediately for advice and assistance.

# Cereal tests in **Yemen**

The Association has recently been involved in an incident where a Member, carrying grain to Aden in the Yemen, suffered delay and a demand for a very large amount of security as a result of infestation being found in the cargo. It was a common pest almost inevitably found in cereal cargoes.

Any Member carrying cereal to the Yemen should seek to ensure there has been proper fumigation of the cargo, if necessary on board, or that the charterer will be able to pay the demurrage and/or extended hire that could result.

Further information can be obtained from Andrew Cooke in the claims department.



### Avoiding bulk cargo claims

The Association has previously advised on loss prevention methods for bulk cargo claims, especially relating to grain, in North African countries. Two good examples have occurred recently where the appointment of a judicial surveyor, at an average cost of approximately US\$2,000, seems to have prevented claims. In both cases, the quantities discharged were considerable and would normally have given rise to fairly significant yet spurious claims. The cost of a judicial surveyor appointed on an anticipatory basis will be for owner's account initially, but might be money well spent if the alternative is to pay a deductible of a much greater sum. If claims arise, despite the appointment of a judicial surveyor, the cost of the appointment will often be reimbursed to the Member as part of the overall claim costs.

*Further information can be obtained from Julie Fisher in the claims department.* 

For just under half the world's total tonnage the right to limit liability for claims is governed by the Convention on Limitation of Liability for Maritime Claims 1976 ("The Convention"). Forty one states are party to it. The Convention sets out limits, expressed in Special Drawing Rights (SDR) – approximately US\$1.50 – per gross tonne or, in the case of claims for loss of life or personal injury to passengers, according to the number of passengers that the ship is authorised to carry.

The 1996 Protocol to the Convention came into force from 13 May 2004. It increases the limits set by the Convention and make some other changes, although the basic operation of the Convention remains unchanged. The Protocol also includes a mechanism for further increases in limits in the future. In the case of small cargo ships and large passenger ships, the increases in the limits of liability are substantial.

Although the Protocol was agreed in 1996 it was not to come into force until it had been ratified by 10 countries. The 10th country did not ratify it until February 2004. The Protocol only applies under the law of the state that are parties to it. It will not apply to any other countries unless and until they also ratify the Protocol.

COUNTRIES PARTY TO THE PROTOCOL:

- AUSTRALIA
- DENMARK
- FINLAND
- GERMANY
- MALTA
- NORWAY
- RUSSIAN FEDERATION
- SIERRA LEONETONGA
- UNITED KINGDOM

(THE RUSSIAN FEDERATION, MALTA AND TONGA ARE NOT PARTIES TO THE CONVENTION).

The limits set by the Protocol are overall limits. Other limits imposed by other Conventions relating to particular types of claim continue to be applicable. For example, the Athens Convention 1974 continues to apply to passenger claims and cargo claims are still subject to the Hague, Hague Visby or Hamburg Rules. All states that are a party to the Convention remain bound by it towards other state parties that are not parties to the Protocol unless and until they denounce the Convention. So far only Finland, Germany and the United Kingdom have denounced the Convention.

#### Claims for loss of life of personal injury

| Convention                                     | Pr |
|--|----|
| Up to 500 GT - 333,000 SDR;                    | Up |
| For each tonne from 501-3,000 GT, 500 SDR;     | Fo |
| For each tonne from 3,001-30,000 GT, 333 SDR;  |    |
| For each tonne from 30,001-70,000 GT, 250 SDR; | Fo |
| For each tonne in excess of 70,000 GT, 167 SDR | Fo |

### Claims other than for loss of life or personal injury

| Convention                                     |
|--|
| Up to 500 GT - 167,000 SDR;                    |
| For each tonne from 501-30,000 GT, 167 SDR;    |
| For each tonne from 30,001-70,000 GT, 125 SDR; |
| For each tonne in excess of 70.000 GT. 83 SDR  |

### Claims other than for loss of life or injury to passengers

The general limits that apply to all claims other than those for loss of life or injury to passengers are set by Article 6 of the Convention. These claims are further divided into two different types: loss of life and personal injury; and other claims. (Loss of life and personal injury relate to, for example, crew, stevedores and passengers on another ship but not to passengers on the ship itself). All of these limits have been increased by the Protocol, as set out above.

