



Council Directive:

89/686/EEC  
**Personal Protective Equipment**  
December 1989

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# COUNCIL DIRECTIVE

of 21 December 1989

on the approximation of the laws of the Member States relating to personal protective equipment  
(89/686/EEC)

## **THE COUNCIL OF THE EUROPEAN COMMUNITIES,**

Having regard to the Treaty establishing the European Economic Community, and in particular Article 100a thereof,

Having regard to the proposal from the Commission (1),

In cooperation with the European Parliament (2),

Having regard to the opinion of the Economic and Social Committee (3),

**Whereas** it is necessary to adopt measures with the aim of progressively establishing the internal market over a period expiring on 31 December 1992; whereas the internal market comprises an area without internal frontiers in which the free movement of goods, persons, services and capital is guaranteed;

Whereas various Member States have, over recent years, adopted provisions covering numerous items of personal protective equipment with a view in particular to safeguarding public health, improving safety at work and ensuring user protection;

Whereas these national provisions are often very detailed as regards the requirements relating to the design, manufacture, quality level, testing and certification of personal protective equipment with a view to the protection of individuals against injury and illness;

Whereas, in particular, the national provisions relating to safety at work make the use of personal protective equipment compulsory; whereas many requirements oblige employers to make appropriate personal protective equipment available to their staff in the absence or inadequacy of priority public protection measures;

Whereas national provisions relating to personal protective equipment differ significantly from one Member State to another; whereas they may thus constitute a barrier to trade with direct consequences for the creation and operation of the common market;

Whereas it is necessary to harmonize these different national provisions in order to ensure the free movement of these products, without in any way reducing the valid levels of protection already required in the Member States, and to provide for any necessary increase therein;

Whereas the provisions governing the design and manufacture of personal protective equipment laid down in this Directive which are fundamental, in particular, to attempts to ensure a safer working environment are without prejudice to provisions relating to the use of such equipment and the organization of the health and safety of workers at the workplace;

Whereas this Directive defines only the basic requirements to be satisfied by personal protective equipment; whereas, in order to facilitate proof of conformity with those basic requirements, it is essential that harmonized European standards be available relating, in particular, to the design and manufacture of, and the specifications and test methods applicable to, personal protective equipment, since compliance therewith confers on these products a presumption of conformity with the above-mentioned basic requirements; whereas such harmonized European standards are drawn up by private bodies and

must retain the status of non-mandatory texts; whereas, to this end, the European Committee for Standardization (CEN) and the European Committee for Electrotechnical Standardization (Cenelec) are the competent bodies which have been authorized to adopt harmonized standards in accordance with the general guidelines governing cooperation between the Commission and those two institutions ratified on 13 November 1984; whereas, for the purposes of this Directive, a harmonized standard is a text containing technical specifications (a European standard or a harmonization document) which has been adopted by one or both of the above-mentioned bodies at the instigation of the Commission in accordance with Council Directive 83/189/EEC of 28 March 1983 laying down a procedure for the provision of information in the field of technical standards and regulations (1), as amended by Directive 88/182/EEC (2), and pursuant to the abovementioned general guidelines;

Whereas, pending the adoption of harmonized standards, which will be very numerous because of the broad scope of application and the preparation of which within the deadline set for the creation of the internal market will involve a great deal of work, it would be advisable to maintain, on a transitional basis and subject to the requirements of the Treaty, the status quo as regards conformity with existing national standards for personal protective equipment not covered by a harmonized standard at the date of adoption of this Directive;

Whereas, given the general and horizontal nature of the role played by the Standing Committee set up pursuant to Article 5 of Directive 83/189/EEC in Community standardization policy and, more particularly, its part in the preparation of standardization applications and the operation of the existing European standardization agreements, this Standing Committee is especially suited to the task of assisting the Commission in monitoring the conformity of harmonized standards throughout the Community;

Whereas compliance with these technical requirements must be monitored in order to ensure adequate user and third-party protection; whereas existing monitoring procedures may differ appreciably from one Member State to another; whereas, in order to avoid numerous checks which merely impede the free movement of personal protective equipment, provision should be made for the mutual recognition of inspections conducted by the Member States; whereas, in order to facilitate such recognition, it is necessary, in particular, to lay down harmonized Community procedures and to harmonize the criteria to be taken into account in selecting the bodies responsible for examination, monitoring and verification;

Whereas the legislative framework should be improved so that both sides of industry will make an effective and appropriate contribution to the process of standardization,

**HAS ADOPTED THIS DIRECTIVE:**

## **CHAPTER I**

### ***SCOPE, PLACING ON THE MARKET AND FREE MOVEMENT***

#### **Article 1**

1. This Directive applies to personal protective equipment, hereinafter referred to as 'PPE'. It lays down the conditions governing its placing on the market and free movement within the Community and the basic safety requirements which PPE must satisfy in order to ensure the health protection and safety of users.

2. For the purposes of this Directive, PPE shall mean any device or appliance designed to be worn or held by an individual for protection against one or more health and safety hazards PPE shall also cover:

- a unit constituted by several devices or appliances which have been integrally combined by the manufacturer for the protection of an individual against one or more potentially simultaneous risks;
- a protective device or appliance combined, separably or inseparably, with personal non-protective equipment worn or held by an individual for the execution of a specific activity;

- interchangeable PPE components which are essential to its satisfactory functioning and used exclusively for such equipment.

3. Any system placed on the market in conjunction with PPE for its connection to another external, additional device shall be regarded as an integral part of that equipment even if the system is not intended to be worn or held permanently by the user for the entire period of risk exposure.

4. This Directive does not apply to:

- PPE covered by another directive designed to achieve the same objectives as this Directive with regard to placing on the market, free movement of goods and safety,
- the PPE classes specified in the list of excluded products in Annex I, independently of the reason for exclusion mentioned in the first indent.

## **Article 2**

1. Member States shall take all appropriate measures to ensure that the PPE referred to in Article 1 may be placed on the market and brought into service only if it preserves the health and ensures the safety of users without prejudice to the health or safety of other individuals, domestic animals or goods, when properly maintained and used for its intended purpose.

2. This Directive shall be without prejudice to the right of Member States to lay down — in conformity with the Treaty — any requirements which they consider necessary to ensure user protection, provided that this does not give rise to modifications to PPE which could result in its non-conformity with the provisions of this Directive.

