

Many of the activities carried out in modern workplaces give rise to electromagnetic fields, including use of electrical equipment and many common communications devices. Nevertheless, in the majority of workplaces, the levels of exposure are very low and will not give rise to risks to workers. Even where strong fields are generated, these will normally reduce rapidly with distance, so that if workers do not have to approach close to equipment, there will be no risk. Also, as most fields are electrically generated, they will disappear when the power is switched off.

Risks to workers may result from both direct effects of the field on the body, and indirect effects, which result from the presence of objects in the field. The direct effects may be either non-thermal or thermal in nature. Some workers may be at particular risk from electromagnetic fields. These workers include those wearing active implanted medical devices, those wearing passive medical devices, those using body-worn medical devices, and pregnant workers.

European Parliament Council Directive 2013/35/EU covers all known direct biophysical effects and other indirect effects caused by electromagnetic fields. The purpose was to regulate physical agents which defines exposure limits to electromagnetic fields in the workplace. This was transposed into national law by 1st July 2016.

Article 10 contains important derogations informing that exposure may exceed the ELVs if it is related to the installation, testing, use, development, maintenance of magnetic resonance imaging. The derogation allows exposures to exceed the ELVs providing certain conditions are satisfied. The electromagnetic field exposures of patients and volunteers within the scanner fall outside the scope of the Directive. A consultation with relevant stakeholders defined practical guidance to employers on achieving compliance with the conditions of the derogation taking into account the CENELEC publications.

The MR community is preparing a high degree of self-regulation, to develop an effective training programme for workers in the field (for example: Non-binding guide to good practice for implementing Directive 2013/35/EU Electromagnetic Fields Volume 1: Practical Guide, EU commission 2014).

The EMF Directive essentially gives additional detail on how to achieve the objectives of the Framework Directive for the specific situation of work with electromagnetic fields.