### Claims for loss of life or personal injury to passengers

Under the Convention the limit of liability is 46,666 SDR multiplied by the number of passengers that the ship is authorised to carry. There is a maximum liability under the Convention of 25 million SDR.

The Protocol increases the limit to 175,000 SDR multiplied by the number of passengers that the ship is authorised to carry and the maximum limit is now abolished. The Protocol will therefore have the effect of significantly raising the upper limit of liability for ships authorised to carry more than 535 passengers, the liability of which would otherwise have been capped at 25 million SDR.

#### Salvage claims

There is no right under the Convention to limit claims for salvage. The Protocol extends this exclusion to claims for special compensation under Article 14 as well.

| Protocol                                       |  |  |  |
|--|--|--|--|
| Up to 2,000 GT - 2million SDR,                 |  |  |  |
| For each tonne from 2,001-30,000 GT, 800 SDR;  |  |  |  |
|  |  |  |  |
| For each tonne from 30,001-70,000 GT, 600 SDR; |  |  |  |
| For each tonne in excess of 70,000 GT, 400 SDR |  |  |  |

| Protocol                                       |
|--|
| Up to 2,000 GT - 1 million SDR;                |
| For each tonne from 2,001-30,000 GT, 400 SDR;  |
| For each tonne from 30,001-70,000 GT, 300 SDR; |
| For each tonne in excess of 70,000 GT, 200 SDR |

### **UK** law

The Protocol gives the power to states party to it to make provisions for non sea-going ships, (ships intended to operate only on inland waterways), for ships less than 300 GT and also for passenger claims. The Convention is given effect in the United Kingdom by the Merchant Shipping Act 1995 and the Protocol is given effect by the Merchant Shipping (Convention on Limitation of Liability for Maritime Claims amendment) order 1998. This order does make some further changes:

• Non sea-going ships

The Convention applies only to sea-going ships. However the order applies the Protocol to all ships, whether sea-going or not.

#### • Small ships

For ships of less than 300 GT, the general limit will be 1 million SDR for claims for loss of life or personal injury and 500,000 SDR for other claims.

### • Passenger claims

The passenger claim limits under Article 7 of the Convention will not apply to sea-going ships at all. Shipowners will therefore only be entitled to limit liability per passenger in accordance with the Athens Convention. The Athens Convention limit is 46,666 SDR per passenger. However, for carriers whose principal place of business is within the United Kingdom, the limit per passenger is 300,000 SDR. In the case of non sea-going ships the limits do apply but the limit is 175,000 SDR per passenger. 5

# Entry into enclosed spaces

Every day seafarers risk their lives by entering enclosed spaces without using the correct entry procedures.

This *Signals* special feature aims to provide yet another reminder about the correct procedures which must be followed before entering an enclosed space to be sure of coming out alive.

Included in this feature is the text of the IMO's Recommendations for Entering Enclosed Spaces Aboard Ships [Resolution A.864(20)], which contains advice on assessment of risk, testing of atmospheres and precautions during entry. It also covers hazards related to specific types of cargo, including oxygen-depleting cargoes and materials.

The advice within the guide has a straightforward aim, that of protecting personnel through the safe and proper implementation of entry procedures – from the correct identification of a confined or enclosed space through to atmospheric testing, safe rescue procedures and an appreciation of the hazards to found within such dangerous spaces.

Safe working in enclosed spaces must be a top priority within a vessel's safety management system. But accidents, sometimes involving highly experienced personnel, continue to happen despite the introduction of modern safety management systems, procedures and techniques.

## Deaths still happening

Few aspects of personal safety on ships have received more attention than the importance of following the correct procedures before entering an enclosed space. Unfortunately, fatalities and serious injuries continue to happen with relentless regularity – almost every one of which could have been prevented if the correct procedures had been followed.

Serious efforts have been made by many different sectors of the shipping industry to raise awareness of the dangers of entering enclosed spaces – indeed, *Signals* has regularly featured this important topic. Despite all these efforts, the death toll continues to mount.

