Chapter 3 of Part 2: Personal Protective Equipment

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Chapter 3 of Part 2: PERSONAL PROTECTIVE EQUIPMENT

Introduction

This Guide is aimed at safety and health practitioners, employers, managers, employees, safety representatives and others to give guidance on Chapter 3 of Part 2 and the related Schedule 2 to the Safety, Health and Welfare at Work (General Application) Regulations 2007 (S.I. No. 299 of 2007) relating to the provision and use of personal protective equipment (PPE) at work. The objective of the Guide is to give general guidance aimed at the prevention of occupational accidents or ill health. It is not intended as a legal interpretation of the legislation.


From 1 November 2007, Chapter 3 of Part 2 of the General Application Regulations 2007 replaces Part V, Regulations 21 to 26, and the Sixth and Seventh Schedules to the Safety, Health and Welfare at Work (General Application) Regulations 1993 (S.I. No. 44 of 1993) relating to personal protective equipment, which are revoked from that date.

The General Application Regulations 2007 are made under the Safety, Health and Welfare at Work Act 2005 (No. 10 of 2005) referred to elsewhere in this Guide as the “2005 Act” or “the Act”.

In this Guide the text of the Regulation and Schedule is shown in italics.

The fundamental principle enshrined in these provisions is that personal protective equipment (PPE) should only be used as a last resort.

The safety and health of employees must be primarily safeguarded by measures to eliminate workplace risks at source, through technical or organisational means or by providing protection on a collective basis. Collective protective measures covering numbers of employees in a workplace must have priority over protective measures applying to individual employees. If these measures are not sufficient, PPE must be used to protect against the hazards that are unavoidable.

The four principles for eliminating or reducing work-related hazards are:

1. Eliminate the risk.
2. Isolate the risk.
3. Bar access to hazard zones.
4. Use PPE.
There are strong arguments for attempting to control hazards on a general or collective basis before resorting to providing PPE:

(i) PPE only protects the wearer.
(ii) With PPE, theoretical levels of protection are seldom reached in practice, and actual levels of protection are difficult to assess. For example, with face masks the effectiveness of the mask depends on many factors, such as facial hair or contours and composition of contact material between face and mask. In order to cater for the physical differences in employees, more than one type or size of PPE should be available where numbers of employees are involved.
(iii) The use of PPE always restricts the wearer to some degree, e.g. in movement, visibility, hearing, breathing ability, and may be uncomfortable to wear and cause irritation at points of contact with skin due to perspiration etc.
(iv) In some cases the psychological effect of PPE may be such that the individual wearing the PPE feels more protected than he or she actually is.

Section 8 of the 2005 Act places a duty on employers to supply PPE where risks cannot be eliminated or adequately controlled. Section 13 of the 2005 Act places a duty on employees, having regard to their training and instructions, to make correct use of PPE.

Chapter 3 of Part 2 of the Regulations applies other duties on the employer in respect of selection, assessment, conditions of use and compatibility, maintenance and replacement, information and training regarding PPE provided for employees where risks to safety and health cannot be avoided or sufficiently limited by technical means or collective protection or by measures, methods and procedures of work organisation.

**Regulation 62: Provision of Personal Protective Equipment**

62. (1) An employer shall ensure that, without prejudice to section 8 of the Act, personal protective equipment is provided for use by the employer’s employees where risks at a place of work to the safety or health of employees cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organisation.

Where there are risks to the safety, health and welfare of employees, there is a duty on the employer to avoid or limit such risks whenever possible by other methods of prevention or control, such as engineering controls or safe systems of work. PPE should only be provided where the risks cannot be avoided or limited by other means. For example, prevention or control in relation to chemical agents could mean:

(i) Choosing chemicals which avoid or minimise risk.
(ii) Choosing technology or processes which avoid or minimise risk.
(iii) Adopting working systems and practices which avoid or minimise risk.
(iv) Adopting adequate occupational hygiene measures.
(v) Using adequate engineering control measures, such as:
   (a) Local exhaust ventilation.
(b) Condensation coils on tanks.

(c) Foaming agents or ping pong balls on the surface of tanks reducing chemical surface contact with air or controlling chemical mist formation to some degree.

