

Statement regarding the safety of pregnant women in electromagnetic fields (3 kHz and above)

Most of the currently available and broadly accepted standards and guidelines for limiting personal exposure to electric, magnetic and electromagnetic fields (e.g. [1], [2], [3]) are providing more restrictive exposure limits for the general public (or in uncontrolled environments) compared to occupational exposure (or in controlled environments). Formally, the definition of the term 'general public', however, is not exactly the same in the different documents.

While in the Canadian standard [3] the term 'general public' is explicitly defined as including also pregnant women, this is not explicitly done in the US American IEEE-standard [1] and the ICNIRP-Guidelines [2], which currently serve as the basis for the European safety standards.

According to [1] the 'uncontrolled environment' include the '*domicile and most places where the infirm, the aged and the children are likely to be*'. Although this definition does not explicitly include pregnant women it is noted in [1], that the members of the responsible Subcommittee believe (based on the current state of scientific knowledge) that the recommended exposure levels should be safe for '**all**', which would implicitly include also pregnant women.

According to ICNIRP [2] the term 'general public' include '*individuals of all ages and of various health status and may also include particularly susceptible groups or individuals*'. Although this definition does not explicitly mention pregnant women, they should be covered by the term '*particularly susceptible groups or individuals*'.

In summary, based on the mentioned and currently accepted standards and guidelines, there is no reason to believe that the exposure limits for the 'general public' and 'uncontrolled environments' are not applicable to pregnant women.

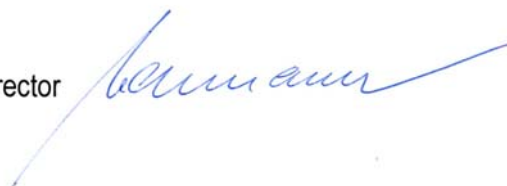
- [1] IEEE C95.1-1999: IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
- [2] ICNIRP 1998: International Commission of Non-Ionizing radiation Protection: 'Guidelines for limiting exposure to time varying electric, magnetic, and electromagnetic fields (up to 300 GHz)', *Health Physics*, 74(3), pp. 494-522, 1998.
- [3] Safety Code 6, 1999: Limits of Human Exposure to radiofrequency Electromagnetic Fields in the Frequency range from 3 kHz to 300 GHz, Health Canada, ISBN 0-662-28032-6

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Expert



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ARC Seibersdorf research GmbH

A-2444 Seibersdorf, Tel. ++43/(0)50550*, Fax: ++43/(0)50550**, Stadtbüro: A-1010 Wien, Kramergasse 1, Tel. ++43/(0)50550-4020, Fax ++43/(0)50550-4050

Server <http://www.arcs.ac.at>, e-mail: seibersdorf@arcs.ac.at; Sitz der Gesellschaft: Wien; Firmenbuchnummer: FN 196035 m, USt-IDNr.: ATU52381603; DVR 107523