The story behind the majority of incidents is all too familiar. One person enters an enclosed space without having taken the necessary precautions then collapses from either lack of oxygen or toxic fumes. The collapsed person is then seen by a second person who, without taking any precautions, attempts a rescue and he or she also collapses. It is not unknown for even a third or fourth person to be overcome in the same way in the belief that they can do better. Eventually, someone starts thinking straight and follows the correct procedures. An emergency party, with the correct rescue equipment, is mustered and carries out a controlled rescue. Unfortunately, the emergency party usually brings out dead bodies.

What is most surprising is that enclosed space accidents appear to involve a wide range of people, including highly qualified and experienced seafarers as well as stevedores and even surveyors. It is perhaps understandable, from a human point of view, to appreciate that one's first reaction on seeing a collapsed colleague is to rush to their assistance. Whilst the intention is good, it is virtual suicide - compounding an already tragic situation.

Almost all the people who die in enclosed spaces have received training and are well aware of the correct procedures. In the agony of the moment, they choose to disregard those procedures.

# Making the same mistakes

It is vital to stress the fact that an unplanned rescue will most likely end in tragedy as personnel repeatedly rush into lethal atmospheres under the misconception that they will be able to save colleagues. According to the International Association of Classification Societies (IACS) over 50% of the workers who die in confined spaces are attempting to rescue other workers.

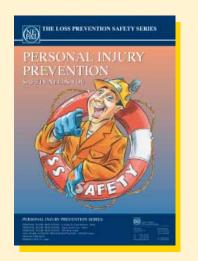
It is also vital to remember that personnel should never trust their senses to determine if the air in a confined space is safe. Many toxic gases and vapors cannot be seen or smelt, nor can personnel determine the level of oxygen present without properly testing the atmosphere.

Letting your guard down just once can be fatal – vigilance saves lives and adherence to this advice will underpin any existing efforts to enter enclosed spaces safely.

### How big is the problem?

It is difficult to obtain any meaningful statistics from across the international maritime industry on the extent of the problem of enclosed space accidents. The North of England P&I Association experiences a number of these incidents each year. Reports from the Marine Accident Investigation Branch (MAIB) of the British Government and the Seafarers' International Research Centre are inconclusive as far as exact numbers of incidents are concerned. They confirm however that a significant number of incidents are continuing to occur and the same scenarios continue to repeat themselves.

The issue is not so much how many incidents occur - it is the fact that they are continuing to occur in relatively significant numbers which is sufficient to generate serious concern. Furthermore, of all the accidents which occur on board with a real risk of fatality, there are probably none which are more preventable. Almost every single enclosed space incident could have been avoided if the correct procedures had been followed.



# What training is needed?

Because many people tend to respond to instinct rather than what they have been told, theoretical training should be reinforced by frequent practical drills and exercises involving the whole crew. Practice does not just make perfect, it also makes permanent and instinctive. Posters can also help people remember what they have been taught. As part of the North of England "If only..." campaign, an Entry into Enclosed Spaces poster was distributed with Signals issue 55.



## Who can fix it?

We all need to make a personal commitment to raising safety to the highest priority. We must work to develop a culture on board whereby our first instinct is safety. Only then will the rules and regulations stand any chance of working in practice. It is vital to explore why these unnecessary accidents continue to happen and what needs to be done to prevent them happening again and, by instilling knowledge and discipline, lives can be saved.

### Will more rules and regulations solve the problem?

In the UK, the Merchant Shipping Regulations state that procedures for ensuring safe entry to, and working in, dangerous spaces should be clearly laid down by the ship operators and that the master should ensure such procedures are observed on board ship.

The regulations further state that, except where necessary for entry, a ship should ensure entrances to unattended dangerous spaces are either kept closed or otherwise secured against entry.

Other flag administrations have similar rules and regulations. Whilst the ISM Code does not contain such explicit rules and regulations, they are certainly implied within a properly constituted safety management system. Indeed, there are few who would doubt such regulations represent good practice, irrespective of flag.

### What can be done?

The truth is that the only way these fatalities will be prevented is if you implement those rules and regulations and good practices each and every time you enter an enclosed space for whatever reason, or require others to enter an enclosed space.

Properly plan and prepare the entry, which includes ensuring that the correct equipment and personnel are available. Use the Entry into Enclosed Spaces checklist card. The solution is in your hands!

