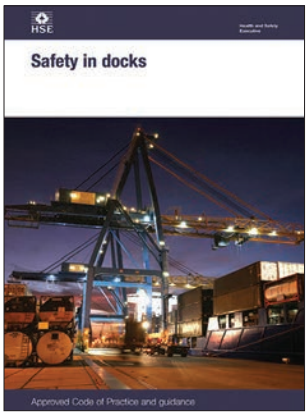
Health and Safety Executive

Safety in docks

Approved Code of Practice and guidance



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This Approved Code of Practice (ACOP) and guidance covers safety in dock operations and is aimed at those who have a duty to comply with provisions of the Health and Safety at Work etc Act 1974. This includes people who control dock premises, suppliers of plant and equipment, dock employers, managers, safety officers, safety representatives and workers.

The ACOP has been designed to address both the larger end of the industry as well as those engaged in dock work in small harbours. The focus is on helping dutyholders of all sizes to easily understand the key requirements needed to comply with the general duties of the Act and other relevant statutory provisions.

This publication also provides details of relevant guidance that has been developed by the Health and Safety Executive, Port Skills and Safety and Unite the Union and others to help employers, employees and the self-employed to comply with the law.

HSE Books

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Approved Code of Practice

This Code has been approved by the Health and Safety Executive, with the consent of the Secretary of State. It gives practical advice on how to comply with the law. If you follow the advice you will be doing enough to comply with the law in respect of those specific matters on which the Code gives advice. You may use alternative methods to those set out in the Code in order to comply with the law.

However, the Code has a special legal status. If you are prosecuted for breach of health and safety law, and it is proved that you did not follow the relevant provisions of the Code, you will need to show that you have complied with the law in some other way or a Court will find you at fault.

Guidance

This guidance is issued by the Health and Safety Executive. Following the guidance is not compulsory, unless specifically stated, and you are free to take other action. But if you do follow the guidance you will normally be doing enough to comply with the law. Health and safety inspectors seek to secure compliance with the law and may refer to this guidance.

Contents

Introduction

What this book is about

1 This publication contains an Approved Code of Practice (ACOP) on the duties under the Health and Safety at Work etc Act 1974 (the HSW Act) and its relevant statutory provisions that are specific to the docks industry. It also provides details of relevant guidance that has been developed by the Health and Safety Executive (HSE), Ports Skills and Safety (PSS), Unite the Union and others to help employers, employees and the self-employed comply with the law. It does not introduce any new requirements for dutyholders.

2 This ACOP only addresses some specific dock-related issues and complying with this ACOP alone will not be sufficient to fulfil your full duties under health and safety law. You will also need to refer to other ACOPs and Regulations for more general matters.

Who needs to read this

3 The HSW Act and its relevant statutory provisions cover the safety of anyone at work while they are in Great Britain, or engaged in certain other activities in the territorial sea. Regulations under the HSW Act do not generally apply to the master and crew of a ship carrying out shipboard activities. However, masters do have duties under the HSW Act when ships' crew work alongside shore-based personnel on the ship, or when ships' plant, eg a lift truck, is used ashore.

Content and scope of this ACOP

4 The ACOP provides practical guidance on sections 2, 3, 4, 7 and 8 of the HSW Act in respect of some of the work activities carried out in docks. These set out the basic requirements to ensure, so far as reasonably practicable, the health, safety and welfare of all involved. In docks employers, employees and others need to comply with these and a number of other sets of Regulations made under the HSW Act which prescribe more specific ways in which the general duties should be complied with. Many of those duties apply to work carried out in docks, as they would apply in other places of work. Examples of regulations which also apply to work carried out in docks include:

- Management of Health and Safety At Work Regulations 1999 (the Management Regulations)
- Workplace (Health, Safety and Welfare) Regulations 1992 (the Workplace Regulations)
- Work at Height Regulations 2005 (WAHR)
- Lifting Operations and Lifting Equipment Regulations 1998 (LOLER)
- Provision and Use of Work Equipment Regulations 1998 (PUWER)
- Personal Protective Equipment at Work Regulations 1992

- Confined Spaces Regulations 1997
- Loading and Unloading of Fishing Vessels Regulations 1988
- Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR)
- Control of Substances Hazardous To Health Regulations 2002
- Safety Representatives and Safety Committees Regulations 1977
- Health and Safety (Consultation with Employees) Regulations 1996

5 Some of these Regulations have associated ACOPs and it is important that dutyholders refer to these as well as this ACOP when considering their duties under health and safety law. This ACOP only provides preferred or recommended methods of compliance for some of the work practices which are specific to docks.

6 In situations where regulations made under the HSW Act do not apply on ships, equivalent duties are specified under Merchant Shipping and Fishing Vessel Regulations.

7 This ACOP only applies to duties under the HSW Act. Other non-HSW regulations may also apply to work in docks, including the Working Time Regulations 1998, though these are not covered by this ACOP.

Summary of change

8 The Docks Regulations 1988 were revoked in April 2014 because the duties had been replaced by equivalent requirements in more modern legislation. Some of the guidance with ACOP status has been transferred from HSE's *Safety in docks: Docks Regulations 1988: Approved Code of Practice with Regulations and guidance* publication (COP25).

9 The main changes in the remaining ACOP material are as follows:

- References to duties in the Docks Regulations 1988 have been removed.
- Some guidance has had its ACOP status removed because it is no longer comparable with more modern regulations or because it already exists in ACOPs for the various Regulations referred to in this document.
- There is a consequential amendment to the WAHR to provide an exemption for fencing at straight and level quaysides.

About ACOPs

10 ACOPs are approved by the HSE Board with the consent of the Secretary of State (see Appendix 1 Notice of Approval for details).

11 The ACOP describes preferred or recommended methods that can be used (or standards to be met) to comply with the regulations and the duties imposed by the HSW Act and relevant statutory provisions. The accompanying guidance also provides advice on achieving compliance, or it may give information of a general nature, including explanation of the requirements of the law, more specific technical information or references to further sources of information.

12 The legal status of ACOP and guidance text is given on the copyright page.

13 The ACOP text is set out in **bold** and the accompanying guidance in normal type. A coloured border also indicates each ACOP section clearly.

Terms used in regulations and ACOP/guidance

14 Words and expressions which are defined in the HSW Act and the Management Regulations 1999 have the same meaning in this ACOP and guidance unless the context requires otherwise.

Managing for health and safety in docks

15 Organisations have a legal duty to put in place suitable arrangements for managing health and safety. The keys to effectively managing for health and safety are:

- leadership and management (including appropriate business processes); and
- a trained/skilled workforce; operating in
- a safe working environment where people are trusted and involved.

16 All of these elements are vital and need to be underpinned by an understanding of the profile of risks that the organisation creates or faces.

17 A formal management system or framework can help employers to manage health and safety. Organisations can decide whether to use one or not, but whatever approach is used is likely to contain the steps Plan, Do, Check, Act which are advocated in *Managing for health and safety* HSG65.

18 The Department for Transport's *Port Marine Safety Code*, which applies to all harbour authorities in the UK that have statutory powers and duties, requires a similar approach. It applies the principles of risk assessment and safety management systems to port marine operations.

19 Particular challenges for effective management of health and safety within the docks industry include:

- the number of different employers and/or contractors who can all affect each other's activities. These may include harbour authorities, dock operators, stevedoring firms, hauliers, ships' masters and crew;
- the changing nature of docks as workplaces. This may be due to tidal movements, weather and timing issues;
- the use of temporary workers who may be less familiar with the dock environment than permanent employees. Employer's duties to protect the health, safety and welfare of workers are the same whether they are full-time, part-time, permanent, non-permanent or temporary. This includes workers who are on short-term contracts or rolling contracts;
- the need to board ships and use ships' equipment. Workers should not be allowed to work in an area of a ship that is unsafe until it has been made safe or a safe method of work is in place. If dock workers are using ships' equipment then their employer must ensure that this is safe. This may require the employer to check the equipment and ships' documentation;
- the presence of members of the public who visit dock premises. These may be either passengers or users of public rights of way. These people are more vulnerable as they may be unfamiliar with the premises and/or hazards;
- the need to converse with ships' crew and other parties, eg hauliers, whose first language may not be English.

Legal duties for managing health and safety at work

20 The Management Regulations require employers to put in place arrangements to control health and safety risks. As a minimum, employers should have:

- a written health and safety policy (for employers of five or more people);
- assessments of the risks to employees, contractors, customers, partners, and any other people who could be affected by those activities – and record the significant findings in writing (for employers of five or more people). Any risk assessment must be 'suitable and sufficient';
- arrangements for the effective planning, organisation, control, monitoring and review of the preventive and protective measures that come from risk assessment;
- access to competent health and safety advice;
- arrangements to provide health surveillance where appropriate;
- arrangements to provide employees with information about the risks in the workplace and how they are protected;
- arrangements to provide instruction and training for employees in how to deal with the risks;
- arrangements to provide adequate and appropriate supervision;
- arrangements to consult with employees and their representatives about the risks at work and current preventive and protective measures.

Responsibilities of specific organisations

21 In addition to the general duties outlined in paragraph 20, organisations may have additional specific duties dependent on their role. The primary legal duties are placed on the employer(s) of those working in the dock and those in control of the premises and activities carried out. The following categories of organisations may have specific responsibilities, the extent of these will be determined by the exact circumstances.

Organisations with landlord duties, eg harbour authorities and/or dock operators

22 Additional duties may include:

- ensuring that premises are provided in a structurally safe and fit-for-purpose condition;
- passing on any relevant health and safety information about the premises to others;
- identifying areas where specific personal protective equipment (PPE) should be worn;
- where parts of dock premises are leased to tenants, the leasing arrangements should make clear the extent to which the tenant has control of the premises.

23 A good way of exercising control over competence on the premises is to operate a health and safety passport scheme for dock operatives.

Organisations operating within the dock, eg dock operator, stevedores, terminal operator and warehouse operator

24 Additional duties may include:

- ensuring that all workers, whether employees or employed through someone else, are properly trained;
- if organisations exercise some control over other employers and their employees on parts of their premises, they will have some responsibility to

make sure that these people are not endangering others in these areas, including monitoring working hours and fatigue;
- co-operating with other employers.

Labour suppliers

25 Additional duties may include:

- where required, co-operate with the client organisation to agree who will take responsibility for what, and make sure that the worker also knows the position;
- labour suppliers still have responsibility for their employees' health and safety if they are working at someone else's premises and/or under someone else's direct day-to-day control, including monitoring working hours and fatigue.

Ships' masters and shipping agents

26 Additional duties may include:

- ensuring that any contractors that are used are controlled, eg stevedores contracted to load ships' cargo;
- where a ships' master provides a place of work and or equipment for others to use (such as workers employed by the dock operator or a stevedore) then, so far as reasonably practicable, these should be safe and without risks to health.

Other organisations

27 Other organisations will include mooring crews, delivery drivers, enforcement agencies, representatives from clients and customers etc.

28 Additional duties may include:

- what the organisation does is likely to affect others in the dock area, and vice versa. As such, co-operation is essential to minimise health and safety risks;
- not entering areas where authorisation has not been given.

ACOP

29 Where shore-based employees go aboard ship, all dutyholders involved, including the ship's master, should collaborate with one another to ensure that their respective duties are discharged.

30 Where work involves more than one party, eg when loading a vessel, it is important that everyone agrees an overall plan for the work so that everyone knows what they are doing. Unless very simple, this plan should be written down and explained to the workers involved. The plan should cover:

- the responsibilities of each party;
- how each party will do its part;
- how the different parties will interface;
- common issues and arrangements, eg for emergencies;
- how the work will be co-ordinated and controlled.

