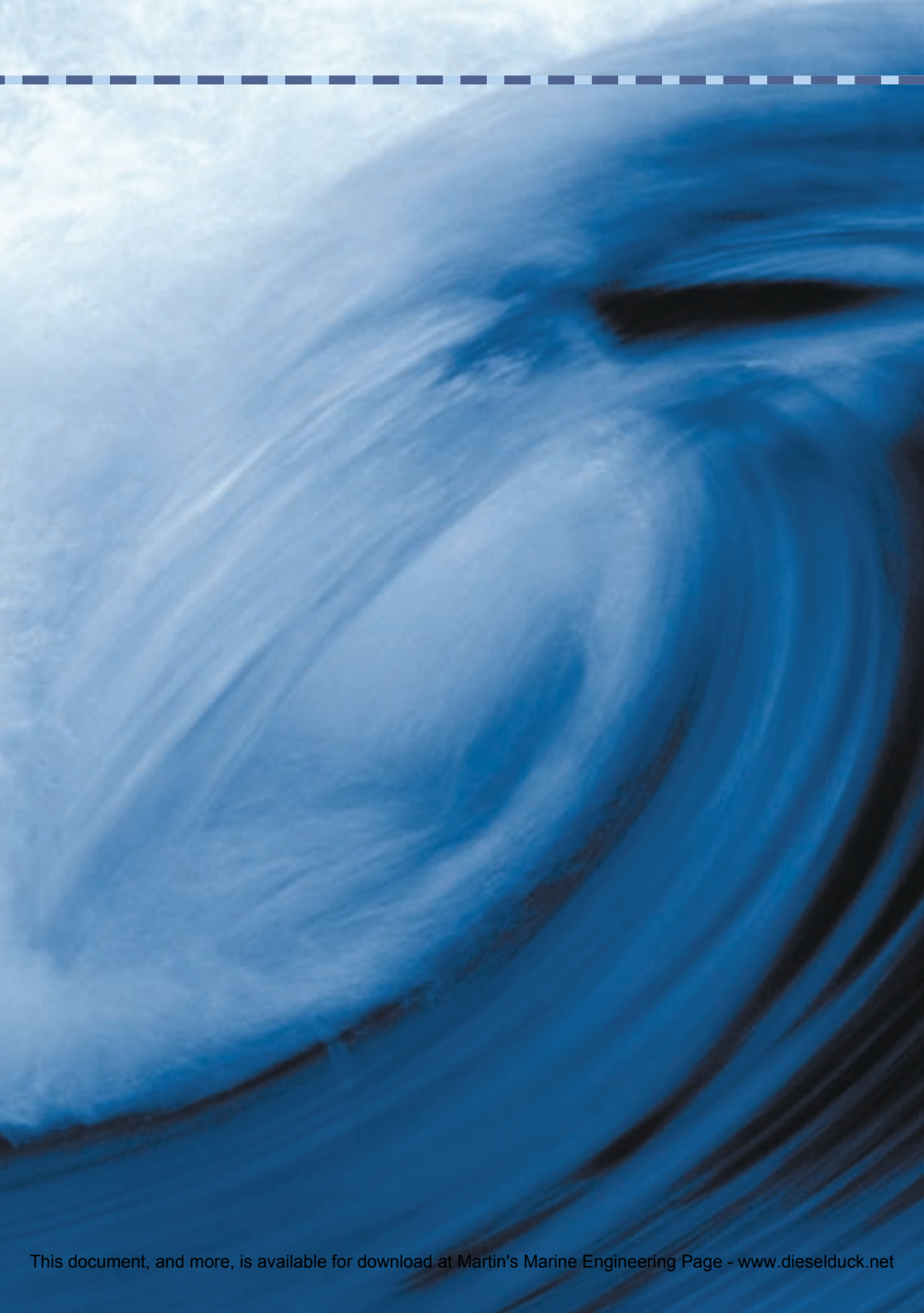




Sjøfartsdirektoratet
Norwegian Maritime Directorate

Risk assessment

- your ticket to safety on board



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Risk assessment

– your ticket to safety on board

To prevent unwanted events on board it is important to assess situations which may cause accidents or damage to health.