### ENTRY INTO ENCLOSED SPACES

### IMO Recommendations for Entering Enclosed Spaces Aboard Ships

### Annex to Resolution A.864(20) - adopted 27 November 1997

#### 1 INTRODUCTION

The atmosphere in any enclosed space may be deficient in oxygen and/or contain flammable and/or toxic gases or vapours. Such an unsafe atmosphere could also subsequently occur in a space previously found to be safe. Unsafe atmosphere may also be present in spaces adjacent to those spaces where a hazard is known to be present.

### 2 DEFINITIONS

- 2.1 Enclosed Space means a space which has any of the following characteristics:
- .1 Limited openings for entry and exit;
- .2 Unfavourable natural ventilation;
- .3 Is not designed for continuous worker occupancy, and includes, but is not limited to, cargo spaces, double bottoms, fuel tanks, ballast tanks, pumprooms, compressor rooms, cofferdams, void spaces, duct keels, interbarrier spaces, engine crankcases and sewage tanks.
- 2.2 Competent person means a person with sufficient theoretical knowledge and practical experience to make an informed assessment of the likelihood of a dangerous atmosphere being present or subsequently arising in the space.
- 2.3 Responsible person means a person authorized to permit entry into an enclosed space and having sufficient knowledge of the procedures to be followed.

### 3 ASSESSMENT OF RISK

- 3.1 In order to ensure safety, a competent person should always make a preliminary assessment of any potential hazards in the space to be entered, taking into account previous cargo carried, ventilation of the space, coating of the space and other relevant factors. The competent person's preliminary assessment should determine the potential for the presence of an oxygen-deficient, flammable or toxic atmosphere.
- **3.2** The procedures to be followed for testing the atmosphere in the space and for entry should be decided on the basis of the preliminary assessment. These will depend on whether the preliminary assessment shows that:
- .1 There is a minimal risk to the health or life of personnel entering the space.
- .2 There is no immediate risk to health or life but a risk could arise during the course of work in the space; and
- .3 a risk to health or life is identified.
- **3.3** Where the preliminary assessment indicates minimal risk to health or life or potential for a risk to arise during the course of work in the space, the precautions described in 4,5,6 and 7 should be followed as appropriate.
- 3.4 Where the preliminary assessment identifies risk to life or health, if entry is to be made, the additional precautions specified in the section 8 should also be followed.

### 4 AUTHORIZATION OF ENTRY

- **4.1** No person should open or enter an enclosed space unless authorized by the master or nominated responsible person and unless the appropriate safety procedures laid down for the particular ship have been followed.
- **4.2** Entry into enclosed spaces should be planned and the use of an entry permit system, which may include the use of a checklist, is recommended.

An Enclosed Space Entry Permit should be issued by the master or nominated responsible person, and completed by a person who enters the space prior to entry.

An example of the Enclosed Space Entry Permit is provided in the appendix.

### 5 GENERAL PRECAUTIONS

- 5.1 the master or responsible person should determine that it is safe to enter an enclosed space by ensuring:
- .1 that potential hazards have been identified in the assessment and as far as possible isolated or made safe;
- .2 that the space has been thoroughly ventilated by natural or mechanical means to remove any toxic or flammable gases, and to ensure an adequate level of oxygen throughout the space;
- .3 that the atmosphere of the space has been tested as appropriate with properly calibrated instruments to ascertain acceptable levels of oxygen acceptable levels of flammable or toxic vapours;
- .4 that the space has been secured for entry and properly illuminated;
- .5 that a suitable system of communication between all parties for use during entry has been agreed and tested;
- .6 that an attendant has been instructed to remain at the entrance to the space whilst it is occupied;
- .7 that rescue and resuscitation equipment has been positioned ready for use at the entrance to the space, and that the rescue arrangements have been agreed;
- .8 that personnel are properly clothed and equipped for the entry and subsequent tasks; and
- .9 that a permit has been issued authorizing entry.

The precautions in .6 and .7 may not apply to every situation described in this section. The person authorizing entry should determine whether an attendant and the positioning of rescue equipment at the entrance to the space is necessary.

- 5.2 Only trained personnel should be assigned the duties of entering, functioning as attendants, or functioning as members of rescue teams. Ship's crews should be drilled periodically in rescue and first aid.
- **5.3** All equipment used in connection with entry should be in good working condition and inspected prior to use.