31 In some operations, such as ro-ro (roll-on, roll-off) movements, control may be with either shoreside management or the ships' master or, in some instances, both. In such cases, collaboration is required to avoid confusion and ensure that clearly defined procedures are followed.

Core elements of managing for health and safety

32 All organisations have management processes or arrangements to deal with payroll, personnel issues, finance and quality control – managing health and safety is no different.

33 Whatever the industry, or the size or nature of an organisation, the core elements to effectively managing for health and safety are:

Leadership and management
34 Leaders, at all levels, need to understand the range of health and safety risks in their part of the organisation and to give proportionate attention to each of them. This applies to the level of detail and effort put into assessing the risks and the effort put into implementing controls, supervising and monitoring.

More advice on leading and managing for health and safety: www.hse.gov.uk/managing/leading.htm

A competent workforce
35 The competence of the workforce is vital, whether they are employees, managers, supervisors or contractors. It ensures they recognise the risks in their activities and can apply the right measures to control and manage those risks.

More advice on competence: www.hse.gov.uk/managing/competence.htm

An environment where people are trusted and involved
36 At its most effective, the full involvement of the workforce creates a culture where relationships between employers and employees are based on collaboration, trust and joint problem solving.

37 This is where employees and their representatives are involved in assessing workplace risks and the development and review of workplace health and safety policies in partnership with the employer.

More advice on worker consultation and involvement: www.hse.gov.uk/managing/worker.htm

Delivering effective arrangements: the Plan, Do, Check, Act approach

38 Managing health and safety can rarely be achieved by one-off interventions. A sustained and systematic approach is necessary. While this may not always require a formal health and safety management system, whatever approach is used it probably contains the steps **Plan, Do, Check, Act.**

Plan

39 Determining policy – think about what could be done to manage health and safety, and then decide who is going to do what and how.

40 Planning for implementation – planning is essential for the implementation of health and safety policies. Adequate control of risk can only be achieved through co-ordinated action by all members of the organisation.

Do

41 Identify the organisation's health and safety risks – assess the risks, identify what could cause harm in the workplace, who it could harm and how, and what will be done to manage the risk. Assessments should also consider the ergonomics of work processes and tasks, and the organisation of work. Within a dock environment, there are often a number of different parties who can all affect and be affected by one another's activities. Ongoing maintenance requirements should also be considered as part of this, eg maintenance of cranes, quayside ladders and rescue equipment.

42 Organising for health and safety – this covers activities in four key areas that together promote positive health and safety outcomes, ie controls, co-operation, communication and competence:

(a) **Controls** within the organisation – this will include:
- (i) role of supervisors;
- (ii) systems for managing contractors.

(b) **Co-operation** – this is needed:
- (i) between workers, their representatives and managers through active consultation and involvement.

43 Employers have a legal duty to consult with their employees, or their representatives, on health and safety matters including:

- risks arising from their work;
- proposals to manage and/or control these risks;
- the best ways of providing information and training.

44 Active consultation and involvement of employees and their health and safety representatives is essential to good health and safety management.

45 Consultation involves employers not only giving information to employees but also listening to them and taking account of what they say before making health and safety decisions.

46 Consultation should take place in good time on health and safety matters. In workplaces where the trade union is recognised, this will be through union appointed health and safety representatives. In non-unionised workplaces employers can consult employees either directly or through other elected representatives. In workplaces where there are unionised and non-unionised employees, employers must consult with both.

47 Involving employees and their safety representatives when carrying out and reviewing risk assessments is a good way of helping to manage health and safety risk.

48 Consider asking employees what they think the hazards are, as they may notice things that are not obvious and often have good, practical ideas on how to control the risks. Employees are more likely to understand and adopt controls for risks if they have been actively involved in reaching these decisions.

(c) **Communication** – to achieve success in health and safety management, there needs to be effective communication throughout each organisation, and with other relevant parties.

49 Co-operation and communication are vital within the dock industry due to the number of parties that are often involved in the work activity and the ever-changing circumstances.

(d) **Competence** – this includes capabilities training and experience – helping people to gain the skills and knowledge and ultimately competence to carry out their work safely and without risk to their health. Further guidance on training within the industry can be obtained from the relevant trade associations and trade unions.

50 Implement the plan:

- Decide on the preventive and protective measures needed and put them in place.
- Provide the right facilities and equipment to do the job and keep them maintained.
- Inform, train and instruct, to ensure everyone is competent to carry out their work.
- Supervise to make sure that arrangements are followed.

Check

51 Measure performance – make sure that plans have been implemented and assess how well risks are being controlled.

52 Investigate the causes of accidents, incidents or near misses. An investigation can help to identify why the existing risk control measures failed and what improvements or additional measures are needed.

Act

53 Review performance – learn from accidents and incidents, ill-health data, errors and experience.

54 Take action on lessons learned, including from audit and inspection reports.

Find out more

Legislation

Management of Health and Safety at Work Regulations 1999
www.legislation.gov.uk/uksi/1999/3242/made

Safety Representatives and Safety Committee Regulations 1977
www.legislation.gov.uk/uksi/1977/500/contents/made

Health and Safety (Consultation with Employees) Regulations 1996
www.legislation.gov.uk/nisr/1996/511/contents/made

Working Time Regulations 1998
www.legislation.gov.uk/uksi/1998/1833/contents/made

HSE guidance

Managing for health and safety HSG65 (Third edition) HSE Books 2013 ISBN 978 0 7176 6456 6 www.hse.gov.uk/pubns/books/hsg65.htm

Managing shift work: Health and safety guidance HSG256 HSE Books 2006 ISBN 978 0 7176 6197 8 www.hse.gov.uk/pubns/books/hsg256.htm

Investigating accidents and incidents: A workbook for employers, unions, safety representatives and safety professionals HSG245 HSE Books 2004 ISBN 978 0 7176 2827 8 www.hse.gov.uk/pubns/books/hsg245.htm

Involving your workforce in health and safety: Good practice for all workplaces HSG263 HSE Books 2008 ISBN 978 0 7176 6227 2 www.hse.gov.uk/pubns/books/hsg263.htm

Workplace health, safety and welfare: A short guide for managers Leaflet INDG244(rev2) HSE Books 2007 www.hse.gov.uk/pubns/indg244.htm

HSE web pages

Health surveillance
www.hse.gov.uk/health-surveillance

Risk assessment
www.hse.gov.uk/risk

Competence in health and safety
www.hse.gov.uk/competence

Leading in health and safety
www.hse.gov.uk/leadership

Worker involvement
www.hse.gov.uk/involvement

Joint PSS/HSE guidance

SIP013 *Guidance on management of non-permanent employees in ports* www.portskillsandsafety.co.uk/publications/safety_in_ports_guidance

Other sources of information

Port Marine Safety Code Department for Transport www.dft.gov.uk/mca/mcga07-home/shipsandcargoes/mcga-shipsregsandguidance/navigation/dms-nav-pmsc-gtgp.htm

Workplace transport

55 Every year accidents involving transport result in people being killed or seriously injured. People fall off vehicles, or are struck or crushed by them. Many different people drive in docks – this includes drivers from a number of different employers and members of the public. Not all of these drivers will be familiar with the dock environment.

56 Typical workplace transport hazards in docks include:

- movement of vehicles and other plant on and around the dock;
- loading and unloading of vehicles;
- unsecured loads on vehicles;
- trailer coupling and uncoupling in the dock and on the ship;
- unsegregated vehicle/pedestrian access, eg ro-ro bridges and vessel ramps;
- reversing vehicles throughout the dock including adjacent to open quay edges;
- movement of vehicles in cargo storage areas, vehicle parks, ships' holds and quaysides;
- use of vehicles with limited visibility, including straddle carriers and reach stackers.

57 To manage workplace transport risks in docks effectively everyone involved should work together when considering the following three areas:

- Safe site – design and activity
- Safe vehicle
- Safe driver

ACOP

Safe site – design and activity

Pedestrian walkways on shore

58 Walkways should if possible be so laid out that they do not cross cargo handling areas. If it is necessary that they do, then they should be carefully designed and laid out to provide safe access.

Vehicle access to ships

59 Ramps used by vehicles should not also be used for pedestrian access unless there is suitable segregation of vehicles and pedestrians, whether by providing a suitable protected walkway or by ensuring that pedestrians and vehicles do not use the ramp at the same time.

60 A suitable and safe traffic movement system, appropriate to the circumstances, which includes the regulation of traffic between ship and shore, should be set up and adequately supervised and monitored.

Vehicle movements

61 In areas where ships are loaded or unloaded, vehicles should avoid manoeuvring close to unprotected quay edges.

62 Where the pattern of vehicle movement presents a foreseeable risk from vehicles running over the edge of a quay or other dangerous edge, suitable barriers should be provided and maintained.

63 Vehicles that are not involved in dock operations should not be admitted to areas where loading or unloading is taking place, except in emergency, or in exceptional circumstances or for law enforcement agencies to carry out their duties.

Suitability of structures for use by vehicles

64 Structures used by vehicles should be of adequate strength to be used safely.

65 Ramps should not be used at a slope greater than that for which they were designed. In general, no plant or other heavy vehicle should use a ramp with a slope of more than 10% unless a competent person is satisfied that the vehicle can safely be moved on that ramp, and if necessary the surface of the ramp has been suitably treated to provide sufficient grip.

66 Vehicles should not be used on any hatch covering on a ship (unless the hatch is specifically designed for that purpose) without the authority of the ships' master or their authorised and competent representatives.

Drivers in cabs

67 Other than for the purposes of driving onto or off a straddle carrier grid in a container handling area, no person should remain in the cab of a haulage vehicle while it is on the grid. People should have safe access to and from all haulage vehicles on a straddle carrier grid to a safe place.

Pedestrian/vehicle segregation

68 Every workplace should be safe for the people and vehicles using it.

69 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.

70 Where pedestrians are required to enter a high-risk area (eg cargo handling area for a particular task) then additional control measures (eg a safe system of work) may be required.

71 All vehicle and pedestrian traffic routes should be clearly marked and signs clearly visible. Appropriate crossing points should be provided where pedestrians and vehicles meet.

72 Haulage drivers should remain in a safe area while their vehicles are being loaded and unloaded. The location of the safe area will depend on individual circumstances although in some instances this may be within the actual vehicle cab.

ACOP

Load securing

73 Loads should be adequately secure on a lorry or trailer. In the case of containers, twistlocks or guides should be used.

ACOP

74 Where containers or other loads are moved from the loading position to a safe area nearby in the dock to be adequately secured, the control measures necessary to ensure the safety of workers and other affected parties in the vicinity should be identified through risk assessment.

75 All parties involved in the loading of vehicles should co-operate to ensure that the load is safe to be moved from the loading position.

76 It is important to differentiate between the two stages of a journey:

(a) the initial transfer of a load (ie from the loading/unloading position to a safe area nearby for proper securing); and
(b) the onward journey from that safe area (eg a road journey for delivery or to storage).

77 No matter how short a journey to/from the quayside, the load must be appropriately secure. However, it is recognised that there is a risk associated with personnel having to strap loads and apply twistlocks in cargo handling areas. The extent to which the load needs to be secured for the initial transfer stage along with other control measures required should be determined through an assessment of the risks.

78 Factors to consider will include:

- type of load (eg bulk, bundled etc);
- stability of load;
- method of stacking;
- type of vehicle;
- length of journey;
- road surface;
- vehicle speed;
- weather conditions.

79 Possible control measures may include:

- containment of the load using stanchions, chocks, or blocks;
- controlling pedestrian access to the vicinity.

80 All parties involved in the loading and unloading of vehicles should co-operate to ensure that foreseeable risks are identified and appropriate control measures are identified and used.