3. Member States shall not prevent the presentation at trade fairs, exhibitions and the like of PPE which is not in conformity with the provisions of this Directive, provided that an appropriate notice is displayed drawing attention to this fact and the prohibition on its acquisition and/or use for any purpose whatsoever until it has been brought into conformity by the manufacturer or his representative established in the Community.

## **Article 3**

The PPE referred to in Article 1 must satisfy the basic health and safety requirements laid down in Annex II.

## **Article 4**

1. Member States may not prohibit, restrict or hinder the placing on the market of PPE or PPE components which comply with the provisions of this Directive and which bear the CE marking attesting their conformity to all the provisions of this Directive, including the certification procedures in Chapter II.

2. Member States shall not prohibit, restrict or impede the placing on the market of PPE components which do not bear the CE marking and which are intended to be incorporated in PPE, provided that they are not essential to its satisfactory functioning.

## **Article 5**

1. Member States shall regard as in conformity with the basic requirements referred to in Article 3 the PPE referred to in Article 8 (3) bearing the CE marking with respect to which the manufacturer is able to produce, on demand, the declaration of conformity referred to in Article 12.

2. Member States shall presume that the PPE referred to in Article 8 (2) satisfies the basic requirements referred to in Article 3 if it bears the CE marking with respect to which the manufacturer is able to produce, on demand, not only the declaration referred to in Article 12 but also the certificate issued by the body of which notification has been given in accordance with Article 9 attesting to their conformity to the

relevant national standards, transposing the harmonized standards, assessed at the EC type examination level in accordance with the first indent of Article 10 (4) (a) and (b). Where a manufacturer has not applied or has only partly applied the harmonized standards or where there are no such standards the certificate issued by the body of which notification has been given must state the conformity to the basic requirements in accordance with the second indent of Article 10 (4) (a) and (b).

4. The Commission shall publish the references of the harmonized standards in the Official Journal of the European Communities. Member States shall publish the references of the national standards transposing the harmonized standards.

5. Member States shall ensure that by 30 June 1991 appropriate steps are taken to enable both sides of industry to have an influence at national level on the process of formulating the harmonized standards and keeping them under review.

6. (a) Where the PPE is subject to other Directives concerning other aspects and which also provide for the affixing of the CE marking, the latter shall indicate that the PPE is also presumed to conform to the provisions of the other Directives.

(b) However, where one or more of these Directives allow the manufacturer, during a transitional period, to choose which arrangements to apply, the CE marking shall indicate conformity to the provisions only of those Directives applied by the manufacturer. In this case, particulars of the Directives applied, as published in the Official Journal of the European Communities, must be given in the documents, notices or instructions required by the Directives and accompanying such PPE.

## **Article 6**

1. Should a Member State or the Commission consider that the harmonized standards referred to in Article 5 do not completely satisfy the relevant basic requirements referred to in Article 3, the Commission or the Member State concerned shall refer the matter to the committee created pursuant to Directive 83/189/EEC (1), setting out its reasons.

The committee shall deliver an opinion without delay.

In the light of the committee's opinion, the Commission shall notify Member States of whether or not it is necessary to withdraw the standards concerned from publications made pursuant to Article 5.

(1) OJ NoL 109, 26. 4. 1983, p. 8.

2. The Standing Committee set up by Article 6 (2) of Directive 89/392/EEC (1) may be apprised, in accordance with the procedure described below, of any matter to which the implementation and practical application of this Directive give rise.

The representative of the Commission shall submit to the committee a draft of the measures to be taken.

The committee shall deliver its opinion on the draft, within a time limit which the chairman may lay down according to the urgency of the matter, if necessary by taking a vote.

The opinion shall be recorded in the minutes; in addition, each Member State shall have the right to ask to have its position recorded in the minutes.

The Commission shall take the utmost account of the opinion delivered by the committee. It shall inform the committee of the manner in which its opinion has been taken into account.

## **Article 7**

1. If a Member State discovers that PPE bearing the CE marking and used in accordance with its intended purpose could compromise the safety of individuals, domestic animals or property, it shall take all necessary measures to remove that equipment from the market and prohibit the marketing or free movement thereof.

The Member State concerned shall immediately inform the Commission of such action, indicating the reasons for its decision and, in particular, stating whether non-conformity is due to:

- failure to comply with the basic requirements referred to in Article 3;
- the unsatisfactory application of the standards referred to in Article 5;
- a shortcoming in the standards referred to in Article 5.

2. The Commission shall initiate discussions with the parties concerned as soon as possible. If, after such consultation, the Commission decides that the action taken was justified, it shall immediately inform the Member State concerned and all the other Member States to that effect. If, after such consultation, the Commission decides that the action taken was not justified, it shall immediately inform the Member State concerned and the manufacturer or his authorized representative established in the Community to that effect. If the decision referred to in paragraph 1 is in response to a shortcoming in the standards, the Commission shall refer the matter to the Committee referred to in Article 6 (1) if the Member State concerned intends to adhere to its decision and shall initiate the procedure referred to in Article 6 (2).

3. If PPE which is not in conformity with the relevant requirements bears the CE marking, the Member State concerned shall take the appropriate measures with regard to those responsible for affixing the mark and shall inform the Commission and the other Member States accordingly.

4. The Commission shall ensure that the Member States are kept informed of the progress and results of the procedure provided for in this Article.

(1) OJ NoL 183, 29. 6. 1989, p. 9.

## **CHAPTER II**

### ***CERTIFICATION PROCEDURES***

#### **Article 8**

1. Before placing a PPE model on the market, the manufacturer or his authorized representative established in the Community shall assemble the technical documentation referred to in Annex III so that this can, if necessary, be submitted to the competent authorities.

2. Prior to the series production of PPE other than those referred to in paragraph 3, the manufacturer or his authorized representative established in the Community shall submit a model for EC type-examination as referred to in Article 10.

