KISH P&I CLUB

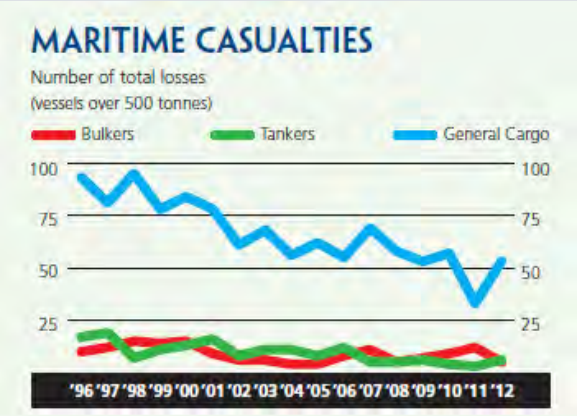
KISH P & I LOSS PREVENTION CIRCULAR KPI-LP-161-2014
(A Dozen Notes on Implementing Safety Culture)

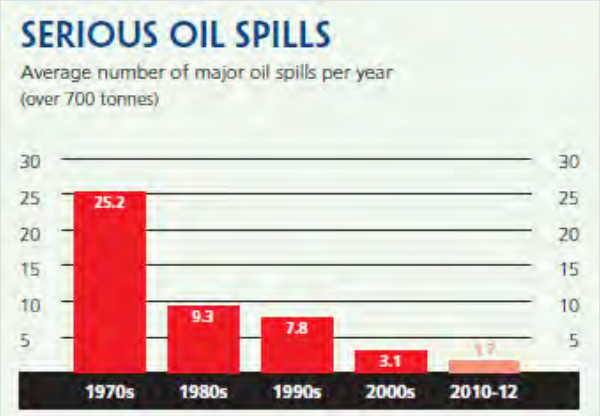
►Introduction:

These notes are aimed to provide some basic advice on the successful implementation of an effective safety culture within shipping companies as required by the IMO International Safety Management (ISM) Code. The intention is to help companies, managers and seafarers to fulfill the spirit as well as the letter of the ISM Code.

Following the full implementation of the ISM Code, there has been a significant reduction in maritime casualties, serious oil spills, and – most importantly – the number of lives lost on board international cargo ships. However, a number of recent high profile incidents suggest that the absence of a fully implemented safety culture is still an issue which some shipping companies may need to address with additional rigour.

In particular, this includes the vital need for all concerned to understand the relationship between unsafe acts and serious incidents that may cause loss of life or serious damage to property and the environment. The importance of changing behaviour, and avoiding negative attitudes or complacency towards safety and environmental protection is also underlined. As well as exploring what is meant by an effective safety culture, the following contains some basic guidance on risk assessment and risk management, which are important tools in delivering an effective safety culture.





►1-Key Features of an Effective Safety Culture:

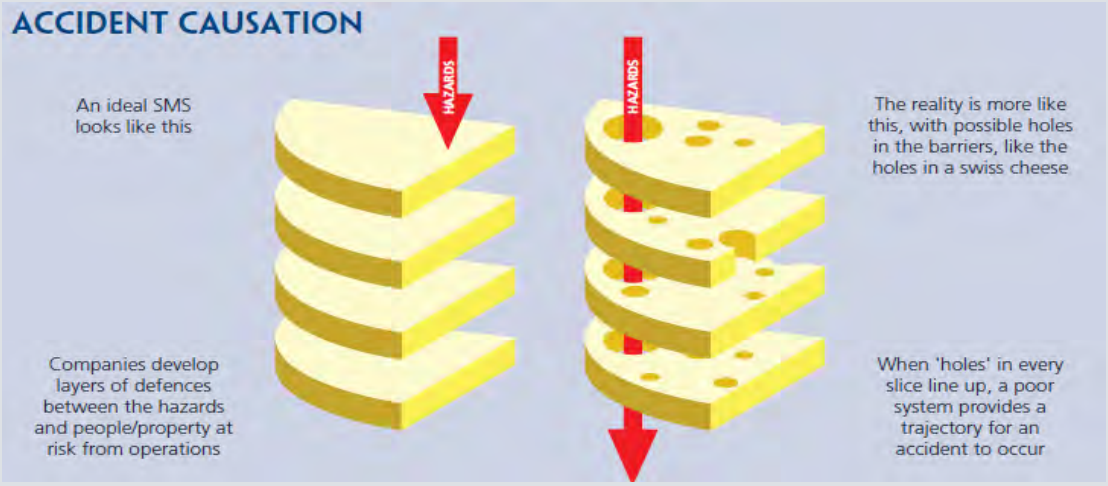
1. Recognition that all accidents are preventable and only usually occur following unsafe actions or a failure to follow established procedures.
2. Management and personnel who think constantly about safety. An effective safety culture will support a shipboard environment that encourages and requires all on board to proactively consider their own and others' safety. In this way individual seafarers

