

Dear Contributor,

Thank you for participating in the public consultation of the ICNIRP draft guidelines.

Please note that it is important that ICNIRP understands exactly the points that you are making. To facilitate our task and avoid misunderstandings, please:

- be concise
- be precise
- provide supporting evidence (reference to publication, etc.) if available and helpful.

Please provide your details below as per the online form and the provision of the privacy policy

Last name, first name: LAST NAME, First name	Email address: Your email address.	Affiliation (if relevant): Your affiliation
If you are providing these comments officially on behalf of an organization/company, please name this here: organization/company		
☐ I hereby agree that, for the purpose of transparency, my identity (last and first names, affiliation and organization where relevant) will be displayed on the ICNIRP website after the consultation phase along with my comments.		
☒ I want my comments to be displayed anonymously.		

Please complete the comments table: Please use 1 row per comment. If required, please add extra rows to the table.

	Document (Guidelines, App A, App B)	Line Number #	Type of comment (General/ Technical/ Editorial)	Comment. Proposed change. Context.
1	Guidelines	84 to 88	Technical	Only two groups of people are considered, we would prefer three groups: occupational as defined in the text, general public as defined and vulnerable people's group. Insert your proposed change. Insert vulnerable persons to account for schools (pupils and students), hospitals and health care places (illness bring fragility to any type of radiations), old people who have lower thermoregulation capacities, and rural places where people may be exposed but have no means to protect themselves. This would also put a constrain to physical location of some equipments near these places.
2	Guidelines	95	General	A pregnant woman is vulnerable and should be place in the third group Insert your proposed change. Explain the context of your comment.
3	Guidelines	112 to 117	Technical	The phrasing is not clear regarding power and energy definition As the field propagates away from a source, it transfers power (in watt or power per unit of surface) from its source to a receiving object. When the said power is applied during a time t the receiving object absorbs an equivalent energy (in joule which is power x time). The phrasing of this definition is important for the remainder of the text. It is the application of the power during time that brings heat and allows for changes and consequences in the body.
4	Guidelines	119 - 120	Technical	There is a need of clearly stating that EMF is composed of electric and magnetic field. Not only electric field E Insert your proposed change. Explain the context of your comment.
5	Guidelines	125	Technical	The effect of induced electric field on electrons and molecules may lead to oxidization. This phenomenon is known to cause certain health problems but not mentioned here. In particular, in appendix B, impacts on calcium ion dynamics have been mentioned. Even if there is currently no evidence, it should be mentioned either here or in Appendix B. Another possible effect on blood is mentioned in the article of M. Havas (see comment 13 below). This needs to be discussed as prolonged exposure has some damaging affects. Insert your proposed change. Explain the context of your comment.

6	Guidelines	156 371	Technical	Assumed tissue density and average body density are not mentioned in the table nor is the conductivity. (see also line 357-364). There is a need of reassessing this sentence. When a high frequency reaches the body, it is predominantly absorbed by superficial tissues. However, it can go deeper by being attenuated and with lower frequencies. As such other effects could be found such as tissue excitation for lower frequencies transmitted by. Attenuation/absorption of the EMF depends on the frequency and the medium through which it propagates. It is not clear if the effects of the EMF are being investigated through different media. Insert your proposed change. Explain the context of your comment.
7	Guidelines	284-285	Technical	Eyes are sensitive as they mainly contain water. Even if EMF does not penetrate, it can induce eye dryness because of superficial dryness caused by heat. This should be revisited in the text. Insert your proposed change. Explain the context of your comment.
9	Guidelines	458 to 466	Technical	On the risk factor, please include vulnerable people. Insert your proposed change. Explain the context of your comment.
				By including vulnerable people, it will force emf equipment to be put away from these people/places.
10	Guidelines	502	Technical	Why 400 MHz instead of 100 Mhz as stated in the concerned range of frequency Replace 400 by 100 Explain the context of your comment.
11	Guidelines	532 – 532 and 552	Technical	There is need of clarifying that transmitted energy as average transmitted power over time. For example for general public 20 W/m ² over 2s gives 40W/m ² . However using the other formula for energy gives something much above the 40W/m ² (in KJ/m ²). (see also comment 3). Insert your proposed change. Explain the context of your comment.
12	Guidelines	681-718	Technical	Best to put frequency f in the same units in all Tables otherwise it is confusing to have it in MHz and after in GHz. Choose GHz as it is most used Insert your proposed change. Explain the context of your comment.
13	Guidelines	866	Technical	<u>Additional reference</u> Magda Havas, Radiation from wireless technology affects the blood, the heart and the autonomic nervous systems. Rev. Environ. Health 2013; 28(2-3): 75-84. Magda Havas, Electromagnetic Hypersensitivity: Biological Effects of Dirty Electricity with Emphasis on Diabetes and Multiple Sclerosis. Electromagnetic Biology and Medicine, 25: 259–268, 2006 In these articles, vulnerable persons such as pupils are cited and also effect on the blood and nervous system. Also effects of health such as diabete.

14	Appendix A	69-70	Technical	It is assumed that tissue has the same density as water which is not true as the dry part of a tissue is not negligible; Water is generally assumed be around 70-80% of the body. Insert your proposed change. Explain the context of your comment.
15	Appendix A	80	Technical	Please correct the equation: the correct writing is given below. $Str = \frac{1}{A} \iint_A \left(\int \rho(x, y, z) SAR(x, y, z) dz \right) dx dy$ where $SAR(x, y, z)$ and $\rho(x, y, z)$ are the SAR and the density of a point (element of body) located at cubic coordinates x,y,z. Explain the context of your comment.
16	Guidelines	Line number	General	Several studies seem to have methodological problems. It might interesting to help the scientist in setting what is acceptable in terms of methodology. This issue is very important for human being and ist environnement and is worth this exercice. Insert your proposed change. Explain the context of your comment.

Add further rows if needed. For this copy the above row.

And paste it here.