

Safety Code of Practice 27

1st Edition, November 1998

PERSONAL PROTECTIVE EQUIPMENT



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1 INTRODUCTION

The Management of Health and Safety at Work Regulations (References 1 and 2) require the University to assess the risks of its work activities. One aspect of the risk assessment may be the provision of personal protective equipment (PPE). PPE is governed by the Personal Protective Equipment at Work Regulations 1992 (PPER)(References 3 and 4), and the Personal Protective Equipment (EC Directive) Regulations (PPEECDR)(Reference 5). Both sets of Regulations took effect on 1 January 1993.

The first set of Regulations (References 3 and 4) is one of the "six-pack" set of health and safety regulations and governs the assessment, provision, maintenance, accommodation and use of PPE coupled with information, instruction and training requirements for users.

The latter set (Reference 5) are consumer protection requirements that detail the mechanism that will eventually produce an EC-wide specification for PPE, indicated by "CE-marking", and contribute to the EC safe freedom of movement ethos. Provisions have also been incorporated for manufacturers to design PPE to meet specified criteria, and provide information on performance, correct method of use, etc which in turn must be passed on via suppliers to purchasers and therefore be available for end users.

Many of the old requirements relating to PPE have been modified, repealed or revoked. A Schedule to the Regulations refers to relevant community directives which will harmonise with the British Standards ("kite marking") relating to this area leading to "CE-marked" equipment. This guidance sets out the implementation requirements for the Personal Protective Equipment at Work Regulations (PPER) at the University of Reading.

2 OVERVIEW OF THE REGULATIONS

This gives a simplified version of the Regulations. The statutory instrument or Guidance on Regulations (References 3 and 4) should be referred to where greater detail is required.

The main areas covered by the Regulations are:

- Regulation 4 Provision of personal protective equipment;
- Regulation 5 Compatibility of personal protective equipment;
- Regulation 6 Assessment of personal protective equipment;
- Regulation 7 Maintenance and replacement of personal protective equipment;
- Regulation 8 Accommodation for personal protective equipment;
- Regulation 9 Information, instruction and training;
- Regulation 10 Use of personal protective equipment; and
- Regulation 11 Reporting loss or defect.

2.1 Regulation 1 - Citation and commencement

The Regulations are known as the Personal Protective Equipment Regulations 1992 (PPER) and came into force on 1 January 1993.

2.2 Regulation 2 - Interpretation

PPE means all equipment (including equipment or clothing affording protection against the weather) which is intended to be worn or held by a person at work and which protects them against one or more risks to their health and safety, and any addition or accessory designed to meet that objective.

2.3 Regulation 3 - Disapplication

The Regulations do not apply to the master or crew of a "sea-going" ship or to the employer of such persons in respect of the normal ship-board activities of a ship's crew under the direction of the master.

The Regulations also do not apply in respect of PPE which is:

- ordinary working clothes and uniforms which do not specifically protect the health and safety of the wearer;
- an offensive weapon used as self-defence or as deterrent equipment;
- portable devices for detecting and signalling risks and nuisances;
- used for protection while travelling on a road; and
- equipment used during the playing of competitive sports.

Apart from compatibility aspects (Regulation 5) the PPE Regulations do not apply where any of the following Regulations apply and themselves require the provision or use of PPE:

- the Control of Lead at Work Regulations 1980;
- the Ionising Radiations Regulations 1985;
- the Control of Asbestos at Work Regulations 1987;
- the Control of Substances Hazardous to Health Regulations 1988 and 1994;
- the Noise at Work Regulations 1989; and
- the Construction (Head Protection) Regulations 1989.

2.4 Regulation 4 - Provision of PPE

The main duty is for every employer to ensure that suitable PPE is provided to employees who may be exposed to a risk to their health or safety while at work except where and to the extent that such risk has been adequately controlled by other means which are equally or more effective.

Every self-employed person shall ensure that he provides himself with suitable PPE for the same reasons.

PPE is not suitable unless:

- it is appropriate for the risk(s) involved and the conditions at the place where exposure to the risk may occur;
- it takes account of ergonomic requirements and the state of health of the person or persons who may wear it;
- it is capable of fitting the wearer correctly, if necessary, after adjustments within the range for which it is designed;
- so far as is practicable, it is effective to prevent or adequately control the risk(s) involved without increasing overall risk; and

- it complies with the provisions of the Personal Protective Equipment (EC Directive) Regulations 1992 (PPEECR - Reference 5).

2.5 Regulation 5 - Compatibility of PPE

Every employer shall ensure that where the presence of more than one risk to health or safety makes it necessary for his employee to wear or use simultaneously more than one item of personal protective equipment, such equipment is compatible and continues to be effective against the risk(s) in question. Similar requirements relate to self-employed persons.

2.6 Regulation 6 - Assessment of personal protective equipment

Before choosing any PPE an employer (or self-employed person) shall ensure that an assessment is made to determine whether the PPE is suitable. The assessment shall include:

- assessment of any risk(s) to health or safety which have not been avoided by other means;
- the definition of the characteristics which PPE must have in order to be effective against the risks, taking into account any risks which the equipment itself may create; and
- comparison of the types of the PPE available with these characteristics.

Every employer (or self-employed person) shall review any PPE assessment if there:

- is reason to suspect that it is no longer valid; or
- has been a significant change in the matters to which it relates (including characteristics of the wearer, such as weight gain/loss, beard growth/removal, etc).

Any changes identified shall be implemented.

2.7 Regulation 7 - Maintenance and replacement of PPE

Every employer shall ensure that any PPE provided to his employees is maintained (including replaced or cleaned as appropriate) in an efficient state, in efficient working order and in good repair. Similar requirements relate to the self-employed.

2.8 Regulation 8 - Accommodation for personal protective equipment

Where an employer or self-employed person is required to provide PPE he shall also ensure that appropriate accommodation is provided for that PPE when it is not being used.