(d) Anti-vibration mounting, or sound-absorbing materials, to reduce noise levels etc.

When risks cannot be adequately controlled by other means, there is an obligation on the employer to supply PPE. In circumstances where the risks are sufficiently low and can be considered to be adequately controlled, the provision of PPE is not necessary. For example, office workers would rarely have to handle heavy objects manually and would not normally be issued with safety footwear.

(2) Without prejudice to the generality of paragraph (1), an employer when providing personal protective equipment shall take into account the appropriate matters specified in Schedule 2.

Schedule 2, Part A, to the General Application Regulations 2007 (see below) sets down non-exhaustive guide lists of work activities and sectors that may require the provision of PPE. Schedule 2, Part B, to the General Application Regulations 2007 (see below) sets down non-exhaustive guide lists of bodily parts which may be subject to risk and the types of PPE which it may be appropriate to use to protect them. These lists should be referred to by employers when deciding on the type of PPE required and the types of work activities requiring the provision of PPE.

“Non-exhaustive”, in the context of Schedule 2 to the General Application Regulations 2007, means that the matters listed are indicative rather than all-inclusive and that in applying the provisions of Schedule 2 it is necessary to have regard to the overall spirit of its provisions in addition to the particular matters listed. For example, the entry in Section 3 of Part A of Schedule 2 to the Regulations, relating to eye or face protection, which reads “Work with bolt-driving tools” would equally apply to “Work with nail-driving tools”. Similarly, Section 3 of Part A of Schedule 2 might also have included an additional indicative entry such as “Work where work equipment or work pieces are liable to shatter during normal operation”.

(3) Without prejudice to section 16 of the Act, an employer shall ensure that personal protective equipment provided under these Regulations complies with relevant European Community directives regarding design and manufacture of personal protective equipment with respect to safety and health.

Under this paragraph, employers in selecting PPE must comply with the European Communities (Personal Protective Equipment) Regulations 1993 (S.I. No. 272 of 1993), as amended by S.I. No. 13 of 1994, which implements Directive 89/686/EC on the design and manufacture of PPE aimed at removing barriers to trade for PPE products in the free market. Those Regulations require PPE to have the appropriate CE mark.

Regulation 62 should be read in conjunction with Regulations 63 and 64.
Regulation 63: Assessment of Personal Protective Equipment

63. (1) Before choosing any personal protective equipment required to be provided under Regulation 62, an employer shall make an assessment to determine whether such equipment satisfies the requirements of this Regulation and Regulations 62 and 64.

(2) The assessment required by paragraph (1) shall consist of—

(a) an analysis and assessment of risks present which cannot be avoided by other means,

(b) the definition of the characteristics which personal protective equipment must have in order to be effective against the risks referred to in subparagraph (a), taking into account any risks which this equipment itself may create, and

(c) comparison of the characteristics of the personal protective equipment available with the characteristics referred to in subparagraph (b).

(3) An employer shall review forthwith the assessment required by paragraph (1) if any alteration takes place in any of the matters referred to in paragraph (2) and, where as a result of this review changes in the assessment are required, such changes shall be made.

Regulation 63 requires the employer to make an assessment of the hazards in the workplace in order to identify the correct type of PPE to be provided and to ensure that PPE is appropriate to the risk. Care must be exercised in selecting PPE as certain types give reasonably high levels of protection while others, that may appear almost the same, give relatively low levels of protection. The level of risk must be assessed so that the performance required of the PPE can be determined.

Suppliers can often advise on the different types of PPE available and how suitable they are for different tasks. Safety data sheets or manufacturers’ catalogues may contain useful information to assist in identifying the most suitable type of PPE. It may be necessary in difficult cases to obtain advice from specialist sources and from PPE manufacturers.

When assessing whether PPE is suitable, the following should be considered:

- Is it appropriate for the risks involved and the conditions at the place where exposure to the risk may occur? For example, eye protection designed to provide protection against chemical splashes will not offer adequate face protection for someone using an angle grinder to cut steel or stone.

- Does it prevent or adequately control the risks involved without increasing the overall level of risk? For example, where hearing protection is used, ensure users are adequately protected against hazards related to reversing vehicles or fire as they will not be able to hear alarms.