81 For the onward journey the load should be properly secured to the lorry or trailer.

Vehicle movements

82 Appropriate road signs and markings should be provided.

83 Appropriate speed limits around site should be set and drivers should be given instructions about safe speeds.

84 Establish and enforce site rules and provide these to visiting drivers.

85 Avoid reversing where possible.

86 Where lift trucks need to be used on board ship, unless the operating surface is sufficiently strong, level and well made, it may be necessary to provide a suitable

surface that covers a sufficient area for the truck to carry out necessary manoeuvres.

87 Where the driver's view is incomplete, and the vehicle could move in a way such that the driver can not see the path of travel of their vehicle, then a system of work should be developed to enable them to operate safely.

88 Consider the application of the Road Traffic Act and other relevant legislation, such as dock byelaws.

ACOP

Safe vehicle

Brakes

89 When the driver is out of the cab, the vehicle parking brake must be applied in all cases.

90 Some roll trailers used in dock premises are not fitted with brakes by the manufacturer and are not designed to be so fitted. Tractor units used to haul such trailers must have sufficient braking capacity to brake both the haulage unit and the trailer with the trailer carrying the maximum permitted load.

Parking

91 Vehicles should be securely parked with brakes applied or otherwise secured where appropriate.

Maintenance

92 For certain categories of vehicle which are intended to be driven in dock premises but which do not form a part of dock operations (eg vehicles being imported or exported), the person in control of the supply of the vehicles (eg the manufacturer or shipping agent) has a duty to ensure such vehicles are maintained in a safe condition. The duty of the dock operator in relation to such vehicles (as regards whether any particular vehicle is safe to move) is limited to matters within their control.

93 Road vehicles that remain within docks, but are of a type used on public highways, should be maintained to a standard that would meet the requirements for use on a public highway, except where this is clearly unnecessary or inappropriate for safety, and the vehicle concerned is never used on the public highway.

94 Vehicles should be safe, suitable for the purpose for which they are used, regularly maintained, repaired and inspected.

95 All vehicles should be provided with suitable and sufficient lighting for the task and location.

96 Appropriate control measures which may include audible and visual reversing aids (such as CCTV, proximity sensors, reversing alarms etc) should be identified through risk assessment.

97 Provide well-constructed steps or ladders, non-slip walkways and guard rails where possible to reduce the risk of falling when people have to climb onto a vehicle or trailer.

98 Lifting attachments for lift trucks (eg reel clamps) should be used in line with manufacturers' recommendations to ensure that all loads lifted are secure.

99 Vehicles should be fitted with seatbelts if either used on the road or deemed necessary by risk assessment. A seatbelt will be required where roll-over protective structures (ROPS) are fitted. Where seatbelts are provided, they should be used, unless the risk determines their use unnecessary or inappropriate. When seatbelts are required, their use should be monitored.

100 Where fitted, trailer parking brakes must be used unless there are circumstances where the application of the brake may increase the risk of injury to dock staff and collecting/delivering drivers. In these circumstances, the cargo handler should undertake a comprehensive assessment of the risks of the activity to ensure that adequate control measures are in place. Key points to consider include:

- design of trailer park (layout, surface condition, gradient, size of bays, backstops);
- instructions to workers and visiting drivers;
- control of pedestrians; and
- general site rules.

ACOP

Refuelling

101 Safe arrangements should be made for refuelling vehicles, particularly on freight decks or in ships' holds.

102 Safe arrangements should be made for refuelling vehicles. Petroleum or liquefied petroleum gas (LPG) powered vehicles should be refuelled in a safe well-ventilated area and not in any confined space.

ACOP

Safe driver

103 Employers who authorise their employees to drive vehicles or operate lifting equipment should keep and maintain records, which are readily accessible at all times to the relevant person, which should take the form of a list of employees and the vehicle and lifting equipment each is authorised to drive or operate. Each authorisation should generally be for a set period, until the driver or operator is reassessed, rather than for a particular occasion.

104 Authorised drivers and operators on dock premises should be monitored to ensure that they remain fit and competent for the tasks and activities they carry out.

105 Any employee whose ability to drive a vehicle or operate lifting equipment appears to be impaired by alcohol or other drugs should be considered unfit while that impairment lasts.

Safe driver

106 All drivers should be fit, authorised and competent to operate all the vehicles they use at work.

107 Drivers should follow safe working practices.

108 Employers should monitor these practices.

109 Drivers should be made aware of their own health and safety responsibilities including informing employers of medical conditions that impair their ability to drive.

110 Drivers should be provided with the correct PPE.

111 Drugs mentioned above will include prescription drugs where they impair the employee's ability to drive or operate equipment.

Find out more

HSE ACOPs and guidance

Safe use of work equipment. Provision and Use of Work Equipment Regulations 1998. Approved Code of Practice and guidance L22 (Third edition) HSE Books 2008 ISBN 978 0 7176 6295 1 www.hse.gov.uk/pubns/books/l22.htm

Workplace health, safety and welfare. Workplace (Health, Safety and Welfare) Regulations 1992. Approved Code of Practice and guidance L24 (Second edition) HSE Books 2013 ISBN 978 0 7176 6583 9 www.hse.gov.uk/pubns/books/l24.htm

Rider-operated lift trucks: Operator training and safe use. Approved Code of Practice and guidance L117 (Third edition) HSE Books 2013 ISBN 978 0 7176 6441 2 www.hse.gov.uk/pubns/books/l117.htm

Workplace transport safety: An employers' guide HSG136 HSE Books 2005 ISBN 978 0 7176 6154 1 www.hse.gov.uk/pubns/books/hsg136.htm

HSE web pages

Ports
www.hse.gov.uk/ports

Workplace transport
www.hse.gov.uk/workplacetransport

Trailer coupling and uncoupling
www.hse.gov.uk/workplacetransport/information/coupling.htm

Work-related road safety
www.hse.gov.uk/roadsafety

Load safety
www.hse.gov.uk/loadsafety

Joint PSS/HSE guidance

SIP001 *Guidance on workplace transport: Port and terminal planning*
www.portskillsandsafety.co.uk/publications/safety_in_ports_guidance

SIP010 *Guidance on workplace transport (ro-ro and sto-ro operations)*
www.portskillsandsafety.co.uk/publications/safety_in_ports_guidance

SIP012 *Guidance on ro-ro passenger and cruise operations*
www.portskillsandsafety.co.uk/publications/safety_in_ports_guidance

Other sources of information

Roll-on/Roll-off – Stowage and securing of vehicles: Code of Practice Maritime and Coastguard Agency
www.dft.gov.uk/mca/ro-ro_stowage_securing_of_vehicles_cop.pdf

Safety of loads on vehicles Department for Transport
www.dft.gov.uk/pgr/roads/vehicles/vssafety/safetyloadsonvehicles.pdf

Load safe, road safe – A professional driver's guide to safe loading and transport Health and Safety Laboratory www.hsl.gov.uk

Transport Safety – An Operator's Guide to Safe Loading and Transport Health and Safety Laboratory www.hsl.gov.uk

Working at height

112 Working at height is one of the biggest causes of work-related fatalities and major injuries.

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

114 Typical falls from height hazards in docks include:

- access to and from vessels by accommodation ladders, quayside ladders and gangways;
- container working – lashing and unlashing;
- loading and unloading some types of cargo, such as pipework, timber packs etc, can result in open edges from ships' decks, and from the cargo itself;
- access to and from places of work onboard vessels (holds, hatches, decks etc);
- falls from vehicles and trailers during loading/unloading and sheeting;
- maintenance and unplanned work;
- working adjacent to open edges of docks, wharves etc;
- falls from plant and machinery;
- mooring points (eg 'dolphins').

115 Before any work is carried out at height the risk should be determined and appropriate control measures put in place.

ACOP

Access to ships

116 Access should generally be provided by the ship's accommodation ladder or by the ship's gangway in accordance with MCA's Marine Guidance Note 533 *Means of Access*.

117 Accommodation ladders or gangways should be properly rigged and secure. All necessary facilities and arrangements should be provided on shore to enable this to be done.

118 Shore-based equipment which is at least as safe as a properly rigged and secured ship's accommodation ladder or gangway should be provided and used where the use of ships' equipment is impossible or unsafe, especially where ships' decks are significantly below or above the level of the quay, wharf, dock or jetty.

119 Each end of a gangway or accommodation or other ladder should provide safe access to a safe place, or to an auxiliary safe access. Where necessary, bulwark ladders should be provided, securely rigged and used.

ACOP

120 Where no safer means of access can be provided, a system of fixed ladders should be provided onshore where there is regular need for them. Any such ladders should be adequately protected from damage by ships, by recessing, fendering or otherwise.

121 Where means of access passes over water and there is a significant risk of a person falling into the water and drowning from or at either end of the means of access, or from the quayside or ships' deck immediately adjacent to the means of access, suitable safety nets should be securely rigged to minimise this risk. Suitable and sufficient attachment points for nets should be provided.

122 A safe means of access to workplaces and working positions should be provided. This includes access on to plant onshore, afloat and to ships and ships' holds.

123 Where such access is provided by the ship, the shoreside employer should also ensure that it is safe for their employees to use.

124 Where access is provided by the shore, the duty to rig and maintain access remains with the person providing it.

125 If a gangway or other physical means of access is lent or loaned by a shoreside employer to the master for use as ships' equipment, then access will be deemed to have been provided by the ship, and the rigging and maintenance of that access will fall to the ships' master. The shoreside supplier still retains a duty under section 6 of the HSW Act to supply the equipment in a safe condition.

126 Other risks to consider include:

- prevailing environmental conditions (eg high winds, rain, snow, poor visibility etc) that may present additional hazards when working at height;
- changes to cargo condition;
- cargo movement;
- vessel movement due to tide, loading or unloading.

127 Consider emergency evacuation and rescue procedures, for example where a person works in an isolated position such as a deep cargo hold or a crane cab. See chapter 'Emergency planning' for more detail.

ACOP

Access between ships

128 Where access between ships is necessary, the access should generally be provided by the ship lying outboard, unless there is a great disparity in freeboard when access should be provided by the ship with the higher freeboard.

129 Pilot ladders should only be used to provide access between a ship with high freeboard and a barge or similar ship with low freeboard.

130 A safe means of access to workplaces and working positions should be provided.

131 Pilot ladders should only be used in exceptional circumstances where no other practicable means of access are possible. Ladders should be secured so that they are firmly held against twist, turnover or tilt.

132 Consider emergency evacuation and rescue procedures.

133 Other risks to consider include extreme weather (eg high winds, rain, snow, poor visibility etc) that may present additional hazards when working at height.

ACOP

Cargo

134 No ships' hold should be left open for dock operations for longer than is required.

135 Except where adequate precautions have been taken to prevent injury, no work should be performed adjacent to an open edge or hatchway if the work involves someone being in a position where they could fall or be struck by a falling object.

136 Where cargo is built up in the hold or on deck and there is a risk of people falling or being struck by moving cargo, suitable safety measures should be taken to protect them against such a fall or being struck by moving cargo.

137 When container ships are not equipped with suitable lashing platforms then suitable platforms or cages, lifted by crane and designed for use between container aisles, should where reasonably practicable be provided and used.

How the risks can be reduced

138 All work at height should be properly planned and organised.

139 Use risk assessment as a means of identifying and determining the safe distance from open edges.

140 When loading or unloading cargo, risk assessment will determine if safe by virtue of position away from any open edge is an appropriate control measure. In certain circumstances, this may only be adequate when used in conjunction with other control measures such as soft landing systems.

141 Workers involved in work at height should be competent.

142 Avoid work at height where possible, for example working from the ground using a long-handled tool.

143 If work at height cannot be avoided, use work equipment or other measures to prevent falls, eg guardrails, mobile elevating working platforms (MEWPs).

