

Health Risk of Magnetic Fields, and Trends of Its Protection

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The World Health Organization (WHO) have been conducting the international EMF project and has issued several health risk evaluations related to electric and magnetic fields (EMF). In Relation to the WHO, the International Commission of Non-Ionizing Radiation Protection (ICNIRP) established guidelines for protecting people from short term effects of EMF. In response to this trend, a decree has been introduced to regulate power frequency magnetic field emission from static electrical installations of railway operators by Ministry of Land, Infrastructure, Transport and Tourism in Japan. In this article, not only the background and contents of the ICNIRP low frequency magnetic field guideline, but also its weakness when it is applied to entire railway systems is discussed. In addition, our efforts in research to deal with this issue are introduced.