2.9 Regulation 9 - Information, instruction and training

Where an employer is required to ensure that PPE is provided to an employee, the employer shall also ensure that the employee is provided with such information, instruction and training as is adequate and appropriate to enable the employee to know:

- the risk(s) which the PPE will avoid or limit;
- the purpose for which - and the manner in which - PPE is to be used; and

- any action to be taken by the employee to ensure that the PPE remains in an efficient state, in efficient working order and in good repair.

The information and instruction provided shall not be adequate and appropriate unless it is comprehensible to the persons to whom it is provided.

2.10 Regulation 10 - Use of personal protective equipment

Every employer shall take all reasonable steps to ensure that PPE provided to his employees is properly used.

Every employee shall use any PPE provided by virtue of these Regulations in accordance with any instruction and training in the use of the PPE concerned.

Every self-employed person shall make full and proper use of any PPE. Every employee (and self-employed person) who has been provided with PPE shall take all reasonable steps to ensure that it is returned to the accommodation provided for it after use.

2.11 Regulation 11 - Reporting loss or defect

Every employee who has been provided with PPE shall forthwith report to his employer any loss of or obvious defect in that PPE.

3 IMPLEMENTATION

The Regulations took effect on 1 January 1993. Implementation essentially involves:

- an assessment to review current PPE provision and procedures;
- the identification of areas that had been omitted in the past as a result of the assessment;
- updating stocks to conform with CE-marked standards as new products appear on the market;
- checking that sufficient information, instruction and training has been provided for PPE users; and
- reacting to inadequacies in the arrangements should accidents etc occur.

3.1 First principles

When controlling hazards, PPE should be regarded as either a last line of defence when all other methods of protection are not feasible, or as a back-up to other control measures. Whenever reasonably practicable risks should be contained, ie a fume cupboard used instead of a respiratory protective device, or a noisy machine quietened so that no harmful noise levels are produced so that the use of hearing defenders is not required.

3.2 User/wearer involvement

The end user/wearer should be consulted when choosing PPE.

3.3 PPE covered by the Regulations

As stated in Section 2.2, "Personal protective equipment" (PPE) means all equipment, including clothing affording protection against the weather, which is intended to be worn or held by persons at work and which protects them against one or more risks to their health or safety, and any addition or accessory designed to meet that objective.

The Regulations will apply to the following general items when worn for health and safety:

- protective clothing - such as aprons, protective clothing for adverse weather conditions, gloves, safety footwear, safety helmets, high visibility waistcoats; and
- protective equipment - such as eye protectors, life-jackets, respirators, underwater breathing apparatus and safety harnesses.

Examples of PPE required in relation to University activities (italicised) include:

- head - bump caps, hard hats, safety helmets;
two-level work, fieldwork, construction sites, maintenance work
- ears - ear defenders, muffs, noise helmets, plugs;
work near power generators, fieldwork at airports, use of noisy power tools, eg chain saws
- eyes - face shields, goggles, laser eyewear, spectacles (including prescription), welding masks;
chemical, laser and engineering laboratories, workshops, welding areas, maintenance work, sculpture, glassblowing
- breathing zone - air fed visors, compressed air lines, disposable face masks, dust masks, escape apparatus, hoods/helmets/suits, positive pressure respirators, respirators, self-contained breathing apparatus;
work in confined spaces, harvesting operations, peripatetic welding operations, work with allergenic matter, work with asbestos
- face - chip guards, visors;
pouring chemicals, grounds work such as using strimmers, chain saws etc
- hands - gauntlets, gloves, mitts (chain mail, electrical, heat resistant, laboratory, surgical), hand pads;
extensive meat carving, chemical work, microbiological work, first-aid, moving hot items
- body - aprons, laboratory coats, thermal wear;
chemical and biological laboratory work, workshop activities, cold store work, security patrols, fieldwork
- foot and leg - gaiters, leggings, spats;
chain saw work, work with molten metal
- feet - spats, steel toed/soled boots/shoes and shoes, spark-proofed or insulating footwear;
work with cryo fluids, routine manual handling in stores, kitchens, workshops; anti-slip soles in catering areas; work in areas having highly flammable atmospheres; work in areas where through sole foot puncture injury may occur
- fall arrest equipment - descent controllers, fall arrest devices, rescue equipment, safety belts and harnesses, safety lines and hooks, slings;
window cleaning, building maintenance, rock climbing, field work in fast flowing rivers.

Note this is not an exhaustive list and other associated items, such as barrier creams that are not strictly speaking PPE, may also be involved.

3.4 PPE not covered by the Regulations

The Regulations do not apply in respect of PPE which is ordinary working clothes and uniforms which do not specifically protect the health and safety of the wearer, therefore clothing worn in

food areas to protect food and not the worker is not covered, but laboratory coats worn in a microbiological laboratory would be covered.

Offensive weapons, such as truncheons or guns, used as self-defence or as deterrent equipment, and portable devices for detecting and signalling risks and nuisances, eg sirens or alarms are not included. Similarly PPE used for protection while travelling on a road is not included because this aspect is covered by road traffic legislation. However, the Regulations will apply elsewhere at work, for example, the wearing of head protection whilst driving a motorbike on University farm land. PPE used during the playing of competitive sports, eg shin guards, or head protection, is also excluded but life-jackets worn by professional canoeing instructors, riding helmets worn by stable staff, climbing helmets worn by fieldworkers, etc are included. Although the Regulations do not apply to the master or crew of a "sea-going" ship, they do apply to work on ships in dock and to (field) work on river going ships.

Regulations 4 and 6 to 12 (Exemption Certificates) do not apply where any of the health and safety Regulations relating to the control of lead, ionising radiations, control of asbestos, control of substances hazardous to health, noise, and head protection on construction sites. Obviously PPE must be provided to guard against these hazards where control at source is not reasonably practicable.

To summarise, where there are:

- existing comprehensive regulations which require PPE
the PPE Regulations do not apply and the "old" Regulations should be followed,
eg respirators under COSHH.
- no current Regulations covering PPE
the PPE Regulations will apply and must be followed,
eg PPE for chain saw operators.
- existing but not comprehensive Regulations
the PPE Regulations will apply and complement the requirements of the existing Regulations,
eg visibility clothing in dock areas will be complimented by the PPE Regulations accommodation requirements.