3. EC type-examination shall not be required in the case of PPE models of simple design where the designer assumes the user can himself assess the level of protection provided against the minimal risks concerned the effects of which, when they are gradual, can be safely identified by the user in good time. This category shall cover exclusively PPE intended to protect the wearer against:

- mechanical action whose effects are superficial (gardening gloves, thimbles, etc.),
- cleaning materials of weak action and easily reversible effects (gloves affording protection against diluted detergent solutions, etc.),
- risks encountered in the handling of hot components which do not expose the user to a temperature exceeding 50 °C or to dangerous impacts (gloves, aprons for professional use, etc.),
- atmospheric agents of a neither exceptional nor extreme nature (headgear, seasonal clothing, footwear, etc.),
- minor impacts and vibrations which do not affect vital areas of the body and whose effects cannot cause irreversible lesions (light anti-scalping helmets, gloves, light footwear, etc.),
- sunlight (sunglasses).

4. Production of PPE shall be subject:

(a) according to the manufacturer's choice, to one of the two procedures referred to in Article 11 in the case of PPE of complex design intended to protect against mortal danger or against dangers that may seriously and irreversibly harm the health, the immediate effects of which the designer assumes the user cannot identify in sufficient time. This category shall cover exclusively:

- filtering respiratory devices for protection against solid and liquid aerosols or irritant, dangerous, toxic or radiotoxic gases,

- respiratory protection devices providing full insulation from the atmosphere, including those for use in diving,
- PPE providing only limited protection against chemical attack or against ionizing radiation,
- emergency equipment for use in high-temperature environments the effects of which are comparable to those of an air temperature of 100 °C or more and which may or may not be characterized by the presence of infra-red radiation, flames or the projection of large amounts of molten material,
- emergency equipment for use in low-temperature environments the effects of which are comparable to those of an air temperature of -50 °C or less,
- PPE to protect against falls from a height,
- PPE against electrical risks and dangerous voltages or that used as insulation in high-tension work,

(b) the EC declaration of conformity referred to in Article 12 for all PPE.

## **Article 9**

1. Member States shall notify the Commission and the other Member States of the bodies which they have appointed to carry out the procedures referred to in Article 8 together with the specific tasks which these bodies have been appointed to carry out and the identification numbers assigned to them beforehand by the Commission.

The Commission shall publish in the Official Journal of the European Communities a list of the notified bodies and their identification numbers and the tasks for which they have been notified. The Commission shall ensure that this list is kept up to date.

2. Member States shall apply the criteria laid down in Annex V in assessing the bodies to be indicated in such notification. Bodies meeting the assessment criteria laid down in the relevant harmonized standards shall be presumed to fulfill those criteria.

3. A Member State shall withdraw its approval from such a body if it establishes that the latter no longer satisfies the criteria referred to in Annex V. It shall inform the Commission and the other Member States of its action forthwith.

## ***EC TYPE-EXAMINATION***

## **Article 10**

1. EC type-examination is the procedure whereby the approved inspection body establishes and certifies that the PPE model in question satisfies the relevant provisions of this Directive.

2. Application for EC type-examination shall be made by the manufacturer or his authorized representative to a single approved inspection body in respect of the model in question. The authorized representative shall be established in the Community.

3. The application shall comprise:

- the name and address of the manufacturer or his authorized representative and of the PPE production plant in question,
- the manufacturer's technical file referred to in Annex III.

It shall be accompanied by the appropriate number of specimens of the model to be approved.

4. The inspection body of which notification has been given shall conduct the EC type-examination in accordance with the under-mentioned procedures:

(a) Examination of the manufacturer's technical file

- It shall examine the manufacturer's technical file to establish its suitability with respect to the harmonized standards referred to in Article 5.
- Where a manufacturer has not applied, or has only partly applied, the harmonized standards or where there are no such standards, the body of which notification has been given must check

the suitability of the technical specifications used by the manufacturer with respect to the basic requirements before examining the manufacturer's technical file to establish its suitability with respect to these technical specifications.

(b) Examination of the model

- When examining the model, the inspection body shall verify that it has been produced in accordance with the manufacturer's technical file and can be used in complete safety for its intended purpose.
- It shall conduct the necessary examinations and tests to establish the conformity of the model with the harmonized standards.
- Where a manufacturer has not applied or has only partly applied the harmonized standards or where there are no such standards the body of which notification has been given shall conduct the necessary examinations and tests to establish the conformity of the model with the technical specifications used by the manufacturer, subject to their being suitable with respect to these basic requirements.

5. If the model satisfies the relevant provisions, the inspection body shall draw up an EC type-examination certificate and shall notify the applicant to this effect. This certificate shall reproduce the findings of the examination, indicate any conditions attaching to its issue and incorporate the descriptions and drawings necessary for the identification of the approved model.

The Commission, the other approved inspection bodies and the other Member States may obtain a copy of the certificate and, in response to a reasoned request, a copy of the manufacturer's technical file and the reports of the examinations and tests conducted.

The file shall be held at the disposal of the competent authorities for 10 years following the placing of the PPE on the market.

6. Any inspection body which refuses to issue an EC type-examination certificate shall inform the other approved inspection bodies of this fact. An inspection body withdrawing an EC type-examination certificate shall inform the Member State which approved it, to this effect. That Member State shall then inform the other Member States and the Commission, setting out the reasons for the decision.

## ***CHECKING OF PPE MANUFACTURED***

### **Article 11**

#### **A. 'EC' quality control system for the final product**

1. A manufacturer shall take all steps necessary to ensure that the manufacturing process, including the final inspection of PPE and tests, ensures the homogeneity of production and the conformity of PPE with the type described in the EC type-approval certificate and with the relevant basic requirements of this Directive.

2. A body of which notification has been given, chosen by a manufacturer, shall carry out the necessary checks. Those checks shall be carried out at random, normally at intervals of at least one year.

3. An adequate sample of PPE taken by the body of which notification has been given shall be examined and appropriate tests defined in the harmonized standards or necessary to show conformity to the basic requirements of this Directive shall be carried out to check the conformity of PPE.

4. Where a body is not the body that issued the relevant EC type approval certificate it shall contact the body of which notification has been given in the event of difficulties in connection with the assessment of the conformity of samples.

5. The body of which notification has been given shall provide the manufacturer with a test report. If the report concludes that production is not homogeneous or that the PPE examined do not conform to the type described in the EC type-approval certificate or the relevant basic requirements, the body shall take measures appropriate to the nature of the fault or faults recorded and inform the Member State which gave notification thereof accordingly.



6. The manufacturer must be able to present, on request, the report of the body of which notification has been given.

## B. System for ensuring EC quality of production by means of monitoring

### 1. The system

(a) Under this procedure the manufacturer submits an application for the approval of his quality-control system to a body of which notification has been given, of his choice.