assume responsibility for safety rather than relying on others to provide it. Through mutual respect, increasing confidence in the value of the safety culture results in a more effective Safety Management System.

3. Always setting targets for continuous improvement, with a goal of zero accidents and ISM Code non-conformities.

There are perhaps three key components to developing an effective safety culture:

I. • Commitment from the top;
II. • Measuring current performance and behaviour; and
III. • Modifying behaviour.



►2-Self Regulation:

The introduction of the ISM Code in the 1990s was an attempt by governments to create a culture of self regulation of safety and pollution prevention, in which the application of a safety culture goes beyond unthinking compliance with externally imposed rules. The ISM Code places particular emphasis on internal management of safety, and requires companies and their personnel to establish targets for performance.

Self regulation requires every individual in the company, both at sea and ashore, to be responsible for every action taken to improve safety, rather than seeing such measures as being imposed from outside. The ISM Code requires the development of both company specific and ship specific Safety Management Systems (SMS), with safety procedures that are organized by those who will be directly affected by the implications of any failure. It may be helpful to recall that the development of regulations governing safety and environmental protection for shipping has progressed over time through interrelated stages, all

of which still have relevance to the 21st Century shipping industry.

►3-Culture of Self Regulation:
The adoption by IMO of the ISM Code, and its mandatory enforcement by flag states, represented a most important step towards the creation of a new culture of self regulation in shipping, albeit imposed through a mandatory regime. Self regulation alone is not, however, wholly effective. In order to achieve safer seas and environmental protection it is necessary for all three approaches to regulation to coexist. Each stage of regulatory development still plays a significant part in influencing company and individual behaviour.

►4-Culture of Punishment:
The earliest and most basic stage of regulation concentrated on the consequences of safety failures where, in the aftermath of accidents involving personal injury or damage to the ship and cargo, efforts were made to find someone to blame. This created a culture of punishment, where the essential theme was to identify and apportion blame, often to the last person in the chain of events. The underlying principle was that the threat of punishment would influence behaviour to the extent that safety would be a higher priority.

►5-Culture of Compliance:
A second stage developed throughout the 20th Century which involved the regulation of safety by prescription, where the industry was given sets of rules and regulations to follow. For example, the provisions of the SOLAS, MARPOL and STCW Conventions, together with the Collision Regulations, Load Line Convention and various specialist IMO Codes, provide the basis of the external regulatory framework for international shipping. This stage was an advance because it was designed to attack known points of danger before actual harm occurred. This has led to the modern culture of compliance with external rules. However, a number of serious maritime accidents during the 1980s confirmed that compliance with regulation was not always enough to achieve safety and pollution prevention. Although still of utmost importance, adherence to external rules is no longer seen as an end in itself.

►6-What is a Safety Culture?

It is important for everyone in the company, ashore and afloat, to have an understanding and appreciation of the concept of safety culture. For a safety culture to be truly effective, the company must encourage and motivate its personnel to make safety and environmental awareness their highest priorities. While the ISM Code states that one of its key objectives is to establish a 'safety culture' in shipping companies, it does not actually define the meaning of the term.