Nevertheless **all aspects of PPE** should be included in the stocktake assessment procedure.

3.5 Payment

The University must provide PPE for its employees. This will be carried out and funded using existing area/departmental purchasing procedures. Employees must not be charged for PPE.

3.6 Students

On one hand students are not employees and do not have the same rights as employees under the PPE Regulations. On the other hand Regulation 3 of the Management of Health and Safety at Work Regulations (References 1 and 2) require that "employers (and self-employed) make a suitable and sufficient assessment of the risks to the health and safety of his employees whilst they are at work and persons not in his employment arising out of or in connection with the conduct by them of his undertaking for the purposes of identifying the measures he needs to take to comply with the requirements and prohibitions imposed upon him by or under the relevant statutory provisions".

Consequently departments must assess the needs of their undergraduate and postgraduate students and ensure that the PPE required is provided and used. The method of payment will be according to current departmental procedures. In most departments items such as eye protectors are provided and paid for by the department, but other items of PPE, such as laboratory coats that may afford some health and safety protection but also protect the students personal clothing against soiling, are therefore not wholly items of PPE. Normally items of this nature are paid for by students because they are given an allowance in their grants for essential course equipment of this nature.

3.7 Visitors and contractors

Visitors should be kept out of areas that require the wearing of PPE unless their presence is required by the University. In such cases the host University department should provide PPE for bona fide visitors. However, contractors working on University premises are not employees of the University and will have to provide their own PPE.

The main objective is that everyone - staff, student or bona fide visitor - who may be exposed to risks requiring the provision of PPE must be adequately protected.

4 PURCHASING AND ISSUE ASPECTS

Purchasing should be carried out using the normal departmental procedures employed to acquire any other items of equipment. Advice on purchasing problems and procedures can be obtained from the University Purchasing Officer (extensions 8308 or 8305). In some instances stocks of spare parts may need to be held.

4.1 Identifying sources of supply

Copies of the current Guide to the British Safety Industry Federation (Reference 6) which lists suppliers of personal protective equipment, and the European Health and Safety Market Guide (Reference 7) are held in the Safety Office.

4.2 Old stocks of PPE

Use and run down stocks of "old" non-CE marked PPE as soon as convenient and only maintain small stock levels until the CE marked range of PPE is available. Insist on "CE marked" specification whenever ordering and request that relevant health and safety information is provided.

4.3 Bespoke PPE needs

Some staff will require bespoke forms of PPE. For example, a person who works for long periods in an eye protection area, eg workshop, and needs prescription eyewear to read, will have to be provided with prescription safety spectacles that meet both the eye protection and eyesight requirements. On the other hand where the work duration is short the provision of safety spectacles that are worn over the persons normal prescription eyewear is acceptable. Similarly, a

person who regularly carries out tasks requiring foot protection who has, say, a distorted foot may require the provision of specially made safety footwear.

4.4 Reissued PPE

PPE that is reissued to other users must be cleaned, disinfected and checked for faults before reissue.

5 ACCOMMODATION FOR PPE

Appropriate accommodation must also be provided for PPE. The provision(s) required will depend on the type(s) of PPE. For example, pegs or hooks may be required to hang weatherproof clothing or safety helmets. Safety spectacles may require a pocket size carrying case. Vehicles may need to be equipped with storage boxes to house PPE.

Other storage aspects to be considered are:

- contaminated PPE must be stored separately from everyday clothing; and
- PPE awaiting repair or servicing should not be kept with PPE awaiting reissue.

The location of storage areas should be carefully considered and the supplier's recommendations covering storage conditions and effective shelf lives followed. For example, the useful lifetime of some hard-hats is decreased significantly by storing in sunlight.

6 INFORMATION, INSTRUCTION AND TRAINING

Where PPE is provided to an employee, student or visitor, the department shall also provide adequate information, instruction and training to enable the wearer to know:

- the risk(s) which the PPE will avoid or limit;
- the purpose for which and the manner in which PPE is to be used; and
- any action to be taken by the employee to ensure that the PPE remains in an efficient state, in efficient working order and in good repair.

Any information and instruction provided must be comprehensible to the persons to whom it is provided. Care should be taken to brief students at the beginning of practical courses and check that wearers whose first tongue is not English understand the above features.

7 USE OF PERSONAL PROTECTIVE EQUIPMENT

The following broad requirements relate to the use of PPE:

- areas and departments must take all reasonable steps to ensure that any PPE provided for employees or students is properly used;

- every employee and student must use any PPE provided in accordance with any instruction and training in the use of the PPE concerned; and
- every employee and student who has been provided with PPE shall take all reasonable steps to ensure that it is returned to the accommodation provided for it after use.

7.1 Contamination spread

One common problem caused by the use of PPE is the spread of contamination. For example, persons wearing gloves to protect their hands against exposure to chemicals or radioactive substances, operate taps, or turn door handles, or use the toilet whilst wearing contaminated gloves thus spreading the contaminant. Another malpractice is the wearing of laboratory coats in refreshment areas.

7.2 PPE areas

In some instances the easiest way to ensure that appropriate PPE is used is to make the whole work area a PPE area. For example, it is common practice to make chemistry teaching laboratories or workshops eye protection areas, or microbiological laboratories microbiological (Howie) laboratory coat areas. In such areas the appropriate sign(s) (Safety Guide 10) must be displayed at all entrances to the area, and the person(s) in charge must insist that the PPE is always used.

7.3 Reporting loss or defect

Every employee or student who has been provided with PPE shall forthwith report to their area/department any loss of or obvious defect.

8 IMPLEMENTATION SUMMARY

Each area/department should appoint a PPE Assessor (eg the Area Safety Co-ordinator) to attend the annual PPE assessment training session and then work to the following procedure in order to implement the PPE requirements.

