Minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (electromagnetic fields)

2011/0152(COD) - 11/06/2013 - Text adopted by Parliament, 1st reading/single reading

The European Parliament adopted by 594 votes to 40, with 38 abstentions, a legislative resolution on the proposal for a Directive of the European Parliament and of the Council on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (electromagnetic fields) (XXth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC).

Parliament adopted its position at first reading according to the ordinary legislative procedure. The amendments adopted in plenary are the result of a compromise negotiated between the European Parliament and the Council. They amend the proposal as follows:

Scope: the Directive covers all known **direct biophysical effects and indirect effects** caused by electromagnetic fields. The exposure limit values (ELVs) laid down in this Directive cover only **scientifically well-established** links between short-term direct biophysical effects and exposure to electromagnetic fields. This Directive **does not cover suggested long-term effects**.

However, if well-established scientific evidence on suggested long-term effects becomes available, the Commission shall consider a **suitable policy response**, including, if appropriate, the submission of a legislative proposal to address such effects. The Commission shall, by means of a report referred to in the Directive, keep the European Parliament and the Council informed in this regard.

Definitions: a new definition was introduced in regard to “direct biophysical” effects which are effects in the human body directly caused **by its presence** in an electromagnetic field, including, in particular, thermal effects, non-thermal effects or limb currents.

Also included within the “indirect” effects or effects caused by the **presence of an object** in an electromagnetic field which may become the cause of a safety or health hazard, such as interference with medical electronic equipment and devices, including cardiac pacemakers and other implants, or that can cause fires and explosions…

Exposure limit values (ELVs): ELVs are values established on the basis of biophysical and biological considerations, in particular on the basis of scientifically well-established short-term and **acute direct effects**, i.e. thermal effects and electrical stimulation of tissues. ‘Health effects ELVs’ means those ELVs above which workers might be subject to adverse health effects and ‘sensory effects ELVs’ means those ELVs above which workers might be subject to transient disturbed sensory perceptions.

Action levels (ALs): these are defined as operational levels established for the purpose of simplifying the process of demonstrating the compliance with relevant ELVs or, where appropriate, to take relevant protection or prevention measures specified in the Directive. To this effect, provision is made for ‘low ALs’ and ‘high ALs’ implying differentiated levels of protection or prevention.

It should be noted that the values provided for in the Directive are listed in disctinct annexes.

The physical quantities, ELVs and ALs, laid down in this Directive are based on the recommendations of the International Commission on Non-Ionizing Radiation Protection (ICNIRP) and should be considered in accordance with ICNIRP concepts.

Obligations of employers: it is stipulated that employers ensure that exposure of workers to electromagnetic fields is **limited to the health effects ELVs and sensory effects ELVs** set out in Annex II and in Annex III. Compliance with health effects ELVs and sensory effects ELVs must be established by the use of relevant exposure assessment procedures referred to in the Directive. Where the exposure of workers to electromagnetic fields exceeds the ELVs, the employer shall take immediate preventive action in accordance with the provisions of the Directive.

Provision is made for other measures **if the relevant ALs are (or are not) exceeded**. These provisions include measures to protect the safety of workers unless the assessment carried out in accordance with the Directive demonstrates that the relevant ELVs are not exceeded and that safety risks can be excluded.

Provision is made, however, for a series of derogations so that, under certain very strict conditions, the ALs for the electromagnetic fields may be exceeded.

Generally speaking, employers would be required to ensure that risks arising from electromagnetic fields in the workplace are eliminated or **reduced as much as possible**. If these values are exceeded, they may only be so on a **temporary basis** and, in such cases, employers would have to take the necessary measures to ensure that the ELVs are once again respected as soon as possible.

Assessment of risks and determination of exposure: the basic principle is that the employer shall assess all the risks for workers arising from electromagnetic fields at the workplace and, if necessary, shall measure or calculate the levels of electromagnetic fields to which workers are exposed.

