HSP 9.7 Personal Protective Equipment (PPE)

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1.0 OBJECTIVE

This document aims to inform the reader about Personal Protective Equipment (PPE) which is to be used as a last resort, as it only protects the person wearing it.

2.0 SCOPE

This procedure provides information regarding the use of PPE.

As PPE is regarded as a last resort to protect against risks to health and safe. Engineering controls and safe systems of work should be considered first.

This guidance does not cover the use of PPE such as cycle helmets or crash helmets as worn by employees on the roads as these are legally required in the UK. . You should check the requirements in your country of residence. Likewise this guidance does not require professional sports people to use PPE during competition unless required to under the relevant sport's competition rules.

This document is split into sections as below:

- What is PPE?
- When to use PPE?
- Suitability and types of PPE
- Information, instruction and training on PPE use
- Maintaining PPE
- Storage for PPE
- Provision and replacement of PPE
- Duties of employees regarding PPE

3.0 INFORMATION

3.1 What is PPE

PPE is defined as 'all equipment (including clothing affording protection against the weather) which is intended to be worn or held by a person at work and which protects him against one or more risks to his health or safety' e.g. safety helmets, gloves, eye protection, high-visibility clothing, safety footwear and safety harnesses. Ordinary working clothes or clothing not specifically designed to protect the wearer is not within the definition e.g. clothing provided with the primary aim of presenting a corporate image

The need for PPE must be identified through a risk assessment, and you must ensure that the right type and grade of PPE is specified and provided. Refer to HSP 2.0 Hazard Identification, Risk Assessment and Risk Control, and HSE INDG 163: Five steps to risk assessment

PPE must always be regarded as a 'last resort' to protect against risks to safety and health. Engineering controls and safe systems of work must always be considered first. For example, it may be possible to do the job using methods that will not require the use of PPE. If this is not possible, more effective safeguards should be put in place. For example, fixed screens could be provided rather than individual eye protection.

There are a number of reasons why PPE must be considered as a 'last resort':

- PPE only protects the person wearing it, whereas measures controlling the risk at source protect everyone in the workplace
- theoretical maximum levels of protection are difficult to achieve and the actual level of protection is difficult to assess. Effective protection is only achieved by selecting suitable PPE and if it is correctly fitted, maintained and used
- PPE may restrict the wearer to some extent by limiting mobility or visibility, or by requiring additional weight to be carried. Thus creating additional hazards.

The requirement is also that PPE:

- Is properly assessed before use to ensure it is suitable;
- Is maintained and stored properly
- Is provided with instructions on how to use it safety; and
- Is used correctly by employees

3.2 When to use PPE

After carrying out a risk assessment for the task you must ask yourself:

- Can I get rid of the hazard altogether
- If not, how can I control the risks so that harm is unlikely?

In controlling risks the following principles should be applied, if possible in the following order:

- Try a less risky option, e.g. use lower-voltage tools
- Prevent access to the hazard e.g. by guarding
- Organise work to reduce exposure to the hazard e.g. if there is a risk of falling objects, ensure restricted entry to that area if possible

If after all the above there is still a residual risk, you will need to provide PPE. HSP139 PERSONAL PROTECTIVE EQUIPMENT ASSESSMENT FORM must be completed to ensure that all risks associated with a task/activity are assessed.

3.3 Suitability and types of PPE

To enable you to choose which types of PPE are suitable to protect against the hazard involved in the task or work environment the following factors should be considered:

- is the PPE appropriate for the risk involved and conditions at the place where exposure may occur? e.g. goggles are not suitable when full-face protection is required
- does the PPE prevent or adequately control the risks involved without increasing the overall risk? e.g. gloves should not be worn when using a pillar drill, due to the increased risk of entanglement
- can the PPE be adjusted to fit the wearer correctly? e.g. if a person wears glasses, ear defenders may not provide a proper seal to protect against noise hazards
- has the state of health of those using it been taken into account?
- what are the needs of the job and the demands it places on the wearer? How long will the PPE need to be worn? What are the requirements for visibility and communication?
- if more than one item of PPE is being worn, are they compatible? For example, does a particular type of respirator make it difficult for eye protection to fit properly?

Ensure that any PPE you purchase from the UK has a ‘CE’ mark and complies with the requirements of the Personal Protective Equipment Regulations 2002.

For particularly difficult tasks it may be necessary to obtain advice from specialist sources or from the manufacturer. A useful source is the British Safety Industry Federation (www.bsif.co.uk)

Hazards and suitable types of PPE

Eyes

There are several types of eye protection:

- safety spectacles: these are similar to regular glasses but have a tougher lens. They can include side shields for additional protection.
- eye shields: a frame-less one piece moulded lens, often worn over normal prescription glasses
- safety goggles: these are made with flexible plastic frames and an elastic headband
- face shields: heavier and bulkier than other type of eye protector, face shields protect the face, but do not fully enclose the eyes so do not protect against dusts, mists or gases.

