

## EXPLANATORY MEMORANDUM TO

### THE MERCHANT SHIPPING AND FISHING VESSEL (HEALTH AND SAFETY AT WORK) (WORK AT HEIGHT) REGULATIONS 2010

#### S.I. 2010 No. 332

1. This explanatory memorandum has been prepared by the Maritime and Coastguard Agency and is laid before Parliament by Command of Her Majesty.

#### 2. Purpose of the Instrument

2.1 These Regulations do what is necessary to complete implementation of Council Directive 2001/45/EC of 27 June 2001, on the introduction of measures to protect workers using work equipment at work by extending to the maritime sector the duty on employers to reduce the risk to their employees' health and safety resulting from carrying out of work at height. Regulations introduced by the Health and Safety Executive have already implemented the Directive for land-based workers.

#### 3. Matters of special interest to the Joint Committee on Statutory Instruments

3.1 None.

#### 4. Legislative Context

4.1 Council Directive 89/391/EEC (the "Framework Directive") introduced general measures to encourage improvements to the safety and health of workers at work and was implemented by the Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997 (SI 1997/2962) (the "General Duties" Regulations).

4.2 Council Directive 89/655/EEC of 30 November 1989 (the second individual Directive within the meaning of Article 16(1) of the Framework Directive) introduced minimum safety and health requirements for the use of work equipment by workers at work. Directive 89/655/EEC was implemented by means of the Merchant Shipping and Fishing Vessels (Provision and Use of Work Equipment) Regulations 2006 (SI 2006/2183) ("PUWER") and the Merchant Shipping and Fishing Vessels (Lifting Operations and Lifting Equipment) Regulations 2006 (SI 2006/2184) ("LOLER").

4.3 Council Directive 89/655/EEC was subsequently amended by Council Directive 2001/45/EC of 27 June 2001 which introduced measures intended to safeguard the health and safety of workers carrying out work at height. The proposal for the amending Directive was cleared by the House of Commons EU Scrutiny Committee on 20 January 1999. Supplementary information was provided which was cleared on 24 May 2000. The House of Lords EU Scrutiny Committee cleared the proposal on 11 January 1999. An amended proposal was subsequently put forward which was cleared by the House of Commons EU Scrutiny Committee on 15 November 2000. The House of Lords EU Scrutiny Committee cleared the proposal on 21 November 2000.

4.4 The requirements of Directive 2001/45/EC, which build on the general safety and health provisions contained in the Framework Directive, as well as the provisions of Directive 89/655/EEC, are implemented for workers in the maritime sector by means of the Merchant Shipping and Fishing Vessel (Health and Safety at Work) (Work at Height) Regulations 2010 (the "Work at Height Regulations"). Regulations introduced by the Health and Safety Executive (The Work at Height Regulations 2005 (as amended)) have already implemented the Directive for land-based workers and the Work at Height Regulations, which follow the

requirements of the Directive, complete the United Kingdom's implementation of this Directive.

4.5 No legislation, other than a general requirement to safeguard health and safety contained in the General Duties Regulations, previously existed to protect of workers in the maritime sector from the risks to their health and safety arising from working at height.

4.6 A Transposition Note showing how the provisions of Directive 2001/45/EC have been transposed by the Work at Height Regulations is attached to this memorandum

## **5. Territorial Extent and Application**

5.1 This instrument applies to all United Kingdom ships whether in the United Kingdom or anywhere else in the world, to all seafarers on such vessels irrespective of nationality, ethnic origin, religion, gender etc. They also apply to a limited extent to non-UK ships when in UK waters.

## **6. European Convention on Human Rights**

6.1 As the instrument is subject to negative resolution procedure and does not amend primary legislation, no statement is required.

## **7. Policy background**

- *What is being done and why*

7.1 The Work at Height Regulations complete the UK implementation of Council Directive 2001/45/EC, concerning the introduction of minimum safety and health requirements for the use of work equipment generally by workers at work and more specifically the carrying out of work at height. It is necessary to make these Regulations to ensure application of the Directive to workers in the Merchant Shipping and Fishing Sectors to avoid disparity of regulatory coverage between land-based workers and those working on ships. This is especially the case at the water margin, i.e. in dock and port areas, where land-based workers (e.g. stevedores and other dock workers) could be working on board a ship alongside members of the crew.

7.2 The policy objectives of Directive 2001/45/EC are to protect the health of workers from the risks arising from the carrying out of work at height. The Work at Height Regulations require employers to identify which of their employees may be at risk as a result of working at height, to assess the degree of risk and to introduce measures to eliminate or, where that is not possible, minimise the risk. They therefore fully reflect the Directive requirements.

- *Consolidation*

7.3 No legislation, other than a general requirement to safeguard health and safety contained in the General Duties Regulations previously existed to protect of workers in the maritime sector from the risks to their health and safety arising from working at height.

## **8. Consultation outcome**

8.1 In order to gauge the potential effect on the merchant, yachting, coded vessel and fishing sectors consultation was undertaken from 13 February to 15 May 2009. Notification of the consultation was sent to some 380 individuals, companies and organisations inviting their comments on the proposed Work at Height Regulations and associated guidance necessary to implement Directive 2001/45/EC. Copies of the documentation were also placed on the Maritime and Coastguard Agency website but no facility exists to establish how many times they were viewed.

8.2 Only 14 responses were received to the consultation, of which only 6 related to the draft Work at Height Regulations. The remainder either commented on the accompanying guidance, offered no comments, or supported the proposal. The comments received have been taken into account so far as possible. In particular we have revised the supporting Marine Guidance Note to provide more comprehensive advice on the requirements of the Work at Height Regulations.

## **9. Guidance**

9.1. In line with usual practice a Marine Guidance Note, produced by the Maritime and Coastguard Agency, will be issued to industry and will provide guidance on the requirements of the Work at Height Regulations. Further guidance will be included in the “Code of Safe Working Practices for Merchant Seamen” published by The Stationery Office.

## **10. Impact**

10.1 The impact on business, charities or voluntary bodies, is likely to be low as the General Duties Regulations already require risk assessments to be undertaken and appropriate measures to be taken to remove or mitigate any risks identified. Further, the PUWER Regulations set down specific requirements covering the provision and use of work equipment, whilst the LOLER Regulations set down specific requirements covering lifting operations and lifting equipment which could include use of equipment to lift workers to enable them to undertake work at height. The Work at Height Regulations build on the requirements of the General Duties Regulations and the PUWER and LOLER Regulations by introducing provisions specifically relating to the carrying out of work at height. It is anticipated that many of these provisions will already be in place on UK ships and fishing vessels as a result of compliance with the earlier Regulations.

10.2 The impact on the public sector is considered to be minimal as reviewing the application of the provisions of the Work at Height Regulations on ships will be carried out as part of MCA’s normal survey regime.

10.3 An Impact Assessment for the Work at Height Regulations is attached to this memorandum

## **11. Regulating small business**

11.1 The legislation applies to small business.

11.2 There is little scope for minimising the impact of the requirements on firms employing up to 20 people because EC Health and Safety Directives are required to be applied to all workers irrespective of the size of the company employing them. However, when implementing an EC Directive it is Government policy to do no more than is necessary to implement the provisions of that Directive. In addition it is not envisaged that the Work at Height Regulations will have any significant effect on small businesses as they are considered unlikely to operate the types of vessel where work at height is most likely to take place.