144 Select and use suitable work equipment which may include container top safety frames and restraint devices.

145 Equipment for work at height must be properly inspected and maintained.

146 Where access to the workplace requires a worker to pass over cargo, then a safe means of access must be provided.

147 A safe means of access to workplaces and working positions should be provided. This includes access on to plant onshore and to ships and ships' holds.

148 If there is still a risk of falls, use work equipment that minimises the distance and consequences of a fall, eg nets, airbags, fall arrest systems.

149 Adverse weather may pose additional hazards that should be taken into account.

ACOP

Fencing at dock edges

150 Except for straight and level quaysides, fencing should be provided at all dock, wharf, quay or jetty edges from which people may fall into water, and where they must pass within 1 m of the edge, or the configuration of the quay or the arrangement of walkways is such that they are more than ordinarily liable to fall over such an edge.

151 Fencing should be provided throughout every open side of narrow access ways, whether the fall would be into water or not.

152 These provisions do not apply to areas where there is no work activity being undertaken, subject to any foreseeable risk to members of the public.

153 Secure and adequate fencing should be provided where risk assessment has found this to be needed.

154 Particular consideration should be given to:

- every break, dangerous corner and other part or edge of a dock, wharf, jetty or quay;
- open sides of a gangway, footway over a bridge, caisson or dock gate; and
- any other place where someone working or passing might fall.

155 Secure fencing should consist of an upper rail and an intermediate rail. In certain circumstances, eg the presence of children, a higher standard of protection will be required. The rails may where necessary consist of taut wire, taut chain or other taut material.

156 Where the work involves being within 1 m of an unprotected quay edge, people should wear suitable PPE, eg lifejackets or buoyancy aids.

157 Dock premises should be provided 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.

158 Take into account the risks to lone workers.

159 Take into account the risks to members of the public where public access is possible or foreseeable, even if there is no dock work activity being undertaken (to comply with section 3 of the HSW Act).

Find out more

Legislation

Work at Height Regulations 2005 (as amended)
www.legislation.gov.uk/uksi/2005/735/schedule/3/made

HSE guidance

Working at height: A brief guide Leaflet INDG401(rev2) HSE Books 2014
www.hse.gov.uk/pubns/indg401.htm

HSE web pages
Ports
www.hse.gov.uk/ports

Work at height
www.hse.gov.uk/work-at-height

Joint PSS/HSE guidance
SIP002 *Guidance on general cargo*
www.portskillsandsafety.co.uk/publications/safety_in_ports_guidance

SIP003 *Guidance on container handling*
www.portskillsandsafety.co.uk/publications/safety_in_ports_guidance

SIP005 *Guidance on mooring*
www.portskillsandsafety.co.uk/publications/safety_in_ports_guidance

SIP014 *Guidance on safe access and egress in ports*
www.portskillsandsafety.co.uk/publications/safety_in_ports_guidance

Other sources of information
Code of Safe Working Practices for Merchant Seamen Maritime and Coastguard Agency/Department for Transport
www.dft.gov.uk/mca/coswp2010.pdf

Port Marine Safety Code Department for Transport
www.gov.uk/government/publications/port-marine-safety-code

Code of Practice for the Safe Mooring of Vessels on the Thames Port of London Authority www.pla.co.uk/Safety/Code-of-Practice-for-the-Safe-Mooring-of-Vessels-on-the-Thames

Code of Practice on safety and health in ports (ILO152) International Labour Organisation www.ilo.org/public/libdoc/ilo/2005/105B09_39_engl.pdf

Means of Access Marine Guidance Note 533 MCA
www.gov.uk/government/publications/mgn-533-m-means-of-access

Also refer to the ‘Slips and trips’ chapter of this publication

Lifting operations

160 Loading and unloading at docks 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 create significant risks to people working in the area.

161 Typical hazards from lifting operations include:

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

ACOP

Planning and organising lifting operations

162 Where loads are not marked with their weight, and the weight is not easy to estimate, the loads should be check-weighed, unless accurate information is available to determine their weight by reference to the cargo manifest or otherwise.

163 A safe system of work for lifting operations should include adequate arrangements for any necessary checking, inspection or examination of goods, including arrangements to ensure that the movement of the goods, or any plant carrying them, does not put any person performing such an operation in a position of danger.

164 Where two or more items of lifting equipment are working the same ship, additional control methods will be required.

165 Operations which include the use of ships' equipment or plant must be planned and executed safely. Dutyholders should make pre-use checks concerning the safety of the plant, so far as it is within their control. In particular, before any employer of shore workers authorises their employees to use ships' equipment and accessories, they should arrange for it to be checked before use, and check any associated certificates of test or thorough examination.

166 Walkways leading to ships should wherever practicable reach the ships' access without having to pass beneath overhead operations.

167 Loads should not be placed on hatch coverings, unless specifically designed for that purpose, without the authority of the ships' master or their authorised/competent representatives.

168 When planning and organising lifting operations, ensure employees and supervisors are trained, competent and experienced in safe lifting operations.

169 Ensure lifting plans address the foreseeable risks involved in the lifting operation and identify contingencies, eg:

- shifted loads;
- changes to the centre of gravity of the load;
- jammed containers or failure of twistlocks;
- bad weather;
- movement of the ship, eg when carrying out tandem or simultaneous lifts.

170 Items with a centre of gravity significantly away from their apparent centres in any plane should be appropriately marked to facilitate safe slinging, lifting and securing.

171 Operational procedures should include means for establishing the gross weight of each load to be lifted. Where reasonably practicable, this information should be marked on the load together with any other information necessary for its safe handling.

172 Lifting equipment must be suitable for the proposed use, including any unexpected forces to which the lifting equipment might be subjected. The equipment used should provide an appropriate 'factor of safety' against foreseeable risks, particularly where people are being lifted.

173 Take all practical steps to avoid people being struck by loads or lifting equipment and minimise the need to lift over people. Lifts should not take place over areas where people are likely to be working or passing where this can be avoided. Loads should not be suspended over occupied areas.

174 Where these situations cannot be avoided, the risks to people must be minimised by safe systems of work and appropriate precautions. Where loads are suspended, the area below them should be classed as a hazard zone and access restricted.

175 No hold should be left open for dock operations for longer than is required.

176 Operational procedures should include adequate arrangements for landing cargo and for storage of goods including safe stacking. Goods should be stowed on board ship in such a way that they do not obstruct any regular means of access unless an alternative means of access is provided.

ACOP

Use of lifting equipment

177 Where cranes and equipment are rail mounted or guided, those rails should be securely jointed, anchored and supported.

178 Crane rails should generally be straight, and should be provided with suitable crane arresting devices, including end stops, which should be properly maintained.

179 Cranes should have an efficient braking mechanism to stop the motion along the rails when the crane is in service. An effective system should also be provided to prevent inadvertent movement of the crane where it is exposed to high winds; for example, storm pins at sufficient intervals along the track, or some other suitable device which enables the crane to be securely anchored when not in use.

ACOP

180 Cranes liable to be affected by high winds should be fitted with an accurate device to indicate to the driver, and at ground level or terminal control, actual wind speed.

181 Lifting operations should be stopped if wind conditions make it unsafe to continue them.

182 For rail-guided lifting equipment, always ensure that there are facilities to minimise the consequences of collision, where there is more than one rail-mounted item in motion at the same time. Adequate devices should be provided for braking and stopping in the event of emergency or failure.

183 Always use suitable lifting equipment to securely lift cargo. Lifting equipment and accessories should be suitable for their intended use, eg paper reels should be handled with equipment such as reel clamps.

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

185 Cargo handling equipment, for example a forklift truck, that is lifted on to or off ships by crane or derrick should be provided with suitable points for the attachment of lifting gear. Such equipment should be marked with its gross weight.

186 Tank containers should not be lifted directly with the forks of forklift trucks, because of the risks of instability and of damaging the container with the ends of the forks. Tank containers may be lifted using forklift trucks fitted with suitably designed side or top lifting attachments, but care must be exercised due to the risk of surge in partly filled tanks.

187 The following also need to be considered:

- impact of climatic conditions, eg high winds, ice or unduly cold or hot weather, on the performance of lifting equipment and accessories;
- mist, fog and other conditions that reduce visibility;
- the impact of the prevailing weather on people involved in the lifting operation (crane driver, slinger, banksman etc).

Lifting equipment used for lifting people

188 If lifting people cannot be avoided, then lifting plant used for raising or lowering people should include:

- **a suitable platform or cage of good construction, sound material and adequate strength, which is properly maintained;**
- **except in the case of ships' cargo lifts which only carry drivers at the controls of their vehicles, fencing around the platform or cage up to a height of at least 1 m, constructed and arranged to prevent someone falling out or being trapped;**
- **an adequate secure foothold and handhold for someone travelling on the platform or cage;**
- **arrangements to prevent the platform or cage tipping or spinning in a manner dangerous to any occupant, or from becoming accidentally displaced.**

189 When lifting people, ensure that the correct type of equipment is used for the task and that it provides an appropriate 'factor of safety' against foreseeable risk.

190 Specially designed equipment for lifting people should be used where possible. The use of lifting equipment which has not been specifically designed for lifting people should only occur in exceptional circumstances (eg for rescue purposes). In these cases, additional safety precautions may need to be taken.

191 Lifting equipment used to lift people should be thoroughly examined at six-monthly intervals, or in accordance with the examination scheme.

ACOP

Maintenance of lifting equipment and accessories

192 The employer should check the condition of all lifting equipment and accessories so far as reasonably practicable to do so, and consider the use to which they are to be put.

193 This applies to all lifting equipment and accessories including multi-trip and one-trip slings, intermediate bulk containers (IBCs) and also rope, webbing or chains used in pre-slung loads.

194 So that the shoreside employer may comply with their obligations, they should provide and maintain a system of work which in the case of wire rope slings includes checking the test certificates for the wire rope from which the slings were made, where these are available. Where they are not available, the employer should, where possible, otherwise verify that a test has been carried out.

195 One-trip slings should be disposed of at the end of the trip and should never be reused.

196 Lifting appliances should not be used to drag loads.

197 All lifting equipment and accessories should be inspected and examined by suitably trained and competent people. This includes equipment such as crane anemometers, which should be regularly maintained and calibrated.

198 People who use lifting equipment should carry out pre-use checks on the equipment and accessories they use, as well as ongoing, regular checks as part of an overall maintenance programme (eg the checks undertaken by an operator on their crane). Operators may be best placed to identify faults or damage to equipment. A suitable system should be in place to ensure that any defect identified is reported and action taken to prevent the lifting equipment/accessory being used until properly investigated and remedied.

199 The nature and frequency of thorough examinations should take account of any manufacturer's recommendations or otherwise take place every 6 months for lifting equipment and associated accessories used to lift people; every 6 months for lifting accessories, and every 12 months for all other lifting equipment.

200 Where one-trip slings are used in lifting operations, the employer in control of the operation should ensure, so far as reasonably practicable, that the slings are not used again for lifting operations.

Cranes used in dock operations

201 Dutyholders should have in place robust, proactive planned maintenance

regimes for cranes, including an assessment of design life, post-supply structural modifications and actual use patterns.

202 Safety critical parts of the crane should be identified and have maintenance and testing regimes in place to monitor such parts, in line with suggested testing and maintenance intervals.

203 Dutyholders should consider 'foreseeable misuse', such as overloading or use in high winds. This should include consideration of dynamic and static overloading that may occur from the following and how to reduce and mitigate its effects:

- snagging where a container gets caught up during movement and creates significant momentary forces in ropes and parts of structure;
- trying to lift the ship where a container has not been released from those beneath it but the crane driver believes that it has and the crane attempts to lift, creating significant forces for a short time;
- jammed containers or twistlocks where a container is still partially connected to those beneath it but the crane driver believes that it has been freed and the crane attempts to lift, creating significant forces for a short time;
- twin lifting situations where the originally specified safe working load (SWL) is exceeded, reducing the factor of safety.