### 6 TESTING THE ATMOSPHERE

- 6.1 Appropriate testing of the atmosphere of a space should be carried out with properly calibrated equipment by persons trained in the use of the equipment. The manufacturers' instructions should be strictly followed. Testing should be carried out before any person enters the space, and at regular intervals thereafter until all work is completed. Where appropriate, the testing of the space should be carried out at as many different levels as is necessary to obtain a representative sample of the atmosphere in the space.
- **6.2** For entry purposes, steady readings of the following should be obtained:
- .1 21% oxygen by volume by oxygen content meter; and
- .2 not more than 1% of lower flammable limit (LFL) on a suitably sensitive combustible-gas indicator, where the preliminary assessment has determined that there is potential for flammable gases or vapours.

If these conditions cannot be met, additional ventilation should be applied to the space and re-testing should be conducted after a suitable interval. Any gas testing should be carried out with ventilation to the enclosed

- **6.3** Where the preliminary assessment has determined that there is potential for the presence of toxic gases and vapours, appropriate testing should be carried out using fixed or portable gas or vapour detection equipment. The readings obtained by this equipment should be below the occupational exposure limits for the toxic gases or vapours given in accepted national or international standards. It should be noted that testing for flammability does not provide a suitable means of measuring for toxicity, nor vice versa.
- **6.4** It should be emphasized that pockets of gas or oxygen-deficient areas can exist, and should always be suspected, even when an enclosed space has been satisfactorily tested as being suitable for entry.

#### 7 PRECAUTIONS DURING ENTRY

- 7.1 The atmosphere should be tested frequently whilst the space is occupied, and persons should be instructed to leave the space should there be a deterioration in the conditions.
- **7.2** Ventilation should continue during the period that the space is occupied and during temporary breaks. Before re-entry after a break, the atmosphere should be re-tested. In the event of failure of the ventilation system, any persons in the space should leave immediately.
- **7.3** In the event of an emergency, under no circumstances should the attending crewmember enter the space before help has arrived and the situation has been evaluated to ensure the safety of those entering the space to undertake rescue operations.
- 8 ADDITIONAL PRECAUTIONS FOR ENTRY INTO A SPACE WHERE THE ATMOSPHERE IS KNOWN OR SUSPECTED TO BE UNSAFE
- 8.1 If the atmosphere in an enclosed space is suspected or known to be unsafe, the space should only be entered when no practical alternative exists. Entry should only be made for further testing, essential operation, safety of life or safety of a ship. The number of persons entering the space should be the minimum compatible with the work to be performed.
- **8.2** Suitable breathing apparatus, e.g. of the air-line or self-contained type, should always be worn, and only personnel trained in its use should be allowed to enter the space. Air-purifying respirators should not be used as they do not provide a supply of clean air from a source independent of the atmosphere within the space.
- 8.3 The precautions specified in 5 should also be followed, as appropriate.
- 8.4 Rescue harnesses should be worn and, unless impractical, lifelines should be used.
- **8.5** Appropriate protective clothing should be worn, particularly where there is any risk of toxic substances or chemicals coming into contact with the skin or eyes of those entering the space.
- **8.6** The advice in 7.3 concerning emergency rescue operations is particularly relevant in this context.

### 9 HAZARDS RELATED TO SPECIFIC TYPES OF CARGO

- 9.1 Dangerous goods in packaged form
- 9.1.1 The atmosphere of any space containing dangerous goods may put at risk the health or life of any person entering it. Dangers may include flammable, toxic or corrosive gases or vapours that displace oxygen, residues on packages and spilled material. The same hazards may be present in spaces adjacent to the cargo spaces. Information on the hazards of specific substances is contained in the IMDG Code, the EMS Guide: Emergency Response / Procedures for Ships Carrying Dangerous Goods, and Materials Safety Data Sheets (MSDS). If there is evidence or suspicion that leakage of dangerous substances has occurred, the precautions specified

in 8 should be followed.

9.1.2 Personnel required to deal with spillages or to remove defective or damaged packages should be appropriately trained and wear suitable breathing apparatus and appropriate protective clothing.