## **12. Monitoring & review**

12.1 The Maritime and Coastguard Agency will evaluate the impact the Work at Height Regulations have on working practices and how those working practices have changed. The MCA’s evaluation will be assisted by any relevant data collected by the Marine Accident Investigation Branch under the Merchant Shipping (Accident Reporting and Investigation) Regulations 2005 which requires that all accidents/serious injuries are notified to that Branch.

12.2 All health and safety Directives are also subject to a regular review by the EC to which MCA will contribute as appropriate. The next EC review for the Work at Height Directive is due in 2013. In addition the MCA will monitor compliance to assess whether any problems arise with the requirements imposed by the Regulations.

### **13. Contact**

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can answer any queries regarding the instruments.

## Summary: Intervention & Options

|  |   |                           |
|--|---|---------------------------|
| <b>Department /Agency:</b><br><b>Maritime &amp; Coastguard Agency</b>  | <b>Title:</b><br><b>Impact Assessment of Impact Assessment of the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010</b> |                           |
| <b>Stage:</b> Implementation   | <b>Version:</b> Final   | <b>Date:</b> January 2010 |
| <b>Related Publications:</b> Final versions of the Statutory Instrument and Marine Guidance Note are attached. |   |                           |

**Available to view or download at:**

<http://www.mcga.gov.uk/c4mca/mcga07-home/shipsandcargoes/mcga-shipsregsandguidance.htm>

**Contact for enquiries:** Michael Lines

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What is the problem under consideration? Why is government intervention necessary?

Workers carrying out work at height can suffer injuries ranging from minor to very serious or even fatal if they fall whilst doing so irrespective of the distance they fall. To address this, Directive 2001/45/EC of the European Parliament and the Council dated 27 June 2001 amended Directive 89/655/EEC (which introduced minimum safety and health requirements for the use of work equipment at work) by introducing measures intended to protect workers from risks related to working at height. The UK is obliged to fully implement this Directive and this is the purpose of the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010 (the "Work at Height Regulations"). Failure to implement could result in infraction proceedings being taken by the EC. There is the risk that some ship operators might not take adequate precautions to mitigate the risks for people working at height. Government intervention is intended to reduce this risk.

What are the policy objectives and the intended effects?

The Work at Height Regulations give effect to Directive 2001/45/EC in respect of the maritime, fishing and small vessel sectors in order to complete the UK's implementation of it. Regulations covering land-based workers are already in force.

The intended effects of the Work at Height Regulations are to reduce the risk of workers on ships, fishing vessels and small vessels suffering injury or even death as a result of undertaking work at height whilst at work.

What policy options have been considered? Please justify any preferred option.

- 1) Do nothing
- 2) Extend the Health & Safety Regulations for land-based workers to the maritime sectors; or
- 3) Introduce a single set of Regulations to implement Directive 2001/45/EC

Option (1) would leave the UK in breach of its EU commitments and is thus not considered to be appropriate. Option (2) is not considered to be viable as the Regulations covering work at height on land address different issues to those raised by work at height on ships, and the land Regulations also cease to apply outside the UK. Option (3) is therefore considered to be the most appropriate way to proceed and is justified in the Evidence Base.

When will the policy be reviewed to establish the actual costs and benefits and the achievement of the desired effects? The policy and the effect of the Regulations will be reviewed in 2013 as part of the EC Directive reporting cycle.

**Ministerial Sign-off** For implementation stage Impact Assessment:

***I have read the Impact Assessment and I am satisfied that (a) it represents a fair and reasonable view of the expected costs, benefits and impact of the policy, and (b) the benefits justify the costs.***

Signed by the responsible Minister:

Paul Clark .....Date: 11th February 2010

## Summary: Analysis & Evidence

|                         |  |
|-------------------------|--|
| <b>Policy Option: 3</b> | <b>Description:</b><br>Introduce a single set of Regulations to implement Directive 2001/45/EC |
|-------------------------|--|

|   |  |            |  |
|---|--|------------|--|
| <b>COSTS</b>  | <b>ANNUAL COSTS</b>                            |            | Description and scale of <b>key monetised costs</b> by 'main affected groups'<br>The MCA does not have access to any evidence to enable it to monetise the costs of these Regulations. In addition, no such evidence was provided by consultees. |
|   | <b>One-off (Transition)</b>                    | <b>Yrs</b> |  |
|   | £  |            |  |
|   | <b>Average Annual Cost (excluding one-off)</b> |            |  |
|   | £  |            |  |
| <b>Total Cost (PV)</b>  |  |            | £  |
| Other <b>key non-monetised costs</b> by 'main affected groups' Some operators might incur costs, including for familiarisation with the regulations, the training of seafarers, and the supply of specialised safety equipment. Such costs may not arise on all vessels as safeguards may already be in place or work at height may not be required or be possible. This view is supported by the consultation responses. |  |            |  |

|  |   |            |  |
|--|---|------------|--|
| <b>BENEFITS</b>  | <b>ANNUAL BENEFITS</b>                            |            | Description and scale of <b>key monetised benefits</b> by 'main affected groups'<br>The MCA does not have access to any evidence to enable it to monetise the benefits of these Regulations. In addition, no such evidence was provided by consultees. |
|  | <b>One-off</b>                                    | <b>Yrs</b> |  |
|  | £   |            |  |
|  | <b>Average Annual Benefit (excluding one-off)</b> |            |  |
|  | £   |            |  |
| <b>Total Benefit (PV)</b>  |   |            | £  |
| Other <b>key non-monetised benefits</b> by 'main affected groups' 1.) Out of 380 consultees, none considered that benefits would accrue in terms of improved safety, presumably because work at height is either not carried out or risks have already been considered and appropriate measures put in place. However, the MCA consider that there could potentially be a negligible benefit. Should any reduction in falls from height result from the Regulations, there is likely to be a consequential reduction in overall costs to society in terms of lost output and human and medical costs. 2.) Implementation will ensure that the UK has met its EU commitments. |   |            |  |

**Key Assumptions/Sensitivities/Risks** 1.) Work at height may not occur or be possible on all ships or fishing vessels because of their design e.g. RIBs. Even where it is, industry is well aware of the risks and the need for appropriate safety precautions to be taken as a result of the general risk assessments required by the General Duties Regulations. 2.) Non-implementation could result in infraction proceedings, and could also render the Government liable to pay compensation to all those affected under the Francovich principle. 3.) The limited nature of the evidence base means that the costs and benefits of these Regulations are uncertain and cannot be monetised.

