

Book review

**A PRACTICAL GUIDE FOR THE ASSESSMENT OF THE ELECTRO-
MAGNETIC FIELD LEVELS IN THE WORK ENVIRONMENT**

**“Ghid practic pentru determinarea nivelelor de câmp electromagnetic în
mediul de munca”**

Cristian Goiceanu, Răsvan Dănulescu

Methodologies for measuring electromagnetic fields (EMF) in order to assess the human exposure were lacking in Romania, until now. The publication of this guide is a beneficial one, especially in the context in which all the aspects concerning the EMF legislation, including the methodological ones, have to be in harmony with EU legislation.

The guide presents the general principles and specified the modalities for the accomplishment of EMF quantifications at low frequency (especially at Extremely Low Frequency – 50 Hz) and at high frequencies (radiofrequencies and microwaves) in the work environment, in order to assess both the exposure and to evaluate the possible impact on the health status of the exposed staff.

Including basic knowledge about electromagnetism, about the interaction between EMF and human body and regarding exposure limitation, the guide presents the main measuring instruments and their characteristics, the strategy and detailed phases of measurements process, data analysis and interpretation of the results, as well as the check of compliance with occupational exposure standards.

Concerning the assessment of low and high frequency EMF, the guide comprises the general methodology involved in this domain.

Thus, general methodology refers to EMF measurements with in exposure situations which are frequently encountered in the workplaces, and which could be assessed by usual metering devices. There are described also the measurement uncertainties, the elaboration of a measurements report, as well as some other kind of necessary elements for users, structured in four annexes.

The guide has a pragmatic design, a large target audience, and is primarily pointed towards the people who are practically doing field measurements and needs medium physics knowledge. Although it was not designed to be an exhaustive work, the knowledge level in this guide allows the practitioners to traverse all the necessary stages for the correct measurement of EMF levels, and the compliance with this guide indications ensures the compatibility of EMF measurements with national standards and allows the interpretation of results according to the point of view of the occupational health.

The information in this guide are in accordance with Occupational Safety

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General Norms, as well as with some EU documents such as EU Directive 2004/40/EC on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (electromagnetic fields).

The guide gathers all the conditions in order to be considered a reference paper in this field and the publication (recommended by professor Ion Silion, MD, University of Medicine and Pharmacy “Gr. T. Popa” Iași and by professor Florin M. Tufescu, PhD, Physics Department, University “Al. I. Cuza” Iași) covered a deficient area, considering that the electromagnetic pollution, especially in the work

environment, becomes an important concern, and needs a careful survey by all the stakeholders, who will find in this guidebook a useful guideline for their activity in this field.

This guide fills also a gap in the documentation of the occupational health professionals and will have an immediate practical applicability that arises from the fact that it is the only one in the electromagnetic field in Romania.

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