204 Dutyholders must consider the role, scope, time and access afforded to companies carrying out thorough examinations of cranes, particularly with regard to how schemes are determined and how it can be ensured that necessary safety critical parts are included in such schemes. Dutyholders must consider how to proceed where conflicting expert advice is received and keep records of such conflicts.

205 Dutyholders must consider the importance of involving crane operators and maintenance staff in plans for new purchase and/or modifications to existing cranes and crane working practices.

Find out more

Legislation

Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) www.legislation.gov.uk/uksi/1998/2307/contents/made

Provision and Use of Work Equipment Regulations 1998 (PUWER) www.legislation.gov.uk/uksi/1998/2306/contents/made

Merchant Shipping and Fishing Vessels (Lifting Operations and Lifting Equipment) Regulations 2006 www.legislation.gov.uk/uksi/2006/2184/contents/made

Merchant Shipping and Fishing Vessels (Provision and Use of Work Equipment) (Amendment) Regulations 2008 www.legislation.gov.uk/uksi/2008/2165/contents/made

HSE ACOPs and guidance

Safe use of lifting equipment. Lifting Operations and Lifting Equipment Regulations 1998. Approved Code of Practice and guidance L113 HSE Books 1998 ISBN 978 0 7176 1628 2 www.hse.gov.uk/pubns/books/l113.htm

Safe use of work equipment. Provision and Use of Work Equipment Regulations 1998. Approved Code of Practice and guidance L22 (Third edition) HSE Books 2008 ISBN 978 0 7176 6295 1 www.hse.gov.uk/pubns/books/l22.htm

Thorough examination of lifting equipment: A simple guide for employers Leaflet INDG422 HSE Books 2008 www.hse.gov.uk/pubns/indg422.htm

The freeing of jammed freight containers and container fittings on ships Docks Information Sheet DIS1(rev1) HSE Books 2008 www.hse.gov.uk/pubns/dis1.pdf

HSE web pages
LOLER
www.hse.gov.uk/work-equipment-machinery/loler.htm

PUWER
www.hse.gov.uk/work-equipment-machinery/puwer.htm

Joint PSS/HSE guidance
SIP002 *Guidance on general cargo*
www.portskillsandsafety.co.uk/publications/safety_in_ports_guidance

SIP003 *Guidance on container handling*
www.portskillsandsafety.co.uk/publications/safety_in_ports_guidance

Other sources of information
BS 7121-2-9:2013 *Code of practice for the safe use of cranes. Inspection, maintenance and thorough examination. Cargo handling and container cranes* British Standards Institution http://shop.bsigroup.com/

The Merchant Shipping and Fishing Vessels (Lifting Operations and Lifting Equipment) Regulations 2006 MGN332 Maritime and Coastguard Agency www.dft.gov.uk/mca/mgn332a.pdf

The Merchant Shipping and Fishing Vessels (Provision and Use of Work Equipment) Regulations 2006 MGN 331 Maritime and Coastguard Agency www.dft.gov.uk/mca/mgn331.pdf

Slips and trips

206 Over a quarter of all reportable accidents in docks 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 often simple measures can be taken to prevent them happening.

207 Typical slip and trip hazards in docks include:

- working on uneven, wet or icy surfaces on loads;
- adverse weather conditions;
- badly stowed mooring ropes, lashing gear and other equipment;
- use of inappropriate flooring or surfaces on walkways, ramps and access steps;
- discarded packaging and pallets;
- deck fittings and pipework on ship;
- poor or unsuitable lighting in work areas.

ACOP

208 All parts of dock premises which are used for working ships should, so far as reasonably practicable, be kept clear of loose material. In addition such materials should be cleared at appropriate intervals in the course of cargo handling.

209 Ways to reduce slip and trip risks may include:

- Good housekeeping – encourage a 'see it, sort it' culture and appropriate monitoring and reporting systems. Report and follow up where a work area has been left untidy by employees from other companies.
- Loose lifting accessories should be adequately stored.
- Specify appropriate flooring/surfaces. Slopes and ramps should have a suitable surface which should where necessary be ribbed or coated so as to be slip-resistant.
- Maintain floors, steps and walkways in a good condition.
- Where surfaces do become slippery due to adverse weather or tidal conditions then they should be maintained to ensure that vehicles and pedestrians can move about safely.
- Beware of oil spillages, spilt bulk cargo and trip hazards across walkways.
- Where a vessel is a frequent visitor, work with the master to make sure trip hazards are painted a conspicuous colour.
- Consider the type of load, weather conditions and likely contaminants when selecting suitable footwear. For example, studs or chains may be required if accessing cargoes covered in ice.
- Plan pedestrian and vehicle routes to avoid contaminated areas.
- Provide adequate lighting.
- Maintain plant to prevent contamination, eg oil getting onto the floor.

Find out more

Legislation

Workplace (Health, Safety and Welfare) Regulations 1992
www.legislation.gov.uk/uksi/1992/3004/contents/made

HSE ACOPs and guidance

Workplace health, safety and welfare. Workplace (Health, Safety and Welfare) Regulations 1992. Approved Code of Practice and guidance L24 (Second edition) HSE Books 2013 ISBN 978 0 7176 6583 9 www.hse.gov.uk/pubns/books/l24.htm

Preventing slips and trips at work: A brief guide Leaflet INDG225(rev2) HSE Books 2012 www.hse.gov.uk/pubns/indg225.htm

HSE web pages

Slips and trips
www.hse.gov.uk/slips

Work at height
www.hse.gov.uk/work-at-height

STEP – Slips and trips e-learning package
www.hse.gov.uk/slips/step/index.htm

Joint PSS/HSE guidance

SIP014 *Guidance on safe access and egress in ports*
www.portskillsandsafety.co.uk/publications/safety_in_ports_guidance

Other sources of information

'Your Safety At Sea' leaflet 3 *Protecting yourself and others from slips, trips and falls* Maritime and Coastguard Agency
www.dft.gov.uk/mca/mcga07-home/workingatsea/mcga-healthandsafety/mcga-ds-ssh-leafletsandposters.htm

Rescue and life-saving from water

210 Given the nature of dock premises, it is important to ensure that there are adequate and suitable provisions in place to facilitate the rescue of anyone who falls into the water from the quayside. This section does not apply to disused or redundant docks but employers may have duties under section 3 of the HSW Act in respect of these.

ACOP

Unfenced quay edges

211 At jetties and quay edges where the edges are unfenced, means should be provided to help people to rescue themselves from drowning, and also provision for other people to rescue those in danger without endangering themselves. The means should include:

- **handholds on the quayside at water level (at any state of the tide);**
- **ladders on quay walls;**
- **life-saving equipment.**

Fenced quay edges

212 At jetties or quays where the edges are fenced throughout in accordance with paragraphs 150–152, the provision of life-saving equipment alone is sufficient unless:

- **the public has access to the quay edge; or**
- **the dutyholder is made aware of a risk of people falling over a fenced edge that is comparable to the risk of people falling over an unfenced edge (whether or not by means of risk assessment).**

213 In these situations additional measures will be required such as handholds and/or ladders.

Pontoons and ship-to-ship operations

214 Where a fixed quay is not involved, eg ship-to-ship operation or the use of pontoons, adequate and suitable lifesaving equipment should be provided.

Handholds

215 Handholds should be suitable for use and be protected where possible to avoid damage both to and from ships.

216 Some quays may be constructed so that the actual structure provides handholds. In deciding whether these are adequate, remember that someone in the water is likely to be cold, shocked, exhausted and possibly injured. Handholds should therefore be suitable for use in such a situation. They may take the form of chains, fibre ropes, rubber tyres, fenders or other suitable material hung from the quayside. All handholds should be properly maintained.

ACOP

Ladders on quay walls

217 Each ladder should be suitably protected against accidental damage, and should enable someone who reaches it to climb from the water to the quay. It should extend to 1 m below the water line at any foreseeable state of the tide (or to the sea/river bed where there is less than 1 m of water at the foot of the quay at low water). Suitable hand-grips will need to be provided on the quayside, designed so that they are not readily obstructed by ice or dirt. They should also be recessed or positioned to prevent tripping hazards. All ladders should be properly maintained.

Positioning of handholds and ladders on quay walls

218 At all quays constructed or reconstructed after 1 January 1989, handholds and ladders should each be at intervals not exceeding 30 m, with handholds approximately midway between each pair of ladders, so that there is either a handhold or ladder at least every 15 m.

219 At all quays constructed before 1 January 1989, the following may be considered reasonable intervals for the provision of ladders and handholds:

- where the design of the quay provides convenient protected positions for ladders, they should be installed at intervals which do not exceed 50 m and intermediate handholds should provide a means of support at intervals not exceeding 25 m; or
- where the quay is not so designed, ladders should be installed at intervals not exceeding 85 m and intermediate handholds should provide a means of support at intervals of approximately 30 m; or
- where dock operations are not normally carried out, or only infrequently, and the quay is not equipped with ladders to the above standards, suitable portable ladders should be provided and securely placed fore and aft of each ship when it has moored to work.

ACOP

Life-saving equipment

220 Life-saving equipment should be conspicuous, properly maintained and provided at appropriate intervals.

221 Life-saving equipment will include lifebuoys, throwing lines and rescue poles.

222 What is suitable life-saving equipment will depend on the circumstances. In some situations, particularly where there is a strong tide or current, a throwing line may be appropriate either in addition to or in place of a conventional lifebuoy. Instructions for the use of each piece of life-saving equipment should be given or displayed.

223 Life-saving equipment should be provided at intervals no greater than 100 m. A suitable lifeline of a length adequate for the dock should be attached to each lifebuoy or a separate throwing line should be provided. All such equipment should be kept readily accessible. Draglines are not rescue equipment.

Find out more

Joint PSS/HSE guidance

SIP020 *Guidance on water safety in ports*
www.portskillsandsafety.co.uk/publications/safety_in_ports_guidance

Other sources of information

Safety at Inland Water sites ROSPA
www.rospa.com/leisuresafety/adviceandinformation/watersafety/

Guidelines for training crews for the purpose of launching lifeboats and rescue boats from ships making headway through the water MSN 1722 Maritime and Coastguard Agency www.dft.gov.uk/mca/msn1722.pdf

Transport by water

224 All vessels that are used to carry people from one part of the dock to another to enable them to participate in dock operations should be safe for use.

ACOP

225 Vessels used for this purpose should be of a sound and suitable construction, properly maintained and properly equipped for their intended use. Vessels should be in the charge of a competent person, who should hold a boatmasters' licence issued by the Maritime and Coastguard Agency or equivalent.

226 This ACOP applies to vessels used to carry people from one part of the dock premises to another, specifically to enable them to take part in dock operations. It does not apply to vessels such as tugs, conservancy launches and vessels carrying pilots.

227 Vessels used should not be undermanned, overloaded or overcrowded. Vessels should provide adequate and sufficient shelter, should have seating, heating and ventilation sufficient for safety, appropriate navigational equipment according to the conditions prevailing and the length of the journey, and should always be equipped with adequate life-saving, firefighting and first-aid equipment.

228 Manning levels for such vessels should be determined by reference to Annex 11 of *The Safety of Small Workboats & Pilot Boats* (The Brown Code).

229 Vessels that are used for work (such as tugs, dredgers, crane barges and pilot vessels that operate in protected waters, such as docks, harbours and estuaries) should meet the minimum mandatory regulatory requirements as outlined in the Maritime and Coastguard Agency (MCA) Marine Guidance Note 469.