|                      |                        |                                     |   |
|----------------------|------------------------|-------------------------------------|---|
| Price Base<br>Year - | Time Period<br>Years - | <b>Net Benefit Range (NPV)</b><br>£ | <b>NET BENEFIT (NPV Best estimate)</b><br>£ |
|----------------------|------------------------|-------------------------------------|---|

|   |       |  |                   |
|---|-------|--|-------------------|
| What is the geographic coverage of the policy/option?                 |       | UK ships worldwide   |                   |
| On what date will the policy be implemented?                          |       | 6 April 2010   |                   |
| Which organisation(s) will enforce the policy?                        |       | MCA  |                   |
| What is the total annual cost of enforcement for these organisations? |       | £ 0 - Enforcement will be carried out as part of survey regime |                   |
| Does enforcement comply with Hampton principles?                      |       | Yes  |                   |
| Will implementation go beyond minimum EU requirements?                |       | No   |                   |
| What is the value of the proposed offsetting measure per year?        |       | £ N/A  |                   |
| What is the value of changes in greenhouse gas emissions?             |       | £ N/A  |                   |
| Will the proposal have a significant impact on competition?           |       | No   |                   |
| Annual cost (£-£) per organisation (excluding one-off)                | Micro | Small  | Medium      Large |
| Are any of these organisations exempt?                                | No    | No   | N/A      N/A      |

|   |                    |                       |     |
|---|--------------------|-----------------------|-----|
| <b>Impact on Admin Burdens Baseline (2005 Prices)</b> |                    | (Increase - Decrease) |     |
| Increase of    £ 0                                    | Decrease of    £ 0 | <b>Net Impact</b>     | £ 0 |

Key:      **Annual costs and benefits: Constant Prices**      **(Net) Present Value**

## **1. PURPOSE OF IMPACT ASSESSMENT**

The purpose of this final proposal/implementation stage Impact Assessment is to consider the costs and benefits of the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010 (the "Work at Height Regulations") which implement Directive 2001/45/EC for the maritime, fishing and small vessel sectors.

In the preceding paragraph reference to:-

"the Maritime, Fishing and Small Vessel sectors" means all UK registered Merchant Ships, Yachts, Hovercraft, Fishing Vessels, Pilot Vessels, Inland Waterway Vessels and other vessels with employed workers working on them, as well as to the employers of such workers, irrespective of where in the world they are operating or the nationality, location or place of business of the shipowner;

"worker" means any person employed to work on any UK vessel referred to above, irrespective of that person's nationality or place of domicile; and,

"employer" means the employer of any person employed to work on any UK vessel referred to above, irrespective of the nationality, location or place of business of that employer.

The proposed Regulations will also apply to non-UK vessels when in UK waters albeit on a "no more favourable treatment" basis intended to ensure that UK vessels are not put at a competitive disadvantage by non-UK vessels' failure to meet similar standards to those required for UK vessels.

## **2. SCOPE OF IMPACT ASSESSMENT**

The costs and benefits that are considered in this implementation stage Impact Assessment relate to the Work at Height Regulations that are published alongside this Impact Assessment.

## **3. THE ISSUES**

Injuries resulting from falls from height can potentially range from the very minor to the very serious or even fatal, and the seriousness of the injury received may not be directly related to the distance fallen. In an endeavour to protect workers whose health and safety may, for whatever reason, be put at risk by carrying out work at height, the EC produced Directive 2001/45/EC which introduced measures intended to protect workers from risks related to working at height.

The Health and Safety Executive and the Health and Safety Executive for Northern Ireland have already implemented this Directive by means of their respective Regulations covering work at height. To complete UK implementation, it is necessary to extend the provisions of Directive 2001/45/EC to the maritime and fishing sectors as only by doing so will the UK fully implement that Directive.

### **(i) Evidence on risks arising from working at height**

Falls whilst working at height are one of the most common causes of fatalities and injuries for land-based workers. In 2006/07, the number of land-based workers fatally injured as a result of falling from a height was 45, which was 19% of all workplace fatalities (Source: HSE). Ladders, roofs and scaffolding were the most common agents associated with the fatal injury to land-based workers. The construction sector accounted for 51% of all fatalities to workers as a result

of falling from a height in 2006/07. Major injuries to land-based employees due to falling from a height accounted for 12% of all major injuries in 2006/07 (3,409 injuries).

Injury statistics and reports for the maritime sector suggests that at most only one fatality in the past seven years and very few non fatal injuries annually have resulted from falls whilst working at height. Detailed analysis of the Marine Accident Investigation Branch Report for 2006, which was the most recent report available at the time consultation was undertaken, indicated that accidents on UK vessels resulted in six fatalities on UK registered merchant vessels of 100 gross tonnes or over and 17 fatalities on UK registered commercial fishing vessels. However, of these none resulted directly from the carrying out of work at height. This also appeared to be the case for the years 2000 - 2005 with the exception of 2004 when 1 death is specifically shown to have resulted from working at height. However that death involved an electrician working on board a vessel which suggests that the worker may actually have been a shore based worker rather than a member of crew, and would have been outside the scope of the Work at Height Regulations had they been in place at the time. Subsequently 2 deaths involving work at height occurred in 2007 of which one involved a contractor and the other a cadet, and a further 2 deaths occurred in 2008 both of which involved contractors. Only the death of the cadet might potentially have been relevant to the Work at Height Regulations had they been in force at that time as, for the purposes of those Regulations, account is only taken of deaths resulting from work being carried out at height by members of the crew. Deaths resulting from, for example, a fall overboard whilst attempting to board or leave a ship are excluded as they are subject to other Regulations such as the Merchant Shipping (Means of Access) Regulations 1988. Work involving non-seafarers will normally be subject to relevant land-based legislation where the work is being undertaken in a harbour or dock. However, they might come under the Work at Height Regulations where they are travelling on the vessel and are undertaking work whilst it is at sea.

In the case of non-fatal injuries, whilst 300 injuries were recorded for 2006, these were not broken down in the MAIB Report in a way which enabled those relating to work at height to be readily identified. A more detailed breakdown of these figures provided by MAIB suggests that deaths and injuries resulting from falls at height are potentially less dangerous on water than on land, possibly because falls into water are less likely to cause death or injury than falls onto concrete or other hard surfaces in the case of land-based workers. Further information on accidents including an assessment of those which might have resulted from work at height but which could equally have resulted from other causes (e.g. trips or falls which are not covered by the Work at Height Regulations) is also set out below. To put these figures in perspective, the Marine and Fisheries Agency website indicates that in 2007 (2006 figures could not be found) there were 6,763 vessels and 12,729 fishermen in the UK fishing industry. Similarly, the MCA Annual Report for 2006/7 indicates that there were some 1456 ships over 100 tons and 28,720 crew in the UK merchant shipping industry. It should be noted however that this tonnage limit will exclude many small vessels with workers on board, including small yachts, work boats, water taxis, which will nevertheless be subject to the new Regulations. There is of course also the probability that falls not resulting in injury may not be reported.

### **Deaths - Fishing Vessels**

The Marine Accident Investigation Branch Report for 2006 (the latest available at the time of consultation) recorded 17 fatalities involving fishermen on fishing vessels during that period. Of these:

- 10 were lost as a result of vessels sinking;
- 3 fell into the water whilst boarding a vessel;
- 1 was overcome by fumes from a petrol generator whilst sleeping on board;
- 1 was found to be missing whilst the vessel was at sea;
- 1 was caught on a snatch block and fell into the water; and
- 1 was pulled overboard whilst shooting pots.



It is clear from these figures that the major cause of death in the fishing industry tends to result from the foundering of the vessel (59% in 2006) followed by falls into the water whilst boarding a vessel (17%). The MCA concludes therefore that falls whilst working at height are not a significant cause of death on fishing vessels.

