



Risk assessment for small fishing vessels



Introduction

Fishing is one of the most dangerous of professions. The risk of an accident is 2.4 times greater in the fisheries sector than the average of all EU industry sectors (1). Working in a difficult environment, with long and irregular shifts can increase the range, likelihood, or severity of work-related

illnesses and accidents suffered by workers.

The purpose of this factsheet is to assist those with health and safety duties reduce the risk to workers in this dangerous industry sector by carrying out a risk assessment and taking preventive actions. It is the employer's responsibility to conduct a risk assessment and to communicate the necessary information to workers.

Legislation

Health and safety requirements for fishing vessels are laid down in European and international legislation and are enforced at national level. Many more standards apply, often defined according to the size of the ship. European legislation includes:

- Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work;
- Council Directive 93/103/EC of 23 November 1993 concerning the minimum safety and health requirements for work on board fishing vessels.

What is an accident?

The shipping industry distinguishes between accidents at work and accidents at sea.

Accidents at work

An accident at work is an accident involving a crewmember during the normal on-board working operations, including operations such as the unloading of the catch.

Accidents at sea

An accident at sea is an event that happens to the ship at sea, such as a collision or grounding. It encompasses all crew accidents linked to the operation of the ship. This factsheet does not look at the prevention of accidents at sea.

Risk assessment

Employers are required to evaluate risks to safety and health and take action to improve the level of protection given to workers in a process called risk assessment. This can be broken down into a series of steps.

What is the difference between a hazard and a risk?

- A hazard is anything that can cause harm.
- The risk is the chance of harm being done.

1. Look for the hazards

Think about the work that is done and the materials, equipment, and chemicals that are used. What can cause harm? For example:

- falls overboard;
- entanglement in nets;
- being crushed between moving objects;
- noise in the engine room;
- cuts from handling catch or fishing tackle.

Cover all relevant fishing techniques (e.g. potting or trawling) in the assessment, as they each have particular hazards and risks, along with common and ongoing processes such as boarding or maintaining the engine. Use the checklist in this factsheet as a starting point, but please note that it is not an exhaustive list. Council Directive 93/103/EC concerning the minimum safety and health requirements for work on board fishing vessels gives an extensive list of minimum health and safety requirements for fishing vessels.

2. Decide who may be harmed and how

Think about everyone who may be hurt. This means not just employees, but also contractors, self-employed persons, other crews, and members of the public.

3. Evaluate the risks and decide on action

Is someone likely to be harmed? If someone could be hurt:

- can the hazard be removed completely?
- can the risk be controlled?
- can protective measures be taken to protect the whole workforce?
- is personal protective equipment needed to protect the worker from a risk that cannot be adequately controlled by collective preventive measures?

4. Take action

After completing the risk assessment, list the preventive measures needed in order of priority, then take action, involving the workers and their representatives in the process. The steps to reduce the risk to workers should be part of the day-to-day operation of fishing vessels.

5. Review the findings

Ways of working, along with equipment and chemicals change. When a significant change takes place, check to make sure that there are no new hazards that need controlling.

Information, education, and training

Tell people what you are doing

Talk to the crew and worker representatives. Involve them in the risk assessment process and tell them what you are doing to reduce risk.

Training

All crew members on board a fishing vessel should be trained and competent, with everyone involved having a clear role and responsibilities relating to health and safety, whether boat owner, captain, or worker. Every person on board should know what to do in case of emergency.

(1) 1998 and 1999 figures. Source: Eurostat, Statistics in Focus, Theme 3, 16/2001.

Causes of accidents on small fishing boats

Falls overboard are the cause of many fatal accidents on small fishing vessels. The effective use of lifejackets saves lives. The taking in of fishing nets is a particularly high-risk task, with workers drowning or suffering injury after being struck by or entangled in fishing tackle. Falls and being struck by moving objects (such as trawl equipment) are very common non-fatal accidents.

The risk of accidents to crews of small fishing vessels is high due to the small number of crew and the many tasks carried out — often at the same time. Bad weather conditions can increase accident risks, so the times when the risk is too great to go out fishing should be identified. Being at sea means that, in many cases, the consequence of an accident is more severe than if it happened on land.



Courtesy of ISPESL, Italy.

Factors that can increase the risk of accidents

- Long working hours leading to fatigue.
- Old, or inadequately maintained boats.
- Presence of dangerous machinery.
- Cramped, small workspaces.
- Inherent hazards (e.g. the sea, the weather).
- Lack of training or expertise.
- Lack of monitoring of safety performance.
- Hazardous 'product' (e.g. poisonous fish).
- Lack of identification of hazards.
- Failure to provide or use safety measures or protective equipment.

Health hazards on small fishing vessels

The following are just some of the health hazards facing workers on board small fishing vessels.

Noise

Loud machinery noise is common on board fishing vessels. Prevent the exposure of workers to noise where possible by means other than by ear protection, including:

- introducing engineering controls (e.g. fitting silencers to air exhausts);
- blocking the path of noise from source to worker;
- changing work patterns;
- maintaining plant and equipment.

Stress and psychosocial issues

Work-related stress is experienced when the demands of the work environment exceed the workers' ability to cope with (or control) them. Work-related stress can lead to many health problems, and symptoms of work-related stress could lead to excessive use of alcohol, tobacco, or drugs.

Work-related stress is an organisational problem, not an individual weakness, and the main causes of stress need to be identified and reduced. Better work planning and living conditions on board can reduce the risk of stress-related ill health.