- Can it be adjusted to fit the wearer correctly?

- Have any relevant medical conditions of the wearer of the PPE that the employer is aware of been taken into account?

- What are the needs of the job and the demands it places on the wearer? For example, the length of time the PPE needs to be worn, the physical effort required to do the job and the requirements for visibility and communication.
• Does the PPE cause discomfort? PPE that is uncomfortable is less likely to be used appropriately.

• If more than one item of PPE is being worn, are they compatible? For example, does a particular type of respirator make it difficult to get eye protection to fit properly.

The PPE selected should be capable of achieving the level of protection required.

Selection must also take account of the proper wearing and fitting of the equipment. It is essential that an employee using PPE is consulted and involved in the selection of the equipment.

The assessment of the PPE selected must be periodically reviewed, particularly if there is reason to suspect that any element of the assessment is no longer valid or there has been a significant change in the matters to which it relates. Replacement PPE must be provided where the assessment reveals this to be necessary.

The assessment of the risks involved should be carried out in the context of the risk assessment and the safety statement required under sections 19 and 20 of the 2005 Act.

An example of the need to review the risk assessment for PPE would occur where a worker is no longer able to use the PPE due to a medical condition, e.g. an allergic reaction caused by latex exposure. In this case the employer should review the risk assessment and examine whether the risk can be avoided or reduced by other technical measures that protect everybody at work or by changing procedures or methods of work so as to avoid the need to use PPE. Where PPE is still required, the employer should examine whether alternative types of PPE are suitable, e.g. by using gloves or respirators that do not contain latex. Where this is not possible, the employer may be able to assign the employee to alternative work.

Once the potential risks are known, there may be several types of suitable PPE available.

Account must be taken of Regulations 62 and 64 relating to conditions of use and compatibility. Schedules 3 and 4 to the General Application Regulations may also help as regards selection.

**Regulation 64: Conditions of Use and Compatibility**

64. (1) Where it is necessary for an employee to use personal protective equipment, the employer shall determine the conditions of use of such equipment, in particular the period for which it is worn, on the basis of—

(a) the seriousness of the risk,
(b) the frequency of the exposure to the risk,
(c) the characteristics of the workstation of the employee, and
(d) the adequacy of the personal protective equipment.

(2) An employer shall ensure that personal protective equipment is used only for the purposes specified, except in specific and exceptional circumstances.

(3) Where it is necessary for an employee to wear simultaneously more than one item of personal protective equipment, the employer shall ensure that such items of personal protective equipment are compatible with each other and continue to be effective against the risks involved.

Where PPE must be used, the employer is obliged to examine the seriousness and frequency of the risks present in the workplace and to reduce, as far as possible, the times necessary for the employee to wear PPE without risk to his or her safety and health. To achieve this, it may be necessary for the employer to rearrange workstations by altering the positions of plant and machinery or the time of operation of processes in order to reduce the periods of exposure of employees or the numbers of employees exposed at any time. The PPE selected must have the characteristics to remain effective for the periods of exposure of the employee to risk.

When selecting PPE there are certain ergonomic, physical and health factors which need to be taken into account. These factors also reinforce the fundamental principle that PPE must only be used as a last resort.

- Movement: Some forms of PPE may be heavy and cumbersome thereby restricting mobility and frequent short rest periods may be necessary.
- Visibility: Many types of safety goggles may restrict the area of view and cause tunnel vision. Misting of lenses also arises, particularly where the operation involves hard physical work. Ventilated goggles may reduce this problem.
- Breathing: Breathing ability may be restricted when using PPE, especially if particulate filters are being used. Breathing difficulties may arise as filters become clogged. Frequent changing of filters may be necessary.
- Irritation: Employees with sensitive skin may suffer from irritation when wearing PPE.
- Health: Employees with chronically discharging ears (from chronic infection of the middle ear) or with “itchy ears” (otitis externa) may have great difficulty inserting ear plugs and ear muffs may be more suitable.

Special care should be taken where persons suffer from certain medical conditions, e.g. certain types of respiratory protective equipment may not be suitable for employees with asthma, bronchitis or heart disease. Where situations such as these occur, the employer should seek medical advice as to whether the employee can tolerate the use of PPE. Employers should make provision for medical conditions where they are aware of such conditions.