By systematically mapping different work operations, effective measures may be implemented and serious consequences may be avoided.

Who is responsible for what?

The shipowner and master are responsible for planning, organising and the carrying out of risk assessments on board. To ensure smooth implementation, the

shipping company needs a risk assessment system at a strategic level. The Norwegian Maritime Directorate recommends that shipowners implement such systems even for their vessels for which such systems are not required. The protection supervisor and the protection and environment committee on board

should be involved, to represent the interests of employees and make sure the shipping company follows up its responsibilities.

The main objective of this pamphlet is to provide guidance on how to get started with risk assessment and is primarily aimed at ship-

ping companies, seafarers and fishers – at all levels of the organisation.

The pamphlet does not provide any ready made answers. In addition to explanatory text we have however chosen to provide some simple illustrations which may be used in establishing risk assessment systems.

Everyone is responsible

To ensure the best possible working environment at sea, all hands have to pull together.

- ◆ *Safety costs, accidents cost more*
- ◆ *A safe workplace is an effective workplace*
- ◆ *More safety – less accidents*

What is risk assessment?



Risk assessment is a detailed and systematic evaluation of all real and potential sources of danger, and must be carried out regularly. The purpose is to identify all reasonably foreseeable risks connected to the work on board, and to determine whether the risk is acceptable, or if preventive¹ or corrective² measures are called for. Risk assessments should lead to appropriate procedures, identify needs of protective equipment and safety measures to reduce the risk of personal injury, and require preparatory and supplementary work.

The requirement for risk assessment of work operations is part of the Regulation of 4 August 2000 No. 808 concerning the working environment, health and safety of workers on board ship.

The Regulation must be incorporated in the safety management system as required by the ISM Code. Where there is no requirement for a safety management system, the Regulation should be part of a strategic plan. An example is the "Safety Manual for Fishing Vessels", which is based on the principles of the ISM Code.

When must risk assessment be carried out?

Risk assessment should uncover dangers that employees may be exposed to on board. This entails that all work operations have to be analysed. Risk assessments as part of the company's accident prevention program should be carried out regularly. It is on board the individual ship that the frequency of risk assessment has to be determined. In addition, risk assessment should be carried out when:

- new equipment and new technologies are introduced.
- changes in organisational structure or work planning have consequences for the safety and health of employees.

¹ Prevent an unwanted event from occurring

² Prevent an unwanted event from reoccurring

If an unwanted event or accident occurs on board, risk assessment has to be carried out with the aim of preventing the event from reoccurring.

Requirements for documentation

Risk assessments must be documented. Our inspections have revealed that often no documentation exists to show that risk assessments have been carried out. Documentation is also important for the transfer of knowledge and experience.

The documentation should:

- illustrate hazards related to particular work operations.
- be in written form and updated on a regular basis.
- be easily accessible to all employees on board.

"Safe Job Analysis"

Many shipping companies have established systems where "safe job analysis" is an entrenched tool the use of which yields good results. "Safe Job Analysis" contains many of the same elements and has the same purpose as the requirement contained in the Regulation, and is therefore a good basis for the implementation of the requirement. In many instances "Safe Job Analysis" is almost identical to the Regulation so that few adjustments are necessary.

How to go about it

In risk assessment, it may be difficult to know where to begin. The example below illustrates different work operations on the ship and may help in analysing the different types of hazards that may be encountered. The form may be adapted to suit different types of ship and work.

Work operation	Hazard	Fall to a lower level	Struck by falling object	Exposure to chemicals	Inhalation of gases	Fire	Explosion	Hit by object	Burn	Crushing injuries	Etc
Mooring			x						x	x	
Loading/unloading		x	x							x	
Painting				x	x						
Welding						x	x	x			
High pressure washing								x			
Rigging gangway		x	x							x	
Sand-blasting			x								
Lifeboat drill		x	x						x	x	
Etc.											