1. Read this Safety Guide carefully.
2. Photocopy the number of copies of Table 1 that are required for the area before starting to assess the departmental PPE requirements.
3. Work through the department/hall/area on a room by room and/or outside area and/or activity by activity basis to identify the hazards that may require PPE to protect employees and students. Include PPE that is currently used and try to identify PPE that may not have been provided in the past.
4. Consider whether the hazard(s) and associated risk(s) could be completely removed or controlled at source using a suitable control measure that obviates the need for PPE.
5. Refer to the specimen risk survey chart for the use of PPE (Appendix 1) and use it to identify the items of PPE that are required for each hazard relating to each category of staff, student or visitor.

6. Summarise the departmental/hall/area assessment according to the specimen format given in Appendix 2 on copies of Table 1. Details of British and European Standards are given in Appendix 3.
7. Complete the assessment and send a copy bearing the name and department of the assessor to the Safety Office. This will enable any special PPE training needs to be considered. Nil returns should be received from departments that sent a representative to the PPE assessors' training sessions and then were unable to identify any PPE requirements.
8. Check departmental stock levels of routine items such as safety spectacles and run down levels of current non "CE-marked" stocks as soon as possible.
9. Acquire the items required using normal departmental purchasing procedures. Refer to the BSIF Guide (Reference 6) or the European Health and Safety Market Guide (Reference 7)(copies held in Safety Office) for sources of supply if necessary.
10. Specify when ordering that compliance with relevant CE mark standard (Appendix 3) is a condition of ordering and that information on specification and correct method of wearing and use is required together with details of technical performance standards.
11. Keep the assessment as an area record to demonstrate that the PPE assessment has been carried out.
12. Keep an area file containing the suppliers information on performance and instructions for correct use. Base all usage and staff/student instruction on this information.
13. Review the assessment and update area records:
 - annually (eg at the start of the academic year or when preparing estimates); or
 - when new work is undertaken; or
 - new members of staff or students join the area; or
 - if the currently selected PPE proves unsuitable.

9 REFERENCES

The following publications (or later editions and revisions) are available for reference or loan from the Safety Office (extension 8888).

1. The Management of Health and Safety at Work Regulations 1992, SI No. 2051, HMSO
2. Management of Health and Safety at Work, Approved Code of Practice, ISBN 0-11-886330-4, Price £5.00
3. The Personal Protective Equipment at Work Regulations 1992, 1992 SI No. 2966
4. Personal Protective Equipment at Work, Guidance on Regulations, ISBN 0-11-886334-7
5. The Personal Protective Equipment (EC Directive) Regulations 1992, SI No. 3139
6. The 1998 Guide to the British Safety Industry Federation, BSIF, St Asaph Business Park, St Asaph, Denbighshire LL17 0LJ (Tel: 01745 585 600, BSIF Information desk, Fax: 01745 585 800)
7. European Health and Safety Market Guide, Aydee Marketing Ltd, Nithsdale House, 159 Cambridge Street, Aylesbury, Bucks HP 20 1BQ (Tel: 01296 434381)

10 ACRONYMS

The following acronyms and abbreviations have been used in this Safety Guide.

BSIF	British Safety Industry Federation
CE-marked	Conformite Europeen (meaning "European Conformity")
COSHH	Control of Substances Hazardous to Health
EC	European Community
ISBN	International Standard Book Number
PPE	Personal Protective Equipment
PPEECDR	Personal Protective Equipment (EC Directive) Regulations
PPER	Personal Protective Equipment at work Regulations
SI	Statutory Instrument

Appendix 1: SPECIMEN COMPLETED AREA PPE ASSESSMENT SURVEY

			Risks																			
			The PPE at Work Regulations 1992 apply except where the Construction (Head Protection) Regulations 1989 apply										The CLW, IRR, CAW, COSHH and NAW Regulations (1) will each apply the appropriate hazard									
			Mechanical					Thermal														
			Falls from a height	Blows, cuts, impact	Stabs, cuts, grazes	Vibration	Slipping, falling over	Scalds, heat, fire	Cold	Immersion	Non-ionising	Electrical	Noise	Ionising radiation	Dust fibre	Fume	Vapours	Splashes, spurts	Gases, vapours	Harmful bacteria	Funge	Non-micro biological
P A R T S of the B O D Y	Head	Cranium																				
		Ears																				
		Eyes																				
		Respiratory tract																				
		Face																				
		Whole head																				
	Upper limbs	Hands																				
		Arms (parts)																				
	Lower limbs	Foot																				
		Legs (parts)																				
	Various	Skin																				
		Trunk/abdom																				

Y		en																					
		Whole body																					

Appendix 2: Specimen completed area PPE assessment survey

Note: blank form overleaf which may be photocopied

Area personal protective equipment assessment

Area: _____ Area PPE assessor: _____ Date: _____ Sheet: ___ of ___

Location(s)	Person(s)	Hazard(s)	PPE required	Standard(s)	Date provided	Comments
Chemistry teaching laboratories (Rooms 6, 11 & 15)	Staff & students	Projectiles	Spectacles	BS EN 166	01/08/97	
spec	Staff & students	Chemical contamination	Laboratory coat	BS EN 340	01/08/93	Southern Purchasing
Chemistry research laboratories (Rooms 16, 17 & 20)	Staff & students	Projectiles	Spectacles	BS EN 166	01/08/97	
spec	Staff & students	Chemical contamination	Laboratory coat	BS EN 340	01/08/93	Southern Purchasing

 (Room 16) Staff & postgraduates Laser beam Laser goggles BS EN 207 01/09/97

 Storeroom Staff Foot impact Toetector boots BS EN 345 01/08/97
 (Room 01)

 Workshop Staff Foot impact Toetector boots BS EN 345 01/08/97
 (Room 02)
 Staff Projectiles Spectacles BS EN 166 01/08/97
 Fred Eyesore Projectiles Prescription spectacles BS EN 166 01/07/97

 Fieldworkers Staff & students Falling items Safety helmet BS EN 397 01/04/98
 (Geochemistry trip)

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Appendix 3: BRITISH AND EUROPEAN PPE STANDARDS

Note: Many British Standards have been replaced by harmonised European Standards, for example BS 3864:1989 has been replaced by the European Standard EN 443. When the European Standard is introduced it is prefixed by 'BS' so EN 443 will become BS EN 443 in the United Kingdom. Those with the prefix 'pr' are provisional at the time these notes were prepared. Those prefixed with ENV (European prestandard) denote a prospective standard for provisional application usually in areas of highly innovative technology or where there is urgent need for guidance. Sometimes ISO (International Organisation for Standardisation) standards are adopted as European standards. The date given is the publication date. An up-to-date list of current standards is available from the Safety Office (extension 8888).