### **Deaths - Merchant Ships**

Similarly, the 2006 MAIB Report lists some 6 fatalities occurring on merchant ships of which:

- 2 did not involve crew members;
- 1 resulted from loss of footing whilst boarding a vessel;
- 1 crew member was lost overboard;
- 1 crew member was crushed by a closing hatch; and,
- 1 involved being scalded by water.

The MCA concludes therefore that falls whilst working at height are not a significant cause of death on merchant ships.

### **Injuries - Fishing Vessels**

So far as non-fatal injuries on fishing vessels are concerned, the 2006 MAIB annual report listed 69 reports of deaths and injuries to seafarers on UK fishing vessels including those resulting in death or presumed death which are listed in the deaths section above. These are only broken down by type of injury and not by cause. However, further investigation suggests that a maximum of 2 non-fatal injuries in 2006 may have resulted from a fall whilst working at height. In one case, the vessel rolled causing a crew member to slide approximately 10-15 feet down a ladder into the fish room and in the other, a crew member standing on a beam was flipped into the water when the beam moved. The information is not available to conclude definitively that both incidents actually occurred whilst work was being undertaken at height. Some or many of these incidents may be covered by other legislation such as that relating to safety on board or safe means of access.

### **Injuries - Merchant Ships**

In the case of non-fatal injuries on merchant ships, the 2006 MAIB annual report lists 243 deaths and injuries to seafarers on UK registered merchant vessels of 100gt or more including those resulting in death or presumed death, which are covered in the deaths section above. Here again these are only broken down by type of injury and not by cause. However, further investigation suggests that 7 non-fatal injuries in 2006 could be considered directly related to carrying out work at height with a further 4 that may have been related to work at height but for which there was insufficient background information on which to make a decision. Cases include 2 falls from ships' scaffolding, a fall within a dry store whilst climbing shelving to gain access to a high shelf and a fall from a footstool while cleaning. Use of scaffolding is specifically covered in the Work at Height Regulations.

### **(ii) Regulatory Background**

Regulations introduced by the Health and Safety Executive and the Health and Safety Executive for Northern Ireland implement the Work at Height Directive for land based workers and apply to all work at height carried out in the United Kingdom **except** where such work is carried out on board a ship as part of the normal shipboard activities of the ship's crew, is carried out under the direction of the master and is not liable to expose persons at work other than the master and crew to a risk to their safety. In effect this means that the HSE and HSE (NI) Regulations will apply to all work carried out in a port or dock in the UK, unless it is only

carried out by the master and crew and cannot adversely affect anyone else. Where work is carried out in a port outside the UK, land based workers will most likely be subject to their own national legislation whilst the master and crew will be subject to the Work at Height Regulations.

The Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997 (the "General Duties" Regulations), which implemented the EC "Framework" Health and Safety Directive already require employers to ensure the health and safety of workers by complying with certain general duties set out in those Regulations. These duties include the following:-

- (a) the avoidance of risks;
- (b) the evaluation of unavoidable risks and the taking of action to reduce them;
- (c) adoption of work patterns and procedures which take account of the capacity of the individual;
- (d) adaptation of procedures to take account of new technology and other changes in working practices, equipment, the working environment and any other factors which may affect health and safety;
- (e) adoption of a coherent approach to management of the vessel or undertaking, taking account of health and safety at every level of the organisation;
- (f) giving collective protective measures priority over individual protective measures; and
- (g) the provision of appropriate and relevant information and instruction for workers.

Without prejudice to the generality of the duties set out in (a) to (g) above, the matters to which those duties extend includes in particular -

- (i) provision and maintenance of plant, machinery and equipment and systems of work that are, so far as is reasonably practicable, safe and without risk to health;
- (ii) arrangements for ensuring, so far as is reasonably practicable, safety and absence of risk to health in connection with the use, handling, stowage and transport of articles and substances;
- (iii) such arrangements as are appropriate, having regard to the nature of, and the substances used in, the activities and size of the operation, for the effective planning, organisation, control, monitoring and review of preventive and protective measures;
- (iv) provision of such information, instruction, training and supervision as is necessary to ensure the health and safety of workers and that of other persons aboard ship who may be affected by their acts or omissions;
- (v) maintenance of all places of work in the ship in a condition that is, so far as is reasonably practicable, safe and without risk to health;
- (vi) arrangements to ensure, so far as is reasonably practicable, that no person has access to any area of the ship to which it is necessary to restrict access on grounds of health and safety unless the individual concerned has received adequate and appropriate health and safety instruction;
- (vii) provision and maintenance of an environment for persons aboard ship that is, so far as is reasonably practicable, safe and without risk to health;
- (viii) collaboration with any other persons upon whom the Regulations place a duty to protect, so far as is reasonably practicable, the health and safety of all authorised persons aboard the ship or engaged in loading or unloading activities in relation to that ship.

Directive 2001/45/EC builds on those requirements by introducing specific requirements relating to the health and safety of workers likely to undertake work at height and it is necessary for

these provisions to be implemented by means of Regulations in order to meet the UK's obligations in respect of implementation of this Directive.

#### **4. OPTIONS FOR IMPLEMENTATION**

Three possible options were considered. Given that the provisions of EC Directives must be given the force of law in Member States, there were only two possible options to give effect to Directive 2001/45/EC for the Maritime sector that would ensure the UK is not in breach of its EU commitments (Option 2 and Option 3). These options were to extend the application of HSE's land-based regulations to the maritime sector or to introduce new regulations made under the Merchant Shipping Act 1995 to give effect to the Directive. All three options and the reasons for accepting or rejecting a particular option are set out below.

##### **(i) Option 1 – Do Nothing**

This option would leave the UK in breach of its EU commitments and could leave the UK open to infraction proceedings. It has thus not been considered further in this impact assessment.

##### **(ii) Option 2 - Extend the application of HSE's land-based regulations to the maritime sectors**

There are several problems with adopting this option as follows:-

- (a) There are separate Regulations covering Great Britain (produced by the HSE) and Northern Ireland (produced by the HSE(NI)) which cover workers on land. They also apply to certain offshore installations within UK waters. These Regulations do not however apply outside the UK but even if they did it would be questionable which Regulations would apply to a particular incident which occurred outside the UK. .
- (b) The HSE/HSE(NI) Regulations are intended to cover work at height carried out at premises on land or offshore installations. They may therefore contain more detailed provisions which have either been carried forward from earlier HSE/HSE(NI) Regulations or have been specifically introduced by the HSE/HSE(NI), implementation of which would amount to "gold plating" of the Directive for the maritime sector. As a result the Regulations may not be entirely compatible with the differing requirements of ship operation and could also put UK shipping at a commercial disadvantage compared to its competitors.
- (c) HSE/HSE(NI) Inspectors are not familiar with the operation of ships or their crews.
- (d) The policy of implementing EC Directives for the maritime & fishing sectors by means of regulations specific to merchant shipping and fishing vessels is a well established and widely used practice with which industry is both familiar and in agreement.

For these reasons, it is not considered appropriate to adopt this course of action.