230 Certain Royal Yachting Association and Scottish Qualifications Agency qualifications are accepted in place of a boatmasters' licence for masters of commercial vessels under 24 m and carrying no more than 12 passengers.

231 Annex 1 of MCA Merchant Shipping Notice 1808 provides further advice on these and other alternative qualifications.

Find out more

Legislation

Merchant Shipping (Inland Waterway and Limited Coastal Operations) (Boatmasters' Qualifications and Hours of Work) Regulations 2006 www.legislation.gov.uk/uksi/2006/3223/contents/made

HSE ACOPs

Safe use of work equipment. Provision and Use of Work Equipment Regulations 1998. Approved Code of Practice and guidance L22 (Third edition) HSE Books 2008 ISBN 978 0 7176 6295 1 www.hse.gov.uk/pubns/books/l22.htm

HSE web pages
PUWER
www.hse.gov.uk/work-equipment-machinery/puwer.htm

Other sources of information
Standards for Non-Passenger Vessels operating solely on Inland Waterways in the United Kingdom MGN 469 Maritime and Coastguard Agency www.gov.uk/government/uploads/system/uploads/attachment_data/file/244682/draft-mgn469_m_.pdf

Categorisation of Waters Merchant Shipping Notice MSN 1837 Maritime and Coastguard Agency www.dft.gov.uk/mca/1827.pdf

MCA Boatmasters' License
www.dft.gov.uk/mca/mcga07-home/workingatsea/mcga-trainingandcert/ds-ss-bml1stop.htm

The Merchant Shipping (Inland Waterways and Limited Coastal Operations) (Boatmasters' Qualifications and Hours of Work) Regulations 2006 – Structure and Requirements Merchant Shipping Notice MSN 1808 Maritime and Coastguard Agency www.dft.gov.uk/mca/msn1808.pdf

The Safety of Small Workboats & Pilot Boats – A Code of Practice (The Brown Code) Maritime and Coastguard Agency
www.dft.gov.uk/mca/brown-withpage8.pdf

Port Marine Safety Code Department for Transport
www.gov.uk/government/publications/port-marine-safety-code

A Guide to Good Practice on Port Marine Operations Supplement to the *Port Marine Safety Code* Department for Transport www.gov.uk/government/publications/a-guide-to-good-practice-on-port-marine-operations

Sound Practice, Safer Waters: The Inland Waters Small Passenger Boat Code Maritime and Coastguard Agency and the Association of Inland Navigation Authorities www.dft.gov.uk/mca/final_brochure-2.pdf

Small Vessels in Commercial Use for Sport or Pleasure, Workboats and Pilot Boats – Alternative Construction Standards Marine Guidance Note MGN 280 Maritime and Coastguard Agency www.dft.gov.uk/mca/mgn_280-2.pdf

Lighting

232 Many docks operate on a 24-hour basis so the need for suitable lighting in the workplace is particularly important. The quicker and easier it is to see a hazard, the more easily it is to avoid. The types of hazard present in the workplace will determine the lighting requirements for safe operation.

233 Each part of the dock premises that is being used for dock operations should be suitably and adequately lit. Lighting should be properly maintained.

234 The following should be provided:

- well-lit stairs, pedestrian and vehicle access routes;
- well-lit outside areas – for pedestrians and to help with activities such as loading/unloading at night, checking cargo and access to vessels;
- well-lit areas for working on board ship (eg in holds);
- adequate lighting to allow safe access to small vessels;
- good light – use natural light where possible but try to avoid glare;
- suitable forms of emergency lighting.

235 Obstacles and hazards which are likely to be dangerous when vehicles, lifting equipment or people move should be made conspicuous through suitable lighting and/or marking.

Find out more

HSE ACOPs and guidance

Workplace health, safety and welfare. Workplace (Health, Safety and Welfare) Regulations 1992. Approved Code of Practice and guidance L24 (Second edition) HSE Books 2013 ISBN 978 0 7176 6583 9 www.hse.gov.uk/pubns/books/l24.htm

Lighting at work HSG38 (Second edition) HSE Books 1998 ISBN 978 0 7176 1232 1 www.hse.gov.uk/pubns/books/hsg38.htm

HSE web pages

PUWER
www.hse.gov.uk/work-equipment-machinery/puwer.htm

Human factors
www.hse.gov.uk/humanfactors

Joint PSS/HSE guidance

SIP009 *Guidance on lighting*
www.portskillsandsafety.co.uk/publications/safety_in_ports_guidance

Other sources of information

Code for Lighting published by the Society of Light and Lighting and the Chartered Institute of Building Services Engineers
www.cibseknowledgeportal.co.uk/component/dynamicdatabase/?layout=publication&revision_id=1873

ILO Code of Practice: Safety and health in ports (ILO152) International Labour Organization
www.ilo.org/public/libdoc/ilo/2005/105B09_39_engl.pdf

MCA Code on Safe Movement Onboard Ships Regulations 1988 Maritime and Coastguard Agency
www.dft.gov.uk/mca/mcga07-home/shipsandcargoes/mcga-shipsregsandguidance/mcga-mnotice.htm?textobjid=F4FC5B8655B516AC

Dusty cargoes

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

237 Handling these cargoes can create 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. Some of these substances will have specific workplace exposure limits (WELs) and may also be classified as dangerous substances.

238 Different dusts have different adverse effects on health, but the most important effects of dusty cargoes are on the lungs. Some of these dusts (including grain and soya) can act as a respiratory sensitiser, that is, they can be a cause of occupational asthma. Other dusts may cause chronic obstructive pulmonary disease (COPD).

239 Under certain conditions the dusts given off by some cargoes may form an explosible and/or flammable mixture with air. Examples include sugar, coal, wood, grain, certain metals and many synthetic organic chemicals.

How to reduce the risks from dusty cargoes

Health risks

240 Exposure to dust should be avoided. If this is not possible then it should be adequately controlled. The level of control of exposure required will depend on the potential health effects of the dust. Some ways to control exposure include:

- design tasks to reduce the amount of dust generated;
- restrict staff entry to dusty areas such as warehouses especially during tipping, loading and pushing activities;
- 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 and in efficient working order;
- provide suitable air-filtration systems to the cabs of all vehicles used to handle dusty cargoes;
- provide and use respiratory protective equipment (RPE) – this should be suitable for its purpose, maintained and compatible with other protective equipment worn. This should only be as a last resort after other measures have been taken;
- provide adequate information, instruction and training to workers so that they are aware of the health risks and are able to use control measures properly; and
- provide health surveillance for workers.

Explosion risks

241 Possible control measures include:

- maintaining good housekeeping, ie avoiding or minimising the build-up or release of dust;
- the use of suitably maintained local exhaust ventilation systems;
- excluding or controlling any sources of ignition, eg use of protected lighting;
- the use of permit to work systems for activities such as hot work in affected areas.

242 Due to the specialist nature of this topic, further guidance should be sought from the references below.

Find out more

Legislation

Control of Substances Hazardous to Health Regulations 2002
www.legislation.gov.uk/uksi/2002/2677/contents/made

HSE ACOPs and guidance

Control of substances hazardous to health (COSHH). The Control of Substances Hazardous to Health Regulations 2002 (as amended). Approved Code of Practice and guidance L5 (Sixth edition) HSE Books 2013
www.hse.gov.uk/pubns/books/l5.htm

Dangerous substances and explosive atmospheres. Dangerous Substances and Explosive Atmospheres Regulations 2002. Approved Code of Practice and guidance L138 (Second edition) HSE Books 2013
www.hse.gov.uk/pubns/books/l138.htm

Respiratory protective equipment at work: A practical guide HSG53 (Fourth edition) HSE Books 2013 www.hse.gov.uk/pubns/books/hsg53.htm

A step by step guide to COSHH assessment HSG97 (Second edition) HSE Books 2004 www.hse.gov.uk/pubns/books/hsg97.htm

Safe handling of combustible dusts: Precautions against explosions HSG103 (Second edition) HSE Books 2003 www.hse.gov.uk/pubns/books/hsg103.htm

EH40/2005 *Workplace exposure limits: Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended)* Environmental Hygiene Guidance Note EH40 (Second edition) HSE Books 2011 www.hse.gov.uk/pubns/books/eh40.htm

Grain dust Environmental Hygiene Guidance Note EH66 (Third edition) HSE Books 2013 www.hse.gov.uk/pubns/eh66.htm

HSE web pages

COSHH
www.hse.gov.uk/coshh

Chronic obstructive pulmonary disease
www.hse.gov.uk/copd

Fire and explosion
www.hse.gov.uk/fireandexplosion

Asthma
www.hse.gov.uk/asthma

Respiratory protective equipment
www.hse.gov.uk/respiratory-protective-equipment

Health surveillance
www.hse.gov.uk/health-surveillance

Joint PSS/HSE guidance
SIP007 *Guidance on loading and unloading of dry bulk cargo*
www.portskillsandsafety.co.uk/safety_in_ports_guidance

SIP008 *Guidance on the storage of dry bulk cargo*
www.portskillsandsafety.co.uk/publications/safety_in_ports_guidance

SIP011 *Guidance on sources of occupational health information in ports*
www.portskillsandsafety.co.uk/publications/safety_in_ports_guidance

Musculoskeletal disorders

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

244 MSDs 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 an individual's quality of life.

245 Where MSD hazards can be found in docks:

- manual manoeuvring of lifting gear and attachments or slung loads;
- handling of twistlocks and unlocking poles;
- lifting/manoeuvring of lashing bars;
- breaking out pre-packed or palleted loads;
- storage and warehousing activities;
- hauling mooring ropes;
- vibration transmitted through the seat or feet of employees who drive mobile machines, such as tugs and other similar vehicles, over uneven ground or on rails;
- use of pneumatic lashing systems.

How to reduce MSD risks

246 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 handholds.
- Adopt safe lifting techniques.
- Consider the ergonomics of dock machinery and equipment when specifying and purchasing.
- Ensure sufficient provision of training and instruction in manual handling techniques.

247 For whole-body vibration:

- Select and use appropriate machinery for the job.
- Maintain plant and equipment, eg cranes and lift trucks. 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.
- Reduce exposure, eg through job rotation.

- Provide health surveillance for workers where appropriate.
- Provide drivers with information on how to reduce risks to their health.

Find out more

Legislation

Manual Handling Operations Regulations 1992
www.legislation.gov.uk/uksi/1992/2793/contents/made

Control of Vibration at Work Regulations 2005
www.legislation.gov.uk/uksi/2005/1093/contents/made

HSE guidance

Manual handling. Manual Handling Operations Regulations 1992 (as amended). Guidance on Regulations L23 (Third edition) HSE Books 2004
www.hse.gov.uk/pubns/books/l23.htm

Whole-body vibration. The Control of Vibration at Work Regulations 2005. Guidance on Regulations L141 HSE Books 2005 www.hse.gov.uk/pubns/books/l141.htm

Manual handling assessment charts (The MAC tool) Leaflet INDG383(rev1) HSE Books 2014 www.hse.gov.uk/pubns/indg383.htm

HSE web pages

Ergonomics
www.hse.gov.uk/humanfactors

Health surveillance
www.hse.gov.uk/health-surveillance

Whole-body vibration
www.hse.gov.uk/vibration/wbv/index.htm

MSDs
www.hse.gov.uk/msd/msds.htm

Confined spaces

248 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.

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

250 A confined space can be any space of an enclosed nature where there is a risk of death or serious injury from hazardous substances or dangerous conditions (eg lack of oxygen).