HEAD PROTECTION

BS EN 397: 1995 Industrial safety helmets

BS EN 443: 1997 Helmets for fire fighters

BS EN 812: 1998 Industrial bump caps

BS EN 960: 1994 Headforms for use in the testing of protective helmets

BS EN 966: 1996 Specification for helmets for airborne sports

BS EN 967: 1997 Head protectors for ice-hockey players

BS EN 1077: 1996 Specification for helmets for alpine skiers

BS EN 1078: 1997 Helmets for pedal cyclists and for users of skateboards and roller-skates

BS EN 1080: 1997 Impact protection helmets for young children

BS EN 1384: 1997 Helmets for equestrian activities

prEN 13087: 1998 Protective helmets, test methods - Part 1: Conditions and conditioning

prEN 13087: 1998 Protective helmets, test methods - Part 2: Shock absorption

prEN 13087: 1998 Protective helmets, test methods - Part 3: Resistance to penetration

EYE PROTECTION

BS EN 165: 1996 Personal eye-protection - Vocabulary

BS EN 166: 1996 Personal eye-protection - Specifications

BS EN 167: 1995 Personal eye-protection - Optical test methods

BS EN 168: 1995 Personal eye-protection - Non-optical test methods

BS EN 169: 1992 Personal eye-protection - Filters for welding and related techniques - Transmittance requirements and recommended use

BS EN 170: 1992 Personal eye-protection - Ultraviolet filters - Transmittance requirements and recommended use

BS EN 171: 1992 Personal eye-protection - Infrared filters - Transmittance requirements and recommended use

BS EN 172: 1995 Specification for sunglare filters used in personal eye-protectors for industrial use

prEN 173: 1991 Visors for motorcycle helmets

BS EN 174: 1997 Personal eye-protection - Ski goggles for downhill skiing

BS EN 175: 1997 Personal protection - Equipment for eye and face protection during welding and allied processes

BS EN 207: 1994 Personal eye-protection - Filters and eye protection against laser radiation

prEN 207: 1995 Personal eye-protection - Filters and eye protection against laser radiation

BS EN 208: 1994 Personal eye-protection - Eye-protectors for adjustment work on lasers and laser systems (laser adjustment eye-protectors)

prEN 208: 1995 Personal eye-protection - Eye-protectors for adjustment work on lasers and laser systems (laser adjustment eye-protectors)

BS EN 379: 1994 Specification for welding filters with switchable luminous transmittance and welding filters with dual luminous transmittance

BS EN 1731:1998 Mesh type eye and face protectors for industrial and non-industrial use against mechanical hazards and/or heat

BS EN 1836: 1997 Personal eye protection - Sunglasses and sunglare filters for general use

prEN 12254: 1995 Screens for laser working places - Safety requirements and testing

FOOTWEAR

BS EN 344: 1993 Safety, protective and occupational footwear for professional use - Part 1: Requirements and test methods

BS EN 344-2:1997 Safety, protective and occupational footwear for professional use - Part 2: Additional requirements and test methods

BS EN 345: 1993 Safety footwear for professional use - Part 1: Specification

BS EN 345-2: 1997 Safety footwear for professional use - Part 2: Additional specifications

BS EN 346: 1993 Protective footwear for professional use - Part 1: Specification

BS EN 346-2: 1997 Protective footwear for professional use - Part 2: Additional specifications

BS EN 347: 1993 Occupational footwear for professional use - Part 1: Specification

BS EN 347-2: 1997 Occupational footwear for professional use - Part 2: Additional specifications

BS EN 381-3: 1996 Protective clothing for users of hand-held chainsaws - Part 3: Test methods for footwear

prEN 12568: 1998 Foot and leg protectors - Requirements and test methods for toecaps and metal penetration

GLOVES

BS EN 374-1: 1994 Protective gloves against chemicals and micro-organisms - Part 1: Terminology and performance requirements

BS EN 374-2: 1994 Protective gloves against chemicals and micro-organisms - Part 2: Determination of resistance to penetration

BS EN 374-3: 1994 Protective gloves against chemicals and micro-organisms - Part 3: Determination of resistance to permeation by chemicals

BS EN 374-4: 1990 Protective gloves against chemicals and micro-organisms - Part 4: Determination of resistance to penetration; air leak test

prEN 374-5: 1990 Protective gloves against chemicals and micro-organisms - Part 5: Determination of resistance to penetration by chemicals

prEN 381-4: 1992 Protective clothing for users of hand-held chain saws - Part 4: Test method for chainsaw protective gloves

prEN 381-7: 1992 Protective clothing for users of hand-held chain saws - Part 7: Requirements for chainsaw protective gloves

BS EN 388: 1994 Protective gloves against mechanical risks

BS EN 407: 1994 Protective gloves against thermal risks (heat and/or fire)

BS EN 420: 1994 General requirements for gloves

BS EN 421: 1994 Protective gloves against ionising radiation and radioactive contamination