That application shall include:

- all the information relating to the category of PPE concerned, including, where appropriate, documentation relating to the model approved,
- documentation on the quality-control system,
- the undertaking to maintain the obligations arising from the quality-control system and to maintain its adequacy and efficiency.

(b) Under the quality-control system, each PPE shall be examined and the appropriate tests referred to in Section A paragraph 3 shall be carried out to check their conformity to the relevant basic requirements of this Directive.

The documentation on the quality-control system shall in particular include an adequate description of:

- the quality objectives, the organization chart, the responsibilities of executives and their powers in respect of product quality,
- the checks and tests which must be carried out after manufacture,
- the means to be employed to check the efficient operation of the quality-control system.

(c) The body shall assess the quality-control system to determine whether it satisfies the provisions referred to in paragraph 1 (b). It shall assume that quality-control systems applying the relevant harmonized standard satisfy those provisions.

The body carrying out audits shall make all necessary objective evaluations of the components of the quality-control system and shall check in particular whether the system ensures conformity of PPE manufactured with the approved model.

The decision shall be communicated to the manufacturer. It shall include the conclusions of the check and the reasoned assessment decision.

(d) The manufacturer shall inform the body which approved the quality-control system of any plan to alter the quality-control system.

The body shall examine the proposed changes and decide whether the altered quality-control system satisfies the relevant provisions. It shall communicate its decision to the manufacturer. The communication shall include the conclusions of the check and the reasoned assessment decision.

### 2. Supervision

(a) The purpose of supervision is to ensure that a manufacturer correctly fulfils the obligations arising from the approved quality control system.

(b) The manufacturer shall authorize the body to have access, for purposes of inspection, to PPE inspection, testing and storage sites and shall provide the body with all requisite information, in particular: documentation on the quality-control system, technical documentation, quality control manuals.

(c) The body shall periodically carry out audits to ensure that the manufacturer is maintaining and applying the approved quality control system and shall provide the manufacturer with a copy of the audit report.

(d) In addition, the body may make unannounced visits to the manufacturer. In the course of such visits the body shall provide the manufacturer with a report of the visit and, if appropriate, with an audit report.

(e) The manufacturer must be able to present, on request, the report of the body of which notification has been given.

## ***EC DECLARATION OF PRODUCTION CONFORMITY***

### **Article 12**

The EC declaration of conformity is the procedure whereby the manufacturer or his authorized representative established within the Community

1. draws up a declaration using the form laid down in Annex VI certifying that the PPE placed on the market are in conformity with the provisions of this Directive with a view to its submission to the competent authorities;
2. affixes the CE marking of conformity provided for by Article 13 to each PPE.

## **CHAPTER III**

### ***CE MARKING***

#### **Article 13**

1. The CE conformity marking shall consist of the initials 'CE' in the form shown in the specimen in Annex IV. In the event of the involvement of a notified body in the production control phase as indicated in Article 11, its identification number shall be added.
2. The CE marking must be affixed to each piece of manufactured PPE so as to be visible, legible and indelible throughout the expected life of the PPE; however, if this is not possible in view of the characteristics of the product, the CE marking may be affixed to the packaging.
3. The affixing of markings on the PPE which are likely to deceive third parties as to the meaning and form of the CE marking shall be prohibited. Any other marking may be affixed to the PPE or its packaging provided that the visibility and legibility of the CE marking is not thereby reduced.
4. Without prejudice to Article 7:
  - (a) where a Member State establishes that the CE marking has been affixed unduly, the manufacturer or his authorized representative established within the Community shall be obliged to make the product conform as regards the provisions concerning the CE marking and to end the infringement under the conditions imposed by the Member State;
  - (b) where non-conformity continues, the Member State must take all appropriate measures to restrict or prohibit the placing on the market of the product in question or to ensure that it is withdrawn from the market in accordance with the procedures laid down in Article 7.

## **CHAPTER IV**

### ***FINAL PROVISIONS***

#### **Article 14**

Any decision taken in implementation of this Directive and leading to restrictions on the marketing of PPE shall be accompanied by a detailed explanation of the grounds on which it is based. The interested party shall be notified of the decision without delay and informed of the possibilities for appeal under the legislation in force in the Member State concerned and of the deadlines for lodging such appeals.

#### **Article 15**

The Commission shall take the necessary steps to ensure that data concerning all the relevant decisions in connection with the management of this Directive are made available.

## **Article 16**

1. Before 31 December 1991, Member States shall adopt and publish the laws, regulations and administrative provisions necessary in order to comply with this Directive. They shall forthwith inform the Commission thereof.

They shall apply the measures in question with effect from 1 July 1992.

2. Furthermore, Member States shall allow, for the period until 30 June 1995, the placing on the market and putting into service on PPE in conformity with the national regulations in force in their territory on 30 June 1992.

3. Member States shall communicate to the Commission the texts of the provisions of national law which they adopt in the field governed by this Directive.

## **Article 17**

This Directive is addressed to the Member States.

## **ANNEX I**

### ***EXHAUSTIVE LIST OF PPE CLASSES NOT COVERED BY THIS DIRECTIVE***

1. PPE designed and manufactured specifically for use by the armed forces or in the maintenance of law and order (helmets, shields, etc.).
2. PPE for self-defence (aerosol canisters, personal deterrent weapons, etc.).
3. PPE designed and manufactured for private use against:
  - adverse atmospheric conditions (headgear, seasonal clothing, footwear, umbrellas, etc.),
  - damp and water (dish-washing gloves, etc.),
  - heat (gloves, etc.).
4. PPE intended for the protection or rescue of persons on vessels or aircraft, not worn all the time.
5. Helmets and visors intended for users of two- or three-wheeled motor vehicles.

## **ANNEX II**

### ***BASIC HEALTH AND SAFETY REQUIREMENTS***

#### **1. GENERAL REQUIREMENTS APPLICABLE TO ALL PPE**

PPE must provide adequate protection against all risks encountered.

##### **1.1. Design principles**

###### **1.1.1. Ergonomics**

PPE must be so designed and manufactured that in the foreseeable conditions of use for which it is intended the user can perform the risk-related activity normally whilst enjoying appropriate protection of the highest possible level.