### 9.2 Bulk Liquid

The Tanker industry has produced extensive advice to operators and crews of ships engaged in the bulk carriage of oil, chemicals and liquefied gases, in the form of specialist international safety guides. Information in the guides on enclosed space entry amplifies these recommendations and should be used as the basis for preparing entry plans.

### 9.3 Solid Bulk

On ships carrying solid bulk cargoes, dangerous atmospheres may develop in cargo spaces and adjacent spaces. The dangers may include flammability, toxicity, oxygen depletion or self-heating, which should be identified in shipping documentation. For additional information, reference should be made to the Code of Safe Practice for Solid Bulk Cargoes.

#### 9.4 Oxygen-depleting cargoes and materials

A prominent risk with such cargoes is oxygen depletion due to the inherent form of the cargo, for example, self-heating, oxidation of metals and ores or decomposition of vegetable oils, animal fats, grain and other organic materials or their residues. The materials listed below are known to be capable of causing oxygen depletion. However, this list is not exhaustive. Oxygen depletion may also be caused by other materials of vegetable or animal origin, by flammable or spontaneously combustible materials, and by materials with a high metal content:

- .1 grain, grain products and residues from grain processing (such as bran, crushed grain, crushed malt or meal), hops, malt husks and spent malt;
- .2 oilseeds as well as products and residues from oilseeds (such as expellers, seed cake, oil cake and meal);
- .3 copra;
- .4 wood in such forms as packaged timber, roundwood, logs, pulpwood, props (pit props and other propwood), woodchips, woodshavings, woodpulp pellets and sawdust;
- .5 jute, hemp, flax, sisal, kapok, cotton, and other vegetable fibres (such as esparto grass/Spanish grass, hay, straw, bhusa), empty bags, cotton waste, animal fibres, animal and vegetable fabric, wool waste and rags';
- .6 fishmeal and fishscrap;
- .7 guano;
- .8 sulphidic ores, ore concentrates;
- .9 charcoal, coal and coal products;
- .10 direct reduced iron (DRI);
- .11 dry ice;
- .12 metal wastes and chips, iron swarf, steel and other turnings, borings, drillings, shavings, filings and cuttings, and;
- .13 scrap metal
- 9.5 Fumigation

When a ship is fumigated, the detailed recommendations contained in the Recommendations on the safe use of pesticides in ships (MSC/Circ.612) should be followed. Spaces adjacent to fumigated spaces should be treated as if fumigated.

### 10 CONCLUSION

Failure to observe simple procedures can lead to people being unexpectedly overcome when entering enclosed spaces. Observance of the principles outlined above will form a reliable basis for assessing risks in such spaces

The reproduction of the text of IMO Assembly Resolution A.864(20) has been done with the agreement of the IMO Publishing Service, London. The International Maritime Organization does not, however, accept any responsibility for the authenticity of this text and, in case of doubt, the original text of Assembly Resolution A.864(20) published by IMO shall prevail.

### LOSS PREVENTION

# "If Only..." poster series – pilot boarding arrangements

The second safety poster in the Association's new "If only..." series is released with this months issue of *Signals* and focuses on pilot boarding procedures and the issue of pilot safety.

The series endeavours to emphasise the potential alternative outcomes to common shipboard activities, comparing the right and wrong way of performing a task. With every accident, injury or casualty there is always the temptation to say, in hindsight, "If only..." it had been avoided or prevented. The aim of the "If only..." series is to encourage people think and to do the job right in the first place.

The new poster depicts the scene of a pilot plummeting into the sea from a broken pilot ladder as he boards a vessel and illustrates how it could have been prevented.

"If only..." the crew had maintained their equipment correctly and had followed the advice contained in the Boarding Arrangements for Pilot, in accordance with IMO requirements and IMPA recommendations, the accident would have been averted and the pilot saved from injury and possible death. Before any shipboard task is performed, however mundane, you should always ask the question how

can it be carried out properly. Do not end up saying "If only..." after an accident.



### Pilot boarding arrangements – comments from the International Marine Pilots Association

It is a sad fact that despite the best efforts of the International Maritime Organization (IMO) and bodies such as the International Maritime Pilots Association (IMPA), many pilots are killed and injured every year both boarding and disembarking from vessels of all types around the world.