In sourcing PPE, the employer must, therefore, select appropriate PPE which is user-friendly and which fits the individual employee correctly, after adjustment if necessary.

In some cases PPE is required to protect the wearer against a number of hazards. For example, ordinary protection helmets protect construction workers against small falling objects and bump injuries. Such helmets would not be adequate for workers such as scaffolders, persons working on ladders, linesmen or steel erectors, where the workers are not protected from falling by collective measures and are exposed to a serious risk of falling from a height since the helmet will leave the
wearer’s head in a fall. In such circumstances, a helmet designed to protect against the risk of falling should be used.

In circumstances where different items of PPE are worn simultaneously, they must be designed to fit together properly and not create additional hazards. For example, firemen may, on occasion, be required to wear simultaneously safety boots, heat-resisting protective suits, breathing apparatus, helmets and face shields.

**Regulation 65: Personal Use**

65. (1) An employer shall ensure that—

(a) the use of an item of personal protective equipment provided by the employer under Regulation 62 is normally confined to one employee, and

(b) where it is necessary for an item of personal protective equipment to be worn by more than one employee, such use does not create health or hygiene problems for any user.

(2) An employee to whom personal protective equipment is made available under these Regulations shall take all reasonable steps to ensure that such equipment is returned to storage after use by him or her.

Regulation 65 requires that PPE should normally be provided for personal use only. On occasions it may be necessary for PPE, particularly for more complex and expensive PPE such as respirators or diving equipment, to be used by more than one person. In those circumstances arrangements should be made by the employer to have the PPE cleaned and disinfected before use by another individual.

Employees must ensure that PPE provided for their use is returned to storage after use.

**PPE must be provided without charge**

Under section 8(5) of the 2005 Act, no charge may be made to a worker for the provision of PPE which is used at work. Section 8(5) states: “Every employer shall ensure that any measures taken by him or her relating to safety, health and welfare at work do not involve financial cost to his or her employees”.

An employer may not ask for money to be paid to them by an employee for the provision of PPE whether returnable (e.g. a deposit) or otherwise.

Where PPE is used outside the place of work, an employer may request the employee concerned to contribute towards the cost of such equipment to the extent of any loss to the employer resulting from the use of the PPE outside the place of work.

Where employment has ceased and the employee has retained the PPE, the employer may seek a contribution from the employee to the extent of any loss to the employer resulting from the retention of the PPE.

Employers may charge a worker for PPE if the worker is truly self-employed.
Regulation 66: Maintenance and Replacement

66. An employer shall ensure that any personal protective equipment provided by the employer under Regulation 62 is maintained at all times in good working order and in a satisfactory hygienic condition by means of any necessary storage, maintenance, repair or replacement.

PPE must be thoroughly examined regularly, by properly instructed staff, in accordance with the supplier’s and manufacturer’s instructions, to ensure that it is in good working order before being issued for use to the wearer. The wearer should check the PPE and should not use it if found to be defective in any way.

PPE maintenance programmes will vary with the type of equipment and its use. Respiratory protective equipment (RPE) requires a very high degree of regular examination and necessary maintenance, whereas protective shoes or gloves may require inspection only. The level of inspection and maintenance will normally be indicated by the manufacturer’s instructions. The frequency of use must also be taken into account in the maintenance programme. Maintenance should include, where appropriate, cleaning, disinfecting, examination, repair, testing and record-keeping. Record-keeping is particularly important where PPE is used because there is a serious risk to safety or health, e.g. where breathing apparatus, safety harnesses or respiratory protection for use with toxic substances is used.

As a general rule, simple maintenance may be carried out by the user, provided that he or she has been adequately instructed and trained (e.g. lens cleaning on goggles or replacing helmet straps).

The examination, maintenance and repair of PPE used in high-risk situations (e.g. PPE used by firemen) should be carried out by properly trained staff who have received special training from the manufacturer or supplier (or both). Those involved should have the necessary tools and materials to carry out proper repairs.

