



Maritime and Coastguard Agency

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## The Merchant Shipping and Fishing Vessels Personal Protective Equipment Regulations 1999

**This Merchant Shipping Notice is an integral part of the Merchant Shipping and Fishing Vessels (Personal Protective Equipment) Regulations 1999.**

Notice to employers of crew, masters, safety officers and safety representatives.

*This Notice supersedes Merchant Shipping Notices No. M1195 and M1358.*

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### *Summary*

- This Notice gives notice of new regulations governing the provision of personal protective equipment, the Merchant Shipping and Fishing Vessels (Personal Protective Equipment) Regulations 1999. These Regulations supersede the Merchant Shipping (Protective Clothing and Equipment) Regulations 1985 (S.I. No. 1664), and come into force on 25 October 1999
- Annex 1 gives the design standards for personal protective equipment in use on board ships, for specified work activities and situations, in order to comply with regulation 5(2)(a) of the new Regulations.

### **Introduction**

1. The Regulations require employers to ensure that personal protective equipment (PPE) is provided for their workers who are engaged in, or at risk from, a hazardous work activity on board a United Kingdom ship<sup>1</sup>.

2. The Regulations are subject to the general rule that use of PPE is always a last resort, where risks cannot be avoided or reduced to a safe level by means of collective protection, or safe systems of work.

3. PPE must be provided free of charge to the workers, except that, where use of the equipment is not exclusive to the work place, workers may be required to contribute towards the cost.

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<sup>1</sup> "worker" includes trainees and apprentices, but does not include persons who are training in a sail training vessel.

4. Where, traditionally, workers provide their own PPE, the employer remains responsible for ensuring that workers are equipped with appropriate PPE, and that they use it when engaged in work of the types outlined in Annex 1.

5. The equipment issued must be "suitable", which is defined as :

(a) *in relation to any work process described in [this] Merchant Shipping Notice MSN 1731 (M+F), of the kind and to the standard specified [in that Merchant Shipping Notice], in relation to that work process;*

(b) *appropriate for the risks to which he worker is exposed and to the task which he is performing, without itself leading to any increased risk;*

(c) *correctly fitting the worker, or capable of being adjusted to fit;*

(d) *taking into account ergonomic requirements and the worker's state of health; and*

(e) *compatible with any other equipment the worker has to use at the same time, so that it continues to be effective against the risk"*

6. In addition, the employer must ensure that the PPE supplied is easily accessible, and properly stored and maintained, and that where appropriate, instructions are available to the workers who are required to carry out any maintenance. The equipment must be regularly inspected, in accordance with the manufacturers instructions, and its operation checked. Respiratory protective equipment must be always be checked before and after use.

7. The employer must ensure, so far as is reasonably practicable, that PPE issued under the regulations is used as instructed - eg that workers do not use it for a purpose for which it is not designed, and that it is put on and worn correctly.

8. Workers must receive adequate and appropriate training so that they are aware of the risks against which the PPE is designed to protect them, and of when and how to use it and look after it correctly. This may include demonstrations of the wearing of PPE, where appropriate.

9. Workers are required to wear and use the PPE which has been issued to them when appropriate, and to comply with any training and instruction provided.

### **Standards of design and manufacture**

10. The specifications for PPE are set out in the Annex. The list covers the PPE most commonly used on ships, but is not exclusive.

11. The letters "EN" stand for "European Norm". Where no "EN" standard is available, a BS standard is quoted. The letters "BS" refer to a British Standard. The standards are those to which the clothing and equipment should comply and the date which appears will be the date on which the latest revision of the relevant Standard was published, including all amendments at the date of this Merchant Shipping Notice.

12. **Any reference to an EN or BS standard contained in the annex means that standard or an alternative Standard which provides, in use, equivalent levels of safety, suitability and fitness for purpose.**

13. The standards of equipment given in this Merchant Shipping Notice do not apply to life saving appliances or other equipment which is subject to the Merchant Shipping (Marine Equipment) Regulations. (S.I. 1999/1957).

14. Publications mentioned in Annex 1 are available from:

#### **"BS" and "EN" Specifications:**

The British Standards Institution  
389 Chiswick High Road  
London  
W4 4AL

The Code of Practice, "**Noise Levels in Ships**" is available from The Stationery Office.