###### **1.1.2. Levels and classes of protection**

###### **1.1.2.1. Highest level of protection possible**

The optimum level of protection to be taken into account in the design is that beyond which the constraints imposed by the wearing of the PPE would prevent its effective use during the period of exposure to the risk or normal performance of the activity.

#### **1.1.2.2. Classes of protection appropriate to different levels of risk**

Where differing foreseeable conditions of use are such that several levels of the same risk can be distinguished, appropriate classes of protection must be taken into account in the design of the PPE.

### **1.2. Innocuousness of PPE**

#### **1.2.1. Absence of risks and other 'inherent' nuisance factors**

PPE must be so designed and manufactured as to preclude risks and other nuisance factors under foreseeable conditions of use.

##### **1.2.1.1. Suitable constituent materials**

PPE materials and parts, including any of their decomposition products, must not adversely affect user hygiene or health.

##### **1.2.1.2. Satisfactory surface condition of all PPE parts in contact with the user**

Any PPE part in contact or in potential contact with the user when such equipment is worn must be free of roughness, sharp edges, projections and the like which could cause excessive irritation or injuries.

##### **1.2.1.3. Maximum permissible user impediment**

Any impediment caused by PPE to movements to be made, postures to be adopted and sensory perception must be minimized; nor must PPE cause movements which endanger the user or other persons.

### **1.3. Comfort and efficiency**

#### **1.3.1. Adaptation of PPE to user morphology**

PPE must be so designed and manufactured as to facilitate correct positioning on the user and to remain in place for the foreseeable period of use, bearing in mind ambient factors, movements to be made and postures to be adopted. For this purpose, it must be possible to optimize PPE adaptation to user morphology by all appropriate means, such as adequate adjustment and attachment systems or the provision of an adequate size range.

#### **1.3.2. Lightness and design strength**

PPE must be as light as possible without prejudicing design strength and efficiency. Apart from the specific additional requirements which they must satisfy in order to provide adequate protection against the risks in question (see 3), PPE must be capable of withstanding the effects of ambient phenomena inherent under the foreseeable conditions of use.

#### **1.3.3. Compatibility of different classes or types of PPE designed for simultaneous use**

If the same manufacturer markets several PPE models of different classes or types in order to ensure the simultaneous protection of adjacent parts of the body against combined risks, these must be compatible.

### **1.4. Information supplied by the manufacturer**

In addition to the name and address of the manufacturer and/or his authorized representative established in the Community, the notes that must be drawn up by the former and supplied when PPE is placed on the market must contain all relevant information on:

- storage, use, cleaning, maintenance, servicing and disinfection.
- Cleaning, maintenance or disinfectant products recommended by manufacturers must have no adverse effect on PPE or users when applied in accordance with the relevant instructions;
- performance as recorded during technical tests to check the levels or classes of protection provided by the PPE in question;
- suitable PPE accessories and the characteristics of appropriate spare parts;
- the classes of protection appropriate to different levels of risk and the corresponding limits of use;
- the obsolescence deadline or period of obsolescence of PPE or certain of its components;

- the type of packaging suitable for transport;
- the significance of any markings (see 2.12).
- where appropriate, the references of the Directives applied in accordance with Article 5 (6) (b);
- the name, address and identification number of the notified body involved in the design stage of the PPE.

These notes, which must be precise and comprehensible, must be provided at least in the official language(s) of the Member State of destination.

## **2. ADDITIONAL REQUIREMENTS COMMON TO SEVERAL CLASSES OR TYPES OF PPE**

### **2.1. PPE incorporating adjustment systems**

If PPE incorporates adjustment systems, the latter must be so designed and manufactured as not to become incorrectly adjusted without the user's knowledge under the foreseeable conditions of use.

### **2.2. PPE 'enclosing' the parts of the body to be protected**

As far as possible, PPE 'enclosing' the parts of the body to be protected must be sufficiently ventilated to limit perspiration resulting from use; if this is not the case, it must if possible be equipped with devices which absorb perspiration.

### **2.3. PPE for the face, eyes and respiratory tracts**

Any restriction of the user's field of vision or sight by PPE for the face, eyes or respiratory tract must be minimized.

The degree of optical neutrality of the vision systems of these PPE classes must be compatible with the type of relatively meticulous and/or prolonged activities of the user.

If necessary, they must be treated or provided with facilities to prevent moisture formation.

PPE models intended for users requiring sight correction must be compatible with the wearing of spectacles or contact lenses.

### **2.4. PPE subject to ageing**

If it is known that the design performances of new PPE may be significantly affected by ageing, the date of manufacture and/or, if possible, the date of obsolescence, must be indelibly inscribed on every PPE item or interchangeable component placed on the market in such a way as to preclude any misinterpretation; this information must also be indelibly inscribed on the packaging. If a manufacturer is unable to give an undertaking with regard to the useful life of PPE, his notes must provide all the information necessary to enable the purchaser or user to establish a reasonable obsolescence date, bearing in mind the quality level of the model and the effective conditions of storage, use, cleaning, servicing and maintenance.

Where appreciable and rapid deterioration in PPE performance is likely to be caused by ageing resulting from the periodic use of a cleaning process recommended by the manufacturer, the latter must, if possible, affix a mark to each item of PPE placed on the market indicating the maximum number of cleaning operations that may be carried out before the equipment needs to be inspected or discarded; failing that, the manufacturer must give this information in his notes.

### **2.5. PPE which may be caught up during use**

Where the foreseeable conditions of use include in particular the risk of the PPE being caught up by a moving object thereby creating a danger for the user, the PPE must possess an appropriate resistance threshold above which a constituent part will break and eliminate the danger.

### **2.6. PPE for use in explosive atmospheres**

PPE intended for use in explosive atmospheres must be so designed and manufactured that it cannot be the source of an electric, electrostatic or impact-induced arc or spark likely to cause an explosive mixture to ignite.

## **2.7. PPE intended for emergency use or rapid installation and/or removal**

These PPE classes must be so designed and manufactured as to minimize the time required for attachment and (or) removal.

Any integral systems permitting correct positioning on, or removal from, the user must be susceptible of rapid and easy operation.

## **2.8. PPE for use in very dangerous situations**

The information notes supplied by the manufacturer together with PPE for use in the very dangerous situations referred to in Article 8 (4) (a) must include, in particular, data intended for the exclusive use of competent trained individuals who are qualified to interpret them and ensure their application by the user. They must also describe the procedure to be adopted in order to verify that PPE is correctly adjusted and functional when worn by the user.