However, a safety culture may be described as the values and practices that management and personnel share to ensure that risks are always minimized and mitigated to the greatest degree possible. In other words, with an effective safety culture, safety and pollution prevention are always the highest priority. The company and its staff will always, and automatically, think about the implications for safety of every action, rather than simply following safety procedures because they have been imposed from outside. In an effective safety culture, everyone employed by the company, whether a manager, Master or a junior rating, truly believes in and understands the purpose of established procedures, and will think about safety, and the means of improving it, as a matter of course.

A safety culture will also help to eradicate any tendency towards behavioral complacency, when the need to adhere strictly to safety and pollution prevention procedures can be overlooked, either on shore or at sea, because of the misconception that if a particular type of accident has never previously happened it may never occur. Analysis of serious accidents in shipping has demonstrated that the personnel involved are usually highly trained, competent and experienced, and that the underlying cause of the accident, which could have been prevented, was a failure to follow established procedures.

The key to maintaining a safety culture is for all concerned to recognize that it is a matter of enlightened self interest. The crew will be less likely to be the victims of accidents, and the company can use safety culture as a means of maximizing the financial benefit and cost savings that may be derived from implementing effective Safety Management Systems. It is important that companies recognize that investment in safety produces financial savings and is thus not a 'cost'. It is a fact that the improvement of safety saves money as well as lives.

accidents in human, environmental and financial terms. It may sometimes be questioned why safety should be the first priority when compensation for accidents and pollution is often met by insurance, and many safety measures appear at first sight to be expensive to implement.

However, it is important for senior managers and sea staff to appreciate that:

►7-Commitment from the Top:

As identified by the ISM Code, commitment from the highest level of the company is vital to ensure that personnel will act safely at all times. Without commitment from senior management the efforts of everyone else in support of the Safety Management System will be wasted. To develop the commitment of senior management it is essential that they completely understand the full cost of

- ✓ • Insurance seldom covers all losses and becomes more expensive following accidents;
- ✓ • Criminal penalties for negligence can be considerable;
- ✓ • During repair periods, vessels are not trading;
- ✓ • Accidents and pollution fines damage a company's reputation with charterers, shareholders and personnel, including those at sea;
- ✓ • Accidents lead to increased scrutiny by flag administrations and port state control inspectors; and
- ✓ • Accidents and prosecutions adversely affect the public's perception of the company and of the industry as a whole.

To reiterate, commitment from the top to the fostering of an effective safety culture is a matter of enlightened self interest. Apart from the tragic human costs of death or serious injury, it is estimated that the indirect financial costs of accidents for a company are generally about three times those of insurance claims involving personnel, cargo damage or pollution.

►8-Measuring Current Performance and Behaviour:

In order to achieve an effective safety culture it is essential to have the means to monitor the company's current performance in order to identify ways in which safety can be improved. While the SMS required by the ISM Code provides such a mechanism, a readily comprehensible means of monitoring the effectiveness of particular safety regimes and policies is the Lost Time Incident (LTI) rate, which is commonly used across many industries to measure personnel injuries.

A Lost Time Incident is an incident which results in absence from work beyond the date or shift when it occurred. The LTI rate is usually calculated as the number of LTIs that occur during one million working hours, although sometimes different multiples are used.

