

Directive 2004/40/EC of the European Parliament and of the Council of 29 April 2004 on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (electromagnetic fields) (18th individual Directive within the meaning of Article 16(1) of Directive 89/39 I/EEC) (repealed)

SECTION I

GENERAL PROVISIONS

Article 1

Aim and scope

1 This Directive, which is the 18th individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC, lays down minimum requirements for the protection of workers from risks to their health and safety arising or likely to arise from exposure to electromagnetic fields (0 Hz to 300 GHz) during their work.

2 This Directive refers to the risk to the health and safety of workers due to known short-term adverse effects in the human body caused by the circulation of induced currents and by energy absorption as well as by contact currents.

3 This Directive does not address suggested long-term effects.

4 This Directive does not address the risks resulting from contact with live conductors.

5 Directive 89/391/EEC shall apply fully to the whole area referred to in paragraph 1, without prejudice to more stringent and/or more specific provisions contained in this Directive.

Article 2

Definitions

For the purposes of this Directive, the following definitions shall apply:

- (a) "electromagnetic fields": static magnetic and time-varying electric, magnetic and electromagnetic fields with frequencies up to 300 GHz;
- (b) "exposure limit values": limits on exposure to electromagnetic fields which are based directly on established health effects and biological considerations. Compliance with these limits will ensure that workers exposed to electromagnetic fields are protected against all known adverse health effects;
- (c) "action values": the magnitude of directly measurable parameters, provided in terms of electric field strength (E), magnetic field strength (H), magnetic flux density (B) and power density (S), at which one or more of the specified measures in this Directive must be undertaken. Compliance with these values will ensure compliance with the relevant exposure limit values.

Article 3

Exposure limit values and action values

- 1 The exposure limit values are as set out in the Annex, Table 1.
- 2 The action values are as set out in the Annex, Table 2.
- 3 For the assessment, measurement and/or calculation of workers' exposure to electromagnetic fields, until harmonised European standards from the European Committee for Electrotechnical Standardisation (CENELEC) cover all relevant assessment, measurement and calculation situations, Member States may employ other scientifically-based standards or guidelines.

SECTION II

OBLIGATIONS OF EMPLOYERS

Article 4

Determination of exposure and assessment of risks

- 1 In carrying out the obligations laid down in Articles 6(3) and 9(1) of Directive 89/391/EEC, the employer shall assess and, if necessary, measure and/or calculate the levels of electromagnetic fields to which workers are exposed. Assessment, measurement and calculation may, until harmonised European standards from CENELEC cover all relevant assessment, measurement and calculation situations, be carried out in accordance with the scientifically-based standards and guidelines referred to in Article 3 and, when relevant, by taking into account the emission levels provided by the manufacturers of the equipment when it is covered by the relevant Community Directives.
- 2 On the basis of the assessment of the levels of electromagnetic fields undertaken in accordance with paragraph 1, if the action values referred to in Article 3 are exceeded, the employer shall assess and, if necessary, calculate whether the exposure limit values are exceeded.
- 3 The assessment, measurement and/or calculations referred to in paragraphs 1 and 2 need not be carried out in workplaces open to the public provided that an evaluation has already been undertaken in accordance with the provisions of Council Recommendation 1999/519/EC of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)⁽¹⁾, and the restrictions as specified therein are respected for workers and safety risks are excluded.
- 4 The assessment, measurement and/or calculations referred to in paragraphs 1 and 2 shall be planned and carried out by competent services or persons at suitable intervals, taking particular account of the provisions of Article 7 and Article 11 of Directive 89/391/EEC concerning the necessary competent services or persons and the consultation and participation of workers. The data obtained from the assessment, measurement and/or calculation of the level of exposure shall be preserved in a suitable form so as to permit consultation at a later stage.
- 5 Pursuant to Article 6(3) of Directive 89/391/EEC, the employer shall give particular attention, when carrying out the risk assessment, to the following:

- a the level, frequency spectrum, duration and type of exposure;
- b the exposure limit values and action values referred to in Article 3 of this Directive;
- c any effects concerning the health and safety of workers at particular risk;
- d any indirect effects, such as:
 - (i) interference with medical electronic equipment and devices (including cardiac pacemakers and other implanted devices);
 - (ii) the projectile risk from ferromagnetic objects in static magnetic fields with a magnetic flux density greater than 3 mT;
 - (iii) initiation of electro-explosive devices (detonators);
 - (iv) fires and explosions resulting from ignition of flammable materials by sparks caused by induced fields, contact currents or spark discharges;
- e the existence of replacement equipment designed to reduce the levels of exposure to electromagnetic fields;
- f appropriate information obtained from health surveillance, including published information, as far as possible;
- g multiple sources of exposure;
- h simultaneous exposure to multiple frequency fields.

6 The employer shall be in possession of an assessment of the risk in accordance with Article 9(1)(a) of Directive 89/391/EEC and shall identify which measures must be taken in accordance with Articles 5 and 6 of this Directive. The risk assessment shall be recorded on a suitable medium, according to national law and practice; it may include a justification by the employer that the nature and extent of the risks related to electromagnetic fields make a further detailed risk assessment unnecessary. The risk assessment shall be updated on a regular basis, particularly if there have been significant changes which could render it out of date, or when the results of health surveillance show it to be necessary.

Article 5

Provisions aimed at avoiding or reducing risks

1 Taking account of technical progress and of the availability of measures to control the risk at source, the risks arising from exposure to electromagnetic fields shall be eliminated or reduced to a minimum.

The reduction of risks arising from exposure to electromagnetic fields shall be based on the general principles of prevention set out in Directive 89/39 I/EEC.

2 On the basis of the risk assessment referred to in Article 4, once the action values referred to in Article 3 are exceeded, the employer, unless the assessment carried out in accordance with Article 4(2) demonstrates that the exposure limit values are not exceeded and that safety risks can be excluded, shall devise and implement an action plan comprising technical and/or organisational measures intended to prevent exposure exceeding the exposure limit values, taking into account in particular:

- a other working methods that entail less exposure to electromagnetic fields;
- b the choice of equipment emitting less electromagnetic fields, taking account of the work to be done;
- c technical measures to reduce the emission of electromagnetic fields including, where necessary, the use of interlocks, shielding or similar health protection mechanisms;

- d appropriate maintenance programmes for work equipment, workplaces and workstation systems;
- e the design and layout of workplaces and workstations;
- f limitation of the duration and intensity of the exposure;
- g the availability of adequate personal protection equipment.

3 On the basis of the risk assessment referred to in Article 4, workplaces where workers could be exposed to electromagnetic fields exceeding the action values shall be indicated by appropriate signs in accordance with Council Directive 92/58/EEC of 24 June 1992 on the minimum requirements for the provision of safety and/or health signs at work (ninth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC⁽²⁾, unless the assessment carried out in accordance with Article 4(2) demonstrates that the exposure limit values are not exceeded and that safety risks can be excluded. The areas in question shall be identified, and access to them limited where this is technically possible and where there is a risk that the exposure limit values could be exceeded.

4 In any event, workers shall not be exposed above the exposure limit values.

If, despite the measures taken by the employer to comply with this Directive, the exposure limit values are exceeded, the employer shall take immediate action to reduce exposure below the exposure limit values. He shall identify the reasons why the exposure limit values have been exceeded, and shall amend the protection and prevention measures accordingly in order to prevent them being exceeded again.

5 Pursuant to Article 15 of Directive 89/391/EEC, the employer shall adapt the measures referred to in this Article to the requirements of workers at particular risk.