Musculoskeletal disorders

Manual handling involves the movement of heavy loads by hand or bodily force, and should be avoided where possible. If this is not possible, reduce the risk of injury as far as possible by actions that include:

- improving the workplace design so that less movement is needed;
- changing the load to make it lighter, or easier to hold;
- training workers in good practices and the use of good handling techniques.

Work-related upper limb disorders (WRULDS) arise mainly from performing repetitive actions. Reduce the risk of injuries by:

- redesigning the work station;
- maintaining work equipment;
- managing work patterns so that workers have regular breaks;
- training workers in good techniques.

Danger of infections

Injuries caused by fish bones, scales or stingers can often end up infected. Follow proper first-aid procedures to minimise the risk of complications.

Cold, wet, wind, and sun

Fishing is usually carried out in cold, wet, and windy conditions. These environmental conditions increase the risk of injury and ill health. The risk of skin and eye damage due to sun exposure is greater at sea than on land because of the unhindered reflection of the sunlight.

Close fitting, insulated, water-resistant working clothes are a necessity, as are sunscreens with a high protection factor. Sunglasses with side protection can prevent eye problems.



Fisheries good practice

The European Agency for Safety and Health at Work has a web feature devoted to good practice in the fisheries sector. As well as being able to find information either by topic or an A-Z index, there is a comprehensive list of information providers. The feature can be found at: http://europe.osha.eu.int/good_practice/sector/fisheries

Aquaculture, including fish farming, is part of the fisheries sector, and has its own hazards and risks. For example, workers may be exposed to dust from feedstuffs that can lead to acute respiratory allergy. Dusts should be controlled by engineering methods and, as a last resort, by personal protective equipment (dust masks).

Prevention of **falls into water** and the use of suitable buoyancy equipment is a key topic in the reduction of fatal accidents in the fisheries sector. Authorities recommend that each person working on deck wear suitable constant wear buoyancy equipment (CWBE).

Occupational Safety and Health should be managed on board. Carrying out a risk assessment is the first step in this process. Further advice can be found in this factsheet and through the links under this section.

Different fishing techniques can have different hazards and risks. This section identifies the hazards related to **shellfish and crustacean fishing**, such as the risk of vessel propellers becoming entangled in ropes of marker buoys used to indicate the position of lobster pots.



Getting more information

The European Agency's site contains a wealth of occupational safety and health information at: <http://agency.osha.eu.int>

- Other information Sources include:
- EUR-LEX, for proposed and existing directives at: <http://europa.eu.int/eur-lex/en/index.html>
 - The European Commission Directorate-General for Fisheries at: http://europa.eu.int/comm/fisheries/policy_en.htm
 - The European Commission Directorate-General for Employment and Social Affairs (including health and safety at work) at: http://europa.eu.int/comm/dgs/employment_social/index_en.htm

The checklist

This checklist provides a starting point for the risk assessment process. It contains a series of questions about common hazards and risks on small fishing vessels. These questions demand a 'yes' or 'no' answer, and space is provided to write in the preventive measures to be taken.

A short checklist such as this cannot cover all relevant hazards and risks. For a list of minimum health and safety requirements for work on board fishing vessels, see Council Directive 93/103/EC of 23 November 1993, obtainable at the EUR-Lex site at the address given in 'getting more information'.

Checklist for risk assessment

| Hazard | Yes / No | Preventive Measure |
|---|----------|--------------------|
| Is there a risk of falling overboard? | | |
| Is there a risk of a worker falling more than two metres on board? | | |
| Is there a risk of slipping on walkways and staircases? | | |
| Are there parts with dangerous surfaces (e.g. steel cables, sharp tools)? | | |
| Are there any unsecured objects (e.g. crates or barrels) that could shift and cause harm? | | |
| Is there a danger of being crushed or dragged into the cables or fishing gear? | | |
| Are there any unprotected moving machine parts (particularly in the engine room, e.g. rotating shafts)? | | |
| Are there any hot surfaces (e.g. exhausts) that could be touched accidentally? | | |
| Is there a danger of receiving an electric shock from any source? | | |
| Is there a risk of arc discharge (e.g. from the battery system)? | | |
| Is there an explosion hazard? (e.g. detonating gas from batteries) | | |
| Are there any combustible substances (solid, liquid (fuels, lubricants), or gas) that could be ignited? | | |
| Are there any ignition sources in hazardous areas (e.g. in the heating system)? | | |
| Is work done in confined spaces (e.g. holds, bunkers) where there may be lack of oxygen or fumes may build up? | | |
| Is there sufficient air exchange in the internal spaces (e.g. engine room)? | | |
| How noisy is the engine room? Do you have to shout to be heard by another person two metres away? | | |
| Is there a lot of strenuous physical work to be done (e.g. transporting, and loading of catch)? | | |
| Is repetitive work carried out on board (e.g. fish processing)? | | |
| Are workers likely to suffer wounds from handling catch, and could these become infected (e.g. from fish bones, stingers, or scales)? | | |
| Are workers exposed to any dangerous substances (e.g. solvents, preservatives)? | | |
| Are there any substances that can produce an allergic reaction? | | |
| Are workers likely to handle ice or other cold media? | | |
| Is there a problem with illumination (e.g. blinding reflection, changing light patterns)? | | |
| Is the crew likely to be exposed to bad weather? | | |
| Is the crew being asked to do too much (e.g. by having too many tasks to do at the same time)? | | |
| Are there any workers on board who need special consideration (e.g. young workers, pregnant workers)? | | |
| Are there other dangers on board not covered by this checklist? | | |