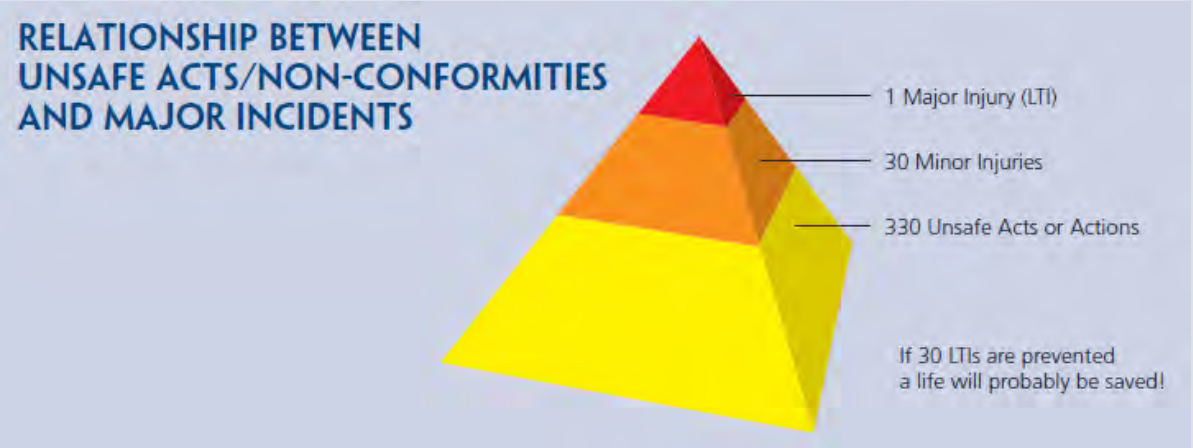
Following the introduction of the ISM Code, research by P&I Clubs has demonstrated that if the number of personnel accidents is reduced then the number of other accidents, such as those involving damage to property or the environment will also be reduced. The goal of a company should therefore be to reduce the LTI rate to zero.

Companies regarded as being at the cutting edge of safety culture seek to achieve negligible LTI rates.

The most common forms of LTIs are "slips, trips and falls". By adopting a culture that will prevent these and other minor injuries from occurring, lives will ultimately will be saved.

More strikingly, research has also shown that for approximately every 330 unsafe acts or non-conformities, 30 are likely to result in minor injury. Of these 30 injuries one is statistically likely to be an LTI. Thus the prevention of 330 unsafe acts is likely to prevent a significant injury. Statistics also suggest that the prevention of 30 LTIs is likely to result with the saving of a life!

This concept is illustrated by the safety pyramid diagram below:



There are a number of performance monitoring techniques that measure different accident data, or which are derived from statutory reporting requirements within national legislation. It is most important that companies employ some means of monitoring their safety performance over time. Many companies find it useful to compare their safety records with those of other similar companies or industries.
Members of the Oil Companies International Marine Forum (OCIMF), and the Informal Tanker Operators' Safety Forum (ITOSF), for example, compare their safety statistics, as do members of the International Support Vessel Owners' Association (ISOA). It is recognized that conditions existing in different trades cannot be readily compared, but it can be productive to establish informal arrangements with other companies operating in broadly similar circumstances to exchange information and experience.

►9-Modifying Behaviour:
A key aim of a safety culture should be to modify the behaviour, where required, of company personnel so that they 'believe in safety, think safety and are committed to safety'. Developing an effective safety culture based on the concept of continuous (continual) improvement, personal commitment and responsibility by all, is a long term process and involves much hard work and effort.
Experience gained through the proper implementation of an SMS should result in changes in behaviour, but other measures may also be required. Some companies may wish to conduct 'behavioural assessment' programmes, using outside consultants to oversee changes to the company's safety culture. For many companies, however, other approaches can also be appropriate.

It is important that employees fully understand why they are following procedures required under the SMS. They need to understand that the purpose is not simply to satisfy ISM Code auditors but to bring about actual improvements in safety.
Additional advice on accident prevention, and the introduction of safety culture, is available from P&I Clubs, classification societies, maritime administrations and national ship-owners' associations. It should be fully understood that changing behaviour is a

long term and continuous process. Full operational and financial commitment of senior management to the support of the company safety culture is essential.

