

PERSONAL PROTECTIVE EQUIPMENT

LEARNING OUTCOME

Describe the requirements of the Work Health and Safety legislation and standards relating to the selection, provision and use of personal protective equipment.

ASSESSMENT CRITERIA

- Describe the statutory requirements relating to PPE
- Describe PPE as an element of the hierarchy of control and the reasons it is the least favourable and effective method of control
- Describe at least 3 general principles that must be considered during the selection of PPE
- Describe the training requirements that are associated with the provision of PPE
- List 2 items that should be included in a PPE plan

REFERENCES

- Work Health and Safety Regulations 2011, Part 3.2 – Div 5 (s44 – s47)
- How to Manage Work Health and Safety Risks Code of Practice 2011
- Managing Electrical Risks at the Workplace Code of Practice 2013
- Code of Practice – (SafeWork Australia) in Construction Work
- Managing Risks of Plant in the Workplace Code of Practice 2013
- Relevant Australian Standards (referenced within notes).

PERSONAL PROTECTIVE EQUIPMENT

The Work Health and Safety Regulation 2011 (WHS Regulation) defines personal protective equipment (PPE) as:

“anything used or worn by a person to minimise risk to the person’s health and safety, including air supplied respiratory equipment.”

Examples of personal protective equipment include:

- hearing protective devices, such as ear muffs and ear plugs;
- respirators;
- protective eyewear, such as goggles;
- safety helmets and wide brim sun hats.

DUTY TO PROVIDE PERSONAL PROTECTIVE EQUIPMENT

If PPE has been identified as one of the control measures to minimise exposure to a risk, the PCBU must make sure such equipment is provided.

The actual arrangements made for the provision is a matter of negotiation by the workplace parties. Some of the factors which may be considered in deciding upon the most appropriate arrangements for a particular workplace, include:

- the availability of the equipment;
- whether the item can generally be used outside work, such as sun glasses or boots;
- the need for personal fit.

The person conducting a business or undertaking (PCBU) should also provide training and instruction in the use of personal protective equipment to ensure that workers receive the desired level of protection from the equipment.

WHO PAYS?

If PPE is required, the PCBU must provide it to workers free of charge.

However, there may be circumstances where the payment for it can be negotiated.

In deciding who should provide PPE consider:

- the availability of equipment
- whether the equipment can generally be used outside work, such as sunglasses or boots
- the need for a personal fit
- the requirements in the relevant industrial award or enterprise agreement regarding provision of PPE.

PERSON NOT TO LEVY WORKERS

If PPE is required, the person conducting the business or undertaking must provide it to workers free of charge. A PCBU must not impose a levy or charge on a worker, or permit a levy or charge to be imposed on a worker, for anything done, or provided, in relation to work health and safety. However, there may be circumstances where the payment for PPE can be negotiated.

PERSONAL PROTECTIVE EQUIPMENT IN THE RISK MANAGEMENT PROCESS

The use of PPE (and administrative controls) are lowest on the list of control priorities. These controls should NOT be relied on as the primary means of risk control until the options higher in the list of control priorities have been exhausted. (Refer to *How to Manage Work Health and Safety Risks Code of Practice 2011* for further information.)

Therefore, PPE should only be used:

- as a last resort, where there are no other practical control measures available
- to be a short-term measure until a more effective way of controlling the risk can be used
- together with other control measures such as local exhaust ventilation
- by itself during maintenance activities.

There may be specific PPE requirements for working with harmful substances or in certain work activities.

PERSONAL PROTECTIVE EQUIPMENT AS A CONTROL MEASURE

Use of personal protective equipment should only be considered as a control measure when exposure to the risk cannot be reduced in any other way. Use of personal protective equipment can be regarded as a temporary or interim measure until further controls are put in place. Personal protective equipment can also be used effectively in conjunction with other measures to manage exposure to a risk.

Ensuring Protection

To make sure that the item of PPE will provide the level of protection that it is designed to, make sure that:

- the appropriate item is selected;
- workers (and others at the workplace) are instructed how to use it;
- workers (and others at the workplace) wear and/or use it in accordance with instruction received;
- it fits correctly; AND
- it is properly maintained and stored.