- Publication of the assessment: the assessment can be made public on request in accordance with relevant Union and national laws applicable to the processing of the personal data of employees. Unless there is an overriding public interest in disclosure, **public authorities that are in possession of a copy of the assessment may refuse a request for access to it or a request to make it public**, where disclosure would undermine the protection of commercial interests of the employer, including those relating to intellectual property.

- Practical guides: for the purpose of the assessment, the employer shall identify and assess electromagnetic fields at the workplace, **taking into account the relevant practical guides** and other relevant standards or guidelines provided by the Member State concerned, including exposure databases. The content of these **non-binding** practical guides is laid down in the Directive. They shall be made available at the beginning of 2016. The employer shall also be entitled to take into account the emission levels and other appropriate safety-related data provided, by the manufacturer or distributor, for the equipment, in accordance with relevant Union law.

If compliance with the ELVs cannot be reliably determined on the basis of readily accessible information, the assessment of the exposure shall be carried out on the basis of **measurements or calculations** taking into account certain variables such as the frequency, the duration and type of exposure or the direct biophysical effects on the human body or the effects of exposure of workers with cardiac pacemakers or with medical devices (e.g. insulin pump), as well as pregnant women.

Exposures in workplaces open to the public: the exposure assessment will not need to be carried out in workplaces open to the public **provided that an evaluation has already been undertaken** in accordance with the provisions on the limitation of exposure of the general public to electromagnetic fields, if the

restrictions as specified in those provisions are respected for the workers and if all health and safety risks are excluded. These conditions are considered to be met where only equipment, intended for the public use is used as intended and complies with EU product legislation.

Measures to be taken by employers to avoid or reduce the risk of exposure: employers shall apply a series of protection and preventive measures in the form of an action plan to be implemented in the event of exposure. This plan would include **technical and/or organisational measures** to prevent any risks to workers at particular risk and any risks due to indirect effects (e.g. appropriate delimitation and access measures, such as signals, labels, floor markings, barriers). **Training of workers** is also envisaged, as are other specific protection measures such as the **grounding of work objects or the use of insulating shoes**. Measures to **trace** the actions taken and applied are also laid down. Lastly, risk management measures are stipulated for cases where a worker reports **transient symptoms** (which can range from vertigo to nausea).

Health surveillance: with the objective of prevention and early diagnosis of any adverse health effects due to exposure to electromagnetic fields, appropriate health surveillance should be carried out in accordance with Directive 89/391/EEC. **Health records** and their availability shall be provided for in accordance with national law and/or practice. In any event, where exposure above the ELVs is detected, the employer shall ensure that appropriate medical examinations or individual health surveillance is provided to the worker(s) concerned, in accordance with national law and practice. The costs of such examinations shall be borne by the employer.

Exemptions: provision is made for a series of derogations. Exposure may thus exceed the limit values if it is related to the installation, testing, use, development, **maintenance of or research related to MRI-equipment** for patients in the health sector and on condition that certain conditions are met.

Likewise, Member States may allow for an equivalent or more specific protection system to be implemented for personnel working in operational military installations or involved in **military activities**, including in joint international military exercises, provided that adverse health effects and safety risks are prevented. The provisions, furthermore, stipulate the ‘justified circumstances’ when the exemption shall apply. All derogations shall be notified to the Commission.

Delegated acts: the Commission shall be empowered to adopt delegated acts amending, in a purely technical way, the Annexes, so as to take into account the adoption of regulations and directives in the field of technical harmonisation and standardisation and new scientific findings concerning electromagnetic fields, as well as to **make adjustments to the ALs**. Where purely technical amendments need to be made to the annexes, the Commission shall work in close cooperation with the Advisory Committee for Safety and Health at Work.

Annexes: the annexes have been reviewed and new annexes have been added providing a technical definition of the values not to be exceeded as a function of the frequency ranges of electromagnetic fields.

Transposition: the Directive shall be transposed in the Member States by **1 July 2016** at the latest.