MSPP3 (Seafarers Health and Safety)  
The Maritime and Coastguard Agency  
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Spring Place  
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*An executive agency of the Department of the Environment, Transport and the Regions*

## STANDARDS OF PERSONAL PROTECTIVE EQUIPMENT

Note: all protective clothing should conform to EN 340 : 1993 - 'Protective clothing. General requirements.'

Work activity		Protective clothing and equipment to be provided	Full title of Standard
1	Any process or activity involving a reasonably foreseeable risk to the head from falling or moving objects.	Head protection EN 397 : 1995	Specification for industrial safety helmets.
2.	When working in areas where the circumstances involve a reasonably foreseeable risk to the head from bruising or abrasion.	Scalp protection to EN 812 : 1997	Industrial bump caps.
3.	When entering or working in a space or working with machinery or equipment where the noise level exceeds 85dB(A).	Hearing protection complying with section 10 and appendix 3 of the Code of Practice for Noise Levels in Ships published by the Department of Transport (1990):  EN 352-1 : 1993  EN 352- 2 : 1993  EN 352- 3 : 1996  EN 458 : 1994	Ear muffs.  Ear plugs.  Ear muffs attached to an industrial safety helmet.  Hearing protectors. Recommendations for selection, use, care and maintenance.
4.	Welding and gas cutting.	Eye and face protection to EN 175 : 1997  EN 166 : 1995  EN 379 : 1994  EN 169 : 1992	Personal protection. Equipment for eye and face protection during welding and allied processes.  Personal eye protection. Specifications.  Specification for filters with switchable or dual luminous transmittance for personal eye protectors used in welding and similar operations.  Specification for filters for personal eye protection equipment used in welding and similar operations.

Work activity		Protective clothing and equipment to be provided	Full title of Standard
		<p>Body protection to EN 470-1 : 1995</p> <p>Additional protection may be required in some situations (eg for particularly intense welding/cutting operations)</p>	Protective clothing for use in welding and allied processes. General requirements.
	Electric arc welding (in addition to above)	Safety footwear to BS 7193	Specification for lined lightweight rubber overshoes and overboots
5.	Any work activity in which there is a reasonably foreseeable risk of injury to the eye from particles, fragments or injurious substances.	Eye protection to EN 166	As above.
6.	Any work activity involving working in an atmosphere which is likely to be hazardous to health.	Note - The following items should be selected and maintained according to BS 4275 : 1997	Guide to implementing an effective respiratory protective device programme.
a)	Protection against nuisance dust mist, particles and dust of low toxicity.	<p>Disposable dust respirators conforming to EN 149 : 1991</p> <p>General purpose dust respirators conforming as appropriate to one of the following:</p> <p>EN 136 : 1998</p> <p>EN 140 : 1998</p> <p>EN 141 : 1990</p> <p>EN 143 : 1990</p> <p>EN 371 : 1992</p> <p>EN 372 : 1992</p> <p>EN 1827: 1999</p>	<p>Specification for filtering half-masks to protect against particles.</p> <p>Respiratory protective devices: Full face masks.</p> <p>Respiratory protective devices: Half masks and quarter masks</p> <p>Respiratory protective equipment: Gas filters and combined.</p> <p>Specification for particle filters used in respiratory protective equipment.</p> <p>Specification for AX gas filters and combined filters against low boiling organic compounds used in respiratory protective equipment.</p> <p>Specification for SX gas filters and combined filters against specific named compounds used in respiratory protective equipment.</p> <p>Half masks without inhalation valves, with separate filters to protect against gases or gases and particles or particles only.</p>