Tasks where eye protection may be required include:

- handling hazardous substances where there is a risk of splashing
- work with power driven tools where materials are likely to be propelled
- welding operations
- work with lasers
- using any gas or vapour under pressure**.**

For example:

Goggles

Face shield

Head

There are three widely used types of head protection:

- industrial safety helmets (hard hats), which are designed to protect against materials falling from height and swinging objects
- industrial scalp protectors (bump caps), which are designed to protect from knocking against stationary objects
- caps/hair nets, which protect against entanglement

Tasks where head protection may be required include:

- construction
- building repair
- work in excavations and tunnels
- work with bolt driving tools
- driving motorcycles and all-terrain vehicles, etc.

In the UK turban-wearing Sikhs are exempt from the requirement to wear hard hats on construction sites by virtue of The Employment Act 1989.

For example:

Safety helmet

Breathing

There are two main types of respiratory protective equipment:

- respirators that filter contaminated air or clean it as it is breathed in
- breathing apparatus that supply clean air from an independent source.

Work with harmful dusts, fumes, vapours can require respiratory protective equipment. Tasks where respiratory protection may be required include; welding, work with harmful substances, work in areas where large amounts of nuisance dust is present, work that creates dust (e.g. disc cutters).

Breathing apparatus

Respirators

Fit-testing of Respiratory Protective Equipment (RPE) facepieces

To ensure the wearer has the correct device, the initial selection of RPE should include fit-testing. RPE should have a tight-fitting facepiece (filtering facepieces are usually known as disposable masks, half and full-face masks).

Repeat fit-testing will be needed if anything changes. For example, if the model or size of facepiece is changed or there are significant changes to the individual wearer's facial characteristics due to weight gain/loss or dentistry.

There are two forms of fit-testing – qualitative and quantitative.

Qualitative fit-testing is usually adequate for disposable filter facepieces and half-masks. This can be done as a simple pass/fail based on the wearer's subjective assessment of the fit and leakage. This method is not suitable for full-face masks.

Quantitative fit-testing provides a numerical measure of the fit known as a 'fit factor'. These tests give an objective measure of face fit. They require specialised equipment and are more complicated to carry out. These methods are recommended for full-face masks.

RPE suppliers can advise on the type of testing required. A number of suppliers can carry out testing for customers.

Protecting the body

Types of body protection include:

- overalls, aprons and coveralls (protection against hazardous substances)
- clothing for cold, heat and bad weather
- clothing to protect against machinery, e.g. chainsaws
- high visibility clothing (e.g. jackets, vests)
- harnesses
- back supports
- life jackets.

Tasks where body protection may be required include: work with hazardous substances, work next to the highway or other areas with moving transport or vehicles (e.g. construction sites), outdoor work, forestry and grounds maintenance work.

Chain mail apron

High visibility

Hands and arms

Hand and arm protection comes in a variety of forms, including:

- Gloves and gauntlets (leather, nitrile, latex, plastic coated, chain mail, etc.)
- wrist cuffs and armlets, e.g. used in glass cutting and handling
- barrier cream may sometimes be used, where gloves cannot practicably be used.

Tasks where hand and arm protection may be required include: the manual handling of abrasive, sharp or pointed objects, work with vibrating equipment such as pneumatic drills and chainsaws, construction and outdoor work, work with chemicals and other hazardous substances (e.g. bodily fluids) and work with hot or cold materials.

In order to eliminate the risk of ill health through exposure to latex, a number of organisations have phased out the use of latex gloves replacing them with nitrile.

For example

Cut resistant gloves

hand protection

Feet and legs

There are a number of types of safety footwear:

- safety boots or shoes. Normally have steel toe-caps but can have other safety features (e.g. steel mid-soles, slip resistant soles, insulation against heat and cold)
- Wellington boots, which can be supplied with steel toe-caps
- anti-static and conductive footwear. These protect against the build-up of static electricity.

Tasks where foot protection may be required include: construction, demolition, building repair, manual handling where there is a risk of heavy objects falling on the feet, work in extremely hot or cold environments, and work with chemicals and forestry.

Where there is a risk of slipping that cannot be avoided or controlled by other measures, attention must be given to the slip resistance of soles and replacement before the tread pattern is overly worn.

For example

3.3 Provide information, instruction and training

Where PPE is provided employees must be provided with adequate information, instruction and/or training on it use.

The extent of information, instruction and/or training will vary with the complexity and performance of the kit. For example, a full breathing apparatus kit will require more training to use properly than a disposable face mask.

