

A quick guide to health and safety in ports



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Introduction

Ports are often challenging places to work. You may be dealing with a whole range of cargoes and working alongside a wide variety of people, including some who don't speak English.

Work at ports takes place throughout the day and night and in all types of weather. There are often pressures to load or unload a ship's cargo quickly to catch a tide or to free up a wharf. Visiting drivers want to pick up or drop off their cargo as quickly as possible and get back on the road.

These factors make it an exciting but also a potentially high-risk industry to work in. Ever-changing circumstances lead to ever-changing risks. Companies must put appropriate health and safety measures in place to manage these risks properly.

How this guide can help you

It highlights the main hazards found in ports and outlines what you need to do to comply with the law.

You can find sources of more advice from the Health and Safety Executive (HSE) and the port industry itself at the end of the guide. There are also details of how to get advice in different languages.

The guide is mainly aimed at employers and other dutyholders but it should be helpful to all those carrying out work in ports. This includes stevedores, visiting drivers and also anyone who may work at docks occasionally.

Some of the specialised and high-risk activities associated with handling dangerous goods and hazardous cargoes at docks are not covered. You can find advice on those areas on the HSE website (www.hse.gov.uk).

What are the main legal requirements?

Under the Health and Safety at Work etc Act 1974 (HSW Act), employers, people in control of premises, the self-employed and employees must ensure the health and safety of others and themselves.

There are also regulations that apply to all industries because many of the hazards will be the same. But some industries do have specific pieces of legislation. In the port industry, these include:

- the Docks Regulations 1988;

- the Dangerous Substances in Harbour Areas Regulations 1987; and
- the Loading and Unloading of Fishing Vessels Regulations 1988.

The Approved Code of Practice Safety in Docks (COP25) covers the Docks Regulations 1988 but much of that material has been repealed and replaced by more recent legislation. See 'Want to know more?' at the end of this guide for details.

The HSW Act and associated regulations do not apply to seamen working onboard ship under the control of the ship's master. Comparable Merchant Shipping Health and Safety Regulations do apply to ships' crew and are enforced by the Maritime and Coastguard Agency (MCA).

Successfully managing health and safety in ports

Port work often involves a number of different employers and/or contractors who can all affect each other's activities. These may include harbour authorities, port operators, stevedoring firms, hauliers, ships' masters and crew.

Companies need to have strong and effective health and safety systems in place. These should ensure co-operation, co-ordination and communication between all employers and their workers.

The Management of Health and Safety at Work Regulations 1999 set out a number of requirements for employers to ensure they are adequately managing health and safety. These include:

- a risk assessment of their activities. This should identify the measures they need to have in place to comply with their duties under health and safety law and reduce risks so far as is reasonably practicable;
- making sure there is effective planning, organisation, control, monitoring and review of the measures they put in place;
- appointing a competent person to provide health and safety assistance. A competent person is someone with the necessary skills, knowledge and experience to manage health and safety;
- providing employees with information they can understand – including people whose first language is not English; and
- co-operation and co-ordination with other employers sharing a workplace.

HSE's *Managing health and safety in dockwork* (HSG177) provides more detailed guidance on the management responsibilities of the many employers and contractors involved in the industry. See 'Want to know more?' at the end of this guide.

Consulting with workers

By law, employers must consult with all their employees on health and safety matters.

Consulting employees about health and safety can result in:

- healthier and safer workplaces – as worker input is valuable to identify hazards, assess risks and develop ways to control risks;
- better decisions about health and safety – because they are based on the input of workers who have knowledge of the job;

- stronger commitment to implementing decisions or actions – because employees have been actively involved in reaching these decisions;
- greater co-operation and trust.

In some instances, subsidies may be available for training safety representatives.

Which laws apply?

- Safety Representatives and Safety Committees Regulations 1977 – for employers where trade unions are recognised by the employer and representatives have been appointed.
- Health and Safety (Consultation with Employees) Regulations 1996 – for employers where trade unions are not recognised.

What if things go wrong?

This guide is mainly about prevention. But sometimes things do go wrong. If someone has been hurt or becomes ill at work, it's important to take care of them straightaway, and make any dangerous conditions safe.

First aid

Immediately and properly examining and treating injuries may save life and is essential to reduce pain and help injured people make a quick recovery.

The Health and Safety (First Aid) Regulations 1981 require employers to have adequate arrangements for first aid.

Accident reporting

Employers, the self-employed and those in control of premises must report certain accidents and incidents at work under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR).

This covers accidents to everyone at work and non-workers, such as members of the public, affected by the work.

You can find information on reporting incidents at: www.hse.gov.uk/riddor.

Tackling the hazards

Workplace transport

Most transport-related accidents in ports are serious or fatal. Many different employers' drivers use ports. Not all of these drivers will be familiar with the port environment. Workplace transport safety will only be managed properly if everyone works together.