As part of good maintenance practice, appropriate storage must be provided for PPE when not in use. Storage may be simple (e.g. hangers or pegs for waterproof clothing or helmets) but must be adequate to protect PPE from any damage, contamination or loss. It should be readily accessible and convenient to the place of work. PPE awaiting repair or cleaning should be clearly marked “for repair” or “for cleaning” and stored separately.

Where there is a risk to persons handling contaminated PPE, it should, before being dispatched for disposal or cleaning, be packed in suitable containers to prevent the escape of the hazardous contaminant, e.g. in water soluble bags. These should be labelled to indicate the hazardous material (e.g. asbestos, cadmium salts, infectious materials, biological waste).

Sufficient and suitable spare parts for all PPE should be available on the premises. Only the correct spare parts should be used in the maintenance and repair of PPE to maintain the degree of protection. The use of different or new components not marked with the CE mark could amount to non-compliance under Regulation 62(3).

Regulation 67: Information, Training and Instruction

67. Where an employer provides personal protective equipment for use by an employee under Regulation 62, the employer, without prejudice to sections 9 and 10 of the Act, shall—
(a) inform the employee of the risks against which the wearing of the equipment protects him or her,
(b) provide the employee with adequate information on the personal protective equipment provided,
(c) inform the employee of the level of protection afforded by the personal protective equipment provided for his or her use,
(d) provide the employee with instruction on the use of such personal protective equipment, and
(e) arrange for training and, if appropriate, organise demonstrations in the wearing of such equipment.

The employer has a general duty under the 2005 Act to inform, instruct and train employees regarding the risks to safety, health and welfare at the place of work and the protective and preventive measures to be taken under the relevant statutory provisions.

Regulation 67 requires that where PPE is provided employees must be informed of the risks against which they are being protected by the PPE. Employees must also be provided with suitable information, instruction and training (including training in the use, care or maintenance of PPE) to enable them to make proper and effective use of any PPE provided for their protection.

PPE users must be trained as regards the wearing, proper use and any limitations of PPE. Managers and supervisors should also be aware of the reasons for providing PPE, its proper use and, in particular, the level of protection afforded. Training, both theoretical and practical, should also cover persons involved in the selection, maintenance, repair and testing of PPE. The level of training provided will vary with the level of risk involved and the complexity and performance of the equipment. For instance, the use of respirator equipment will require a comprehensive degree of training with regular refresher courses, whereas the training for using protective gloves for dealing with hazardous substances may require demonstration only. The frequency of the refresher courses required in the case of PPE for high-risk situations will depend on the nature of the equipment, how frequently it is used and the needs of the employees using it.

Where theoretical training is necessary, it should provide:

(i) Knowledge and understanding of the types of risks present in the workplace and why it is necessary to use PPE.
(ii) Knowledge and understanding of the characteristics of the PPE which could limit the performance and the protection given to the individual by the PPE.
(iii) Knowledge and understanding of other factors which may affect the protection afforded by the PPE such as personal factors, working conditions, improper fitting, defects, damage and wear.
(iv) Knowledge and understanding of factors which may affect the storage of PPE such as sunlight, humidity and temperature.
Practical training should include:

(i) Practice and familiarity in putting on, wearing and removing PPE.
(ii) Inspection and, where necessary, testing of PPE before and after use.
(iii) Any maintenance of PPE which may be carried out by the user.

Employers should make sure that people are using PPE properly by periodically checking that it is being used in accordance with the instruction or training in the use of PPE provided to employees. Where PPE is not being used, or not being used properly, the employer should immediately take measures to ensure its proper use. Where there is continuing failure to use PPE properly, the employer should investigate the reasons for this and take any necessary corrective action.

Because PPE is the last resort after other methods of protection have been considered, it is important that users wear it all the time they are exposed to the risk. Exemptions should not be allowed for those jobs which take ‘just a few minutes’.

The Role of Employees

Employees should:

- Use PPE properly whenever it is required to be used.
- Report any defects in or damage to the PPE immediately.
- Participate in any training or instruction provided on PPE.
- Inform their employer of any medical conditions they have that might be affected by the use of the PPE provided to them.
SCHEDULE 2
Regulation 62

PERSONAL PROTECTIVE EQUIPMENT

Part A — Guide list of activities and sectors of activity which may require provision of personal protective equipment

1. Head Protection (Skull Protection)

Protection helmets

Building work, particularly work on, underneath or in the vicinity of scaffolding and elevated places of work, erection and stripping of formwork, assembly and installation work, work on scaffolding and demolition work.

