

Your response

By way of introduction, I have over 30 years consultancy experience in the telecoms sector working for a diverse range of blue-chip clients in more than 50 countries world-wide. For many years I was an expert advisor to the European Commission on telecommunications policy and liberalisation.

Question	Your response
<p>Do you agree with our proposal to take steps to mitigate risks related to EMF and be in a position to hold licensees, installers and users to account if issues are identified? Please explain the reasons for your response.</p>	<p>No. See below.</p>
<p>Do you agree with our proposal (a) to include a condition in spectrum authorisations requiring compliance with the basic restrictions for general public exposure identified in the ICNIRP Guidelines; and (b) that this condition should apply to equipment operating at powers greater than 10 Watts?</p>	<p>No.</p> <p>I agree that every operator of a transmitter should follow the ICNIRP Guidelines.</p> <p>You are, however, proposing not just the need to comply with these guidelines, but also the need, ex ante, to document proof of compliance.</p> <p>For a stereotypical 5G site, where the transmit frequencies, modes of operation and power output are well controlled, and where the antennas are mounted on a tall mast secured behind a security fence, then documenting proof of compliance may be relatively straightforward.</p> <p>Nevertheless, there are many transmitters which are operated under completely different circumstances where documentation of full proof compliance, in all possible circumstances, is much more difficult, if not virtually, impossible.</p> <p>For example, consider the following (far from complete) list:</p> <ul style="list-style-type: none">• the RNLI operating a radio transmitter with a fixed antenna on a very small rescue craft

- someone operating a vehicle mounted PMR radio where a pedestrian could theoretically touch the antenna
- a mobile PMR radio being operated from a site already occupied by other transmitters where the PMR operator is unaware whether the existing transmitters on that site are already brushing up to the ICNIRP limit
- a radio amateur operating a special event station from a tent at a public event
- someone adding a transmitter to an existing site where other unknown transmitters are already operating
- a satellite dish mounted on a news gathering vehicle or on a mobile bank
- a mobile network operator operating a MMIMO (massive MIMO) array in a major railway station or a sports stadium or at a temporary event.

In the cases above, operators can, and hopefully will, have taken all appropriate steps to comply with the ICNIRP Guidelines. However, as the name suggests, they are guidelines, deliberately named since it is virtually impossible to guarantee compliance under all circumstances. For example, to guarantee that under no circumstances can anyone approach a mobile antenna to less than the safe distance, it might be necessary to enclose the antenna in a cage. Only this would ensure, even in the most extreme circumstances, that would it not be within touching range.

Therefore, given this situation above, it is one thing for an operator to put in place appropriate precautions to comply with ICNIRP Guidelines as is the current requirement. However it is a significantly more onerous obligation for an operator to anticipate, in advance, all theoretically possible circumstances that could occur in order to be able to document proof of compliance. Therefore Implementation of your proposed licence amendment could have dramatic and unintended consequences for many operators, and could lead to the need to adopt changes that are potentially far worse than the risks involved.

	<p>Therefore, I believe that imposing a statutory licence condition of the form proposed, that mandates proof of compliance with ICNIRP Guidelines in advance, is both unnecessary and could have damaging unintended consequences.</p> <p>Ofcom need to demonstrate firstly that there is a problem with the current regime that would mean that it is both necessary and proportional to introduce a change. In particular Ofcom need to produce statistics to show that in the past there have been breaches of ICNIRP Guidelines that have resulted in health and safety concerns, and where these have occurred, that they have not been adequately dealt with by existing regulatory controls. Only under these circumstances is a change appropriate.</p> <p>Secondly, if it is proven that a change is needed, then the licence condition that is currently proposed should be replaced with a condition that states that a licence could be revoked, and the licensee prosecuted, where a licensee knowingly and persistently fails to comply with the ICNIRP Guidelines.</p> <p>As a side point, the proposal that the new licence condition would only apply to equipment "...that is authorised to transmit at powers above 10 Watts EIRP" is technically nonsensical since EMF concerns primarily focus on near-field exposure, whilst the concept of EIRP is meaningless (and potentially dangerously confusing) with respect to near-field EMF exposure.</p>
<p>Do you agree with our proposed guidance on EMF compliance and enforcement? Please explain the reasons for your response.</p>	<p>No. See above</p>