Typical workplace transport hazards in ports

- Loading and unloading of vehicles.

- Movement of vehicles and other plant on the dockside.
- Trailer coupling and uncoupling on the dockside and on the ship.
- Vehicle/pedestrian access, eg ro-ro bridges and vessel ramps.
- Reversing vehicles on ro-ro decks.
- Movement of vehicles in container storage areas and lorry parks.

How you can reduce workplace transport risks

These can be grouped under: 'Safe site, Safe vehicle, Safe driver'. You need to deal with all three of these to ensure good control of workplace transport risks.

Safe site

- Every workplace should be safe for the people and vehicles using it.
- Provide appropriate road signs and markings.
- Vehicles and pedestrians should be separated where they share the same workspace. This may involve excluding pedestrians from certain areas or providing separate pedestrian routes.

Safe vehicle

- Vehicles should be safe, provided with suitable visibility aids, regularly maintained, repaired and inspected.

Safe driver

- All drivers should be fit and competent to operate all the vehicles they use at work.
- Workers should follow safe working practices.
- Management should monitor these practices.

Which laws apply?

- Workplace (Health, Safety and Welfare) Regulations 1992
- Provision and Use of Work Equipment Regulations 1998 (PUWER)

Lifting operations

Loading and unloading at ports involves the use of a wide range of lifting equipment. This may include gantry cranes, slewing cranes, forklift trucks or other similar machinery. Poorly planned lifting operations can lead to significant risks to people working in the area.

Typical hazards from lifting equipment

Accidents have occurred due to:

- failure of lifting equipment;
- falling loads; and
- workers being crushed by a moving load or lifting equipment.

How you can reduce risks from lifting equipment

- Use suitable lifting equipment to securely lift cargo.
- Use a competent person to plan the lift. This plan should include the order of work, route, weight, slinging/spreader method and what to do in the event of a shifted load or bad weather.
- Don't lift over areas where people are likely to be working or passing.
- All lifting equipment and accessories should be properly inspected and examined.
- Ensure employees and supervisors are trained, competent and experienced in safe lifting.

- If a ship's lifting equipment is to be used, ensure that it is suitable and subject to a pre-use examination. Check the ship's documentation of thorough examination.

Which laws apply?

- Lifting Operations and Lifting Equipment Regulations 1998 (LOLER)
- Provision and Use of Work Equipment Regulations 1998 (PUWER)

Falls from height

Many of the activities carried out in ports could lead to a fall from height. These activities may be during routine operations or during one-off maintenance activities. In ports, the added hazard of working near water means a fall may lead to the risk of drowning.

Typical falls from height hazards in ports

- Access to and from vessels by accommodation ladders and gangways.
- Container-top working – lashing and unlashng containers, use of slewing jib cranes.
- Access to and from places of work onboard vessels (holds, hatches, decks etc).
- Falls from vehicles during loading/unloading and sheeting.
- Falls from car transporters.
- Maintenance work.
- Unloading some types of cargo, such as pipework, timber packs etc, can result in open edges from ships' decks, passages and from the cargo itself.
- Working adjacent to open edges of docks, wharves etc.

How you can reduce fall from height risks

- Do a risk assessment for any work carried out at height. Select and use suitable work equipment.
- Avoid work at height where possible, eg working from the ground using a long-handled tool.
- If work at height cannot be avoided, you should use work equipment or other measures to prevent falls, eg guardrails, mobile elevating working platforms (MEWPs).
- If there is still a risk of falls, you should use work equipment that minimises the distance and consequences of a fall, eg nets, airbags, fall arrest systems.
- All work at height should be properly planned and organised.
- Workers involved in work at height should be competent.
- Equipment for work at height must be properly inspected and maintained.

When working over or near water

- Provide secure and adequate fencing where a risk assessment has found this to be necessary.
- People should wear suitable personal protective equipment, eg lifejackets or buoyancy aids.
- Provide dock premises with adequate and suitable rescue and lifesaving equipment and means to escape from danger, eg handholds on the quayside at water level, ladders on quay walls and life-saving appliances.
- Take the risks to lone workers into account.

Which laws apply?

- Work at Height Regulations 2005
- Provision and Use of Work Equipment Regulations 1998
- Docks Regulations 1988
- Loading and Unloading of Fishing Vessels Regulations 1988

Dusty cargoes

Typical cargoes in UK ports include grain, soya, animal foodstuffs, fishmeal, ores, coal and coke, cement, biomass, superphosphate and other fertilisers.

Typical risks from dusty cargoes

During handling these can give off large quantities of dust. In some cases, eg coal and aggregates, the dust is simply small particles of the material itself. In other cases, eg grains and pulses, the dust may include contaminants such as bacteria and fungi.

Different dusts have different effects on health, but the most important effects of dusty cargoes are on the lungs. The chronic effects are often permanent and disabling.