##### **(iii) Option 3 - Introduce a single set of Merchant Shipping Regulations to implement Directive 2001/45/EC for the maritime sectors**

Option 3 is the preferred option for the following reasons:-

- (a) Regulations made under the Merchant Shipping Act 1995 are applicable to UK ships and other types of vessel wherever they may be in the world. They are also applicable to non UK ships, albeit to a lesser degree, when in UK waters.
- (b) Regulations made under the Merchant Shipping Act 1995 are specifically drafted with ships in mind and whilst they can contain provisions brought forward from earlier Regulations, on the basis of no lowering of existing standards, they do not otherwise seek to "gold plate" Directive requirements.

- (c) The policy of implementing EC Directives for the maritime & fishing sectors by means of regulations specific to merchant shipping and fishing vessels is a well established and widely used practice with which industry is both familiar and in agreement.

The costs and benefits of Option 3 are therefore considered in Section 7.

## **5. IMPLEMENTATION AND DELIVERY PLAN**

380 individuals, companies and organisations in the maritime, yachting, coded vessel and fishing sectors who form the backbone of the consultation list for Regulations implementing EC Health and Safety Directives were approached for information on the likely costs of implementation of the Work at Height Regulations and any potential benefits resulting there from,. Included are the main organisations representing owners, unions, fishermen and yachtsmen and they are already aware of what is proposed. Their views were that any costs were likely to be minimal at worst and any benefits were also likely to be minimal. This probably results from the General Duties Regulations already requiring employers to carry out general risk assessments and to take appropriate measures to remove, or reduce as far as possible, any risks identified as a result. This would include the consideration of any risks that might arise from the carrying out of work at height.

Notwithstanding that responses to the consultation exercise indicated that costs and benefits were likely to be minimal it is nevertheless the intention to allow the normal 12 week period between the making of the Work at Height Regulations, with the issue of related guidance, and the coming into force in order of those Regulations to allow time for small and medium sized businesses to adapt to the changes introduced by the Work at Height Regulations should they not have been aware of them previously.

## **6. INTERVENTION**

It is a requirement that EC Directives be implemented in all Member States and HSE/HSE(NI) have already done so for land-based workers in the UK. The Work at Height Regulations complete implementation for the UK by extending the provisions of Directive 2001/45/EC to all seafarers on UK registered ships, fishing vessels, yachts and other craft both sea going and on inland waters on which there are employed workers. Failure to implement the Work at Height Directive would leave the UK open to infraction proceedings by the EC and leave UK ships and other vessels open to enforcement action for non compliance in other EC ports. Non-implementation could also render the Government liable to pay compensation to all those affected under the Francovich principle.

## **7. COSTS AND BENEFITS**

### **(i) Sectors and Groups affected**

The Work at Height Regulations will apply to all UK ships and other vessels on which workers are employed irrespective of whether they are Merchant Ships, Yachts, Fishing Vessels, Pilot Vessels, Inland Waterway Vessels or any other type of vessel. The main groups affected by the proposed Regulations will be the owners, operators, charterers and managers of UK ships etc as well the employers of the workers working on those ships and the workers themselves. Given the international nature of shipping, not all of such owners; operators, charterers, managers or employers or indeed the workers themselves will necessarily be based in the United Kingdom. For that reason this Impact Assessment cannot seek to differentiate between the costs/benefits for UK and non-UK based owners, operators, charterers, managers, employers or workers but instead looks at costs/benefits in a more generalised way applicable to all UK ships, vessels etc.

## **(ii) Costs resulting from the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010**

Given the requirements of the General Duties Regulations, and its requirement that employers undertake general risk assessments to identify risks to workers and then take appropriate measures to eliminate or reduce as far as possible and risks so identified, the MCA considers that the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010 will only have a very limited effect on the UK maritime sector. This view is supported by the outcome of the consultation exercise and is likely to have occurred because the maritime sector has already have been considering, albeit perhaps in a more generalised way, the risks arising from working at height and the measures required to alleviate them.

Introduction of the 'Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010' could require the following actions to be undertaken:

### **Familiarisation with the proposed Regulations**

Introduction of the Work at Height Regulations could potentially require an employer, or other person acting on their behalf, to familiarise themselves with the requirements of the Regulations and analyse their effect either on a specific ship or on the company/organisation as a whole. However, the Work at Height Regulations would not require every vessel/company to do this as many vessels might not require work at height to be undertaken or it could be that their design is such that work at height is not physically possible (e.g. Rigid Inflatable Boats, open work boats etc). Information on the number of vessels where work at height is unnecessary or not physically possible is not available. In addition, familiarisation costs will vary depending upon the salary scales applicable in the country of domicile of the employer or any other person acting on their behalf. As a result of this lack of information, it has not been possible to produce an estimate of the potential familiarisation cost for the maritime sector as a whole, although information obtained from industry during the consultation process suggests that costs are likely to be negligible at worst.

### **Training**

It is possible that some training could be required in certain circumstances where work at height is required to be undertaken on individual vessels. It has however not been possible to assess what level of training will be required, and if so at what cost, to meet the requirements of the Work at Height Regulations. No information was forthcoming from the approximately 380 organisations covered by MCA's formal consultation. Of the 14 responses that were received, none indicated that any costs would be incurred as a result of the introduction of the Work at Height Regulations.

### **Costs of Using Alternative Means of Access to Heights**

The Work at Height Regulations require that ladders are only used where the use of other equipment (e.g. fixed platforms, mobile lifting equipment and scaffolds) is not justified because of (1) the level of risk, (2) the duration of work, or (3) existing features of the ship that employers cannot alter.

It has not proved possible to estimate the extent of the changes needed to meet the requirement to consider alternatives to ladders or the costs. No information is available, or was provided by consultees, on the extent to which work at height is currently carried out on board ships using mobile ladders or other forms of access equipment or the costs involved in using such equipment.

### **(iii) Benefits resulting from the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010**

The Marine Accident Investigation Branch (MAIB) Annual Reports do not contain sufficient information to enable a detailed analysis of the cause and result of accidents to be produced without further investigation being undertaken. This was done for the 2006 MAIB Report in order to produce figures for the consultation stage Impact Assessment and the results suggested that no deaths occurred in 2006 as a direct result of working at height. Two deaths did occur in 2007 and another two in 2008 which appear to have resulted from work at height but detailed information on these was not to hand and, in any event, only one appeared to involve a seafarer.

The results of the analysis of the 2006 MAIB Report were however inconclusive regarding injuries arising from working at height. It cannot therefore be concluded on the basis of this one report that deaths or injuries will never result from a fall from height as a fall from any height has the potential to result in injury, whether it be a minor, major or even fatal injury. However, the MCA consider that it is possible that the low figures for deaths could have resulted from the risks arising from working at height, and the taking of appropriate remedial measures to counter such risks, having been previously considered by employers as part of their compliance with the requirements of the General Duties Regulations.

In the light of the above, the MCA believes that the underlying risk of death or injury resulting from a fall whilst working at height on a ship is relatively small, and that the extension of Directive 2001/45/EC to working at sea is likely to have a negligible beneficial impact on this risk. Should any reduction in falls from height result from the Regulations, there is likely to be a consequential reduction in overall costs to society of such incidents in terms of lost output, and human and medical costs.