Work on steel bridges, steel building construction, masts, towers, steel hydraulic structures, blast furnaces, steel works and rolling mills, large containers, large pipelines, boiler plants and power stations.

Work in pits, trenches, shafts and tunnels.

Earth and rock works.

Work in underground workings, quarries, open diggings, coal stock removal.

Work with bolt-driving tools.

Blasting work.

Work in the vicinity of lifts, lifting gear, cranes and conveyors.

Work with blast furnaces, direct reduction plants, steelworks, rolling mills, metalworks, forging, drop forging and casting.

Work with industrial furnaces, containers, machinery, silos, bunkers and pipelines.

Shipbuilding work.

Railway shunting work.

Work in slaughterhouses.

2. Foot Protection

Safety shoes with puncture-proof soles

Carcase work, foundation work and roadworks.

Carcase demolition work.

Scaffolding work.

Work with concrete and prefabricated parts involving formwork erection and stripping.
Work in contractors' yards and warehouses.
Roof work.

Safety shoes without pierce-proof soles
Work on steel bridges, steel building construction, masts, towers, lifts, steel hydraulic structures, blast furnaces, steelworks and rolling mills, large containers, large pipelines, cranes, boiler plants and power stations.
Furnace construction, heating and ventilation installation and metal assembly work.
Conversion and maintenance work.
Work with blast furnaces, direct reduction plants, steelworks, rolling mills, metalworks, forging, drop forging, hot pressing and drawing plants.
Work in quarries and open diggings, coal stock removal.
Working and processing of rock.
Working and processing in relation to flat glass products and container glassware manufacture.
Work with moulds in the ceramics industry.
Lining of kilns in the ceramics industry.
Moulding work in the ceramic ware and building materials industry.
Transport and storage work.
Work with frozen meat blocks and preserved foods packaging.
Shipbuilding work.
Railway shunting work.

Safety shoes with heels or wedges and pierce-proof soles
Roof work.

Protective shoes with insulated soles
Work with and on very hot or very cold materials.

Safety shoes which can easily be removed
Any work where there is a risk of penetration by molten substances.

Safety shoes fitted with toecaps
Any work where there is a risk of impact on or crushing of the foot caused by falling or projecting objects or collision of the foot with an obstacle.

3. Eye or Face Protection

Protection goggles, face shields or screens
Welding, grinding and separating work.
Caulking and chiselling work.
Rock working and processing work.
Work with bolt-driving tools.
Work on stock removing machines for small chippings.
Drop forging.
The removal and breaking up of fragments.
Spraying of abrasive substances.
Work with acids and caustic solutions, disinfectants and corrosive products.
Work with liquid sprays.
Work with and in the vicinity of molten substances.
Work with radiant heat.
Work with lasers.

4. Respiratory Protection

Respirators/breathing apparatus
Work in containers, restricted areas and gas-fired industrial furnaces where there may be gas or insufficient oxygen.
Work in the vicinity of the blast furnace charge.
Work in the vicinity of gas converters and blast furnace gas pipes.
Work in the vicinity of blast furnace taps where there may be heavy metal fumes.
Work on the lining of furnaces and ladles where there may be dust.
Spray painting where dedusting is inadequate.
Work in shafts, sewers and other underground areas connected with sewage.
Work in refrigeration plants where there is a danger that the refrigerant may escape.
Work in processes where harmful dust or fumes are likely to be present.

5. Hearing Protection

Ear protectors
Work with metal presses.
Work with pneumatic drills.
Work with turbines.
The work of ground staff at airports.
Pile-driving work.
Wood and textile working.
6. **Body, Arm and Hand Protection**

**Protective clothing**
- Work with acids and caustic solutions, disinfectants and corrosive cleaning substances.
- Work with or in the vicinity of hot materials and where the effects of heat are felt.
- Work on flat glass products.
- Shot blasting.
- Work in deep-freeze rooms.