Limitations of Personal Protective Equipment

There are general problems associated with the use of PPE, which can make it a less desirable control option. In some circumstances, for example, PPE can:

- Be uncomfortable to wear;
- Make working difficult. For example, it can be difficult to do fine or detailed work when wearing certain types of gloves;
- Create a secondary risk not identified in the original assessment. For example, some items of personal protective equipment can hinder the body's natural cooling mechanisms by preventing evaporation of perspiration.

It can also be difficult to monitor the level of protection provided by the personal protective equipment.

Further, the use of PPE is often an expensive option in the long term when the costs of maintenance, supervision and (potentially more) injuries are taken into account.

SELECTION OF PERSONAL PROTECTIVE EQUIPMENT – GENERAL PRINCIPLES

When selecting personal protective equipment for a particular work process or series of tasks, consider the following general principles:

- Be familiar with the risks of the work process. This will involve evaluating the nature of the risk, and the circumstances and restrictions of the tasks to be performed.
- Be aware of the acceptable level of risk to which the worker may be exposed and hence the performance requirement of the chosen equipment. Compare performance requirements with the capability of different types of personal protective equipment.
- Make sure that the item chosen is appropriate to the risk. That is, make sure that the item selected will provide an adequate level of protection against the risks present and will not create additional health or safety concerns.
- Where several types of personal protective equipment are required to control multiple risks presented by the one work process, make sure that the items are compatible, for example, ear muffs with a hard hat.
- Make sure that the item will fit properly, as 'inadequate fit' can limit an item's protective capability. Respiratory protective equipment, for example, requires a good facial seal. (In some instances, facial hair can interfere with the fit of an item.) Your selection decision can be influenced by whether the item needs to be individually fitted by a professional.
- Consider workers' medical conditions, which can influence whether they can use certain items of equipment.
- Consider the comfort of the item when choosing equipment. Comfort is an important factor in ensuring its use.
- Make sure that the item is worn correctly. Equipment is more likely to be worn correctly if it is easy to use and/or wear.
- Consult with those workers and others who must wear the equipment when choosing the item(s). Where practical, consider worker's individual characteristics and preferences for styles of equipment. (This should not, of course, result in the level of protection being reduced.) Involving the users of the equipment in the selection process should enhance user acceptance.
- Give preference to items of personal protective equipment, which comply with the relevant Australian Standard (or overseas specification).

USING PERSONAL PROTECTIVE EQUIPMENT

Use According To Instruction

Items of personal protective equipment must be used in accordance with accompanying instructions, to ensure the desired level of protection is gained. The manufacturer or supplier of the equipment should provide instructions about how to use (and fit) the item of equipment. Additional information about use and fit for a particular item of equipment can be found in the relevant Australian Standards (or overseas specifications).

Training in Use

All workers exposed to workplace risk should be trained in safe work practices. They must be taught the correct way to use any personal protective equipment required to be worn. Where items of personal protective equipment are to be worn by non-workers at a workplace, provide sufficient instruction to ensure these items of equipment are correctly used. Personal protective equipment training needs can be separated into induction, more specific job training and ongoing training.

Induction Training

General information about personal protective equipment should form an integral part of a company's induction training program for its new workers. This training should cover arrangements for the provision, use, storage and maintenance of personal protective equipment as well as emergency procedures in the case of special risks, for example chemical spills or fires.

Specific Job Training

Training for specific jobs involves providing information about the risks associated with the job as identified through the risk management process. Specific job training should also provide instruction in the use of personal protective equipment required for the job, including:

- recognition of the need for personal protective equipment;
- basic design principles of the equipment;
- correct use and wearing of personal protective equipment, as specified by the manufacturer or supplier, and/or in the relevant Australian Standard;
- comfort and fit requirements;
- application and effectiveness of a selected item;
- limitations in use, including any limit on the duration for which it can be safely used;
- maintenance and replacement procedures, as specified by the manufacturer or supplier, and/or in the relevant Australian Standard; and
- safe working practices and procedures to follow when the equipment is being used.

Ongoing Training

Ongoing or refresher training should be provided periodically to ensure that PPE is continuing to be used properly. Training should also be provided to workers when work practices and/or equipment are up-dated.

Signage

Signs should be posted in conspicuous locations at the workplace wherever it is necessary to use PPE. These signs serve as a useful reminder of the kind of personal protective equipment that should be worn. (Refer to the relevant Australian Standard for further information about signage.)