Information and instruction should cover:

- the risk(s) present and why the PPE is needed
- the operation (including demonstration), performance and limitations of the equipment
- use and storage (including how to put it on, how to adjust and remove it)
- any testing requirements before use
- any user maintenance that can be carried out (e.g. hygiene/cleaning procedures)

- factors that can affect the performance of the equipment (e.g. working conditions, personal factors, defects and damage)
- how to recognise defects in PPE, and arrangements for reporting them
- where to obtain replacement PPE,

In addition to initial training, refresher training may be required from time to time. Supervisor checks on the use of PPE may help determine when refresher training is required.

3.4 Maintaining PPE

An effective system of maintenance of PPE is essential to make sure the equipment continues to provide the degree of protection for which it is designed. Therefore, the manufacturer's maintenance schedule (including recommended replacement periods and shelf lives) must always be followed.

Maintenance may include; cleaning, examination, replacement, repair and testing. The wearer may be able carry out simple maintenance (e.g. cleaning), but more intricate repairs must only be carried out by competent personnel.

The costs associated with the maintenance of PPE are the responsibility of the employer.

Make sure that all equipment is:

- Well looked after by employees:
- Keeping the equipment clean and in good repair (follow the manufacturer's maintenance schedule including recommended replacement periods and shelf lives
- More intricate repairs should only be carried out by specialists
- Make sure that suitable replacement PPE is always readily available

3.5 Storage for PPE

Where PPE is provided, adequate storage facilities for PPE must be provided for when it is not in use, unless the employee may take PPE away from the workplace (e.g. footwear or clothing).

- Accommodation may be simple (e.g. pegs for waterproof clothing or safety helmets) and it need not be fixed (e.g. a case for safety glasses or a container in a vehicle).
- Storage should be adequate to protect the PPE from contamination, loss, damage, damp or sunlight.
- Where PPE may become contaminated during use, storage should be separate from any storage provided for ordinary clothing.

3.6 Provision and replacement of PPE

Once the Risk Assessment (RA) has been completed the employees are required to complete HSP140 Protective Clothing Issue Form indicating which PPE is required, as a last resort, for the works to be carried out safely. Once HSP140 has been completed the form should be sent/given to your Supervisor or Project Coordinator.

The Supervisor or Project Coordinator is to issue relevant PPE and record details on HSP140.

The employees are to ensure HSP140 forms are held on site in the H&S file with the Risk Assessment for the duration of the works.

HSP140 is to be reviewed as required during the works.

The Supervisor or Project Coordinator is to keep a record of HSP140 Forms issued for all works relating to the project.

The Supervisor or Project Coordinator is to keep ensure a copy of all HSP140 forms will be part of the part of the H&S file and held for audit purposes for 5 years.

Individual units/service areas are responsible for arranging the supply of required PPE to staff. Regardless of the arrangements for supply, it is a management responsibility to ensure the provision of correct PPE.

When considering arrangements for providing replacement PPE it must be remembered that unless a task requiring PPE can be stopped, avoided or delayed until new PPE is obtained, replacement PPE must always be readily available.

3.7 Duties of employees regarding PPE

- PPE must be worn and used in accordance with the instructions provided to them
- employees must take all reasonable steps to ensure that PPE is returned to the accommodation provided for it after it has been used (unless the employee may take PPE away from the workplace e.g. footwear or clothing)
- PPE must be examined before use
- any loss or obvious defect must be immediately reported to their supervisor
- employees must take reasonable care for any PPE provided to them and not carry out any maintenance unless trained and authorised.
- A HSP139 PERSONAL PROTECTIVE EQUIPMENT ASSESSMENT FORM must be completed prior to the works starting on site and as part of the risk assessment process.
- A HSP140 Protective Clothing Issue Form must be completed prior to the works starting on site and as part of the risk assessment process.

4.0 REFERENCES

(A) The Health and Safety Executive (HSE), "L25: Personal Protective Equipment at Work".
(B) The Health and Safety Executive (HSE), "INDG174: A short guide to the Personal Protective Equipment at Work Regulations 1992".
(C) The Health and Safety Executive (HSE), "INDG275: Managing health and safety: Five steps to success".
(D) The Control of Lead at Work Regulations 2002
(E) The Ionising Radiation Regulations 1999
(F) The Control of Asbestos Regulations 2012
(G) The Control of Substances Hazardous to Health Regulations 2002 (as amended)
(H) The Noise at Work Regulations 1989
(I) The Construction (Head Protection) Regulations 1989
(J) HSF009 Post Health and Safety Mission Statement
(K) HSP 2.0 Hazard Identification, Risk Assessment and Risk Control
(L) HSF002 Risk Assessment Form
(M) HSP 6.0 Training Awareness and Competency
(N) HSP139 PERSONAL PROTECTIVE EQUIPMENT ASSESSMENT FORM.
(O) HSP140 Protective Clothing Issue Form.

Useful websites: British Safety Industry Federation (www.bsif.co.uk)
HSE (http://www.hse.gov.uk) Example risk assessments can be downloaded from the HSE website