

FOREWARD

The International Workshop on Electromagnetic Fields in the Workplace was held on September 5–7, 2005, in Warsaw, Poland. The workshop was organised by the Central Institute for Labour Protection – National Research Institute (CIOP-PIB) as the final activity of the Centre for Testing and Measurements for Improvement of Safety of Products and Working Life (TEST-PRO-SAFETY-LIFE) project (2002–2005), carried out within the 5th Framework Programme of the European Commission. The event was co-organised by the Coordination Action EMF-NET Effects of the Exposure to Electromagnetic Fields: from Science to Public Health and Safer Workplace (2004–2008), carried out within the 6th Framework Programme, with the international patronage of International Union of Radio Science (URSI) and European Agency for Safety and Health at Work.

The main purpose of the workshop was to update knowledge related to electromagnetic hazards in the workplace and methods of electromagnetic risk evaluation and reduction. It was attended by 157 participants from 18 countries. The workshop was focused on occupational exposure assessment methods, as well as the state of the art in bioelectromagnetic research and computer dosimetry. Current national discussions on the implementation of European Directive 2004/40/EC, concerning the safety requirements for workers exposed to electromagnetic fields (EMFs), indicate wide international interest in the topics presented during the workshop.

The possible application of precautionary measures for workers' protection was discussed as was the question about the consequences of new scientific data referring to the perception of electric current for the levels of acceptable EMF exposure of low and medium frequencies. EMF measurement methods applicable for workers' exposure assessment were presented in detail. Almost all the most important sources of EMF were discussed, such as power installations (high voltage power lines and transformer stations), electrothermic devices (inductive heaters, welding machines and dielectric dryers), medical devices (MRI, physiotherapy and electrosurgery devices), anti-theft devices and metal detectors, military-use devices (radars), wireless communication devices (radio and television broadcasting stations, and mobile phone base stations). Presentations were focused on workers' exposure level and exposure assessment methods used in individual European countries.

The aforementioned classic subjects related to EMF occupational exposure assessment were successfully supplemented with a session concerning problems and perspective for computational dosimetry of workers exposed to EMF.

Various problems related to EMF were also presented during the poster session: from protective clothes against electromagnetic radiation, through occupational environment studies in various countries and biomedical research on the effects of EMF influence on humans, to international activities for an implementation of European Directive 2004/40/CE and reduction of EMF hazards in the working environment.

Some authors present at the workshop were invited to submit full papers to this special issue of the *International Journal of Occupational Safety and Ergonomics (JOSE)*. This selection comprises both papers on the guidelines and on how to show compliance with limit values as well as papers describing the situation of EMF exposure over a large frequency range, from DC to GHz, EMF in offices, near induction heaters, close to base stations, and in proximity to medical devices such magnetic resonance imaging. Numerical dosimetry is covered, too.

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