STORAGE AND MAINTENANCE OF PERSONAL PROTECTIVE EQUIPMENT

Storage

PPE should be stored in a clean and fully operational condition. Storage arrangements should ensure that the equipment is safe from interference and damage, and that it is easily accessible when needed. Items of PPE should also be checked regularly, as specified by the manufacturer or supplier, to determine that they are in a serviceable condition, both during storage and in use. Refer to the relevant Australian Standard (or overseas equivalent) for details of storage requirements for specific items of PPE.

Maintenance

Proper care and maintenance is essential to ensure PPE continues to provide the necessary level of protection.

- Look for broken or damaged components before using PPE and repair or replace it as needed
- Replace PPE that has expired or reached its usable lifespan
- Clean reusable PPE after use and store in a clean area such as a cupboard, drawer or resealable container
- Report broken, damaged or contaminated PPE.

Maintain PPE in a condition that ensures its continued effective operation. (Refer to the relevant Australian Standard (or overseas equivalent) for details of maintenance requirements for specific items of personal protective equipment.)

Institute a program to ensure that your PPE is being properly maintained.

As part of the maintenance program, determine and record:

- maintenance duties and responsibilities;
- designation of personnel;
- storage procedures;
- cleaning procedures;
- checking procedures;
- information about the duration of protection
- from gloves, respiratory canisters, etc; and
- criteria for replacement.

SHARING PPE

Most PPE is provided for the personal use of a worker. However, PPE may be shared in some circumstances, for example where PPE is only required for limited periods.

Shared PPE must be properly cleaned and disinfected before it is used again to ensure there are no health risks to the next person. Refer to the manufacturer's instructions for appropriate methods.

A PERSONAL PROTECTIVE EQUIPMENT PLAN

If PPE is to be used to minimise exposure to a risk, develop a specific personal protective equipment plan.

As part of this plan, determine and record:

- the basis for selecting each specific type of equipment used in the workplace;
- necessary medical data, such as the results of individual hearing tests undertaken prior to and periodically during exposure to noise;
- worker training required in relation to specified personal protective equipment used;
- exclusive use of personal protective equipment by workers, where relevant;
- fitting requirements for individual items of personal protective equipment;
- cleaning and disinfecting requirements of the personal protective equipment;
- storage requirements of the equipment;
- maintenance and/or replacement requirements.

The personal protective equipment plan should allow for periodic assessments to ensure that the equipment is being properly used and is effective. Such assessments may be part of a regular review of the plan itself.

AUSTRALIAN STANDARDS

Manufacturer's Standards

Employers should ensure that items of PPE provided to workers and others should be manufactured to the following appropriate Australian Standards:

- A.S. 1270 Acoustics – hearing protection
- A.S. 1337 Eye protectors for industrial applications
- A.S. 1338 Filters for eye protection
 - Part 1 Filters for protection against radiation
 - Part 2 Filters for protection against ultraviolet radiation
 - Part 3 Filters for protection against infra-red radiation
- A.S. 1558 Protective clothing for welders
- A.S. 1716 Respiratory protective devices
- A.S. 1801 Industrial safety helmets Version 2.1

- A.S. 1891 Industrial safety belts and harnesses
 - A.S. 2161 Industrial safety glove and mittens (excluding electrical and medical gloves)
- A.S. 2210 Safety footwear
- A.S. 2225 Rubber gloves for electrical purposes

Standards for the Selection of PPE

A PCBU should ensure that items of PPE provided to workers and others should be selected to the following Australian Standards:

- A.S. 1067 Sunglasses and fashion spectacles – Non-prescription type
- A.S. 1336 Recommended practices for eye protection in the industrial environment
- A.S. 1715 Selection, use and maintenance of respiratory protective devices
- A.S. 1800 The selection, care and use of industrial safety helmets
- A.S. 2161 Industrial safety gloves and mittens (excluding electrical and medical gloves)
- A.S. 2210 Safety footwear
- A.S. 2375 Guide to the selection, care and use of clothing for protection against heat and fire
- A.S. 2436 Guide to noise control on construction, maintenance and demolition sites
- A.S. 2626 Industrial safety belts and harnesses – selection, use and maintenance

Where relevant Australian Standards do not exist, compliance may be with another relevant British, American or European standard.

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