

Occupational health and safety on ships – OiRa risk assessment tool & screen demonstration

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Introduction

Seafaring still belongs to one of the most dangerous occupations worldwide. Risk assessment as a cornerstone in risk management has been widely introduced by internationally operating shipping companies. In contrast, small and micro sized shipping enterprises operating in coastal areas often have no systematic approach to occupational health and safety management. In order to tackle this challenge a cooperation between “SHIPSAN-ACT – Joint Action” and the European Agency for Safety and Health at Work (EU-OSHA) was stipulated. The aim was to develop an Online Interactive Risk Assessment (OiRa) tool for Maritime Transport. Risk Assessment is necessary to identify and estimate as well as to prevent and reduce risks.

General Modules

- General risks on board
- Occupational safety and health management

Specific Modules

- Dealing with emergencies
- People at risk

Modules related to the area of operation

- Working on the bridge
- Working on the deck
- Working in the engine room
- Working in the galley
- Living accommodation
- Recreational facilities

Risk categories

- Physical factors
- Biological factors
- Chemical factors
- Ergonomic factors
- Psychosocial factors
- Organizational factors
- Accident hazards

Methods

A literature search was conducted to reveal relevant topics. Based on these results a risk matrix was developed by an expert committee. Every work place aboard was evaluated according to five main risk categories: a) physical, b) biological, c) chemical, d) ergonomic, psychosocial and organizational factors and e) accident hazards. The content of the tool is oriented towards the ILO Guidelines for implementing the occupational safety and health provisions of the Maritime Labour Convention, 2006. We concentrated on limited complexity of the tool to enable seafarers to perform the risk assessment without special training.

Outcome after completing the tool

4 PDF documents

- Full Report
- Action Plan
- Risk overview
- Measures overview



Results

The Risk Assessment Tool was structured into ten modules (see figure). Based on two general modules dealing with the general approach to safety and health on board, six modules cover relevant areas of the ship. Two extra modules were created to treat of specific topics. Supplementary modules as per cargo ship subtype are under preparation. OiRa tool for Maritime Transport can be used by anyone wishing to assess health and safety-related risks that might exist in their workplace on a ship.

Questions on ten subtopics can be answered which are separately introduced and explained and each topic consists of various risks. For every risk there are legal and policy references listed. If there are no existing measures for a risk on board the I) chance of this risk occurring, II) frequency of exposure, and III) severity of the damage have to be estimated.

The summarized information is used to create an individual action plan which is one of four individually provided documents of the tool.

Conclusion

The developed tool may support the shipowner, the ship's safety committee or the safety representative in their obligation to conduct and document a risk assessment as demanded by the Maritime Labour Convention. On board ships, which may lack the resources or the occupational safety and health know-how it can be of great value. For an effective risk assessment risks have to be identified and an action plan has to be put in place to manage existing risks and prevent upcoming risks. This is provided by the OiRa tool. It helps to prepare seaman to eliminate and reduce risks and to establish preventive and protective measures.

On purpose to test the tool's intelligibility and clarity it was sent to more than 30 experts in occupational medicine and maritime medicine and asked them to test the tool and evaluate it. Most of them noted that they are completely satisfied with OiRa tool in general.

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