

Commentary on Safety Guidelines

Council of Europe / Conseil de L'Europe

The potential dangers of electromagnetic fields and their effect on the environment

Resolution 1815 adopted by the Council of Europe's parliamentary assembly on 27 May 2011.

Excerpts

... While electrical and electromagnetic fields in certain frequency bands have fully beneficial effects which are applied in medicine, other non-ionising frequencies ... appear to have more or less potentially harmful, non-thermal, biological effects on plants, insects and animals, as well as the human body when exposed to levels that are below the official threshold values.

Waiting for high levels of scientific and clinical proof before taking action to prevent well-known risks can lead to very high health and economic costs, as was the case with asbestos, leaded petrol and tobacco.

The Parliamentary Assembly has repeatedly stressed the importance of states' commitment to preserving the environment and environmental health, ... [including] Recommendation 1885 (2009) on drafting an additional protocol to the European Convention on Human Rights concerning the right to a healthy environment and Recommendation 1430 (1999) on access to information, public participation in environmental decision-making and access to justice – implementation of the Aarhus Convention [which amongst other things acknowledges that we owe an obligation to future generations – *present author's comment*]...

... As regards standards or threshold values for emissions of electromagnetic fields of all types and frequencies, the Assembly recommends that the ALARA or “as low as reasonably achievable” principle is applied, covering both the so-called thermal effects and the athermic or biological effects of electromagnetic emissions or radiation.

Present author's note: The following text is from the draft resolution earlier adopted unanimously by the CE committee on the Environment, Agriculture and Local and Regional Affairs. It is missing from the final document (shown on previous page), as there was a wish to gain the widest possible support in the assembly (BMJ 2011). It appears highly valid.

Excerpts excluded from final version

... According to the [European Environment Agency] EEA, there are sufficient signs or levels of scientific evidence of harmful biological effects to invoke the application of the precautionary principle and of effective, urgent preventive measures.

... In connection with the proven or potential risks of electromagnetic fields, it should also be noted that after a Lloyd's report, insurance companies tended to withhold coverage for risks linked with electromagnetic fields under civil liability policies, in the same way as, for example, genetically modified organisms or asbestos, which is hardly reassuring ...

... the rapporteur wonders whether it might not be expedient and innovative to try and develop new wireless communication technologies ... but more energy-efficient and above all less problematic in terms of the environment and health than the present microwave-based wireless communication.

Such systems ... are reportedly being developed in the United States and Japan and could largely replace the present technologies. Should such changes in transmission and communication systems [or others – *present author's comment*] prove realistic, it would then be a case of technological and economic innovations not to be missed or obstructed.

The precautionary principle and the right to a healthy environment, particularly on behalf of children and future generations, must be key factors in all economic, technological and social development of society.

Refer also to the Seletun Resolution in Appendix 8.

References

CE (2011), The potential dangers of electromagnetic fields and their effect on the environment, Parliamentary Assembly Assemblée parlementaire, Resolution 1815, Council of Europe / Conseil de L'Europe,

CE (2011a), The potential dangers of electromagnetic fields and their effect on the environment, Parliamentary Assembly Assemblée parlementaire, Council of Europe / Conseil de L'Europe, <http://assembly.coe.net>, Doc. 12608.

BMJ (2011), Radiation fears prompt possible restrictions on wi-fi and mobile use in schools, News, BMJ (2011), 342, d3428.