Work activity	Protective clothing and equipment to be provided	Full title of Standard
b) Protection against toxic dusts and gases of low toxicity.	Respirators conforming as appropriate to one of the following:  BS 7355 (EN 136)  BS 7356 (EN 140)  EN 141  EN 143  EN 371  EN 372  EN 405 : 1992  Note: particulate filters may be incorporated for some applications.    EN 1827: 1999	As above.  As above.  As above.  As above.  As above.  As above.  Valved filtering half masks for gases or gases and particles.         Half masks without inhalation valves, with separate filters to protect against gases or gases and particles or particles only.
c) Protection against toxic dust.	Powered dust respirators, powered dust hoods and blouses conforming as appropriate to one of the following:  EN 136  EN 143  EN 12942: 1998   EN 12941: 1998	As above (note: this only applies to the mask).  As above.  Specification for power assisted particle filtering devices incorporating full face masks, half masks or quarter masks.  Respiratory protective devices. Specification for powered particle filtering devices incorporating helmets or hoods.
d) Protection against highly toxic atmospheres; or where there is oxygen deficiency; or as an alternative to the items above, where suitable.	Breathing apparatus conforming to:  EN 1146 : 1997 (for self-rescue only) "Escape sets"	Respiratory protective devices for self rescue. Self contained open-circuit compressed air breathing apparatus incorporating a hood (compressed air apparatus with hood). Requirements, testing, marking.

Work activity	Protective clothing and equipment to be provided	Full title of Standard
	<p>EN 137 : 1993</p> <p>EN 138 : 1994</p> <p>EN 139 : 1994</p> <p>EN 269 : 1994</p> <p>EN 270 : 1994</p> <p>EN 271 : 1995</p> <p>EN 402 : 1993</p>	<p>Specification for respiratory protective devices: self contained open-circuit compressed air breathing apparatus.</p> <p>Respiratory protective devices. Fresh air hose breathing apparatus for use with full face mask, half mask or mouthpiece assembly.</p> <p>Respiratory protective devices. Compressed air line breathing apparatus for use with a full face mask, half mask or mouthpiece assembly. Requirements, testing, marking.</p> <p>Respiratory protective devices. Powered fresh air hose breathing apparatus incorporating a hood.</p> <p>Respiratory protective devices. Compressed air line breathing apparatus incorporating a hood. Requirements, testing, marking.</p> <p>Respiratory protective devices: Compressed air line or powered fresh air hose breathing apparatus incorporating a hood for use in abrasive blasting operations.</p> <p>Respiratory protective devices for escape. Self contained open-circuit compressed air breathing apparatus with full face mask or mouthpiece assembly.</p>
7.	<p>Any process or activity involving working in an area where there is a reasonably foreseeable risk of injury from substances which are corrosive or likely to be absorbed through the skin.</p> <p>Protective overalls, gloves or head gear, whichever is appropriate:</p> <p>EN 340 : 1993</p> <p>EN 465 : 1995</p>	<p>Protective clothing: General requirements.</p> <p>Protective clothing. Protection against liquid chemicals. Performance requirements for chemical protective clothing with spray-tight connections between different parts of the clothing (Type 4 equivalent).</p>

Work activity		Protective clothing and equipment to be provided	Full title of Standard
		EN 466 : 1995	Protective clothing. Protection against liquid chemicals. Performance requirements for chemical protective clothing with liquid-tight connections between different parts of the clothing (Type 3 equivalent).
		EN 467 : 1995	Protective clothing. Protection against liquid chemicals. Performance requirements for garments providing protection to parts of the body.
8.	Any process or activity involving a reasonably foreseeable risk of injury to the hands unless the use of hand protection would increase the risk.	Hand protection conforming as appropriate to : EN 374  EN 374-1 : 1994  EN 374- 2 : 1994  EN 374- 3 : 1994  EN 388 : 1994  EN 407 : 1994  EN 420 : 1994  EN 511 : 1994	Protective gloves against chemicals and micro-organisms.  Terminology and performance requirements.  Determination of resistance to penetration.  Determination of resistance to permeation by chemicals.  Protective gloves against mechanical risks.  Protective gloves against thermal risks  General requirements for gloves.  Protective gloves against cold.
9.	Any process or activity involving particular risk of injury to the feet.	Foot protection conforming to : EN 345 ; or  EN 346, whichever is appropriate:  EN 345- 1 : 1992  EN 345- 2 : 1996  EN 346- 1 : 1992  EN 346-2 : 1996  EN 347-1 : 1992  EN 347-2 : 1996	Safety footwear for professional use.  Protective footwear for professional use.  Specification.  Additional specifications.  Specification.  Additional specifications.  Occupational footwear for professional use.  Additional specifications.