If PPE incorporates an alarm which is activated in the absence of the level of protection normally provided, this must be so designed and accommodated as to be perceived by the user in the conditions of use for which the PPE is marketed.

## **2.9. PPE incorporating components which can be adjusted or removed by the user**

Any PPE components which can be adjusted or removed by the user for the purpose of replacement must be so designed and manufactured as to facilitate adjustment, attachment and removal without tools.

**2.10. PPE for connection to another, external complementary device** If PPE incorporates a system permitting connection to another, complementary, device, the attachment mechanism must be so designed and manufactured as to enable it to be mounted only on appropriate equipment.

## **2.11. PPE incorporating a fluid circulation system**

If PPE incorporates a fluid circulation system, the latter must be so chosen, or designed, and incorporated as to permit adequate fluid renewal in the vicinity of the entire part of the body to be protected, irrespective of user gestures, posture or movement under the foreseeable conditions of use.

## **2.12. PPE bearing one or more identification or recognition marks directly or indirectly relating to health and safety**

The identification or recognition marks directly or indirectly relating to health and safety affixed to these types or classes of PPE must preferably take the form of harmonized pictograms or ideograms and must remain perfectly legible throughout the foreseeable useful life of the PPE. In addition, these marks must be complete, precise and comprehensible so as to prevent any misinterpretation; in particular, when such marks incorporate words or sentences, the latter must appear in the official language(s) of the Member State where the equipment is to be used.

If PPE (or a PPE component) is too small to allow all or part of the necessary marking to be affixed, the relevant information must be mentioned on the packing and in the manufacturer's notes.

## **2.13. PPE in the form of clothing capable of signaling the user's presence visually**

PPE in the form of clothing intended for foreseeable conditions of use in which the user's presence must be visibly and individually signaled must have one (or more) judiciously positioned means or devices for emitting direct or reflected visible radiation of appropriate luminous intensity and photometric and colorimetric properties.

## **2.14. 'Multi-risk' PPE**

All PPE designed to protect the user against several potentially simultaneous risks must be so designed and manufactured as to satisfy, in particular, the basic requirements specific to each of those risks (see 3).

# **3. ADDITIONAL REQUIREMENTS SPECIFIC TO PARTICULAR RISKS**

## **3.1. Protection against mechanical impact**

### **3.1.1. Impact caused by falling or projecting objects and collision of parts of the body with an obstacle**

Suitable PPE for this type of risk must be sufficiently shock-absorbent to prevent injury resulting, in particular, from the crushing or penetration of the protected part, at least up to an impact-energy level above which the excessive dimensions or mass of the absorbing device would preclude effective use of the PPE for the foreseeable period of wear.

### **3.1.2. Falls**

#### **3.1.2.1. Prevention of falls due to slipping**

The outsoles for footwear designed to prevent slipping must be so designed, manufactured or equipped with added elements as to ensure satisfactory adhesion by grip and friction having regard to the nature or state of the surface.

#### **3.1.2.2. Prevention of falls from a height**

PPE designed to prevent falls from a height or their effects must incorporate a body harness and an attachment system which can be connected to a reliable anchorage point. It must be designed so that under the foreseeable conditions of use the vertical drop of the user is minimized to prevent collision with obstacles and the braking force does not, however, attain the threshold value at which physical injury or the tearing or rupture of any PPE component which might cause the user to fall can be expected to occur.

It must also ensure that after braking the user is maintained in a correct position in which he may await help if necessary.

The manufacturer's notes must specify in particular all relevant information relating to:

- the characteristics required for the reliable anchorage point and the necessary minimum clearance below the user,
- the proper way of putting on the body harness and of connecting the attachment system to the reliable anchorage point.

#### **3.1.3. Mechanical vibration**

PPE designed to prevent the effects of mechanical vibrations must be capable of ensuring adequate attenuation of harmful vibration components for the part of the body at risk.

Under no circumstances must the effective value of the accelerations transmitted to the user by those vibrations exceed the limit values recommended in the light of the maximum foreseeable daily exposure of the part of the body at risk.

### **3.2. Protection against (static) compression of part of the body**

PPE designed to protect part of the body against (static) compressive stress must be sufficiently capable of attenuating its effects to prevent serious injury or chronic complaints.

### **3.3. Protection against physical injury (abrasion, perforation, cuts, bites)**

PPE constituent materials and other components designed to protect all or part of the body against superficial injury caused by machinery, such as abrasion, perforation, cuts or bites, must be so chosen or designed and incorporated as to ensure that these PPE classes provide sufficient resistance to abrasion, perforation and gashing (see also 3. 1) under the foreseeable conditions of use.

### **3.4. Prevention of drowning (lifejackets, armbands and lifesaving suits)**

PPE designed to prevent drowning must be capable of returning to the surface as quickly as possible, without danger to his health, a user who may be exhausted or unconscious after falling into a liquid medium, and of keeping him afloat in a position which permits breathing while awaiting help.

PPE may be wholly or partially inherently buoyant or may be inflated either by gas which can be manually or automatically released or orally.

Under the foreseeable conditions of use:

- PPE must, without prejudice to its satisfactory operation, be capable of withstanding the effects of impact with the liquid medium and the environmental factors inherent in that medium,
- inflatable PPE must be capable of inflating rapidly and fully.

Where particular foreseeable conditions of use so require, certain types of PPE must also satisfy one or more of the following additional requirements:

- it must have all the inflation devices referred to in the second subparagraph, and/or a light or sound-signaling device,
- it must have a device for hitching and attaching the body so that the user may be lifted out of the liquid medium,
- it must be suitable for prolonged use throughout the period of activity exposing the user, possibly dressed, to the risk of falling into the liquid medium or requiring his immersion in it.

#### **3.4.1. Buoyancy aids**

Clothing which will ensure an effective degree of buoyancy, depending on its foreseeable use, which is safe when worn and which affords positive support in water. In foreseeable conditions of use, this PPE must not restrict the user's freedom of movement but must enable him, in particular, to swim or take action to escape from danger or rescue other persons.

