

Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR)

Request for a scientific opinion on Health Effects of Exposure to EMF

1. Background

Council Recommendation of 12 July 1999¹ on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz) fixes basic restrictions and reference levels for the exposure of the general public to electromagnetic fields (EMFs). These restrictions and reference levels are based on the guidelines published by the International Commission on Non Ionising Radiation Protection (ICNIRP)². In response to a questionnaire sent to Member States in 2000, all MS notified the Commission to have implemented the provisions of Council Recommendation. The Commission is currently preparing a second report to the Council on the implementation of the Recommendation, updating the earlier implementation report of 2002³ based on replies to a new questionnaire sent to the 27 Member States.

For workers, the Council and the Parliament have adopted Directive 2004/40/EC of 29 April 2004⁴ on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (EMFs). However, the Commission intends to postpone the deadline for implementation of this Directive in order to present a proposal for amendment based on the ongoing revision of the international guidelines.

The ICNIRP guidelines had been endorsed by the Scientific Steering Committee (SSC)⁵ in its opinion on health effects of EMFs of 25–26 June 1998. The Scientific Committee on Toxicity, Ecotoxicity and the Environment (CSTEE) prepared an update of the Scientific Steering Committee's opinion and concluded in its opinion on "Possible effects of Electromagnetic Fields (EMF), Radio Frequency Fields (RF) and Microwave Radiation on human health", of 30 October 2001, that the information that had become available since the SSC opinion of June 1999 did not justify revision of the exposure limits recommended by the Council⁶.

The SCENIHR had been requested to update this opinion due to the potentially increasing exposure to EMF consequent to the further growth in the use of electricity from the telecommunications industry including a rapid increase in the installation of transmitter masts used as radiotelephone base stations. In addition to domestic, industrial and medical electrical appliances and devices, high voltage overhead transmission lines (and to a lesser extent underground cables) are major sources of exposure to Extremely Low Frequencies (ELF) in the environment. Furthermore, a substantial number of scientific publications and reviews on the possible health effects of EMF (focusing mostly on mobile telephones) had become available since the CSTEE opinion in addition to Community funded and other research activities.

¹ (OJ. L 199/59, 30.7.1999)

² <http://www.icnirp.de/>

³ http://europa.eu.int/comm/health/ph_determinants/environment/EMF/implement_rep_en.pdf

⁴ (OJ. L 184/1, 24.5.2004)

⁵ http://europa.eu.int/comm/food/fs/sc/ssc/index_en.html

⁶ The main frequencies in the ELF frequency range are 50 Hz in Europe and 60 Hz in North America. The RF and lower microwave frequencies are of particular interest for broadcasting, mobile telephony. The 2.45 GHz frequency is mainly used in domestic and industrial microwave ovens.

The opinion delivered by the SCENIHR in March 2007⁷ confirmed the earlier conclusion of the CSTEE and highlighted again the need for additional data and research on this issue. The SCENIHR has recommended that specific research areas as outlined in the opinion be addressed.

As part of its mandate, the SCENIHR is asked to continuously monitor new information that may influence the assessment of risks to human health in this area and to provide regular updates on the scientific evidence base to the Commission. Recently, there have been several articles and broadcasts in the general press and media referring to new scientific evidence on possible effects on human health of exposure to EMF notably from mobile phone technology. Some of these, in particular the BioInitiative Report⁸ state that new evidence proves the carcinogenic nature of exposure to EMF. The BioInitiative Report is one of several reports and statements by scientists diverging from the scientific position taken by other research groups, including that of the SCENIHR.

Consequently, the SCENIHR is being asked to examine this and other relevant publications that were published after its own scientific opinion in March 2007 and to address in particular the questions listed in the Terms of Reference.

2. Terms of reference

1. The Committee is requested to update the SCENIHR opinion of 21 March 2007⁷ in the light of newly available information.
2. The Committee should provide a critical comparative assessment of the overall conclusions of main reports or parts of reports that could appear as reaching different conclusions and explain the reasons for the differences in the conclusions concerning health effects and the associated degree of uncertainty.

3. Deadline: November 2008

⁷ http://ec.europa.eu/health/ph_risk/committees/04_scenihhr/docs/scenihhr_o_007.pdf

⁸ <http://www.bioinitiative.org/report/index.htm>