Work activity	Protective clothing and equipment to be provided	Full title of Standard
10.	<p>Work aloft or in any other area where there is a reasonably foreseeable risk of falling a distance of more than 2 metres.</p> <p>Safety belt or harness and associated lanyard conforming to the following:</p> <p>EN 353-1 : 1992</p> <p>EN 353- 2 : 1992</p> <p>EN 354 : 1992</p> <p>EN 355 : 1992</p> <p>EN 360 : 1992</p> <p>EN 361 : 1992</p> <p>EN 362 : 1992</p> <p>EN 363 : 1992</p> <p>- or where the use of portable ladders is necessary, such ladders to be used in accordance with Chapter 15 of the Code of Safe Working Practices for Merchant Seamen.</p>	<p>Specification for guided type fall arresters on a rigid anchorage line.</p> <p>Specification for guided type fall arresters on a flexible anchorage line.</p> <p>Personal protective equipment against falls from a height. Lanyards.</p> <p>Personal protective equipment against falls from a height. Energy absorbers.</p> <p>Personal protective equipment against falls from a height. Retractable fall arrangements.</p> <p>Personal protective equipment against falls from a height. Full body harnesses.</p> <p>Personal protective equipment against falls from a height. Connectors.</p> <p>Personal protective equipment against falls from a height. Fall arrest systems.</p>
11.	<p>Any work carried out from an overside position or in an exposed position where there is reasonably foreseeable risk of falling or being washed overboard or any work carried out in or from a ship's boat.</p> <p>A lifebuoy with sufficient line attached ready for immediate use and either a Maritime and Coastguard Agency approved lifejacket or a lifejacket conforming as appropriate to one of the following, taking into account the area of operation:</p> <p>EN 394 : 1994</p> <p>EN 396 : 1993</p>	<p>Life jackets and personal buoyancy aids. Additional items.</p> <p>Life jackets and personal buoyancy aids. Life jacket 150.</p>



Work activity	Protective clothing and equipment to be provided	Full title of Standard
	<p>EN 399 : 1993</p> <p>Partially inherent lifejackets must have at least 89 N of inherent buoyancy; and with the inflatable sections relying on automatic inflation.</p>	<p>Life jackets and personal buoyancy aids. Life jacket 275.</p>
12.	<p>Any work activity where it is necessary to carry out repair or maintenance work on or near exposed live electrical equipment and there is a reasonably foreseeable risk of injury.</p> <p>Rubber gloves conforming to:</p> <p>BS 697 : 1986</p> <p>EN 60903 : 1992</p> <p>Protective sleeves conforming to EN 60984 : 1993</p> <p>An insulating mat (except where specially insulated flooring is installed) conforming to BS 921 : 1976</p> <p>Rubber soled footwear (no standard necessary).</p> <p>Note - gloves, sleeves and mats should protect against the appropriate voltage.</p>	<p>Specification for rubber gloves for electrical purposes [4 classes of gloves rated at 650v and above]</p> <p>Gloves and mitts of insulating material for live working.</p> <p>Sleeves of insulating material for live working.</p> <p>Specification. Rubber mats for electrical purposes.</p>
13.	<p>Any work activity involving a reasonably foreseeable risk of injury from vehicle movement eg during ro-ro operations.</p> <p>Suitable high-visibility garment conforming to EN 471 : 1994</p>	<p>Specification for high-visibility warning clothing.</p>
14.	<p>Any work process involving exposure to heat</p> <p>EN 531 : 1995</p>	<p>Protective clothing for industrial workers exposed to heat (excluding fire-fighters' and welders' clothing).</p>
15.	<p>Work in engine rooms or any area where there is a risk of fire.</p> <p>Overalls made of fabric of low flammability - eg</p> <ul style="list-style-type: none"> <li>- natural fibre, high cotton content;</li> <li>- non-flammable clothing</li> </ul> <p>as appropriate</p>	<p>Cotton or cotton and polyester clothing with flame-retardant finishes are available to protect against sparks and flame.</p>