### **3.5. Protection against the harmful effects of noise**

PPE designed to prevent the harmful effects of noise must be capable of attenuating the latter to such an extent that the equivalent sound levels perceived by the user do not under any circumstances exceed the daily limit values laid down by Council Directive 86/188/EEC (1) of 12 May 1986 on the protection of workers from the risks related to exposure to noise at work.

All PPE must bear labeling indicating the noise attenuation level and the value of the comfort index provided by the PPE; should this not be possible, the labeling must be fixed to the packaging.

### **3.6. Protection against heat and/or fire**

PPE designed to protect all or part of the body against the effects of heat and/or fire must possess thermal insulation capacity and mechanical strength appropriate to foreseeable conditions of use.

#### **3.6.1. PPE constituent materials and other components**

Constituent materials and other components suitable for protection against radiant and convective heat must possess an appropriate coefficient of transmission of incident heat flux and be sufficiently incombustible to preclude any risk of spontaneous ignition under the foreseeable conditions of use.

Where the outside of these materials and components must be reflective, its reflective power must be appropriate to the intensity of the heat flux due to radiation in the infra-red range.

Materials and other components of equipment intended for brief use in high-temperature environments and of PPE which may be splashed by hot products such as large quantities of molten material must also possess sufficient thermal capacity to retain most of the stored heat until after the user has left the danger area and removed his PPE.

PPE materials and other components which may be splashed by large amounts of hot products must also possess sufficient mechanical-impact absorbency (see 3.1).

PPE materials and other components which may accidentally come into contact with flame and those used in the manufacture of fire-fighting equipment must also possess a degree of non-flammability corresponding to the risk class associated with the foreseeable conditions of use. They must not melt when exposed to flames nor contribute to flame propagation.

#### **3.6.2. Complete PPE ready for use**

Under the foreseeable conditions of use:

1. the quantity of heat transmitted by PPE to the user must be sufficiently low to prevent the heat accumulated during wear in the part of the body at risk from attaining, under any circumstances, the pain or health impairment threshold;
2. PPE must if necessary prevent liquid or steam penetration and must not cause burns resulting from contact between its protective integument and the user.

If PPE incorporates refrigeration devices for the absorption of incident heat by means of liquid evaporation or solid sublimation, their design must be such that any volatile substances released are discharged beyond the outer protective integument and not towards the user.



If PPE incorporates a breathing device, the latter must adequately fulfill the protective function assigned to it under the foreseeable conditions of use.

The manufacturer's notes accompanying each PPE model intended for brief use in high-temperature environments must in particular provide all relevant data for the determination of the maximum permissible user exposure to the heat transmitted by the equipment when used in accordance with its intended purpose.

### **3.7. Protection against cold**

PPE designed to protect all or part of the body against the effects of cold must possess thermal insulating capacity and mechanical strength appropriate to the foreseeable conditions of use for which it is marketed.

(1) OJ NoL 137, 24. 5. 1986, p. 28.

#### **3.7.1. PPE constituent materials and other components**

Constituent materials and other components suitable for protection against cold must possess a coefficient of transmission of incident thermal flux as low as required under the foreseeable conditions of use. Flexible materials and other components of PPE intended for use in a low-temperature environment must retain the degree of flexibility required for the necessary gestures and postures. PPE materials and other components which may be splashed by large amounts of cold products must also possess sufficient mechanical impact absorbency (see 3.1).

#### **3.7.2. Complete PPE ready for use**

Under the foreseeable conditions of use:

1. the flux transmitted by PPE to the user must be sufficiently low to prevent the cold accumulated during wear at any point on the part of the body being protected, including the tips of fingers and toes in the case of hands or feet, from attaining, under any circumstances, the pain or health-impairment threshold;

2. PPE must as far as possible prevent the penetration of such liquids as rain water and must not cause injuries resulting from contact between its cold protective integument and the user.

If PPE incorporates a breathing device, this must adequately fulfill the protective function assigned to it under the foreseeable conditions of use.

The manufacturer's notes accompanying each PPE model intended for brief use in low-temperature environments must provide all relevant data concerning the maximum permissible user exposure to the cold transmitted by the equipment.

### **3.8. Protection against electric shock**

PPE designed to protect all or part of the body against the effects of electric current must be sufficiently insulated against the voltages to which the user is likely to be exposed under the most unfavourable foreseeable conditions. To this end, the constituent materials and other components of these PPE classes must be so chosen or designed and incorporated as to ensure that the leakage current measured through the protective integument under test conditions at voltages correlated with those likely to be encountered in situ is minimized and, at all events, below a maximum conventional permissible value which correlates with the tolerance threshold.

Together with their packaging, PPE types intended exclusively for use during work or activities in electrical installations which are or may be under tension must bear markings indicating, in particular, their protection class and (or) corresponding operating voltage, their serial number and their date of manufacture; a space must also be provided outside the protective integument of such PPE for the subsequent inscription of the date of entry into service and those of the periodic tests or inspections to be conducted.

The manufacturer's notes must indicate, in particular, the exclusive use for which these PPE types are intended and the nature and frequency of the dielectric tests to which they are to be subjected during their useful life.

### **3.9. Radiation protection**

#### **3.9.1. Non-ionizing radiation**

PPE designed to prevent acute or chronic eye-damage from sources of non-ionizing radiation must be capable of absorbing or reflecting the majority of the energy radiated in the harmful wavelengths without unduly affecting the transmission of the innocuous part of the visible spectrum, the perception of contrasts and the ability to distinguish colours where required by the foreseeable conditions of use. To this end, protective glasses must be so designed and manufactured as to possess, for each harmful wave, a spectral transmission factor such that the radiant-energy illumination density capable of reaching the user's eye through the filter is minimized and, under no circumstances, exceeds the maximum permissible exposure value. Furthermore, the glasses must not deteriorate or lose their properties as a result of the effects of radiation emitted under the foreseeable conditions of use and all marketed specimens must bear the protection-factor number corresponding to the spectral distribution curve of their transmission factor.

Glasses suitable for radiation sources of the same type must be classified in the ascending order of their protection factors and the manufacturer's notes must indicate, in particular, the transmission curves which make it possible to select the most appropriate PPE bearing in mind such inherent factors of the effective conditions of use as distance to source and the spectral distribution of the energy radiated at that distance.

The relevant protection-factor number must be marked on all specimens of filtering glasses by the manufacturer.