Article 6

Worker information and training

Without prejudice to Articles 10 and 12 of Directive 89/391/EEC, the employer shall ensure that workers who are exposed to risks from electromagnetic fields at work and/or their representatives receive any necessary information and training relating to the outcome of the risk assessment provided for in Article 4(1) of this Directive, concerning in particular:

- (a) measures taken to implement this Directive;
- (b) the values and concepts of the exposure limit values and action values and the associated potential risks;
- (c) the results of the assessment, measurement and/or calculations of the levels of exposure to electromagnetic fields carried out in accordance with Article 4 of this Directive;
- (d) how to detect adverse health effects of exposure and how to report them;
- (e) the circumstances in which workers are entitled to health surveillance;
- (f) safe working practices to minimise risks from exposure.

Article 7

Consultation and participation of workers

Consultation and participation of workers and/or of their representatives shall take place in accordance with Article 11 of Directive 89/39 I/EEC on the matters covered by this Directive.

SECTION III

MISCELLANEOUS PROVISIONS

Article 8

Health surveillance

1 With the objective of prevention and early diagnosis of any adverse health effects due to exposure to electromagnetic fields, appropriate health surveillance shall be carried out in accordance with Article 14 of Directive 89/391/EEC.

In any event, where exposure above the limit values is detected, a medical examination shall be made available to the worker(s) concerned in accordance with national law and practice. If health damage resulting from such exposure is detected, a reassessment of the risks shall be carried out by the employer in accordance with Article 4.

2 The employer shall take appropriate measures to ensure that the doctor and/or the medical authority responsible for the health surveillance has access to the results of the risk assessment referred to in Article 4.

3 The results of health surveillance shall be preserved in a suitable form so as to permit consultation at later date, taking account of confidentiality requirements. Individual workers shall, at their request, have access to their own personal health records.

Article 9

Sanctions

Member States shall provide for adequate sanctions to be applicable in the event of infringement of national legislation adopted pursuant to this Directive. These sanctions must be effective, proportionate and dissuasive.

Article 10

Technical amendments

1 Modifications of the exposure limit values and action values set out in the Annex shall be adopted by the European Parliament and the Council in accordance with the procedure laid down in Article 137(2) of the Treaty.

2 Amendments to the Annex of a strictly technical nature in line with:

- a the adoption of Directives in the field of technical harmonisation and standardisation with regard to the design, building, manufacture or construction of work equipment and/or workplaces;
 - b technical progress, changes in the most relevant harmonised European standards or specifications, and new scientific findings concerning electromagnetic fields
- shall be adopted in accordance with the regulatory procedure referred to in Article 11(2).

Article 11

Committee

1 The Commission shall be assisted by the Committee referred to in Article 17 of Directive 89/391/EEC.

2 Where reference is made to this paragraph, Articles 5 and 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.

The period referred to in Article 5(6) of Decision 1999/468/EC shall be set at three months.

3 The Committee shall adopt its rules of procedure.

SECTION IV

FINAL PROVISIONS

Article 12

Reports

Every five years Member States shall provide a report to the Commission on the practical implementation of this Directive, indicating the points of view of the social partners.

Every five years the Commission shall inform the European Parliament, the Council, the European Economic and Social Committee and the Advisory Committee on Safety and Health Protection at Work of the content of these reports, of its assessment of developments in the field in question and of any initiative, in particular as regards exposure to static magnetic fields, that may be warranted in the light of new scientific knowledge.

Article 13

Transposition

1 The Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive no later than ...⁽³⁾. They shall forthwith inform the Commission thereof.

When Member States adopt these measures, they shall contain a reference to this Directive or shall be accompanied by such reference on the occasion of their official

publication. The methods of making such reference shall be laid down by Member States.

2 Member States shall communicate to the Commission the provisions of national law which they adopt or have already adopted in the field covered by this Directive.

Article 14

Entry into force

This Directive shall enter into force on the day of its publication in the Official Journal of the European Union.

Article 15

Addressees

This Directive is addressed to the Member States.

Done at Strasbourg, 29 April 2004.

For the European Parliament

The President

P. COX

For the Council

The President

M. McDOWELL

Status: This is the original version (as it was originally adopted).

- (1) OJ L 199, 30.7.1999, p. 59.
- (2) OJ L 245, 26.8.1992, p. 23.
- (3) 4 years after the entry into force of this Directive.