Safety and health at work: exposure of workers to electromagnetic fields

1992/0449C(COD) - 29/04/2004 - Final act

PURPOSE : to establish minimum health and safety requirements regarding the exposure of workers to the risks arising from electromagnetic fields.

LEGISLATIVE ACT : Directive 2004/40/EC of the European Parliament and of the Council on the 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, paragraph 1 of Directive 89/391/EEC).

(Corrigendum to Directive 2004/40/EC of the European Parliament and of the Council published in the Official Journal l 159 of 30 April 2004).

CONTEXT : owing to the splitting of the 1992 initial proposal on the exposure of workers to the risks arising from physical agents, this Directive concerns specifically the risks arising from exposure to electromagnetic fields. Other types of physical agents include mechanical vibrations – Directive 2002/44 /EC (COD/1992/0449), noise – Directive 2003/10/EC (COD/1992/0449CA) (which the European Parliament and the Council have already adopted) and optical radiations (COD/1992/0449B) which is still being discussed).

This Directive, adopted unanimously and by written procedure, complements Directive 89/391/EEC on the health and safety of workers, laying down minimum requirements and allowing Member States to adopt more protective provisions.

CONTENT : firstly, 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. It introduces measures protecting workers from the risks associated with electromagnetic fields (0 Hz to 300 GHz). However, the long-term effects, including possible carcinogenic effects due to exposure to time-varying electric, magnetic and electromagnetic fields for which there is no conclusive scientific evidence establishing a causal relationship, are not addressed in this Directive. Nor does it address the risks resulting from contact with live conductors.

These measures are intended not only to ensure the health and safety of each worker on an individual basis, but also to create a minimum basis of protection for all Community workers, thus giving Member States the option of maintaining or adopting more favourable provisions for the protection of workers, in particular the fixing of lower values for the action values or the exposure limit values for electromagnetic fields.

Principles : two types of values are introduced :

- Limit values : fixed for 7 frequency ranges with the intention of preventing adverse effects on different parts or functions of the human body, such as the cardiovascular and central nervous systems or whole-body heat stress and excessive localised heating of tissues;

- Action values : fixed for 13 different frequency ranges (including static magnetic fields). They are obtained from the exposure limit values according to the rationale used by the International Commission on Non-ionising Radiation Protection (ICNIRP) in its guidelines on limiting exposure to non-ionising radiation (ICNIRP 7/99).

Employer's obligations : this Directive lays down the following employer obligations:

1) determine the exposure and assess risks : assess and, if necessary, measure and/or calculate the levels of electromagnetic fields to which workers are exposed. Assessment, measurement and calculation may be carried out in accordance with the scientifically-based standards and guidelines 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. If the action values are exceeded, the employer shall assess and, if necessary, calculate whether the exposure limit values are exceeded. The assessment, measurement and/or calculations 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 on the limitation of exposure of the general public to electromagnetic fields. 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.

2) avoid and reduce risks : if the action values are exceeded, the employer shall devise and implement an action plan comprising technical and/or organisational measures intended to prevent exposure exceeding the exposure limit values.

Employers shall also take into account other working methods that entail less exposure to electromagnetic fields; the choice of equipment emitting less electromagnetic fields; technical measures to reduce the emission of electromagnetic; appropriate maintenance programmes for work equipment, workplaces and workstation systems; the design and layout of workplaces and workstations; limitation of the duration and intensity of the exposure; the availability of adequate personal protection equipment.

Workplaces where workers could be exposed to electromagnetic fields exceeding the action values shall be indicated by appropriate signs limiting access.

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.

3) inform and train workers : 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.

4) the consultation and participation of workers is considered as being of great importance and shall therefore take place in accordance with Directive 89/391/EEC.

As far as the issue of health surveillance is concerned, the Directive waters down provisions concerning this aspect which opposes the wishes expressed by the European Parliament and the Commission. These measurements, in conformity with those already envisaged by the Framework Directive, do not envisage specific measurements of prevention, nor of systematic diagnosis of the health of the exposed workers. In response to European Parliament amendments at second reading, the Directive provides for a medical examination of the workers subjected to an exposure exceeding the limit values and if it proves that their health has deteriorated as a result of this exposure, a reassessment of the risk shall be carried out by the employer. In accordance with another of Parliament's wishes, measures are also designed to ensure that the doctor responsible for the health surveillance has the access to the results of the risk assessment while the workers concerned will be able to have access to their own personal medical records.

At Parliament's request, the Directive includes :

- a new article requiring Member States to provide for "effective, proportionate and dissuasive" sanctions if their laws governing this area are broken has been included;

- the use of the codecision procedure for all changes to the limit or action values;

- the presentation by the Commission of a report on the practical implementation of this Directive as well as an assessment of any developments in this field in particular as regards exposure to static magnetic fields.

ENTRY INTO FORCE : 30.04.2004.

TRANSPOSITION : 30.04.2008.