



# The behavioural safety process can help you!

Improving an organisation's ability to manage and develop its competence is important when the value creation within an organisation relies heavily on its employees' skills, attitudes and knowledge. This is especially true in the maritime industry with its many statutory requirements and multi-national operations. The potential for improvement within most organisations is generally great and the overall reward for implementing improvement programmes is safer and more efficient business operations.

To enhance good competence-building programmes you must set up measurable goals and analyse what you want to accomplish. For instance, if you have too many crew injuries from mooring operations, your goal for the coming year may be to reduce this type of injury by 50%. You will then have a measurable goal and can start analysing what training and educational needs your crew has in order to reduce the number of injuries.

## Behavioural safety

One way of analysing what training and educational needs your crew has is to use a process called 'behavioural safety' or 'behaviour-based safety'. Behavioural safety involves creating a process that clearly defines a set of behaviours within an organisation that:

- Reduces the risk of injury/accidents
- Identifies behaviour which causes injury/accidents
- Collects data on the frequency and consistency of those behaviours
- Identifies behaviour which reduces and stops injury/accidents
- Ensures feedback and reinforcement to create support for these positive types of behaviour.



*Crew Resource Management addresses the management of operational tasks, as well as stress, attitudes and risk*



This process may be familiar to those who have worked with Crew Resource Management (CRM) or Bridge Resource Management (BRM), which include:

- Leadership
- Teamwork
- Workload management
- Communication
- Situation awareness
- Decision-making
- Personal limitations
- Stress and fatigue

CRM addresses the management of operational tasks, as well as stress, attitudes and risk. CRM recognises there are many contributing factors to job effectiveness and safety, such as individual, organisational and regulatory factors, and that these factors must be anticipated and planned for.

The new element in behavioural safety is that it involves all crew members as well as office staff. In a behavioural safety process, crew members usually conduct observations and provide feedback on safety practices within their own work areas. These observations provide data that are used as a basis for a competence programme or as input for a 'best practice' proposal.

A team consisting of the crew and onshore staff takes responsibility for planning and implementing behavioural safety. This team typically completes five steps in the implementation process:

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- Design the observation and coaching process
- Plan how the data will be used
- Plan recognition and rewards in support of the process
- Plan the training and kick-off process
- Plan for maintaining the process

The implementation of such a process requires support and involvement from employees, management and health and safety executive (HSE) staff.

To motivate the crew and staff to continue their safety work, incentives normally need to be in place. Awards should primarily be based on maintaining the safety process and a safe workplace, as measured by observation data, such as lost-time accidents. Safety awards and positive reinforcement should be significant enough to achieve compliance while small enough not to generate false recordings.

To learn more about behavioural safety, please see [www.he-alert.org](http://www.he-alert.org) (ref: HE00445).

#### Maersk

Human performance problems appear to dominate risks in all hazardous industries. Maersk is one operator within the marine sector that has taken this fact very seriously, as shown by the following statistics:

- Pre-CRM (1992)
  - One Nautical casualty per 30 ship years
  - 6.5 Lost Time Injuries per million exposure hours per fleet
- Post-CRM (1996)
  - One Nautical casualty per 90 ship years
  - 3.7 Lost Time Injuries per million exposure hours per fleet

Maersk satisfied its accountants with a 15% reduction in insurance premiums for fleet and offshore installations in 1998 as a direct result of this initiative.

The organisation's CRM training for ship and rig crews contains the following basic components:

- Establish the occurrence and type of human factor errors
- Establish the target group
- Establish appropriate measures to assess and measure the success of the training

#### Competence management system

To obtain the same excellent results as Maersk, you need to manage your competence and training systematically. Not only should your safety efforts be put into a competence management system, but also all training of your crew and employees should be managed through the same system.

The competence management system is built upon a set of measurable goals. If the goals are not in place or are not measurable, you will have no indication whether the training is successful or not.

*Maersk achieved a 15% reduction in insurance premiums for fleet and office installations in 1998 through Crew Resource Management training*

The Competence Management System should at least include the following elements:

- A measurable goal. What is it you want to achieve and how should it be measured? As for Maersk, these goals were one nautical casualty per 90 ship years, down from one per 30 ship years and 3.7 lost-time injuries per million exposure hours per fleet, down from 6.5 lost time injuries
- (Re-) define competence needs to reach the set goal(s)
- Assess current competence. What competence does your organisation already possess? Who possesses it?
- Map competence gaps. If you know what competence you need and what competence you possess, you can define the gap in competence you have to fill to reach your goal
- Carry out a training needs analysis. From the known competence gap, you can see who needs training and what their needs are
- Plan and implement training
- Monitor, review and assess results to measure level of success



*The Competence Management System is never ending*

This can be put into the wheel (see diagram), which illustrates the never-ending effort needed in order to be successful. If the result of the project is positive, set new goals, if not, redefine competence needs to try to achieve the previous goal(s).

**THE COMPETENCE MANAGEMENT SYSTEM IS BUILT UPON A SET OF MEASURABLE GOALS**

As can be seen from Maersk's project, it took four years to reach the goal. It is unknown whether competence needs were redefined or altered during this period. However, to summarise, you need to look at this as a long-term project, apply a

management system, set measurable goals and monitor them to see results.

Sources: [www.he-alert.org](http://www.he-alert.org) and [www.seaskill.com](http://www.seaskill.com)