



SELECTION OF PERSONAL PROTECTIVE EQUIPMENT

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SELECTION OF PERSONAL PROTECTIVE EQUIPMENT

As part of a programme of harmonisation of industry standards, the European Industrial Gases Association (EIGA) has issued the publication EIGA Doc 136, *Selection of Personal Protective Equipment*. This has been jointly produced by members of the International Harmonisation Council.

This publication is intended as an international harmonised publication for the worldwide use and application by all members of Asia Industrial Gases Association (AIGA), Compressed Gas Association (CGA), EIGA, and Japan Industrial and Medical Gases Association (JIMGA). Regional editions have the same technical content as the EIGA edition, however, there are editorial changes primarily in formatting, units used and spelling. Also, any references to regional regulatory requirements are those that apply to European requirements.

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Amendments to 136/17

Section	Change
All	No changes made; latest edition reissued after IHC decision

Note: Technical changes from the previous edition are underlined

1 Introduction

The first principle of safety risk mitigation should be elimination, substitution, and engineering controls. When exposure to hazards cannot be completely engineered out from the work area and tasks, and when safe work practices and other forms of administrative controls cannot provide sufficient additional protection, then a supplementary method of control is the use of personal protective equipment (PPE).

Also, the potential to reduce time and frequency of exposure of workers to health and safety risks should be evaluated.

This publication provides guidance on a work process for selecting and using PPE at work. Selection tables are included which are general examples of PPE for protecting personnel against hazards that could cause harm.

The information in the selection tables should not be used without giving due consideration to the prevailing work area and environmental conditions by means of specific task based risk assessments.

2 Scope and purpose

The publication is intended to provide guidance and examples in selection and use of PPE. It supplements other techniques for assessing and controlling risk.

This publication is not intended to replace the need for conducting a task specific risk assessment or to provide details on other administrative or management program elements that can be associated with the proper use of certain types of PPE.

Regulatory bodies may have jurisdiction and influence PPE selection and use.

This publication does not address portable devices for detecting and signalling risks.

3 Definitions

3.1 Publication terminology

3.1.1 Shall

Indicates that the procedure is mandatory. It is used wherever the criterion for conformance to specific recommendations allows no deviation.

3.1.2 Should

Indicates that a procedure is recommended.

3.1.3 May

Indicates that the procedure is optional.

3.1.4 Will

Is used only to indicate the future, not a degree of requirement.

3.1.5 Can

Indicates a possibility or ability.

3.2 Technical definition

3.2.1 Personal protective equipment (PPE)

All equipment designed to be worn or held by workers to protect them against one or more hazards likely to endanger their safety and health at work, and any addition or accessory designed to meet this objective.

NOTE—PPE includes working clothes and uniforms specifically designed to protect the safety and health of the worker.

4 General Requirements

4.1 Responsibilities

Management is responsible for determining the PPE needs of personnel, contractors, and visitors at facilities within their responsibility in accordance with the laws and regulations applicable to the location in which the PPE is being used.

In respect of contractors, management shall determine minimum levels of PPE required; however, specific requirements shall be determined by task-based assessment.

When necessary, management should ask for support from technical and safety experts or from medical experts in order to assess the medical fitness of employees before selecting the appropriate PPE.

4.2 Risk assessments for selecting personal protective equipment

Risk assessments shall be conducted and documented in each work area to assess the risks related to the process, relevant tasks and activities associated with the work area. Risk assessments should be reviewed when changes are made or following accidents or incidents in a work area that could impact PPE selection.

When undertaking risk assessments, the following steps are recommended:

- a) Involve the user representatives in the risk assessment process;
- b) Assess the residual risks associated with specific work areas and tasks to determine the need for PPE; and
- c) Select the PPE that matches the relevant risk. Ensure relevant regulations codes, standards, and PPE specifications are reviewed [1].¹

4.3 Maintenance of personal protective equipment

PPE shall be checked for defects before each use and shall be regularly cleaned, maintained, and repaired (unless disposable) in accordance with the manufacturer's instructions or replaced.

Records of maintenance of PPE shall be kept where required.

¹ References are shown by bracketed numbers and are listed in order of appearance in the reference section.

4.4 Storage

Storage methods shall be in accordance with the manufacturer's instructions. In some cases, specific storage receptacles for PPE not in use can be required to keep PPE clean or to prevent contamination or deterioration.

4.5 Training

Personnel required to use PPE shall be trained in the following areas before first use:

- The hazards the selected PPE is being used to protect against;
- The reason for the PPE selection (what, when and where to use it);
- How to use the selected PPE (e.g., how to put it on, fit, adjust and remove);
- The selected PPEs capabilities and limitations to provide protection; and
- Checks required before PPE's use;
- PPEs proper care, maintenance, useful service life, and disposal.

Some types of PPE, for example supplied air respirator, can require more specialised training, including periodic retraining or medical evaluation.

Use of PPE by personnel shall be monitored and any misuse corrected and recorded.

4.6 Personnel

Personnel have a duty to use PPE as instructed and store it appropriately when not in use. Defects or loss shall be reported and the PPE promptly repaired or replaced.

4.7 Records

Records of PPE maintenance, risk assessments and training shall be kept by the employer. Issue of PPE shall be recorded if required by local regulations.

4.8 Identification of areas where personal protective equipment is required

Working areas on-site where specific PPE is required shall be clearly identified (e.g., "Hearing Protection Required in This Area" signs).

5 Personal protective equipment assessments, selection, and specifications

When performing a risk assessment, review work areas and tasks for general and specific sources of hazards such as:

- sources of motion; e.g., vehicle movements (fork lift trucks, delivery vehicles), machinery or processes where any movement of tools, machine elements, or particles could exist, or movement of personnel that could result in collision with stationary objects;
- sources of high and low temperatures that could result in burns, frostbite, or eye injury;
- types of chemical exposures including risk of oxygen deficiency or enrichment;
- sources of harmful dust;
- sources of light radiation, e.g., welding, brazing, cutting, furnaces, heat treating, high intensity lights, lasers, etc.;
- sources of falling objects or potential for dropping objects;
- sources of sharp objects which could pierce the feet or cut the hands;
- sources of rolling or pinching objects which could crush body parts;
- layout of workplace including working at height;