#### **3.9.2. Ionizing radiation**

##### **3.9.2.1. Protection against external radioactive contamination**

PPE constituent materials and other components designed to protect all or part of the body against radioactive dust, gases, liquids or mixtures thereof must be so chosen or designed and incorporated as to ensure that this equipment effectively prevents the penetration of the contaminants under the foreseeable conditions of use.

Depending on the nature or condition of these contaminants, the necessary leak-tightness can be provided by the impermeability of the protective integument and/or by any other appropriate means, such as ventilation and pressurization systems designed to prevent the back-scattering of these contaminants. Any decontamination measures to which PPE is subject must not prejudice its possible re-use during the foreseeable useful life of these classes of equipment.

##### **3.9.2.2. Limited protection against external irradiation**

PPE intended to provide complete user protection against external irradiation or, failing this, adequate attenuation thereof, must be designed to counter only weak electron (e. g. beta) or weak photon (e. g. X, gamma) radiation.

The constituent materials and other components of these PPE classes must be so chosen or designed and incorporated as to provide the degree of user protection required by the foreseeable conditions of use without leading to an increase in exposure time as a result of the impedance of user gestures, posture or movement (see 1.3.2). PPE must bear a mark indicating the type and thickness of the constituent material(s) suitable for the foreseeable conditions of use.

### **3.10. Protection against dangerous substances and infective agents**

#### **3.10.1. Respiratory protection**

PPE intended for the protection of the respiratory tract must make it possible to supply the user with breathable air when the latter is exposed to a polluted atmosphere and/or an atmosphere having inadequate oxygen concentration.

The breathable air supplied to the user by the PPE must be obtained by appropriate means, for example after filtration of the polluted air through the protective device or appliance or by a piped supply from an unpolluted source.

The constituent materials and other components of these PPE classes must be so chosen or designed and incorporated as to ensure appropriate user respiration and respiratory hygiene for the period of wear concerned under the foreseeable conditions of use.

The leak-tightness of the face-piece and the pressure drop on inspiration and, in the case of the filtering devices, purification capacity must be such as to keep contaminant penetration from a polluted atmosphere low enough not to be prejudicial to the health or hygiene of the user.

The PPE must bear the manufacturer's identification mark and details of the specific characteristics of that type of equipment which, in conjunction with the instructions for use, will enable a trained and qualified user to employ the PPE correctly.

The manufacturer's notes must also in the case of filtering devices, indicate the deadline for the storage of filters as new and kept in their original packaging.

### **3.10.2. Protection against cutaneous and ocular contact**

PPE intended to prevent the surface contact of all or part of the body with dangerous substances and infective agents must be capable of preventing the penetration or diffusion of such substances through the protective integument under the foreseeable conditions of use for which the PPE is placed on the market.

To this end, the constituent materials and other components of these PPE classes must be so chosen, or designed and incorporated as to ensure, as far as possible, complete leak-tightness, which will allow where necessary prolonged daily use or, failing this, limited leak-tightness necessitating a restriction of the period of wear.

Where, by virtue of their nature and the foreseeable conditions of their use, certain dangerous substances or infective agents possess high penetrative power which limits the duration of the protection provided by the PPE in question, the latter must be subjected to standard tests with a view to their classification on the basis of efficiency. PPE which is considered to be in conformity with the test specifications must bear a mark indicating, in particular, the names or, failing this, the codes of the substances used in the tests and the corresponding standard period of protection. The manufacturer's notes must also contain, in particular, an explanation of the codes (if necessary), a detailed description of the standard tests and all appropriate information for the determination of the maximum permissible period of wear under the different foreseeable conditions of use.

### **3.11. Safety devices for diving equipment**

#### **1. Breathing equipment**

The breathing equipment must make it possible to supply the user with a breathable gaseous mixture, under foreseeable conditions of use and taking account in particular of the maximum depth of immersion.

2. Where the foreseeable conditions of use so require, the equipment must comprise:

- a suit which protects the user against the pressure resulting from the depth of immersion (see 3.2) and/or against cold (see 3.7);
- an alarm designed to give the user prompt warning of an approaching failure in the supply of breathable gaseous mixture (see 2.8);
- a life-saving suit enabling the user to return to the surface (see 3.4.1).

## **ANNEX III**

### ***TECHNICAL DOCUMENTATION SUPPLIED BY THE MANUFACTURER***

The documentation referred to in Article 8 (1) must comprise all relevant data on the means used by the manufacturer to ensure that a PPE complies with the basic requirements relating to it.

In the case of PPE models referred to in Article 8 (2), the documentation must comprise in particular:

1. the manufacturer's technical file consisting of:

- overall and detailed plans of the PPE accompanied, where appropriate, by calculation notes and the results of prototype tests in so far as necessary for the verification of compliance with the basic requirements;
- an exhaustive list of the basic safety requirements and of the harmonized standards or other technical specifications referred to in Articles 3 and 5, taken into account in the design of the model;

2. a description of the control and test facilities to be used in the manufacturer's plant to check compliance of production PPE with the harmonized standards or other technical specifications and to maintain quality level;
3. a copy of the information notice referred to in Annex II, 1.4.

## **ANNEX IV**

### ***CE CONFORMITY MARKING AND INFORMATION***

- The CE conformity marking shall consist of the initials 'CE' taking the following form:
- If the CE marking is reduced or enlarged the proportions given in the above graduated drawing must be respected.
- The various components of the CE marking must have substantially the same vertical dimension, which may not be less than 5 mm. This minimum dimension may be waived for small-scale PPE.

## **ANNEX V**

### ***CONDITIONS TO BE FULFILLED BY THE BODIES OF WHICH NOTIFICATION HAS BEEN GIVEN***

(Article 9 (2))

The bodies designated by the Member States must fulfill the following minimum conditions:

1. availability of personnel and of the necessary means and equipment;
  2. technical competence and professional integrity of personnel;
  3. independence, in carrying out the tests, preparing the reports, issuing the certificates and performing the surveillance provided for in the Directive, of staff and technical personnel in relation to all circles, groups or persons directly or indirectly concerned with PPE;
  4. maintenance of professional secrecy by personnel;
  5. subscription of a civil liability insurance unless that liability is covered by the State under national law.
- Fulfillment of the conditions under 1 and 2 shall be verified at intervals by the competent authorities of the Member States.