How you can reduce the risks from dusty cargoes

Where possible, you should prevent a person's exposure to hazardous dust. If it is not possible to prevent exposure, you should adequately control their exposure to the dust. Some ways to control exposure include:

- restrict staff entry to dusty areas;
- use totally enclosed, continuous handling systems – these usually provide the best control and should be used whenever reasonably practicable;
- suppress dust with sprays of water or other binding agents;
- ensure all equipment used to reduce dust exposure is properly maintained;
- design tasks to reduce the amount of dust generated;
- provide suitable dust-filtration systems to the cabs of all new loading shovels used to handle dusty cargoes;
- provide respiratory protective equipment (RPE) – this should be suitable for its purpose, maintained and compatible with other protective equipment worn; and
- where appropriate, provide health surveillance for workers.

Which laws apply?

- Control of Substances Hazardous to Health Regulations 2002 (COSHH)

Musculoskeletal disorders

Port workers carry out a number of activities which, if not properly managed, may lead to a variety of 'musculoskeletal disorders' (MSDs).

These include back pain and muscle injuries, and are often the result of poor handling techniques or tasks involving repetitive movements and/or excessive force.

Injuries can also be caused by the vibration created by some vehicles – this is known as whole-body vibration. Some people may not fully recover from MSDs and they can greatly affect your quality of life.

Where MSD hazards can be found in ports

- Manual manoeuvring of lifting gear and attachments or slung loads.
- Handling of twist locks and unlocking poles.
- Lifting/manoeuvring of lashing bars.
- Breaking out pre-packed or palleted loads.
- Storage and warehousing activities.
- Hauling mooring ropes off large ships.
- Vibration transmitted through the seat or feet of employees who drive mobile machines, such as ro-ro tugs and other similar vehicles, over uneven ground or on rails.

How you can reduce MSD risks

For manual handling

- Use mechanical aids such as motorised winches for hauling mooring ropes of large ships, vehicle-mounted hydraulic hoists, portable roller conveyors, pallet trucks, scissor lifts and customised trolleys.
- Consider whether a load can be changed to make it easier to carry, for example smaller packages, providing handles or hand-holds.
- Adopt safe lifting techniques.

For whole-body vibration

- Use appropriate machinery for the job.
- Maintain plant and equipment, eg container cranes and rubber-tyred gantry cranes. Maintenance should include seats, suspension and visibility through windows.
- Maintain roadways, quays, container park surfaces and rails.
- Take account of vibration information when buying or hiring equipment.
- Provide drivers with information on how to reduce risks to their health.

Which laws apply?

- Manual Handling Operations Regulations 1992 (as amended)
- Control of Vibration at Work Regulations 2005

Slips and trips

Over a quarter of all reportable accidents in ports are due to slips or trips. These can be serious, resulting in broken or dislocated bones and long periods off work. They should not be accepted as 'one of those things' and you can often take simple steps to prevent them happening.

Typical slip and trip hazards in ports

- Working on uneven, wet or icy surfaces on loads.
- Badly stowed ropes, cables, container lashing gear and other equipment.
- Use of aluminium chequerplate surfaces on walkways and access steps when wet.
- Discarded packaging and pallets.

How you can reduce slip and trip risks

- Specify appropriate flooring/surfaces.
- Maintain plant to prevent contamination, eg oil getting onto the floor.
- Good housekeeping – encourage a 'see it, sort it' culture.

- Provide storage bins to store lifting gear.
- Maintain floors, steps and walkways in a good condition.
- Select suitable footwear for the task.
- Provide adequate lighting.

Which laws apply?

- Workplace (Health, Safety and Welfare) Regulations 1992
- Loading and Unloading of Fishing Vessels Regulations 1988
- Docks Regulations 1988

Confined spaces

People are killed or seriously injured in confined spaces each year in the UK. This happens in a wide range of industries, from those involving complex plant to simple storage vessels.

Those killed include not just people working in a confined space, but also those who try to rescue them without proper training and equipment.

Typical risks from confined spaces in ports

Confined spaces can be found in ships' holds as well as warehouses, silos and bins. They are a potential hazard due to a number of causes, including:

- lack of oxygen – possibly due to the cargo absorbing oxygen from the atmosphere, rusting cargo such as scrap metal, decomposing or rotting cargo, or gas cutting/welding;
- too much oxygen – possibly due to a leak in stored gas bottles which can also increase the flammability of substances; and
- build-up of toxic or flammable gases – possibly due to decomposing or leaking cargo, inadequate cleaning processes, or welding/vehicle fumes.

