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GUIDANCE ON NEAR-MISS REPORTING

1 The Maritime Safety Committee, at its eighty-fourth session (7 to 16 May 2008), and the Marine Environment Protection Committee, at its fifty-eighth session (6 to 10 October 2008), noted that the Maritime Safety Committee, at its seventy-fourth session (30 May to 8 June 2001), considered the issue of reporting near-misses and how to promote a no-blame culture and issued MSC/Circ.1015 to encourage reporting of near-misses.

2 The Committees further noted that guidance was required:

- .1 to encourage reporting of near-misses so that remedial measures can be taken to avoid recurrences; and
- .2 on the implementation of near-miss reporting in accordance with the requirements of section 9 of the ISM Code with respect to reporting of hazardous situations.

3 Accordingly, in order to encourage the reporting of near-miss occurrences and promote a safety culture, the Committees approved the guidance as set out in the annex.

4 Member Governments and international organizations concerned are recommended to bring this circular to the attention of all parties concerned.

ANNEX

GUIDANCE ON NEAR-MISS REPORTING

1 Introduction

1.1 Companies should investigate near-misses as a regulatory requirement under the “Hazardous Occurrences” part of the ISM Code. Aside from the fact that near-miss reporting is a requirement, it also makes good business and economic sense because it can improve vessel and crew performance and, in many cases, reduce costs. Investigating near-misses is an integral component of continuous improvement in safety management systems. This benefit can only be achieved when seafarers are assured that such reporting will not result in punitive measures. Learning the lessons from near-misses should help to improve safety performance since near-misses can share the same underlying causes as losses.

1.2 For a company to realize the fullest potential benefits of near-miss reporting, seafarers and onshore employees need to understand the definition of a near-miss to ensure that all near-misses are reported. The company also needs to be clear about how the person who reports the near-miss and those persons involved will be treated. The guidance that follows suggests that the company should encourage near-miss reporting and investigation by adopting a “just culture” approach.

1.3 A “just culture” features an atmosphere of responsible behaviour and trust whereby people are encouraged to provide essential safety-related information without fear of retribution. However, a distinction is drawn between acceptable and unacceptable behaviour. Unacceptable behaviour will not necessarily receive a guarantee that a person will not face consequences.

1.4 It is a crucial requirement that the company clearly defines the circumstances in which it will guarantee a non-punitive outcome and confidentiality. The company should provide training and information about its approach to “just culture” near-miss reporting and investigation for all persons involved.

2 Defining near-miss

2.1 Near-miss: A sequence of events and/or conditions that could have resulted in loss. This loss was prevented only by a fortuitous break in the chain of events and/or conditions. The potential loss could be human injury, environmental damage, or negative business impact (e.g., repair or replacement costs, scheduling delays, contract violations, loss of reputation).

2.2 Some general examples of a near-miss help to illustrate this definition:

- .1 Any event that leads to the implementation of an emergency procedure, plan or response and thus prevents a loss. For example, a collision is narrowly avoided; or a crew member double checks a valve and discovers a wrong pressure reading on the supply side.
- .2 Any event where an unexpected condition could lead to an adverse consequence, but which does not occur. For example, a person moves from a location immediately before a crane unexpectedly drops a load of cargo there; or a ship finds itself off-course in normally shallow waters but does not ground because of an unusual high-spring tide.

- .3 Any dangerous or hazardous situation or condition that is not discovered until after the danger has passed. For example, a vessel safely departs a port of call and discovers several hours into the voyage that the ship's radio was not tuned to the Harbour Master's radio frequency; or it is discovered that ECDIS display's scale does not match the scale, projection, or orientation of the chart and radar images.

3 Overcoming barriers to reporting near-misses

3.1 There are many barriers related to the reporting of near-misses. In many cases, near-misses are only known by the individual(s) involved who chose to report or not report the incident. Some of the main barriers to the reporting of near-misses include the fear of being blamed, disciplined, embarrassed, or found legally liable. These are more prevalent in an organization that has a blame-oriented culture. Amongst other barriers are unsupportive company management attitudes such as complacency about known deficiencies; insincerity about addressing safety issues and discouragement of the reporting of near-misses by demanding that seafarers conduct investigations in their own time.

3.2 These barriers can be overcome by management initiatives such as:

- .1 Encouraging a “just-culture” in the company which covers near-miss reporting.
- .2 Assuring confidentiality for reporting near-misses, both through company policy and by “sanitizing” analyses and reports so that personal information (information identifying an individual) of persons associated with a near-miss is removed and remain confidential. Personal information should not be retained once the investigation and reporting processes are complete.
- .3 Ensuring that investigations are adequately resourced.
- .4 Following through on the near-miss report suggestions and recommendations. Once a decision has been made to implement, or not implement, the report’s recommendations should be disseminated widely.

4 The near-miss investigation process

4.1 As a minimum, the following information should be gathered about any near-miss:

- .1 Who and what was involved?
- .2 What happened, where, when, and in what sequence?
- .3 What were the potential losses and their potential severity?
- .4 What was the likelihood of a loss being realized?
- .5 What is the likelihood of a recurrence of the chain of events and/or conditions that led to the near-miss?

4.2 The answer to these questions will determine if an in-depth investigation is needed, or if a cursory report will suffice. An in-depth investigation is required of those near-misses which are likely to recur and/or which could have had severe consequences.

4.3 Once a decision has been taken to proceed with a full investigation, further decisions are taken about levels of staffing required, who should be responsible, and what resources are required for the investigation to be completed successfully. The main steps in the investigation are:

Gathering near-miss information

4.4 Regardless of the nature of the near-miss, the basic categories of data that should be gathered include: people, paper documents, electronic data, physical, and position/location. These data are vital for ensuring that an understanding can be reached about what, how, who, and eventually why the near-miss occurred. Data gathering is done by interviews of key personnel and the collection of physical, position and location data, using such things as photographs, VDR recordings, charts, logs, or any damaged components. Furthermore, information should be gathered regarding safeguards in place to protect the persons on board and the public, and the operational systems impacting the near-miss event.

Analysing information

4.5 Applying data analysis techniques helps to identify information that still needs to be collected to resolve open questions about the near-miss and its causes. This can make the collection of additional data more efficient. The end goal of this activity is to identify all causal factors.

Identifying causal factors

4.6 At this point the who, what, where, why, and when of the near-miss is understood, and the human errors, structural/machinery/equipment/outfitting problems, and external factors that led to the near-miss, have been identified. The next step is to better understand the causal factors that contributed to the near-miss. There are a variety of identification methods for this purpose, including taxonomies of causes. These can be used for deep probing past the most evident causes.

Developing and implementing recommendations

4.7 Any recommendations made need to address all of the identified causal factors to improve organizational and shipboard policies, practices and procedures. Implementing appropriate recommendations is the key to eliminating or reducing the potential for the reoccurrence of similar near-misses or more serious losses.

5 Completing the investigation

5.1 Completion of the investigation process requires the generation of a report (either brief or extensive, depending on the depth of analysis performed and the extent of risk), and collating and storing the information in a way that supports subsequent (long term) trend analysis.

5.2 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 to be generated, shared, read, and acted upon. Companies are encouraged to consider whether their report should be disseminated to a wider audience.

5.3 It may take years for safety trends to be discerned, and so reporting must 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 nomenclature of causal factors across near-miss and casualty/incident reports.