In order to gauge whether this was likely to be the case, consultees were asked to quantify any potential benefits that would accrue from the introduction of the Work at Height Regulations. The number of responses was the same as for costs. None of the respondents indicated that they expected any benefits to accrue to them as a result of the Work at Height Regulations. This is consistent with MCA's view that most employers have already addressed the issues themselves as part of their general risk assessment under the General Duties Regulations or because work does not need to be carried out at height on every ship. Nevertheless, any measures that have the potential to prevent accidents arising from work at height are clearly of benefit to workers on UK ships.

It should be noted that the approximately 380 consultees approached for comments are in the main already familiar with UK merchant shipping legislation and its requirements in so far as it affects them. However, there could be ships joining the UK register from outside the EU whose operators are not familiar with the health and safety requirements applicable to UK ships, including those relating to work at height. There is therefore potential for the Work at Height Regulations and the related guidance to assist in preventing accidents resulting from work at height on UK vessels especially those new to the UK flag. However, it is not possible to quantify this benefit, given that it cannot be proved conclusively that accidents resulting from work at height would be prevented specifically by the introduction of the Work at Height Regulations. Nevertheless, the potential to prevent accidents whilst working at height should be considered to be a benefit.

As well as the potential to reduce the human costs of accidents resulting from working at height, this could also potentially reduce the output lost as the result of workers dying or being injured as a result of working at heights. It is also possible that medical costs could be reduced in seafarers' countries of domicile, should the Work at Height Regulations prevent deaths or injuries arising as a result of working at height that would otherwise have occurred. It is however not possible to identify or quantify any such potential savings as UK ships operate around the world with the result that medical treatment will usually be obtained in the nearest country with

the facilities to provide it and data on such treatment is not available. So far as ongoing medical treatment or social security payments are concerned, a large number of seafarers on UK ships are nationals of other EEA countries or are from outside the EEA and any ongoing medical treatment/social security payments for those workers is likely to be provided in their country of domicile under relevant local provisions. Here again such data is not available.

In addition to the potential benefits to seafarers, UK vessels serving ports in other EC States could potentially benefit from the introduction of the Work at Height Regulations in so far as they will be less likely to face sanctions for non compliance with the requirements of Directive 2001/45/EC. Introduction of the Work at Height Regulations would also remove the risk to the Government of infraction proceedings for failing to implement the Directive as well as the risk that the Government could, under the Francovich principle, be liable to pay compensation to anyone who suffers loss as a result of the Government's failure to properly implement Directive 2001/45/EC.

#### **(iv) Overall impact of the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010**

It has not been possible to monetise any of the costs and benefits of these Regulations that are identified in this assessment. However, both non-monetised costs and non-monetised benefits have been identified.

The Net Benefit of these Regulations will depend on whether the non-monetised benefits exceed the non-monetised costs. Given the limited nature of the evidence that is currently available, it is not possible to give a firm view on the Net Benefit of these Regulations.

### **8. SIMPLIFICATION**

Introduction of the Work at Height Regulations offers no scope for simplification of earlier requirements as there are currently no regulations in place, other than the General Duties Regulations, which could be said to deal with the protection of workers from the risks resulting from working at height. Even then the General Duties Regulations only establish minimum general health and safety requirements and Directive 2001/45/EC and the Work at Height Regulations actually build on those requirements rather than superseding them.

### **9. POST IMPLEMENTATION REVIEW**

The MCA will evaluate how the Work at Height Regulations have changed working practices. This will be assisted by any relevant data collected by the Marine Accident Investigation Branch to whom all marine accidents and serious injuries are required to be reported, including those resulting from the carrying out of work at height. The limited number of work at height related accidents in recent years suggests that post implementation review will require at least five years of data to provide a meaningful evidence base and even then it is likely to be difficult to attribute any change to the introduction of the Work at Height Regulations.

All health and safety Directives are however subject to a regular review by the EC to which MCA will contribute as appropriate. The next EC review for the Work at Height Directive 2001/45/EC is due in 2013. In addition it is proposed to monitor compliance to see if any problems arise which need to be resolved by amending the Work at Height Regulations, or associated guidance, to make matters clearer to those organisations/persons covered by the Directive's provisions.

### **10. SMALL FIRMS IMPACT TEST**

The MCA sought to ensure that small, medium and large businesses were consulted on the measures – a number of consultees including the British Chamber of Shipping, RYA and BMF

have small business members and a number of the specific consultees would themselves be classified as small or medium enterprises. No consultees however offered comments regarding any potential impact on small or medium enterprises. It is envisaged therefore that the impact of the Work at Height Regulations on vessel operators will be commensurate with their size; with smaller firms likely to operate smaller vessels which are less likely to be involved with the carrying out of work at height. However, the Work at Height Regulations might have some limited application in relation to working up masts, etc.

## **11. COMPETITION ASSESSMENT**

As the Work at Height Regulations implement an EC Health and Safety Directive and do not go beyond the scope of these instruments it is not considered that the legislation will have a significant impact on competition.

Failure to implement Directive 2001/45/EC could result in UK flagged vessels failing to meet EC requirements and as a consequence facing sanctions in ports in other EC countries up to and including detention for non-compliance.

## **12. HEALTH IMPACT**

The Work at Height Regulations implement an EC Directive intended to safeguard the health and safety of workers required to undertake work at height on board ships, fishing vessels and other water borne craft. Any impact will therefore be beneficial.

## **13. RACE EQUALITY**

The Work at Height Regulations are applicable to all seafarers on UK ships irrespective of their race, nationality or ethnic origin

## **14. DISABILITY EQUALITY**

The Work at Height Regulations are applicable to all seafarers on UK ships. They do not however contain any provisions relating to disability equality as the fitness or otherwise of a seafarer to work on a ship is covered by separate regulations

## **15. GENDER EQUALITY**

The Work at Height Regulations are applicable to all seafarers on UK ships irrespective of their gender.

## **16. HUMAN RIGHTS**

The Work at Height Regulations do not raise any human rights issues.

## **17. ENFORCEMENT, SANCTIONS AND MONITORING**

Enforcement will be carried out by the Maritime and Coastguard Agency as part of its existing enforcement activities. The Regulations provide for sanctions for non-compliance. These include provisions for a fine not exceeding the statutory maximum (currently £5,000) on summary conviction in some cases. In the case of a conviction in the Crown Court, the Regulations do not impose any limit on the amount of the fine and there is also the possibility of imprisonment for up to two years. These penalties are in line with those for other health and safety offences and are considered to be proportionate to the nature of the offences. Provisions also exist whereby a ship may be detained in UK waters where a surveyor of ships suspects that an offence has been committed.



## Specific Impact Tests: Checklist

| Type of testing undertaken | <i>Results in Evidence Base?</i> | <i>Results annexed?</i> |
|----------------------------|----------------------------------|-------------------------|
| Competition Assessment     | Yes                              | No                      |
| Small Firms Impact Test    | Yes                              | No                      |
| Legal Aid                  | No                               | No                      |
| Sustainable Development    | No                               | No                      |
| Carbon Assessment          | No                               | No                      |
| Other Environment          | No                               | No                      |
| Health Impact Assessment   | Yes                              | No                      |
| Race Equality              | Yes                              | No                      |
| Disability Equality        | Yes                              | No                      |
| Gender Equality            | Yes                              | No                      |
| Human Rights               | Yes                              | No                      |
| Rural Proofing             | No                               | No                      |

## **Annexes**

Copies of the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010 and the related Marine Guidance Note are attached.