How you can reduce the risks in confined spaces

- Avoid working in the confined space – work from outside if possible.
- Follow a safe system of work if you really have to work in a confined space and consider:
 - positive ventilation of the confined space;
 - measurement of oxygen or gas concentration;
 - controlled access using permit-to-work systems;
 - use of respiratory protective equipment (RPE); and
 - rescue arrangements.
- Never enter the confined space without making proper emergency arrangements. Provide rescue equipment, including harnesses and safety lines. Make sure you can quickly notify the emergency services if necessary.
- With so many people involved in port activities, it's worth considering a permit-to-work system. This ensures a safe system of work is in place and improves communications.

Which laws apply?

- Confined Spaces Regulations 1997

Lone working

People are often required to work alone in ports, either in a fixed location working separately from others or when a mobile worker is working away from their fixed base.

There are no absolute restrictions on someone working on their own. You must carry out a risk assessment to determine whether lone working is appropriate and, if so, the right level of supervision for the task, location and people involved.

Other hazards

Depending on the activities carried out at the port you are working in, you may encounter other hazards. These can include noise, exposure to fume and exposure to hazardous chemicals.

More advice on specific hazards can be found on our website: www.hse.gov.uk.

Want to know more?

HSE and the port industry have both produced guidance that will give you a better understanding of the main hazards and the appropriate control measures you can take.

HSE guidance

Safety in docks. Docks Regulations 1988. Approved Code of Practice with Regulations and guidance COP25 HSE Books 1988 ISBN 978 0 7176 1408 0
www.hse.gov.uk/pubns/books/cop25.htm

Some of this ACOP has been revoked by the Work at Height Regulations 2005, the Lifting Operations and Lifting Equipment Regulations 1998, and the Confined Spaces Regulations 1997.

HSE is revising its website to reflect current legislation and standards (www.hse.gov.uk/docks). HSE is also supporting the development of comprehensive guidance for the industry on the Port Skills and Safety (PSS) website (www.portskillsandsafety.co.uk) – see 'Other sources of guidance' later in this section.

This quick guide and the PSS industry guidance will constitute current good practice and will be used as a benchmark for health and safety by both industry and HSE.

Once the new guidance has been assessed, a decision will be made on review and revision of the ACOP, and how best to reflect current ports-sector legislation.

A guide to the Loading and Unloading of Fishing Vessels Regulations 1988 HSR28
HSE Books 1988 ISBN 978 0 11 885457 3
www.hse.gov.uk/pubns/books/hsr28.htm

Duties under the Dangerous Substances in Harbour Areas Regulations 1987
www.hse.gov.uk/ports/dangerous-substances.htm

Enforcing authorities at docks premises www.hse.gov.uk/ports/enforcing.htm

Managing health and safety in dockwork HSG177 HSE Books 2002
ISBN 978 0 7176 2020 3 www.hse.gov.uk/pubns/books/hsg177.htm

HSE's Worker involvement website: www.hse.gov.uk/involvement/index.htm

Advice in other languages

[www.hse.gov.uk/migrant workers](http://www.hse.gov.uk/migrant_workers)

Topic advice

Further guidance on all the topic areas identified here can be found at:
www.hse.gov.uk/ports.

Other sources of guidance

The industry has produced a series of Health and Safety in Ports Guidance sheets which provide comprehensive guidance on a range of port issues. These are freely available on the Port Skills and Safety website: www.portskillsandsafety.co.uk.

The Department for Transport produce guidance on the safety of marine operations. The Port Marine Safety Code applies to all harbour authorities in the UK that have statutory powers and duties.

The Code has been developed with help from a wide range of interested parties in the ports and shipping industries. It applies the principles of risk assessment and safety management systems to port marine operations:
www.dft.gov.uk/pgr/shippingports/ports/pmsc.pdf.

The International Labour Organisation (ILO) has a *Code of Practice on Safety and health in ports* (ILO152): www.ilo.org/public/libdoc/ilo/2005/105B09_39_engl.pdf.

The Maritime and Coastguard Agency (MCA) produce a wide range of guidance and information on health and safety for seafarers, and general safety information relevant to port operations: www.mcga.gov.uk/c4mca/mcga07-home.htm.

International Maritime Organisation: www.imo.org

International Cargo Handling Coordination Association: www.ichca.com

Further information

HSE priced and free publications can be viewed online or ordered from www.hse.gov.uk or contact HSE Books, PO Box 1999, Sudbury, Suffolk CO10 2WA
Tel: 01787 881165 Fax: 01787 313995. HSE priced publications are also available from bookshops.

For information about health and safety ring HSE's Infoline Tel: 0845 345 0055
Fax: 0845 408 9566 Textphone: 0845 408 9577 e-mail: hse.infoline@natbrit.com or write to HSE Information Services, Caerphilly Business Park, Caerphilly CF83 3GG.

This leaflet contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.

This leaflet is available in priced packs of 5 from HSE Books, ISBN 978 0 7176 6421 4.
A web version can be found at www.hse.gov.uk/pubns/indg446.pdf.

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