**Fire-resistant protective clothing**
- Welding in restricted areas.

**Pierce-proof aprons**
- Boning and cutting work.
- Work with hand knives involving drawing the knife towards the body.

**Leather aprons**
- Welding.
- Forging.
- Casting.

**Gloves**
- Welding.
- Handling of sharp-edged objects, other than machines where there is a danger of the glove being caught.
- Unprotected work with acids and caustic solutions.

**Metal mesh gloves**
- Boning and cutting.
- Regular cutting using a hand knife for production and slaughtering.
- Changing the knives of cutting machines.

7. **Weatherproof Clothing**

- Work in the open air in rain and cold weather.

**Waterproof clothing**
- Work in wet processes.

8. **Reflective Clothing**

- Work where the employees must be clearly visible.
9. **Safety Harness**
   - Work on scaffolding.
   - Assembly of prefabricated parts.
   - Work on masts.

10. **Safety Ropes**
    - Work in high crane cabs.
    - Work in high cabs of warehouse stacking and retrieval equipment.
    - Work in high section of drilling towers.
    - Work in shafts and sewers.

11. **Skin Protection**
    - Processing of coating materials.
    - Tanning.

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**Part B — Guide list of items of personal protective equipment**

1. **Head Protection**
   - Protective helmets for use in industry, including mines, building sites, other industrial uses.
   - Scalp protection (caps, bonnets, hairnets with or without eye shade).
   - Protective headgear (bonnets, caps, sou’westers, etc. in fabric with proofing, etc.).

2. **Hearing Protection**
   - Earplugs and similar devices.
   - Full acoustic helmets.
   - Earmuffs which can be fitted to industrial helmets.
   - Ear defenders with receiver for Low Frequency (LF) induction loop.
   - Ear protection with intercom equipment.

3. **Eye and Face Protection**
   - Spectacles.
   - Goggles.
   - X-ray goggles, laser-beam goggles, ultra-violet, infra-red, visible radiation goggles.
   - Face shields.
   - Arc-welding masks and helmets (hand masks, headband masks, headband masks or masks which can be fitted to protective helmets)

4. **Respiratory Protection**
   - Dust filters, gas filters and radioactive dust filters.
Insulating appliances with an air supply.
Respiratory devices including a removable welding mask.
Diving equipment.
Diving suits.

5. Hand and Arm Protection
Gloves to provide protection:
- from machinery (piercing, cuts, vibrations, etc.).
- from chemicals.
- for electricians and from heat.
Mittens.
Finger stalls.
Oversleeves.
Wrist protection for heavy work.
Fingerless gloves.
Protective gloves.

6. Foot and Leg Protection
Low shoes, ankle boots, calf-length boots, safety boots.
Shoes which can be unlaced or unhooked rapidly.
Heat-resistant shoes, boots and overboots.
Thermal shoes, boots and overboots.
Vibration-resistant shoes, boots and overboots.
Anti-static shoes, boots and overboots.
Insulating shoes, boots and overboots.
Protective boots for chain saw operators.
Clogs.
Kneepads.
Removable instep protectors.
Gaiters.
Removable soles (heat-proof, pierce-proof or sweat-proof).
Removable spikes for ice, snow or slippery flooring.

7. Skin Protection
Barrier creams/ointments.

8. Trunk and Abdomen Protection
Protective waistcoats, jackets and aprons to provide protection from machinery, piercing.
cutting, molten metal splashes, etc.

Protective waistcoats, jackets and aprons to provide protection from chemicals.

Headed waistcoats.

Life jackets.

Protective X-ray aprons.

Body belts.

9. Whole Body Protection

Equipment designed to prevent falls

Fall-prevention equipment (full equipment with all necessary accessories).

Braking equipment to absorb kinetic energy (full equipment with all necessary accessories).

Body-holding devices (safety harness).

10. Protective clothing

“Safety” working clothing (two-piece and overalls).

Clothing to provide protection from machinery, piercing, cutting etc.

Clothing to provide protection from chemicals.

Clothing to provide protection from molten metal splashes and infra-red radiation.

Heat resistant clothing.

Thermal clothing.

Clothing to provide protection from radioactive contamination.

Dust-proof clothing.

Gas-proof clothing.

Fluorescent signalling, retro-reflecting clothing and accessories (armbands, gloves, etc.).

Protective coverings.