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

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The Committee on Employment and Social Affairs adopted the report by Elisabeth MORIN-CHARTIER (EPP, FR) 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).

The parliamentary committee recommends that the European Parliament's position adopted at first reading according to the ordinary legislative procedure should amend the Commission's proposal as follows:

Purpose of the Directive: the Directive should address **all known direct and indirect biophysical effects caused by electromagnetic fields** in order 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 Union workers, while reducing possible distortions of competition.

Long-term effects of exposure to electromagnetic fields: Members call on the Commission and the Member States to increase research and the collection of data on the **long-term effects of exposure to electromagnetic fields**. As soon as there is conclusive scientific evidence on the exposure to electromagnetic fields, they call on the Commission to then present a **new proposal** to address the long-term effects of such exposure.

Definitions: Members added a new definition in regard to the "direct biophysical" effects or direct effects on the human body provoked by the presence in electromagnetic fields. These include, in particular, thermal effects and non-thermal on human tissue but also limb currents.

Members also define the indirect effects which may become the cause of a safety or health hazard for workers, such as fires and explosions resulting from the ignition of flammable materials by sparks caused by induced fields, contact currents or spark discharges.

Exposure limit values (ELVs): according to Members, the exposure limit values set in this Directive should only address the scientifically well-established links between short-term direct biophysical effects and exposure to electromagnetic fields. Several types of ELVs are thus envisaged in the proposed directive, including in regard to sensory effects and effects on health.

Action levels (ALs): Members also envisage action levels or operational levels established for the purpose of simplifying the process of demonstrating the compliance with relevant ELV or, where appropriate, to take relevant protection or prevention measures. To this effect, Members define "low AL" and "high AL" as levels which relate to the specific protection or prevention measures.

Members delete all the old 'orientation values' and 'action values' in the Commission's proposal.

It should be noted that the **values laid down in the directive are listed in distinct annexes**. The physical quantities, limit values and action levels laid down in the Annexes are based on the recommendations of the International Commission on Non- Ionising Radiation (ICNIRP). Making amendments to the Annexes of a purely technical nature might be necessary in the future. Whenever such a case occurs, the Commission should work in close cooperation with the Advisory Committee for Safety and Health at Work.

Employer obligations: Members call for employers ensure that the exposure of workers to electromagnetic fields **is limited to the health effects ELV and sensory effects ELV for non-thermal effects set out in Annex IIa and for thermal effects set out in Annex IIIa**. Compliance with health effects ELV and sensory effects ELV must be shown with the use of relevant exposure assessment procedures referred to in the proposal. Should the exposure exceed the ELV, the employer shall take immediate action in accordance with measures foreseen in the proposal.

Other measures are envisaged if the **relevant action levels are (or are not) exceeded**. These measures involve safety protection measures for workers.

On the whole, Members believe that employers should be required to ensure that risks arising from electromagnetic fields are eliminated or **reduced as mush as possible**. However, it may be, in certain duly justified circumstances, that the ELVs laid down in the Directive may be **temporarily exceeded**. In such cases, Members call for employers to take the necessary measures to ensure that the ELVs are once again respected as soon as possible. In any event, workers should be kept informed of their level of exposure.

Assessment of risks and determination of exposure: the basic principle is that the employer should assess all the risks for workers arising from electromagnetic fields at the workplace and, if necessary, should measure or calculate the levels of electromagnetic fields to which workers are exposed. This assessment could be made public on request. It should be based on standards or guidelines drawn up by the Member State or on relevant safety data communicated by the equipment manufacturer or distributor.

If, however, compliance with the ELV 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**. In such a case, the assessment shall take into account the uncertainties relating to measurements or calculations (e.g. numerical errors, etc.), determined in accordance with relevant good practice. The employer shall pay particular attention, when carrying out the risk assessment, to certain variables such as the frequency, the level, the duration and the type of exposure or the biophysical effects on the human body directly provoked or any effects of the exposure on workers who wear an active or passive implanted medical device (such as cardiac pacemakers), workers who wear body worn medical devices (such as insulin pumps), and women who are pregnant.

Exposures in workplaces open to the public: Members stipulate **the exposure assessment needs not 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, and the restrictions as specified therein are respected for workers and health and safety risks are excluded. These conditions are considered to be met where only equipment, intended for the public use and complying with EU product legislation is used.

Measures to be taken by the employer in the event of exposure: Members stipulate that, in the event of exposure, the employer shall devise and implement an action plan **including technical and/or organisational measures** to prevent any risks to workers at particular risk and any risks due to indirect effects. **Training of workers** is also envisaged in the proposal. Provision is also made for other specific protection measures in the event of the appearance of **transient symptoms** (ranging 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 national law and/or practice**. In any event, where exposure above the ELV is detected, the employer shall ensure that appropriate medical support is provided to the workers concerned, in accordance with national law and practice. Any costs arising from this examination should be borne by the employer.

Exemptions:

Members make provision for a series of derogations to the provisions of the proposal. 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, given the **specificities of the armed forces** and in order to allow their effective operation and interoperability, including in joint international military exercises, Member States should be able to implement equivalent or more specific protection systems, such as internationally agreed standards like NATO standards, provided that adverse health effects and safety risks are prevented. Moreover, Members define the 'justified circumstances' when the exemption may apply. Any derogations should be notified to the Commission.

Delegated acts: Members stipulate that the delegation of power to make technical amendments to the directive may be delegated to the Commission for a period of **five years**. These delegations of power should be tacitly extended for periods of an identical duration, unless the European Parliament or the Council opposes such extension not later than three months before the end of each period.

Practical guides: the Commission should draw up practical guides in order to facilitate the implementation of the future Directive and the medical examinations. It should also design simplified techniques to meet the needs of **SMEs**.

Report: in addition to the report already provided for in the proposal, Members call for the Commission to prepare, within five years of the entry into force of the future Directive, a specific report on the Directive's effectiveness in reducing exposure to electromagnetic fields and the percentage of workplaces that required corrective action.

Annexes: lastly, the annexes have been comprehensively reviewed and new annexes have been added providing a technical definition of the values not to be exceeded (both exposure limit values and action levels) as a function of the frequency ranges of electromagnetic fields.