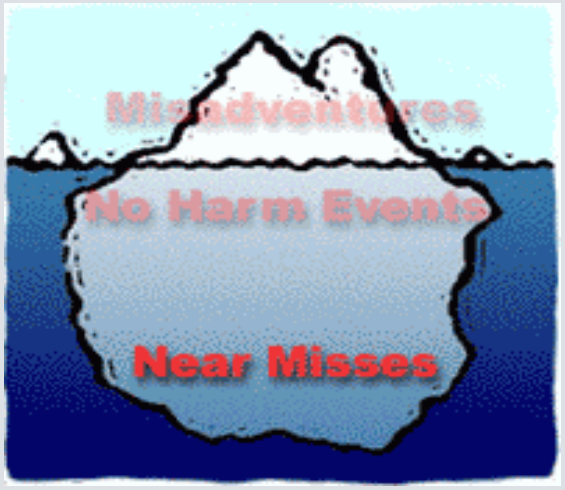
►10-Reporting accidents, near misses and non-conformities:

When a major incident occurs it is common for considerable time, effort and money to be spent establishing what happened. Following the investigation, when the causal factors are known, it is often discovered that these were apparent and visible long before the incident occurred. Reporting such events at an early stage, followed by appropriate remedial action, can prevent accidents that lead to pollution, damage, injury or loss of life.

With the objective of improving safety and pollution prevention, the ISM Code requires the company to ensure that the SMS includes procedures to investigate and analyze 'non-conformities, accidents and hazardous situations'.

The need to record accident data is universally accepted. However, it is also important for the company and personnel to recognize the importance and value of reporting non-conformities and hazardous occurrences, so called 'near misses'. In particular, it is important to ensure that all personnel, both ashore and at sea, understand that when a non-conformity or near miss is reported that the intention is not to find someone to blame or punish. Rather, the identification of non-conformities or 'near misses' provides an opportunity to investigate why they occurred, since the causal factors underlying 'near misses' are fundamentally the same as those which lead to accidents resulting with injury, loss of life, or pollution. By having an understanding of why incidents have occurred, sometimes gained by interviewing those involved, it is possible to introduce corrective action. Once a corrective action has been taken, the chances of an actual accident, resulting in injury, damage or pollution, will be greatly reduced.

Every effort should therefore be made to modify behaviour by reassuring those who fear that reporting incidents could have negative consequences.



►11-IMO Guidance on Near Miss Reporting:

A near miss is defined by IMO as:

"A sequence of events and/or conditions that could have resulted in loss. This loss was prevented by a fortuitous break in the causal chain of events and/or conditions".

IMO Guidance provides examples of near miss incidents and also notes that barriers may be created against near miss reporting, particularly where a blame culture exists.

Ship and shore staff should be encouraged to study the IMO Guidance in detail:

(MSC-MEPC.7/Circ.7, October 2008).

It includes the following general advice on near miss reporting:

• *The ultimate objective of near miss reporting and investigating is to identify areas of concern and implement appropriate corrective actions to avoid future losses. To do so requires that reports are generated, shared, read, and acted upon. Companies are encouraged to consider whether their reports should be disseminated to a wider audience;*

• *It may take years for safety trends to be discerned, and so reporting should be archived and revisited on a timely basis. Near miss reports should be considered along with actual casualty or incident reports to determine trends. There should be consistency in the identification and terms used to describe causal factors across near miss and casualty/incident reports.*

►12-The 'Just Culture' Approach:

The IMO Guidance referred to above also addresses the question of 'blame culture' by recommending that the industry should instead develop a 'just culture' approach.

A 'just culture' features an atmosphere of responsible behaviour and trust whereby people are encouraged to provide essential safety related information without fear of punishment. However, this is qualified by recognizing that a distinction must be drawn between acceptable and unacceptable behaviour. Unacceptable behaviour cannot be ignored and individuals must still face consequences if they engage in it.

Within the context of a 'just culture' it is essential that the company clearly defines the circumstances under which they will guarantee a non-disciplinary outcome and confidentiality. It is important that companies provide training and information about their approach to adopting a 'just culture' for sea staff, as well as for shore management & superintendents.

***Also refer to our Human Element Issues circular: KPI-HEI-41-2014(Accountability & Just Culture)**