There are IMO standards for ladders which, if they were adhered to, would reduce the danger to pilots considerably. But every year ladders break underneath pilots or partly fail, or are not properly rigged, resulting in the pilot either falling into the sea, being crushed by the pilot boat or falling onto the pilot boat's deck, sometimes from a great height.

A recent survey by IMPA, which was based on over 3000 reports collected in 2002, concluded that nearly 50% of the problems and defects would cost very little to remedy. They include not lighting the boarding area at night; not having an officer at the top of the ladder; having no contact with the bridge; and, incredibly, no lifebuoy being available.

Pilots themselves, do not help matters by failing to

Defects not reported

### report defects to port state control. They are used to coming onto bridges where things like radar and other navigation aids do not work, so their "getting the job done" approach also seems to apply to their own safety. This is partly because pilots are exmasters and sympathetic to the problems and workload on board ships today.

The study had few other definitive conclusions even though it was broken down by flag and vessel type. It was by no means clear that new tonnage meant better standards – indeed some respondents thought they experienced better standards on older vessels. Neither could it be shown that flag was an issue, with levels of defects reported on many vessels belonging to what one might call a reputable flag.

Sadly, port state control inspectors do not see the pilot ladder as a piece of equipment for their inspection unless local pilots have specifically drawn it to their attention. Pilots reported only 3.5% of defects to port state control.

### Better standards being developed

Work continues at the International Standards

Organization to develop even better standards and IMPA is reviewing its requirements at the present time with a view to submitting a paper to IMO in the future. Notwithstanding this, it is the simple on-board care and supervision of ladders by ships' crews which is ultimately the guarantor of pilots' safety.

Ships today still need the essential knowledge and skills that pilots bring aboard. Transfer at sea remains a treacherous part of the vital task to provide this service to the industry.

With thanks to Mr Nick Cutmore, Secretary General of IMPA for this article.

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# Middle East trip

The Association recently conducted a series of risk management seminars with Members in the Middle East region.

Dr Phil Anderson, Graham Anderson, and Steven Jones presented a number of seminars to introduce and develop the concept of formal risk assessment and risk management techniques, with an additional focus on their application to everyday shipping operations. Topics discussed included safety and the International Safety Management (ISM) Code, the International Ship and Port Facility Security (ISPS) Code and cargo operations.

At a 3-day seminar hosted by the Islamic Republic of Iran Shipping Lines, held within the wonderful surroundings of their club in Tehran, Mark Robinson joined the line-up and spoke on a number of important practical issues relating to charterparties, bills of lading, and commercial disputes, all with a view to encouraging the use of risk management techniques.

A number of workshops were also performed, in which delegates were given the chance to try out their newfound risk management skills on a host of challenging situations.

The visit, which took in Kuwait and Iran drew large, enthusiastic audiences made up of a range of people from many different departments, both ashore and within the fleet. Lively and informed debates sprang from all involved and these often ran long into the coffee breaks.



## People: the company's most important asset

An increasing number of Members are recognising the importance of investing in their people as the greatest asset of their organisation. The Association is delighted to be invited to participate in that investment by sharing knowledge and experience.

A good example of such co-operation was a recent seminar for seagoing officers and office superintendents and managers held by Member Orient Express Ship Management (OESM), part of the Transworld group of companies. The company invited Captain Savraj Mehta, a leading underwriting manager with the Association and a director of NIML, to participate at the event near Mumbai.

Chairman S. Ramakrishnan confirmed the group's commitment to invest in training their staff to build a set of officers and ratings that will be a trademark of the company. The company manages 22 vessels, including a core fleet of container feeders and VLCCs. The company also provides crew management for aframax tankers and some state-of-the-art LNG tankers.



Senior officers at MSC, Sorrento, Italy.

### Loss prevention in Europe

#### Marseilles

In April the Club's loss prevention executive Tony Baker joined with the TT Club to visit CMA-CGM in Marseilles and presented a seminar about container operations and insurance.

The day was a mixture of theory, practice and workshops, with the emphasis on loss prevention. The sessions produced some lively discussions and debate, which were as useful to the presenters as to the delegates.

#### Italy

Tony Baker and Tony Allen, manager of North of England's Piraeus office, travelled to Italy in June where they held a one-day seminar for masters and senior officers from Members MSC.