## TRANSPOSITION NOTE

Relating to the implementation for the maritime sector of Council Directive 2001/45/EC of 27 June 2001, which amends Directive 89/655/EC (the second individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC) on the introduction of measures to protect workers from the risks related to working at height.

The Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010 implement Council Directive 2001/45/EC for the maritime sector, which includes all commercial sea-going and inland waterway merchant and fishing vessels of whatever size. The regulations also apply to commercial and private pleasure vessels on which workers are employed.

These Regulations do what is necessary to implement the Directive, including making consequential changes to domestic legislation to ensure its coherence in the area to which they apply.

Implementation of Council Directive 2001/45/EC in respect of workers employed in land based industries is the responsibility of the Health and Safety Executive.

The responsibility for implementation of Council Directive 2001/45/EC for the maritime sector rests with the Secretary of State through the introduction of new Regulations.

Maritime and Coastguard Agency  
Department for Transport

January 2010

**TABLE RELATING TO IMPLEMENTATION OF ARTICLES OF DIRECTIVE 2001/45/EC**

| <b>SECTION 1<br/>GENERAL PROVISIONS</b>  |   |  |
|--|---|--|
| <b>Article 1<br/>Aim and scope</b>       |   |  |
| <b>Article or Paragraph of Directive</b> | <b>Purpose of Article or Paragraph in Directive</b>   | <b>Implemented in the UK by</b>  |
| <b>Article 1</b>                         | Requires the text annexed to this Directive to be added to Annex II to Directive 89/655/EEC.  | Transposition not required. Directive 89/655/EEC, excluding the text annexed to this Directive, has already been implemented by the Merchant Shipping and Fishing Vessels (Provision and Use of Work Equipment) Regulations 2006 and the Merchant Shipping and Fishing Vessels (Lifting Operations and Lifting Equipment) Regulations 2006 |
| <b>Article 2(1) First sub-paragraph</b>  | Requires Member States to adopt and publish the laws, regulations and administrative provisions necessary to comply with this Directive not later than 19 July 2004.  | Transposition not required.  |
| <b>Article 2(1) Second sub-paragraph</b> | Provides that Member States shall have the right, as regards the implementation of section 4 of the Annex, to make use of a transitional period of not more than two years from the date mentioned in the first subparagraph, in order to take account of the various situations which might arise from the practical implementation of this Directive in particular by small and medium-sized enterprises. | Transposition not required as the two year period of grace is no longer relevant.  |
| <b>Article 2(2)</b>                      | Requires Member States when adopting the measures set out in the Directive to include a reference to this Directive.  | Reference to the Directive is included in the Explanatory Note.  |
| <b>Article 2(3)</b>                      | Requires Member States to notify the Commission of the provisions of national law which they have already adopted or adopt in the field covered by this Directive.  | Transposition not required.  |
| <b>Article 3</b>                         | States that the Directive will enter into force on the day of its publication in the Official Journal of the European Communities.  | Transposition not required.  |
| <b>Article 4</b>                         | States that the Directive is addressed to the Member States.  | Transposition not required.  |

**TABLE RELATING TO IMPLEMENTATION OF ANNEX TO DIRECTIVE 2003/10/EC**

| Paragraph of Annex to Directive  | Purpose of Article or Paragraph in Annex to Directive   | Implemented in the UK by   |
|--|---|--|
| <b>4. Provisions concerning the use of work equipment provided for temporary work at a height.</b> |   |  |
| <b>4.1. General provisions</b>   |   |  |
| <b>Para 4.1.1 First sub-paragraph</b>  | Requires that if temporary work at height cannot be carried out safely and under appropriate ergonomic conditions from a suitable surface, the work equipment most suitable to ensure and maintain safe working conditions must be selected.  | Transposed by regulations 7(2) and 8(2) of the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010.  |
| <b>Para 4.1.1 Second sub-paragraph</b>   | Requires that collective protection measures must be given priority over personal protection measures. The dimensions of the work equipment must be appropriate to the nature of the work to be performed and to the foreseeable stresses and allow passage without danger.   | Transposed by regulation 8(3)(a) and (b) of the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010. |
| <b>Para 4.1.1 Third sub-paragraph</b>  | Requires that the most appropriate means of access to temporary workplaces at a height must be selected according to the frequency of passage, the height to be negotiated and the duration of use. The choice made must permit evacuation in the event of imminent danger. Passage in either direction between a means of access and platforms, decks or gangways must not give rise to any additional risks of falling. | Transposed by regulation 8(3)(c) of the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010.         |
| <b>Para 4.1.2</b>  | Provides that ladders may be used as work stations for work at a height only under circumstances in which, given point 4.1.1, the use of other, safer work equipment is not justified because of the low level of risk and either the short duration of use or existing features on site that the employer cannot alter.  | Transposed by regulation 13(1) of the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010.           |
| <b>Para 4.1.3 First sub-paragraph</b>  | Requires that rope access and positioning techniques may be used only under circumstances where the risk assessment indicates that the work can be performed safely and where the use of other, safer work equipment is not justified.  | Transposed by regulation 15(1) of the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010.           |

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|--|--|--|
| <b>Para 4.1.3<br/>Second sub-paragraph</b> | Requires that, taking the risk assessment into account and depending in particular on the duration of the job and the ergonomic constraints, provision must be made for a seat with appropriate accessories.   | Transposed by regulation 15(2) of the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010.         |
| <b>Para 4.1.4<br/>First sub-paragraph</b>  | Requires that depending on the type of work equipment selected on the basis of the foregoing, the appropriate measures for minimising the risks to workers inherent in this type of equipment must be determined. If necessary, provision must be made for the installation of safeguards to prevent falls. These must be of suitable configuration and sufficient strength to prevent or arrest falls from a height and, as far as possible, to preclude injury to workers. | Transposed by regulation 9 of the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010.             |
| <b>Para 4.1.4<br/>Second sub-paragraph</b> | Requires that collective safeguards to prevent falls may be interrupted only at points of ladder or stairway access.   | Transposed by regulation 12(1) of the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010.         |
| <b>Para 4.1.5</b>                          | Requires that when the performance of a particular task requires a collective safeguard to prevent falls to be temporarily removed, effective compensatory safety measures must be taken. The task may not be performed until such measures have been taken. Once the particular task has been finished, either definitively or temporarily, the collective safeguards to prevent falls must be reinstalled.   | Transposed by regulation 12(2) and (3) of the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010. |
| <b>Para 4.1.6</b>                          | Requires that temporary work at a height may be carried out only when the weather conditions do not jeopardise the safety and health of workers.   | Transposed by regulation 10 of the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010.            |

#### **4.2. Specific provisions regarding the use of ladders.**

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|---|---|---|
| <b>Para 4.2.1.<br/>First sub-paragraph</b>  | Requires that ladders must be so positioned as to ensure their stability during use.  | Transposed by paragraph 1 of Schedule 1 to the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010. |
| <b>Para 4.2.1.<br/>Second sub-paragraph</b> | Requires that portable ladders must rest on a stable, strong, suitably-sized, immobile footing so that the rungs remain horizontal. | Transposed by paragraph 3 of Schedule 1 to the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010. |