251 Confined spaces can be found in a variety of places within the dock environment including some ships' holds, warehouses, silos and freight containers. In addition, some places may only become confined spaces when particular work is carried out, eg fumigation. Further guidance on where confined spaces may be found in docks can be found in SIP015 *Guidance on confined spaces in ports*.

252 Confined spaces may pose a significant risk because they are enclosed, either largely or completely and they have a clearly foreseeable risk of serious injury or death caused by one of the following:

- lack of oxygen – this can occur in ships' holds, freight containers, lorries etc as a result of the cargo or contents consuming the oxygen inside the space;
- fire and explosion (eg from flammable vapour/dust, excess oxygen etc);
- build up of poisonous gas, fume or vapour – possibly due to decomposing, leaking or oxidation of cargo (eg wood pellets), incomplete fumigation, inadequate cleaning processes, or welding/vehicle fumes;
- incomplete ventilation of fumes in containers, eg due to incomplete fumigation or build up of fumes given off by contents of containers while in transit;
- discharge of gases, fume or vapour from pieces of equipment including some fire suppression systems, exhaust fumes etc;
- liquids and solids which can suddenly fill the space causing drowning, or release gases into it, when disturbed, eg grain;
- hot conditions leading to a dangerous increase in body temperature.

How to reduce the risks in confined spaces

253 Where a confined space on a ship is involved, co-operation between the shoreside employer and master is essential to ensure that all relevant risks are managed and duties are adequately discharged.

254 Avoid carrying out tasks in confined spaces but, if this not possible, the risks will need to be assessed and control measures implemented.

255 Items to consider will include:

- testing for noxious fumes or flammable atmospheres and how these can be vented or removed;
- the risk of liquids or gases flooding in and how to stop or limit this, eg lock valves shut;
- the lack of oxygen and the need to provide breathing apparatus;
- the job being done and the equipment being used, eg welding gear that will reduce the amount of oxygen in the room, chemical cleaners that may require ventilation, gases released when disturbing residues, using appropriate electrical equipment in ignition risk areas etc;
- the person identified to do the job, eg training, physical ability, pre-existing medical conditions and any personal protective equipment (PPE) needs etc;
- the need for rescue arrangements – this should cover the necessary equipment, training and practice drills. Ensure that the equipment provided is actually suitable for the space;
- the use of permit-to-work systems – these are a formal check to ensure that all elements of the safe system of work are in place before people are allowed to enter the confined space;
- communications – ensure workers inside a confined space have a mechanism for communicating with others inside and those outside, especially if they cannot be physically monitored.

256 On each occasion for the same confined space the risks will need to be reassessed as things may have changed, the task and equipment being used may be different and it may not be the same person doing the work.

Find out more

Legislation

Confined Spaces Regulations 1997
www.legislation.gov.uk/uksi/1997/1713/contents/made

Personal Protective Equipment Regulations 2002
www.legislation.gov.uk/uksi/2002/1144/contents/made

Merchant Shipping (Entry into Dangerous Spaces) Regulations 1988
www.legislation.gov.uk/uksi/1988/1638/contents/made

HSE ACOPs and guidance

Safe work in confined spaces. Confined Spaces Regulations 1997. Approved Code of Practice, Regulations and guidance L101 (Second edition) HSE Books 2009 ISBN 978 0 7176 6233 3 www.hse.gov.uk/pubns/books/l101.htm

Fumigation: Health and safety guidance for employers and technicians carrying out fumigation operations HSG251 HSE Books 2005
www.hse.gov.uk/pubns/books/hsg251.htm

Confined spaces: A brief guide to working safely Leaflet INDG258(rev1) HSE Books 2013 www.hse.gov.uk/pubns/indg258.htm

Diesel engine exhaust emissions HSG286 HSE Books 2012
www.hse.gov.uk/pubns/indg286.htm

Control of diesel engine exhaust emissions in the workplace HSG187 HSE Books 2012 www.hse.gov.uk/pubns/books/hsg187.htm

HSE web pages
Confined spaces
www.hse.gov.uk/confinedspace

Respiratory protective equipment
www.hse.gov.uk/respiratory-protective-equipment

Joint PSS/HSE guidance
SIP015 *Guidance on confined spaces in ports*
www.portskillsandsafety.co.uk/publications/safety_in_ports_guidance

Other sources of information
Risk Management: Entry into enclosed spaces – ships' cargo spaces and freight containers Two pocket guides published jointly by TT Club/ICHCA International
www.ttclub.com

Entry into enclosed spaces: Spaces potentially unsafe for entry Safety Alert
Maritime and Coastguard Agency
www.dft.gov.uk/mca/entry_into_enclosed_spaces.pdf

Emergency planning

257 Docks and associated organisations should have plans for dealing with emergencies that could have a wider impact. These special procedures will include actions to stem the effects of the emergency at source, such as fighting fires, combating the release of radioactivity or toxic chemicals, the spread of disease, the extent of floods, serious injuries, and explosions.

258 There should be a written emergency plan if a major incident at the dock could involve risks to the public, rescuing employees or co-ordinating emergency services.

259 Where the dock is shared with other employers consider whether the emergency plans and procedures should be co-ordinated or integrated with wider plans.

260 Contact emergency services and include them where appropriate in the development of emergency plans.

261 The Dangerous Substances in Harbour Areas Regulations 1987 (DSHAR) and the Control of Major Accident Hazards Regulations 1999 (COMAH) will apply to some docks dependent on the types of goods handled/stored.

262 In emergencies people are more likely to respond reliably if they:

- are well trained and competent – don't forget the needs of people with disabilities and vulnerable workers. Appropriate awareness should also be provided for people such as visiting drivers, ships' crew, contractors and passengers;
- take part in regular and realistic practice – consider extending training and familiarisation of the plan to outside agencies that may need to be called on;
- have clearly agreed, recorded and rehearsed plans, actions and responsibilities – nominate competent people with clearly defined roles and functions to take control. Decide which other key people are needed, such as a nominated incident controller, someone who is able to provide technical and other site-specific information if necessary, or first-aiders.

263 Points to consider in an emergency plan include:

- Consider what might happen, how the alarm will be raised and how to activate procedures. Don't forget night and shift working and weekends.
- Plan what to do – include contact details and how to call the emergency services. Consider drawing up a simple plan showing the location of hazardous items.
- Define evacuation routes and identify where rescue equipment is kept.
- Plan essential actions such as emergency plant shutdown, isolation or making processes safe. Clearly identify important items like shut-off valves and electrical isolators etc.

- Take account of the potential fire risks on board vessels, particularly those associated with hazardous cargoes.
- In responding to an emergency event, ensure the response is managed so that rescuers are not put at unnecessary risk.
- Plan for rescuing people from the scene, or evacuating them and treating their injuries, or providing them with shelter and comfort, or arranging for an orderly return to the scene when it is safe.
- Consider establishing containment areas for personnel.

264 In general work should not resume after an emergency until the area is declared safe. If there are any doubts ask for assistance from the emergency services.

Rescue from isolated positions

265 Where a person works in an isolated position such as a crane cab or deep bulk cargo hold, consider means of rescue should that person be injured or collapse while at work and the possibility of that person becoming trapped.

Find out more

Legislation

Radiation (Emergency Preparedness and Public Information) Regulations 2001 www.hse.gov.uk/radiation/ionising/reppir.htm

Control of Major Accident Hazards Regulations 1999 www.legislation.gov.uk/uksi/1999/743/contents/made

HSE guidance

A guide to the Dangerous Substances in Harbour Areas Regulations 1987 HSR27 HSE Books 1988 www.hse.gov.uk/pubns/hsr27.htm

The bulk transfer of dangerous liquids and gases between ship and shore HSG186 HSE Books 1999 www.hse.gov.uk/pubns/books/hsg186.htm

The Dangerous Substances (Notification and Marking of Sites) Regulations 1990 (NAMOS): A brief guide on an amendment to the Regulations 2013 Leaflet INDG467 HSE 2013 www.hse.gov.uk/pubns/indg467.htm

HSE web pages

COMAH www.hse.gov.uk/comah

Joint PSS/HSE guidance

SIP016 *Guidance on emergency planning in ports* www.portskillsandsafety.co.uk/publications/safety_in_ports_guidance

Other sources of information

International Maritime Dangerous Goods (IMDG) Code International Maritime Organization www.imo.org/Publications/IMDGCode/Pages/Default.aspx

Personal protective equipment (PPE)

266 Making the workplace safe includes providing instructions, procedures, training and supervision to encourage people to work safely and responsibly. Even where engineering controls and safe systems of work have been applied, some hazards might remain. In these cases, employers have duties concerning the provision and use of PPE at work, and employees have a duty to use PPE correctly and in accordance with instructions.

267 PPE must only be used as a last resort. If PPE is still needed after implementing other controls, employers must provide this for their employees free of charge.

268 PPE is equipment that will protect the user against health or safety risks at work. It can include items such as life jackets, safety helmets, gloves, eye protection, high-visibility clothing, safety footwear and safety harnesses. It also includes respiratory protective equipment (RPE).

269 When selecting suitable PPE, consider:

- Who is exposed and to what?
- How long are they exposed for?
- How much are they exposed to?

270 To ensure the suitability of PPE:

- Choose products which are CE marked in accordance with the Personal Protective Equipment Regulations 2002 – suppliers can advise. If in doubt, seek further advice from a specialist adviser and explain the job to them.
- Choose equipment that suits the user – consider the size, fit and weight of the PPE and the health of the user. If the users help choose it, they will be more likely to use it.
- Make sure that if more than one item of PPE is being worn they can be used together, eg wearing safety glasses may disturb the seal of a respirator, causing air leaks.
- Instruct and train people how to use it. Explain why it is needed, when to use it, what its limitations are and know how to detect and report any faults.
- Ensure that the right replacement parts that match the original are used, eg respirator filters, and have replacement PPE available.
- Clarify who is responsible for maintenance and how it is to be done.
- Ensure PPE is properly looked after and stored when not in use. If it is reusable it must be cleaned and kept in good condition.

271 Never allow exemptions from wearing PPE for those jobs that ‘only take a few minutes’.

Find out more

Legislation

Personal Protective Equipment Regulations 2002
www.legislation.gov.uk/uksi/2002/1144/contents/made

HSE guidance

Personal Protective Equipment at Work (Second edition). Personal Protective Equipment at Work Regulations 1992 (as amended). Guidance on Regulations L25 (Second edition) HSE Books 2005 www.hse.gov.uk/pubns/books/l25.htm

Personal protective equipment (PPE) at work: A brief guide Leaflet INDG174(rev2) HSE Books 2013 www.hse.gov.uk/pubns/indg174.htm

HSE web pages

Respiratory protective equipment
www.hse.gov.uk/respiratory-protective-equipment

Personal protective equipment
www.hse.gov.uk/toolbox/ppe.htm

Lone working

272 Lone workers are those who work by themselves without close or direct supervision so additional controls may be needed to reduce risks to acceptable levels. Think about and deal with any health and safety risks before people work alone.

273 Establishing a healthy and safe working environment for lone workers can be different from organising the health and safety of other employees.

274 There are no absolute restrictions on working alone but it will depend on the risks faced by the individual.

275 It will often be safe to work alone. However, the law requires employers to think about and deal with any health and safety risks before people are allowed to do so.

276 There are some high-risk activities where at least one other person may need to be present. Examples include: crane operators; engineering staff and security staff; some high-risk confined space working where a supervisor may need to be present, as well as someone dedicated to a rescue role; and electrical work at or near exposed live conductors where at least two people are sometimes required.

277 Consider:

- whether there is a need to assess areas of risk (including violence, manual handling), the medical suitability of the individual to work alone and any risks arising from the nature of the workplace itself;
- whether there are any particular requirements for training and the levels of experience needed;
- what systems might be needed to supervise and keep in touch with lone workers.

