MEASURES TO PROTECT ENTERPRISE PERSONNEL FROM INDUSTRIAL FREQUENCY ELECTROMAGNETIC RADIATION

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Protection of personnel from the dangerous effects of electromagnetic radiation is carried out in a number of ways, the main of which are: reducing radiation directly from the source itself, shielding the radiation source, shielding the workplace, absorbing electromagnetic energy, using personal protective equipment, and organizational protective measures. To implement these methods, the following are mainly used: screens, absorption materials, equivalent loads and individual means, new composite building materials.

Personal protective equipment for personnel exposed to industrial frequency electrical radiation with voltages above the maximum permissible levels is widely used. These include shielding clothing made from conventional woven fiber with a metallized mesh. In its manufacture, you can also use the so-called metallized fabric, which is ordinary cotton fabric coated with a layer of metal or electrically conductive paint.

The use of fabric for shielding clothing made from a conductive polymer, the electrical conductivity of which can increase with increasing voltage, is also promising. In addition to a suit or overalls, the clothing set includes shielding headgear, special shoes, gloves or mittens. When using a set of protective clothing, all its elements must be reliably connected by a conductor and grounded through conductive shoes or individual grounding. Individual means of protection against electromagnetic radiation of industrial frequency also include individual removable screens made of mesh or metallized glass.

Measures of protection against industrial frequency electromagnetic radiation are considered not only as individual protection, but also as collective protection.

Organizational methods of protection include therapeutic and preventive measures. As a therapeutic and preventive measure, one of the areas of personnel protection measures is a medical examination upon hiring and monitoring of personnel. Objective information must also be provided about the level of industrial frequency electromagnetic radiation at each workplace and a clear understanding of their possible impact on the health of personnel. In addition, the development of an optimal work and rest regime for the team with the organization of working hours with the minimum possible contact in terms of exposure to treatment, and as a result, the organization of the workplace in order to create conditions with minimal levels of exposure to industrial frequency electromagnetic radiation.

Only persons who have reached the age of 18 and are medically cleared to work in these conditions in accordance with labor protection legislation are allowed to work with sources of electric fields of industrial frequency in production conditions.