BS EN 511: 1994 Specification for protective gloves against cold

BS EN 659: 1996 Protective gloves for fire-fighters

BS EN 1082-1: 1997 Protective clothing - Gloves and arm guards protecting against cuts and stabs by hand knives - Part 1: Chain mail gloves and arm guards

prEN 1082-2: 1997 Protective clothing - Gloves and arm guards protecting against cuts and stabs by hand knives - Part 2: Chain mail gloves and arm guards made of material other than chainmail

prEN 1082-3: 1997 Protective clothing - Gloves and armguards protecting against cuts and stabs by hand knives - Part 3: Impact cut test for fabric, leather and other materials

prEN 12477: 1996 Protective gloves for welders

PROTECTIVE CLOTHING

BS EN 340: 1993 Protective clothing - General requirements

ENV 342: 1998 Protective clothing against cold weather

ENV 343: 1998 Protective clothing against foul weather

BS EN 348: 1992 Protective clothing - Test method: Determination of behaviour of materials on impact of small splashes of molten metal

BS EN 366: 1993 Protective clothing - Protection against heat and fire - Method of test: Evaluation of materials and material assemblies when exposed to a source of radiant heat

BS EN 367: 1992 Protective clothing - Protection against heat and fire - Method of determining heat transmission on exposure to flame

BS EN 368: 1993 Protective clothing - Protection against liquid chemicals - Test method: Resistance of materials to penetration by liquids

BS EN 369: 1993 Protective clothing - Protection against liquid chemicals - Test method: Resistance of materials to permeation by liquids

BS EN 373: 1993 Protective clothing - Assessment of resistance of materials to molten metal splash

BS EN 381-1: 1993 Protective clothing for users of hand-held chainsaws - Part 1: Test rig for testing resistance to cutting by a chainsaw

BS EN 381-2: 1995 Protective clothing for users of hand-held chainsaws - Part 2: Test methods for leg protectors

BS EN 381-5: 1995 Protective clothing for users of hand-held chainsaws - Part 5: Requirements for leg protectors

BS EN 381-8: 1997 Protective clothing for users of hand-held chainsaws - Part 8: Test methods for chainsaw protective gaiters

BS EN 381-9: 1997 Protective clothing for users of hand-held chainsaws - Part 9: Requirements for chainsaw protective gaiters

BS EN 393: 1994 Life-jackets and personal buoyancy aids - Buoyancy aids - 50 N

BS EN 394: 1994 Life-jackets and personal buoyancy aids - Additional items

BS EN 395: 1995 Life-jackets and personal buoyancy aids - Life-jackets 100 N

BS EN 396: 1994 Life-jackets and personal buoyancy aids - Life-jackets 150 N

BS EN 399: 1994 Life-jackets and personal buoyancy aids - Life-jackets - 275 N

BS EN 412: 1993 Protective aprons for use with hand knives

prEN 412-2: 1993 Part 2: Aprons, trousers and vests protecting against cuts and stabs by hand knives

BS EN 463: 1995 Protective clothing for use against liquid chemicals - Test method: Determination of resistance to penetration by a jet of liquid (jet test)

BS EN 464: 1994 Protective clothing for use against liquid and gaseous chemicals including aerosols and solid particles - Test method: Determination of leak tightness of gas tight suits (internal pressure test)

BS EN 465: 1995 Protective clothing - Protection against liquid chemicals - Performance requirements for chemical protective clothing with spray-tight connections between different parts of the clothing - (type 4 equipment)

BS EN 466: 1995 Protection clothing - Protection against liquid chemicals - Performance requirements for chemical protective clothing with liquid-tight connections between different parts of the clothing - (type 3 equipment)

pr EN 466-2: 1996 Protection clothing - Protection against liquid chemicals - Part 2: Performance requirements for chemical protective suit with liquid-tight connections between different parts of the chemical protective suit for emergency teams (type 3 ET)

BS EN 467: 1995 Protective clothing - Protection against liquid chemicals - Performance requirements for garments providing protection to parts of the body

BS EN 468: 1995 Protective clothing for use against liquid chemicals - Test method: Determination of resistance to penetration by spray (spray test)

BS EN 469: 1995 Protective clothing for fire-fighters - Requirements and test methods for protective clothing for fire fighting

BS EN 470-1: 1995 Protective clothing for use in welding and allied processes - Part 1: General requirements

BS EN 471: 1994 High visibility warning clothing

BS EN 510: 1993 Specification for protective clothing for use where there is a risk of entanglement with moving parts

BS EN 530: 1995 Abrasion resistance of protective clothing material - Test methods

BS EN 531: 1995 Protective clothing for industrial workers exposed to heat (excluding fire-fighters ' and welders ' clothing)

BS EN 532: 1995 Protective clothing - Protection against heat and flame - Test method for limited flame spread

BS EN 533: 1997 Protective clothing - Protection against heat and flame - Limited flame spread materials and material assemblies

BS EN 702: 1995 Protective clothing - Protection against heat and flame - Test method: Determination of the contact heat transmission through protective clothing or its materials

BS EN 863: 1996 Protective clothing - Mechanical properties - Test method: Puncture resistance

prEN 943: 1992 Protective clothing for use against liquid and gaseous chemicals, including liquid aerosols and solid particles; performance requirements for unventilated protective clothing with "gas-tight" connections (type 1B equipment)

prEN 943-1: 1997 Protective clothing for use against liquid and gaseous chemicals, including liquid aerosols and solid particles: Part 1 - Performance requirements for ventilated and non-ventilated protective clothing "gas-tight" (type 1) and "non gas-tight" (type 2) chemical protective suits

prEN 943-2: 1996 Protective clothing for use against liquid and gaseous chemicals, including liquid aerosols and solid particles - Part 2: Performance requirements for "gas-tight" (type 1) chemical protective suits for emergency teams (ET)

prEN 944: 1992 Protective clothing for use against liquid and gaseous chemicals, including liquid aerosols and solid particles: Performance requirements for air fed protective clothing with gas-tight connections (type 1C equipment)

prEN 945: 1992 Protective clothing for use against liquid and gaseous chemicals, including liquid aerosols and solid particles: Performance requirements for air fed protective clothing with "non gas-tight" connections (type 2 equipment)

prEN 946: 1992 Protective clothing for use against liquid and gaseous chemicals, including liquid aerosols and solid particles: performance requirements for unventilated encapsulating protective clothing with gas-tight connections (type 1A equipment)

prEN 1073: 1998 Protective clothing against radioactive contamination: Requirements and testing

