

## Your response

Question	Your response
<p><b>Question 1: Please provide feedback on the additions, amendments and clarifications we have made to the wording of the licence condition to implement our decisions on the scope of the licence condition in our October 2020 Statement, giving reasons for your response.</b></p>	<p>Confidential? – Y / N</p>
<p><b>Question 2: Please provide feedback on the additions and clarifications to our ‘Guidance on EMF Compliance and Enforcement’, giving reasons for your response.</b></p>	<p>Confidential? – N</p> <p>I want specifically to comment here on the unwarranted acceptance of the 1998 ICNIRP guidelines without any attempt to evaluate their reliability in terms of protecting the public as well as the fauna and flora exposed constantly over long periods to radio-frequency radiation (RFR). While Ofcom insists that it takes PHE’s advice on health-related effects of EMFs/RFRs, the problem is that PHE itself has provided no evidence that it has consulted medical scientists specialising in evaluating the effects of EMFs but appears simply to have accepted the ICNIRP guidelines without interrogation. Thus, in referring back to PHE, Ofcom is passing responsibility to an organisation that is not in fact accepting any responsibility for evaluating the health effects of non-thermal exposure to RFR. The result is that it appears there is no UK government body ready and willing to assume responsibility here, not level of accountability at all, while without any evidence to their safety having been provided by either body both insist on the suitability of the ICNIRP guidelines to be adopted as standards for the British public’s exposure to EMFs. How can this be acceptable that the government shirk their duty of protecting human health and the environment in which the British public lives to this extent? Evidence that RFR is not safe comes not only from human health studies<sup>1</sup> but also from</p>

<sup>1</sup> A tiny selection: Kostoff, Ronald N., Paul Heroux, Michael Aschner, Aristides Tsatsakis (2020) Adverse health effects of 5G mobile networking technology under real-life conditions, *Toxicology Letters*, 323: 35-40

observations from members of the public and from many scientific studies that have shown that insects, including pollinating insects such as bees,<sup>2</sup> birds, and mammals are being negatively affected by EMFs to the point where the first have dwindled alarmingly in numbers. This is likely to affect global food supplies if it is repeated over the entire world as the threat of the launch of tens of thousands of 5G-bearing satellites suggests will occur, affecting all life on the planet including plants.<sup>3</sup>

Given this situation should Ofcom or at least the UK government (together with the relevant EU bodies) not be demanding that the US government including the FCC account for the dangers that such exposure will represent to life on earth prior to issuing licences for these satellites rather than increasing exposure at home without any evidence of the lack of harm?

The ICNIRP guideline documents show no evidence of being based on independent scientific studies of the biological effects of EMFs on living beings or of having consulted independent medical experts rather than electrical engineers in their devising. Electrical engineers may be equipped to measure thermal effects but they do not have the professional expertise to measure or otherwise evaluate the bio-physical effects of non-ionising radiation on living bodies.

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Meo, S. A., Almahmoud, M., Alsultan, Q., Alotaibi, N., Alnajashi, I., & Hajjar, W. M. (2018) Mobile Phone Base Station Tower Settings Adjacent to School Buildings: Impact on Students' Cognitive Health. *American Journal of Men's Health*, 13-1: 1ff

<sup>2</sup> Ved Parkash Sharma and Neelima R. Kumar (2010) Changes in honeybee behaviour and biology under the influence of cellphone radiations *Current Science*, 98(10): 1376ff.

<sup>3</sup> Malka N. Halgamuge (2017) Review: Weak radiofrequency radiation exposure from mobile phone radiation on plants, *Electromagnetic Biology and Medicine*, 36:2, 213-235, DOI: [10.1080/15368378.2016.1220389](https://doi.org/10.1080/15368378.2016.1220389).