#### Germany

Tony Baker and Steven Jones from the risk management department spent a week in Germany in June visiting Members in Bremen, Hamburg and Rendsburg to discuss the introduction of the ISPS Code and other topical issues.



Steven Jones (2nd from left) at Orion's offices in Hamburg, Germany.

### **Residential course**

This year's Residential Course in P&I Insurance and Loss Prevention was again fully subscribed and, from the feedback received from the delegates, a great success.

Delegates attended from places as far afield as the United States, Russia, Tunisia and Korea and with backgrounds ranging from ship operators, brokers, P&I correspondents and market reinsurers.

The first part of the course was held at the Marine Safety Training Centre of South Tyneside College in South Shields, where delegates were introduced to the world of commercial shipping. This was followed by a field trip to Teesport, where the group had an opportunity to visit a Capesize bulk carrier discharging coal, a much smaller ship loading steel coils and a freight Ro-Ro which operates on a liner service across the North Sea. The rest of the programme, providing a more detailed look at the P&I insurance and claims, was held at Lumley castle.

The course tends to get fully booked well ahead of being advertised – indeed delegates are already reserving places on the 2005 course.



signals Swott Good luck to all you Signals Swotters!!

Welcome to Signals Swot quiz number 21. We invite you to pit your wits against "Bosun Bo" and become a Signals Swotter!

This is not a general knowledge quiz but rather the answers to all the questions are to be found within this particular issue of Signals.

- The quiz is open to all readers of Signals.
- The quiz comprises 10 multiple choice questions

   simply tick the correct answer √
- Send a photocopy of your answers, along with your name and, if appropriate, name of ship, position on board, company and address to the Editor of Signals at the Association.
- All correct entries received by the closing date will be entered in a prize draw.
- Closing date Friday 17 September 2004.

The first correct entry drawn will receive a 'Winners Plate' along with a limited edition statuette of our quiz master "Bosun Bo". The next 5 correct entries drawn will each receive a statuette.

Details of the winner and runnersup will appear in the following edition of *Signals*.

| <ul> <li>What is Carboxin?</li> <li>A tropical disease</li></ul> | <ul> <li>In what forum was it recently agreed that port states must co-operate and assist with the landing of persons in distress from vessels which had rescued them?</li> <li>Paris MOU AGM</li></ul> | <ul> <li>6 When did the Limitation of Liability 1996 Protocol come into force?</li> <li>1 July 2004</li> <li>1 July 1996</li> <li>13 May 2004</li> <li>2 Where would you find a new useful source of current and up-to-date information called 'NewsNet'?</li> <li>www.nepia.com</li> <li>www.lloydslist.com</li> <li>www.times.com</li> <li>8 What is the subject of IMO Resolution A 864(20) 2</li> </ul> | <ul> <li>9 Why do the Japanese authorities have very strict requirements for pre-cooling fruit cargoes?</li> <li>To maintain the colour of the fruit</li> <li>To retain the flavour of the fruit</li> <li>To prevent the survival of the fruit flies</li> <li>10 Who recently conducted a survey into pilot boarding arrangements?</li> <li>IMO</li> <li>MAIB</li> </ul> |
|--|---|---|--|
| Suitability of bunkers   | 21 days   | Resolution A.864(20) ?  | IMPA   |
| Chlorides  |   | Entry into enclosed spaces  |  |
| Yellow fever   |   | Rescuing persons in distress  | 21   |

#### Swot Quiz 20 - Answers

Quality of the cargo 2. Navigational chart correcting 3. ACI
 Capt Robbie Middleton 5. Everest 6. 1949 7. Yes, probably
 'If only' 9. Yes, probably 10. At least 20 minutes

Swot Quiz 20 - Winner: Linda Lim - Pacific International Lines (Pte) Ltd Runners-up: Ali Behnezhad - IRISL, Tehran Captain MJ Morton - MV"ARKLOW BROOK" Dorcas Goh Chin Chi - Glory Ship Management, Singapore Robin J Taylor - Caledonian Macbrayne Argyll Captain A Groen - MV "ARKLOW SPRAY" *well done!!!!!!* 

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 dept. 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 whensoever or howsoever arising out of or in connection with the supply (including negligent supply) or use of information (as described above).

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