EN 1073-1: 1998 Protective clothing against radioactive contamination - Part 1: Requirements and test methods for ventilated protective clothing against particulate radioactive contamination

prEN 1149: 1993 Protective clothing - Electrostatic properties

prEN 1149-1: 1996 Protective clothing - Electrostatic properties - Surface resistivity (test methods and requirements)

BS EN 1149-2: 1997 Protective clothing - Electrostatic properties - Part 2: Test methods for measurement of the electrical resistance through a material (vertical resistance)

prEN 1150: 1995 Protective clothing - High visibility clothing for non-professional use: Test methods and requirements

BS EN 1486: 1997 Protective clothing for fire-fighters - Test methods and requirements for reflective clothing for specialised fire fighting

prEN 1511: 1997 Protective clothing against chemicals: Performance requirements for limited use chemical protective clothing or suits with liquid-tight connections between different parts of the clothing (type 3 limited use clothing)

prEN 1512: 1997 Protective clothing against chemicals: Performance requirements for limited use chemical protective clothing or suits with spray-tight connections between different parts of the clothing (type 4 limited use clothing)

prEN 1513: 1997 Protective clothing against liquid and solid chemicals: Performance requirements for limited use chemical protective garments providing chemical protection to parts of the body

prEN 1913-1: 1995 Survival suits - Part 1: Constant wear suits, requirements

prEN 1913-2: 1995 Survival suits - Part 2: Abandonment suits, requirements

prEN 13034: 1997 Protective clothing against liquid chemicals: Performance requirements for chemical protective suits offering limited protective performance against liquid chemicals (type 6 equipment)

prEN ISO 2801: 1997 Clothing for protection against heat and flame: General recommendations for selection, care and use of the protective clothing (ISO/FDIS 2801:1997)

prEN ISO 14876-1: 1996 Body armour - Part 1: Bullet-resistant vests (ISO/DIS 14876-1:1996)

prEN ISO 14876-2: 1996 Body armour - Part 2: Stab-resistant vests (ISO/DIS 14876-2:1996)

prEN ISO 14977: 1996 Protective clothing for abrasive blasting operations using granular abrasives

HEARING PROTECTION

BS EN 352-1: 1993 Hearing protectors - Safety requirements and testing - Part 1: Ear muffs

BS EN 352-2: 1993 Hearing protectors - Safety requirements and testing - Part 2: Ear plugs

BS EN 352-3: 1997 Hearing protectors - Safety requirements and testing - Part 3: Ear muffs attached to an industrial safety helmet

BS EN 352-4: 1997 Hearing protectors - Safety requirements and testing - Part 4: Level dependent ear muffs

BS EN 458: 1993 Recommendations for selection, use, care and maintenance; guidance document

RESPIRATORY PROTECTIVE DEVICES

BS EN 136: 1991 Respiratory protective devices - Full face masks - Requirements, testing, marking

BS EN 136-10: 1992 Respiratory protective devices - Full face masks for special use - Requirements, testing, marking

BS EN 137: 1993 Respiratory protective devices - Self-contained open-circuit compressed-air breathing apparatus - Requirements, testing, marking

BS EN 138: 1994 Respiratory protective devices - Fresh air hose breathing apparatus for use with full face mask, half mask or mouthpiece assembly - Requirements, testing, marking]

BS EN 139: 1995 Respiratory protective devices - Compressed air line breathing apparatus for use with full face mask, half mask or mouthpiece assembly - Requirements, testing, marking

BS EN 140: 1990 Respiratory protective devices - Half masks and quarter masks - Requirements, testing, marking

prEN 140: 1996 Respiratory protective devices - Half masks and quarter masks - Requirements, testing, marking

BS EN 141: 1991 Respiratory protective devices - Gas filters and combined filters - Requirements, testing, marking

prEN 141: 1997 Respiratory protective devices - Gas filters and combined filters - Requirements, testing, marking

EN 142: 1990 Respiratory protective devices - Mouthpiece assemblies - Requirements, testing, marking

BS EN 143: 1991 Respiratory protective devices - Particle filters - Requirements, testing, marking

prEN 143: 1997 Respiratory protective devices - Particle filters - Requirements, testing, marking

BS EN 144-1: 1992 Respiratory protective devices - Gas cylinder valves - Thread connection for insert connector

prEN 144-2: 1996 Respiratory protective devices - Gas cylinder valves - Outlet connections

BS EN 145: 1998 Respiratory protective devices - Self contained closed-circuit breathing apparatus, compressed oxygen or compressed oxygen-nitrogen type - Requirements, testing, marking

BS EN 146: 1992 Respiratory protective devices - Powered particle filtering devices incorporating helmets or hoods - Requirements, testing, marking

prEN 146: 1994 Respiratory protective devices - Powered particle filtering devices incorporating helmets or hoods - Requirements, testing, marking

BS EN 147: 1992 Respiratory protective devices - Power assisted particle filtering devices incorporating full face masks, half masks or quarter masks

prEN 147: 1994 Respiratory protective devices - Power assisted particle filtering devices incorporating full face masks, half masks or quarter masks

BS EN 148-1: 1987 Respiratory protective devices - Threads for face devices - Standard thread connection

BS EN 148-2: 1987 Respiratory protective devices - Threads for face pieces - Part 2: Centre thread connection

BS EN 148-3: 1992 Respiratory protective devices - Threads for face pieces - Part 3: Thread connection M 45<x>3

prEN 148-10: 1990 Respiratory protective devices - Threads for face pieces - Part 3: Thread connection M 45<x>3

BS EN 149: 1992 Respiratory protective devices - Filtering half masks to protect against particles - Requirements, testing, marking