	<p>There is also a further issue to be considered: Since the emanations from telecom masts and other antennas form industrial pollutants according to the definitions of the EPA 1990 and the PPCA 1999 they are in themselves unlawful as the British public has a right to be allowed to live as far as possible pollution-free. This is impossible if the ICNIRP guidelines are adopted as is.</p>
<p><b>Question 3: Please provide feedback on the trial version of our EMF calculator, giving reasons for your response.</b></p>	<p>Confidential? – N</p> <p>For some time now I have been measuring radiation levels around masts in London at differing times of day and from multiple distances, angles, and heights. One thing that is clear and that is that there is no one measurement of radiation exposure because it is very difficult to determine where the levels are highest. Moreover, the real levels of exposure are measured not by the averages over time as in the ICNIRP guidelines but by peaks since it is these that represent the actual exposure levels not the averages, which lie far below the peaks. In addition, since the peaks are in a constant state of flux it is impossible to calculate an exact exposure level. In other words, there is repeated exposure to peaks far higher than the averages suggest and the only way to gain any meaningful understanding of the real levels of exposure would be to leave a spectrum analyser running for hours on end in different places around a mast site and at different heights to give an idea of exposure inside bedrooms for instance. However, in many places exposure is to multiple sources running constantly day and night 365/6 days a year, making a mockery of any attempt at producing safe exclusion zones and meaning that it makes no sense simply to measure the emissions from a single mast since nowadays in so many places the exposure is to multiple masts at a time thus producing a multiplying effect rather than a simple additive one regarding levels of exposure to radiation .</p> <p>Thus, the Ofcom document from April 2020<sup>4</sup> that provides one-off readings from somewhere near mobile-phone base stations</p>

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<sup>4</sup> Electromagnetic Field (EMF) measurements near 5G mobile phone base stations: Summary of Results

around the country does not provide anything like a meaningful picture of the actual levels of exposure to radiation from such masts. This is especially the case since it appears to register averages rather than peaks.

It is more than time that this whole issue was regarded from a real-life perspective taking into consideration the entire spectrum of exposure not simply the emissions from one source and in terms of the effects of the peaks on human health over very long time spans. Studies have shown for instance that the installation of a telecoms mast within 300-500m of residences significantly raises cancer levels after exposure for a number of years compared with the average levels in the population at large<sup>5</sup> while removing the mast can alleviate many symptoms of poor health.<sup>6</sup> This surely makes the 6 minute limit of the ICNIRP guidelines look ludicrous and also suggests that studies of the non-thermal effects of RFR must be carried out not by electrical engineers such as those who calculated the 1998 guidelines but by medical scientists specialising in such research. Moreover, how can a set of guidelines from over 20 years ago when the average exposure was far far less than today still be valid especially considering the time scale noted above?

Meanwhile, these guidelines have been called into question by a court in Turin as well as by the refusal of insurance companies to cover any complaints arising from exposure to EMFs. Would it not be a good idea then to apply the precautionary principle by reconsidering the passing of the ICNIRP guidelines into UK law in favour of refusing to roll out 5G or approve any further masts or antennae until the effects have been thoroughly explored by independent

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<sup>5</sup> Wolf R and Wolf D (2004), Increased Incidence of Cancer Near a Cell-phone Transmitter Station, *International Journal of Cancer Prevention*, (Israel) 1(2).

<sup>6</sup> Tetsuharu Shinjyo and Akemi Shinjyo (2014) Significant Decrease of Clinical Symptoms after Mobile Phone Base Station Removal – An Intervention Study) *Umwelt-Medizin-Gesellschaft*, 27(4): 294-301.

scientists with the appropriate medical background, as not only I but most other independent respondents to this consultation have been demanding. If Ofcom is really doing its job such respondents should surely be taken more seriously than members of the industry that is responsible for producing these high levels of exposure in the first place and which wishes to expose us to far far higher levels in the future with the approval of Ofcom. The proposed 5G rollout represents a massive increase of exposure not merely to the kind of EMFs already surrounding us but also to beam-forming radiation from huge numbers of 5G antennas and masts. This is an unprecedented human and environmental experiment with no apparent attempt to take seriously the concerns raised by myself and the many others who have responded to this and former consultations. I, therefore, insist that it is time for Ofcom to call a halt to further expansion of the telecoms system to show that it is more concerned with protecting the British public than with complying with the demands of the telecoms industry until either they, PHE or its replacement organisation or both jointly have had time to carry out studies independent of industry interests rather than repeatedly refusing to accept any responsibility for the impact of their policies and standards, despite the warnings from thousands of independent scientists. In this way they would step up to their responsibilities rather than refusing to accept them and simply kowtowing to industry by judging in their favour and refusing to acknowledge the justified concerns of large numbers of the British public. If more people are not alarmed by this it is because the government and the media have deliberately kept them in ignorance of the genuine concerns of those with real knowledge of the issues, such as the thousands of independent scientists who have been carrying out research into the effects of RFRs on plants, insects, birds, and mammals including humans. In fact it represents a further dereliction of government duty that the population has not been warned of the potential dangers to themselves and their children of their unregulated use of mobile technology and wifi.

Please complete this form in full and return to [EMImplementation@ofcom.org.uk](mailto:EMImplementation@ofcom.org.uk).