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| <b>Para 4.2.1.<br/>Third sub-paragraph</b>  | Requires that suspended ladders must be attached in a secure manner and, with the exception of rope ladders, so that they cannot be displaced and so that swinging is prevented.   | Transposed by paragraph 2 of Schedule 1 to the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010. |
| <b>Para 4.2.2.<br/>First sub-paragraph</b>  | Requires that the feet of portable ladders must be prevented from slipping during use by securing the stiles at or near their upper or lower ends, by any anti-slip device or by any other arrangement of equivalent effectiveness.                        | Transposed by paragraph 4 of Schedule 1 to the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010. |
| <b>Para 4.2.2.<br/>Second sub-paragraph</b> | Requires that ladders used for access must be long enough to protrude sufficiently beyond the access platform, unless other measures have been taken to ensure a firm handhold   | Transposed by paragraph 5 of Schedule 1 to the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010. |
| <b>Para 4.2.2.<br/>Third sub-paragraph</b>  | Requires that interlocking ladders and extension ladders must be used so that the different sections are prevented from moving relative to one another.  | Transposed by paragraph 6 of Schedule 1 to the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010. |
| <b>Para 4.2.2.<br/>Fourth sub-paragraph</b> | Requires that mobile ladders must be prevented from moving before they are stepped on  | Transposed by paragraph 7 of Schedule 1 to the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010. |
| <b>Para 4.2.3.</b>                          | Requires that ladders must be used in such a way that a secure handhold and secure support are available to workers at all times. In particular, if a load has to be carried by hand on a ladder, it must not preclude the maintenance of a safe handhold. | Transposed by paragraph 8 of Schedule 1 to the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010. |

### **4.3. Specific provisions regarding the use of scaffolding**

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|--------------------|--|---|
| <b>Para 4.3.1.</b> | Requires that when a note of the calculations for the scaffolding selected is not available or the note does not cover the structural arrangements contemplated, strength and stability calculations must be carried out unless the scaffolding is assembled in conformity with a generally recognised standard configuration. | Transposed by paragraph 1 of Schedule 2 to the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010. |
| <b>Para 4.3.2.</b> | Requires that, depending on the complexity of the scaffolding chosen, an assembly, use and dismantling plan must be drawn up by a  | Transposed by paragraph 2 of Schedule 2 to the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations       |

|   |  |  |
|---|--|--|
|   | competent person. This may be in the form of a standard plan, supplemented by items relating to specific details of the scaffolding in question.   | 2010.  |
| <b>Para 4.3.3. First sub-paragraph</b>  | Requires that the bearing components of scaffolding must be prevented from slipping, whether by attachment to the bearing surface, provision of an anti-slip device or any other means of equivalent effectiveness, and  | Transposed by paragraph 4 of Schedule 2 to the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010.  |
| <b>Para 4.3.3. Second sub-paragraph</b> | Requires that a load-bearing surface must have a sufficient capacity.  | Transposed by paragraph 5 of Schedule 2 to the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010.  |
| <b>Para 4.3.3. Third sub-paragraph</b>  | Requires the stability of scaffolding to be ensured.   | Transposed by paragraph 6 of Schedule 2 to the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010.  |
| <b>Para 4.3.3. Fourth sub-paragraph</b> | Requires that wheeled scaffolding be prevented by appropriate devices from moving accidentally during work at a height.  | Transposed by paragraph 7 of Schedule 2 to the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010.  |
| <b>Para 4.3.4. First sub-paragraph</b>  | Requires that the dimensions, form and layout of scaffolding decks must be appropriate to the nature of the work to be performed and suitable for the loads to be carried and permit work and passage in safety.   | Transposed by paragraph 8 of Schedule 2 to the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010.  |
| <b>Para 4.3.4. Second sub-paragraph</b> | Requires that scaffolding decks must be assembled in such a way that their components cannot move in normal use.   | Transposed by paragraph 9 of Schedule 2 to the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010.  |
| <b>Para 4.3.4. Third sub-paragraph</b>  | Requires that there must be no dangerous gap between the deck components and the vertical collective safeguards to prevent falls.  | Transposed by paragraph 10 of Schedule 2 to the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010. |
| <b>Para 4.3.5.</b>                      | Requires that when parts of a scaffolding are not ready for use, for example during assembly, dismantling or alteration, they must be marked with general warning signs in accordance with the national provisions transposing Directive 92/58/EEC and be suitably delimited by physical means preventing access to the danger zone. | Transposed by paragraph 11 of Schedule 2 to the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010. |



|  |   |   |
|--|---|---|
| <p><b>Para 4.3.6. First sub-paragraph</b></p>  | <p>Scaffolding may be assembled, dismantled or significantly altered only under the supervision of a competent person and by workers who must have received appropriate and specific training in the operations envisaged, addressing specific risks in accordance with Article 7, and more particularly in:</p> <p>(a) understanding of the plan for the assembly, dismantling or alteration of the scaffolding concerned;</p> <p>(b) safety during the assembly, dismantling or alteration of the scaffolding concerned;</p> <p>(c) measures to prevent the risk of persons or objects falling;</p> <p>(d) safety measures in the event of changing weather conditions which could adversely affect the safety of the scaffolding concerned;</p> <p>(e) permissible loads;</p> <p>(f) any other risks which the abovementioned assembly, dismantling or alteration operations may entail.</p> | <p>Transposed by paragraph 12 of Schedule 2 to the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010.</p> |
| <p><b>Para 4.3.6. Second sub-paragraph</b></p> | <p>The person supervising and the workers concerned must have available the assembly and dismantling plan referred to in 4.3.2., including any instructions it may contain.</p>   | <p>Transposed by paragraph 3 of Schedule 2 to the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010.</p>  |

#### **4.4. Specific provisions regarding the use of rope access and positioning techniques**

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| <p><b>First sub-paragraph</b></p> | <p>The use of rope access and positioning techniques must comply with the following conditions:</p> <p>(a) the system must comprise at least two separately anchored ropes, one as a means of access, descent and support (work rope) and the other as backup (security rope);</p> <p>(b) workers must be provided with and use an appropriate harness and be connected by it to the security rope;</p> <p>(c) the work rope must be equipped with safe means of ascent and</p> | <p>Transposed by paragraph 1 of Schedule 3 to the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010.</p> |
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|                                    | <p>descent and have a self-locking system to prevent the user falling should he lose control of his movements. The security rope must be equipped with a mobile fall prevention system which follows the movements of the worker;</p> <p>(d) the tools and other accessories to be used by a worker must be secured to the worker's harness or seat or by some other appropriate means;</p> <p>(e) the work must be properly planned and supervised, so that a worker can be rescued immediately in an emergency;</p> |  |
| <p><b>Second sub paragraph</b></p> | <p>In exceptional circumstances where, in view of the assessment of risks, the use of a second rope would make the work more dangerous, the use of a single rope may be permitted, provided that appropriate measures have been taken to ensure safety in accordance with national legislation and/or practice."</p>  | <p>Transposed by paragraph 2 of Schedule 3 to the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010.</p> |