BS EN 250: 1993 Respiratory equipment - Open-circuit, self-contained, compressed-air diving apparatus - Requirements, testing, marking

prEN 250: 1997 Respiratory equipment - Open-circuit, self-contained, compressed-air diving apparatus - Requirements, testing, marking

BS EN 269: 1995 Respiratory protective devices - Powered fresh air hose breathing apparatus incorporating a hood - Requirements, testing, marking

BS EN 270: 1995 Respiratory protective devices - Compressed air line breathing apparatus incorporating a hood - Requirements, testing, marking

BS EN 271: 1995 Respiratory protective devices - Compressed air line or powered fresh air hose breathing apparatus incorporating a hood for use in abrasive blasting operations - Requirements, testing, marking

BS EN 371: 1992 Respiratory protective devices - AX gas filters and combined filters against low boiling organic compounds - Requirements, testing, marking

BS EN 372: 1992 Respiratory protective devices - SX gas filters and combined filters against specific named compounds - Requirements, testing and marking

BS EN 400: 1993 Respiratory protective devices for self-rescue - Self-contained closed circuit breathing apparatus - Compressed oxygen escape apparatus - Requirements, testing, marking

BS EN 401: 1993 Respiratory protective devices for self-rescue - Self-contained closed circuit breathing apparatus - Chemical oxygen (KO₂) - Escape apparatus - Requirements, testing, marking

BS EN 402: 1993 Respiratory protective devices for escape - Self-contained open-circuit compressed air breathing apparatus with full face mask or mouthpiece assembly - Requirements, testing, marking

BS EN 403: 1993 Respiratory protective devices for self-rescue - Filtering devices with hood for self-rescue from fire - Requirements, testing, marking

BS EN 404: 1993 Respiratory protective devices for self-rescue - Filter, self-rescuer - Requirements, testing and marking

BS EN 405: 1993 Respiratory protective devices - Valved filtering half masks to protect against gases or gases and particles - Requirements, testing, marking

BS EN 1061: 1997 Respiratory protective devices for escape - Self-contained closed-circuit breathing apparatus - Chemical oxygen (NaClO₃) escape apparatus - Requirements, testing, marking

BS EN 1146: 1997 Respiratory protective devices for self-rescue - Self-contained open circuit compressed air breathing apparatus incorporating a hood (compressed air escape apparatus with hood) - Requirements, testing, marking

prEN 1827: 1997 Respiratory protective devices for self rescue - Half masks without inhalation valves and with separable filters to protect against gases or gases and particles or particles only: Requirements, testing, marking

prEN 1835: 1995 Respiratory protective devices - Light duty compressed air line apparatus incorporating helmet or hood; requirements, testing, marking

prEN 12021: 1997 Respiratory protective devices - compressed air for breathing apparatus

prEN 12083: 1997 Respiratory protective devices - Filters with breathing (non-mask mounted filters): Particle filters, gas filters and combined filters: Requirements, testing, marking

prEN 12419: 1996 Respiratory protective devices - Light duty compressed air line breathing apparatus incorporating full face masks, half masks or quarter masks: Requirements, testing, marking

prEN 13105: 1997 Respiratory protective devices - full face mask connected with head protection for use as a part of a respiratory protective device by fire fighters: Requirements, testing, marking

PERSONAL PROTECTIVE EQUIPMENT AGAINST FALLS FROM HEIGHT

BS EN 341: 1993 Personal protective equipment against falls from height - Descender devices

BS EN 353-1: 1993 Personal protective equipment against falls from a height - Guided type fall arrestors - Part 1: Guided-type fall arrestors on a rigid anchorage line

BS EN 353-2: 1993 Personal protective equipment against falls from a height - Guided-type fall arrestors - Part 2: Guided-type fall arrestors on a flexible anchorage line

BS EN 354: 1993 Personal protective equipment against falls from a height - Lanyards

BS EN 355: 1993 Personal protective equipment against falls from a height - Energy absorbers

BS EN 358: 1993 Personal protective equipment for work positioning and prevention of falls from a height - Work positioning systems

prEN 358: 1997 Personal protective equipment for work positioning and prevention of falls from a height: Belts for work positioning and restraint and work positioning lanyards

prEN 359: 1992 Personal protective equipment - Restraint systems

BS EN 360: 1993 Personal protective equipment against falls from a height - Retractable type fall arrestors

BS EN 361: 1993 Personal protective equipment against falls from a height - Full body harnesses

BS EN 362: 1993 Personal protective equipment against falls from a height - Connectors

BS EN 363: 1993 Personal protective equipment against falls from a height - Fall arrest systems

BS EN 364: 1993 Personal protective equipment against falls from a height - Test methods

BS EN 365: 1993 Personal protective equipment against falls from a height - General requirements for instructions for use and for marking

BS EN 568: 1997 Mountaineering equipment - Ice anchors - Safety requirements and test methods

BS EN 795: 1996 Protection against falls from a height; anchor devices - Requirements and testing

BS EN 813: 1997 Personal protective equipment for prevention of falls from a height - Sit harnesses

BS EN 892: 1997 Mountaineering equipment - Dynamic mountaineering ropes - Safety requirements and test methods

BS EN 958: 1997 Mountaineering equipment - Energy absorbing systems for use in 'klettersteig' ('via ferrata') climbing - Safety requirements and test methods

BS EN 1095: 1998 Deck safety harness and safety line for use on recreational craft: Safety requirements and test methods

BS EN 1496: 1996 Rescue equipment - Rescue lifting devices

BS EN 1497: 1996 Rescue equipment - Rescue harnesses

BS EN 1498: 1996 Rescue equipment - Rescue loops

BS EN 1891: 1997 Personal protective equipment against falls from height list of equivalent terms

prEN 12841: 1997 Personal protective equipment for prevention of falls from a height - Work positioning systems - Rope adjustment devices

Appendix 4: Version control

VERSION	KEEPER	REVIEWED	APPROVED BY	APPROVAL DATE
X.X	H&S	Every four years	XXXXX	XX/XX/XX
X.X	H&S	Annually	XXXXX	XX/XX/XX