

Press information

For immediate publication

– Short version –

EMF Directive – Workplace health and safety in electromagnetic fields

Pfullingen, august 3, 2016 – Since 1st July 2016, all EU member states are required to have implemented Directive 2013/35/EU for the protection of persons from electromagnetic fields (EMF) in the workplace in national laws. As a result, companies throughout Europe must now ensure that employees are not exposed to fields greater than the exposure limits, some of which have been newly defined. This requires monitoring and minimizing risk through preventive measures where necessary. Narda Safety Test Solutions develops and produces powerful, intelligent measuring equipment for the demanding measurement tasks needed for this. These precision instruments from the specialist for EMF measurement make it possible for those responsible to record all the field values relevant to a safety assessment complying with the directive in real time without too much effort. The high quality range comprises wideband and selective measuring devices as well as robust radiation protection monitors that form part of a set of personal protection equipment (PPE). For example, the devices automatically detect the least favorable exposure levels from the biophysical viewpoint in difficult mixed EMF situations in multi-frequency environments. They can then display the result directly as a percentage of the applicable permitted limit value, making interpretation quick and sure.

– Long version –

EMF Directive – Workplace health and safety in electromagnetic fields

**Measurement solutions from Narda Safety Test Solutions
give certainty in the workplace over the whole bandwidth
conforming to Directive 2013/35/EU –
simple, quick, and reliable**

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The underlying EMF Directive defines “Minimum health and safety requirements regarding the exposure of workers to the risks arising from the physical effects of electric, magnetic, and electromagnetic fields in the frequency range between 0 Hz and 300 GHz”. Its limit values are primarily based on the recommendations of ICNIRP, the International Commission for Non-Ionizing Radiation Protection. They have been reworked in line with the latest scientific findings and refer exclusively to the proven direct short term effects on the human body.

Corporate responsibility

The new feature of the EMF Directive is the requirement that employers must now assess the risk separately for each workplace. The responsibility of ensuring that the limit values for workers are not exceeded means that every risk has to be assessed first and then the actual exposure levels recorded in a way that complies with the Directive. The emission specifications of device manufacturers or computed values can be used for this, particularly in areas such as offices and laboratories where only low-current equipment is used. For

certainty, measurement is now required everywhere else where a higher local EMF exposure level is suspected, such as in metal industry production plant, welding or smelting equipment.

This new set of rules stipulates that specialist personnel should record the field values at regular intervals and then document these in traceable form for this purpose.

Narda – the individual solution for every situation

Narda Safety Test Solutions develops and produces powerful, intelligent measuring equipment solutions tailored to each application to handle the demanding measurement tasks that are required. These precision instruments from the specialist for EMF measurement make it possible for those responsible to record all the field values relevant to a safety assessment complying with the directive in real time without too much effort. The high quality range comprises wideband and selective measuring devices as well as robust radiation protection monitors that form part of a set of personal protection equipment (PPE). For example, the devices automatically detect the least favorable exposure levels from the biophysical viewpoint in difficult mixed EMF situations in multi-frequency environments. They can then display the result directly as a percentage of the applicable permitted limit value, making interpretation quick and sure.

	Non-thermal effects [from 0 Hz to 10 MHz]	Thermal effects [from 100 kHz to 300 GHz]
Wideband measuring devices	ELT-400 THM-1176	NBM-520 NBM-550
Selective measuring devices	EHP-50F EHP-200A	SRM-3006
Personal protection equipment		RadMan Nardalert S3

Table: Range of measuring equipment including powerful software from Narda for workplace conformance verification according to 2013/35/EU

Background to the Directive

The EMF Directive basically takes two types of biophysical effects that can be caused by electromagnetic fields into account. These are sensory effects due to stimulation of muscles, nerves and sensory organs by frequencies between 0 Hz and 10 MHz, which cause temporary changes in sensations, and thermal effects caused by frequencies between 100 kHz and 300 GHz (high frequency), when human body tissue heats up due to energy absorption. As a reference, so-called microwaves range from 300 MHz up to about 300 GHz.

The exposure level values (ELV) defined in Directive 2013/35/EU separately for sensory and thermal effects are maximum permissible field values within the body of the worker. Since these cannot be measured and can only be determined by complicated calculations, this workplace safety Directive specifies so-called Action Levels (AL). These are upper limits for field values that can be directly measured at the workplace. If they are complied with verifiably, then the exposure level values have not been exceeded according to the EMF Directive. However, even the slightest level above the action level means that employers must introduce suitable protection or preventive measures such as screening or the use of filters.

This text and press images can be found at
www.narda-sts.com > Company > Press

Figure captions:

Figure 1: The new EMF Directive requires that a separate risk assessment is made for each workplace by specialist personnel.

Figure 2: Narda's program of products for human safety in electromagnetic fields ranges from wideband measuring sets through selective measurement technology and on to monitoring systems and personal monitors.

Narda is a leading supplier of measuring equipment in the RF safety, EMC and RF testing sectors. The RF safety product spectrum includes wideband and frequency-selective measuring devices, and monitors for wide area coverage or which can be worn on the body for personal safety. Under the PMM brand, Narda offers instruments for determining the electromagnetic compatibility (EMC) of devices. The RF testing sector covers analyzers and instruments for measuring and identifying radio sources. The range of services includes servicing, calibration, and training programs. The company operates a management system complying with ISO 9001/2008 and ISO/IEC 17025.

Narda has development and production facilities at three locations: Hauppauge, Long Island / USA, Pfullingen / Germany and Cisano / Italy and has its own representative in Beijing / China. A worldwide network of representatives guarantees closeness to customers.

Narda is part of **L-3 Communications**, New York.

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