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PRACTICAL EXPERIENCE ON MEASURING THE ELECTRIC COMPONENT OF THE EM FIELD IN THE GDR

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Comprehensive studies on the biological effect of high-frequency electromagnetic (EM) fields (60kHz - 300 MHz) upon the organism have induced competent institutions in the URSS,CSSR and the People's Republic of Poland in the sixties as well as in the GDR as from 1977 to stipulate MPL at working places for the electric and magnetic components of the electromagnetic field.

A near-field strength meter for measuring the EM radiation hazard at working places demonstrated by the authors has been designed in the Central Institute of Industrial Medicine of the German Democratic Republic. The battery-operated device is equipped with 2 dipole probes for measuring the electric field component. Within frequency range I (f = 60 kHz - 30 MHz) the measuring range is 3 - 2500 V/m, within frequency range II (f = 10 - 350 MHz) it is 1.5 - 1250 V/m. The scale of the indicating instrument has been calibrated in V/m.

The meter outlined above can be completed by adding a probe for measuring the magnetic component of the electromagnetic field.

A method for calibrating this device, as well as some experience gained on its application in practice are reported on.