278 Depending on the risks, some lone workers may require extra control measures, which may include instruction, training, supervision, protective equipment, rescue procedures etc. Employers should check that control measures are used and procedures reviewed from time to time to ensure they are still adequate.

Find out more
HSE guidance
Working alone: Health and safety guidance on the risks of lone working Leaflet INDG73(rev3) HSE Books 2013 www.hse.gov.uk/pubns/indg73.htm

First aid

279 There a legal duty to make arrangements to ensure employees receive immediate attention if they are injured or take ill at work. The first aid needs and arrangements will depend on the particular circumstances in the dock.

280 As a minimum, there must be:

- a suitably stocked first-aid box;
- an appointed person to take charge of first-aid arrangements;
- information for all employees giving details of first-aid arrangements.

281 Make an assessment of the hazards and risks in the workplace and establish an appropriate level of first-aid provision. The assessment may also indicate that a first-aid room should be provided.

282 Decide if you need a first-aider, ie someone trained by an approved organisation, and who holds a qualification in first aid at work or emergency first aid at work.

283 Qualified first-aiders must have the right training and a certificate valid for three years – after that a refresher course and re-examination is necessary.

Find out more

HSE guidance

First aid at work: The Health and Safety (First-Aid) Regulations 1981. Guidance on Regulations L74 (Third edition) HSE Books 2013
www.hse.gov.uk/pubns/books/l74.htm

First aid at work: Your questions answered Leaflet INDG214(rev1) HSE Books 2009
www.hse.gov.uk/pubns/indg214.htm

Basic advice on first aid at work Leaflet INDG347(rev2) HSE Books 2011
www.hse.gov.uk/pubns/indg347.htm

HSE web pages

First aid at work
www.hse.gov.uk/firstaid

First aid at work assessment tool
www.hse.gov.uk/firstaid/assessmenttool.htm

Accident reporting

284 The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR) require employers, or in certain circumstances others who control or manage the premises, to report to the relevant enforcing authority and keep records of:

- work-related deaths;
- specified injuries to people at work, which are listed in RIDDOR, such as fractures, amputations and serious burns;
- all 'over-seven-day injuries' to workers, which are those where a person who is injured from a workplace accident is incapacitated for more than seven consecutive days;
- cases of certain occupational diseases as listed in RIDDOR;
- certain 'dangerous occurrences' (near-miss accidents);
- injuries to a person who is not at work, such as a member of the public, which are caused by an accident at work and which result in the person being taken to hospital from the site for treatment.

285 The reporting and recording of accidents/incidents are legal requirements. The report tells the enforcing authorities for occupational health and safety (HSE and local authorities) about serious incidents and cases of disease. This means they can identify where and how risks arise and whether they need to be investigated.

286 It also allows HSE and local authorities to target their work and provide advice on how to avoid work-related deaths, injuries, ill health and accidental loss.

287 Information on accidents, incidents and ill health can be used by companies as an aid to risk assessment, helping to develop solutions to potential risks. Records also help to prevent injuries and ill health, and control costs from accidental loss.

288 The HSE website provides information on RIDDOR which puts duties on employers, the self-employed and people in control of work premises (the responsible person) to report serious workplace accidents, occupational diseases and specified dangerous occurrences (near misses) – see www.hse.gov.uk/riddor.

289 In certain circumstances, eg where ships or ships' crew and shore-based operations or equipment are involved in an incident, it may also be necessary to report accidents to the Marine Accident Investigation Board (MAIB) under the Merchant Shipping (Accident Reporting and Investigation) Regulations 2012.

Find out more
Legislation
Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013
www.legislation.gov.uk/uksi/2013/1471/contents/made

Merchant Shipping (Accident Reporting and Investigation) Regulations 2012
www.legislation.gov.uk/uksi/2012/1743/contents/made

HSE guidance
Reporting accidents and incidents at work: A brief guide to the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR) Leaflet INDG453(rev1) HSE Books 2013 www.hse.gov.uk/pubns/indg453.htm

HSE web pages
RIDDOR
www.hse.gov.uk/riddor

Other sources of information
Merchant Shipping (Accident Reporting and Investigation) Regulations 2012
www.maib.gov.uk/cms_resources.cfm?file=/ARI_Regulations_2012.pdf

Appendix 1 Notice of Approval

By virtue of section 16(4) of the Health and Safety at Work etc Act 1974 ('the 1974 Act'), and with the consent of the Secretary of State for Work and Pensions pursuant to section 16(2) of the 1974 Act, the Health and Safety Executive has on 4 December 2013 approved the Code of Practice entitled *Safety in docks: Approved Code of Practice and guidance* (First edition, 2014, L148).

The Code of Practice gives practical guidance on regulations 2, 3 and 7 of the 1974 Act as they relate to docks.

By virtue of section 16(5) and with the consent of the Secretary of State for Work and Pensions under that paragraph, the Health and Safety Executive has withdrawn its approval of the Code of Practice *Safety in Docks. Docks Regulations 1988*. *Approved Code of Practice with Regulations and guidance* COP25, which shall cease to have effect on 6 April 2014.

The Code of Practice comes into effect on 6 April 2014.

Signed

LOUISE STEVENS
Secretary to the Board of the Health and Safety Executive

27 March 2014

Appendix 2 Legislation

Health and Safety at Work etc Act 1974

www.legislation.gov.uk/ukpga/1974/37/contents

Section 2 *General duties of employers to their employees*

Section 3 *General duties of employers and self-employed to persons other than their employees*

Section 4 *General duties of persons concerned with premises to persons other than their employees*

Section 7 *General duties of employees at work*

Section 8 *Duty not to interfere with or misuse things provided pursuant to certain provisions*

Management of Health and Safety at Work Regulations 1999

www.legislation.gov.uk/uksi/1999/3242/made

Regulation 3 *Risk assessment*

Regulation 5 *Health and safety arrangements*

Regulation 8 *Procedures for serious and imminent danger and for danger areas*

Regulation 11 *Co-operation and co-ordination*

Regulation 13 *Capabilities and training*

Regulation 14 *Employees' duties*

Confined Spaces Regulations 1997

www.legislation.gov.uk/uksi/1997/1713/made

Regulation 4 *Work in confined spaces*

Dangerous Substances and Explosive Atmospheres Regulations 2002

www.legislation.gov.uk/uksi/2002/2776/made

Regulation 7 *Places where explosive atmospheres may occur*

Lifting Operations and Lifting Equipment Regulations 1998

www.legislation.gov.uk/uksi/1998/2307/made

Regulation 4 *Strength and stability*

Regulation 5 *Lifting equipment for lifting persons*

Regulation 6 *Positioning and installation*

Regulation 8 *Organisation for lifting operations*

Regulation 9 *Thorough examination and inspection*

Personal Protective Equipment at Work Regulations 1992

www.legislation.gov.uk/uksi/1992/2966/made

Regulation 4 *Provision of personal protective equipment*

Provision and Use of Work Equipment Regulations 1998

www.legislation.gov.uk/uksi/1998/2306/made

Regulation 4 *Suitability of work equipment*

Regulation 5 *Maintenance*

Regulation 9 *Training*

Regulation 18 *Control systems*

Regulation 28 *Self-propelled work equipment*

Work at Height Regulations 2005

www.legislation.gov.uk/uksi/2005/735/made

Regulation 6 *Avoidance of risks from work at height*

Regulation 8 *Requirements for particular work equipment*

Schedule 6 *Requirement for ladders [Regulation 8(e)]*

Workplace (Health, Safety and Welfare) Regulations 1992

www.legislation.gov.uk/uksi/1992/3004/made

Regulation 12 *Conditions of floors and traffic routes*

Regulation 17 *Organisation etc. of traffic routes*

Control of Substances Hazardous to Health Regulations 2002

www.legislation.gov.uk/uksi/2002/2677/contents/made

Regulation 6 *Assessment of the risk to health created by work involving substances hazardous to health*

Regulation 7 *Prevention or control of exposure to substances hazardous to health*

Regulation 8 *Use of control measures etc.*

Regulation 9 *Maintenance, examination and testing of control measures*

Regulation 10 *Monitoring exposure at the workplace*

Regulation 11 *Health surveillance*

Health and Safety (Consultation with Employees) Regulations 1996

www.legislation.gov.uk/nisr/1996/511/contents/made

Regulation 3 *Duty of employers to consult*

Regulation 4 *Persons to be consulted*

Safety Representatives and Safety Committee Regulations 1977

www.legislation.gov.uk/uksi/1977/500/contents/made

Regulation 4 *Functions of safety representatives*

Glossary

access to includes egress from.

cargo or **goods** includes:

- animals;
- pallets and freight containers;
- waste;
- solid ballast; and
- vehicles which are being transported as cargo.

container means a freight container as defined in regulation 2 of the Freight Containers (Safety Convention) Regulations 1984.

dock includes a port.

dock operations means:

(a) the loading or unloading of goods on or from a ship at dock premises;
(b) the embarking or disembarking of passengers on or from a ship at dock premises;
(c) any activity incidental to the activities in subparagraphs (a) and (b) of this definition which takes place on dock premises, including any of the following activities specified in this subparagraph if they are so incidental and take place on dock premises –
    (i) the fuelling and provisioning of a ship;
    (ii) the mooring of a ship;
    (iii) the storing, sorting, inspecting, checking, weighing or handling of goods;
    (iv) the movement of goods, passengers or vehicles;
    (v) the use of welfare amenities in relation to the carrying out of activities referred to in sub-paragraphs (a), (b) and (c)(i) to (iv) above;
    (vi) attending dock premises for the purposes of the activities referred to in subparagraphs (a), (b) and (c)(i) to (v) above; or
(d) the embarking or disembarking on or from a ship of its crew at dock premises;

but does not include –

(e) a fish loading process within the meaning of the Loading and Unloading of Fishing Vessels Regulations 1988;
(f) the loading or unloading of goods, or embarking or disembarking of persons, from a pleasure craft or any activity incidental to those activities; or
(g) beach landing operations wholly carried out by serving members of Her Majesty's Forces or visiting forces within the meaning of the provisions of Part 1 of the Visiting Forces Act 1952 or a combination of both.

dock premises means any dock, wharf, quay, jetty or other place at which ships load or unload goods or embark or disembark passengers, together with neighbouring land or water which is used or occupied, or intended to be used or occupied, for those or incidental activities, and any part of a ship when used for those or incidental activities.

goods see **cargo**.

harbour authority this includes both statutory and competent harbour authorities.

hatch means a ships' hatch.

hatch covering includes hatch covers, beams and attached fixtures and fittings.

loading includes unloading.

one-trip sling means a sling which has not previously been used for lifting any other load and is fitted to the load at the commencement of the journey and intended to be disposed of at the destination of that journey.

pre-slung cargo sling means a sling which was in position round the goods before they were handled in the course of dock operations.

ship includes every description of vessel used in navigation.

ships' master should be taken to include any ships' officer in charge of a ship during the absence of the master.

stevedore is an organisation or company that may employ its own workforce permanent or temporary and is licensed or contracted to load vessels and handle cargo.

Further information

For information about health and safety, or to report inconsistencies or inaccuracies in this guidance, visit www.hse.gov.uk/. You can view HSE guidance online and order priced publications from the website. HSE priced publications are also available from bookshops.

The Stationery Office publications are available from The Stationery Office, PO Box 29, Norwich NR3 1GN Tel: 0870 600 5522 Fax: 0870 600 5533 email: customer.services@tso.co.uk Website: www.tsoshop.co.uk/ (They are also available from bookshops.) Statutory Instruments can be viewed free of charge at www.legislation.gov.uk/, where you can also search for changes to legislation.

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