



Ofcom Consultation:

Proposed measures to require compliance with international guidelines for limiting exposure to electromagnetic fields (EMF)

Guide by the Radio Society of Great Britain

28 May 2020

On 21 February Ofcom launched a consultation proposing that all radio equipment (not just amateur radio) that can transmit at more than 10W (EIRP) be subject to a new licence condition for compliance with the International Commission for Non-Ionising Radiation Protection (ICNIRP) Guidelines for public exposure to electromagnetic fields. The proposals include new licence conditions and mandatory guidance to carry out and record assessments to show compliance using one or more of the following:

- Physical measurements
- Tests
- Calculations
- Following manufacturers' guidance/instructions

It is expected that most stations will be able to show compliance without having to make measurements. However, the nature of Ofcom's approach, prompted by 5G concerns, is in our view onerous and disproportionate.

The RSGB is preparing a detailed response to Ofcom. This guidance paper is to assist individual radio amateurs that may wish to make their own considered responses to the consultation before the 12 June deadline (extended from 15 May 2020).

Background

Following the release of the Ofcom consultation, the RSGB released an initial Briefing Paper on 28th February. Subsequently there has also been a release of Ofcom FAQs in April and a confirmation that the ICNIRP guidelines are now formally updated to their new 2020 edition, from their previous 1998 issue.

The consultation, briefing paper etc, are all collated and linked from our EMF page at:

<https://rsgb.org/main/technical/emc/emf-exposure/>

Overleaf is our guide:-

Note: Replies to Ofcom should be in your own words and not be a copy of this!

Question 1: 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.

RSGB fully supports the underlying principle that Radio Amateurs need to be aware of the risks relating to EMF exposure, and of the ways to mitigate those risks. Indeed, RF Safety is an integral part of the existing UK amateur radio licence and our (Ofcom-approved) exam training syllabus.

However RSGB does not agree with Ofcom's proposals to implement that principle by adding a major new enforceable condition to Amateur licences. We believe this would be:

1. In breach of statutory general duties

The Communications Act 2003 and the Wireless Telegraphy Act 2006 together require that regulations made by Ofcom:

- Must be proportionate, objectively justifiable, and targeted only at cases in which action is needed;
- Must not impose burdens which are unnecessary;

There would also be a danger of double regulation with what is normally a HSE/PHE matter.

2. Not objectively justifiable

- The Amateur licences include a long-standing requirement that safety precautions should be taken against "radio frequency radiation" which is accepted by Public Health England (PHE), and the NRPB before it, as being proportionate to the low levels of risk arising from Amateur Radio activities.

3. Inadequate with respect to the requirement for impact assessments

- The document contains no impact assessment of any kind.

4. Disproportionate and Discriminatory

We emphasise that all impacts upon Amateur Radio will be disproportionate to the related risks of harm.

- They will be extremely disruptive to the Amateur Service and Amateur Satellite Service
- They fall most heavily upon the very large numbers of non-commercial licensed spectrum users many of whom lack the resources to make the assessments demanded.

Question 2: 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*
- b) that this condition should apply to equipment operating at powers greater than 10 Watts EIRP?*

Regarding 2a)

In principle, RSGB strongly supports the appropriate and technically correct application of ICNIRP 2020 Guidelines. But RSGB does not agree with the manner in which Ofcom proposes to achieve this within the Amateur licence. We also find many serious technical and drafting errors within the proposal.

Regarding 2b)

This part of the Ofcom proposals is undermined by serious technical and drafting errors. Regardless of any other merits, RSGB finds it impossible to support the proposal in its present form.

Ofcom's entire approach to achieving EMF Safety through power regulation is undermined by a lack of clarity about the basic concepts of "power" and "EIRP" in the context of radiation protection.

- For ICNIRP compliance purposes, "power" must be clearly defined as Average Power during the appropriately defined period of several minutes. This is nowhere made clear.
- Indiscriminate use of the "EIRP" (a far field concept) to calculate EMF exposures at very short distances from an antenna will frequently lead to either overestimates or underestimates of field strengths. To mandate this methodology creates a severe risk of unsafe advice and actions.
- Mobile and other forms of temporary operation (other than mobile phone handsets) are not addressed at all by the proposed regulations.

*Question 3: Do you agree with our proposed guidance on EMF compliance and enforcement?
Please explain the reasons for your response.*

Again, RSGB finds this impossible to agree. The potentially helpful advice about achieving compliance is overbalanced by a heavy emphasis on enforcement and penalties.

- "Guidance", by its very nature, cannot include further elements of regulation. The enforcement provisions of the Wireless Telegraphy Act 2006 and their applicability under criminal law apply equally to all parts of the licence
- RSGB has good reason to be sceptical of Ofcom's capability to enforce any such licence conditions. The expertise required to inspect an Amateur station with regard to EMF compliance goes far beyond that needed to survey a mobile phone base station.

A Constructive Alternative

Instead of Ofcom's proposed mandatory form of "guidance", RSGB is enhancing its own training and guidance material. This is intended to complement an extension of the existing 'light' touch regulatory approach within the Amateur licence itself.

We also note that Ofcom's own (non-mandatory) Amateur Licence Guidance is currently silent on the entire topic of EM Field exposure, but we are prepared to discuss reasonable enhancements to that more appropriate document.

While taking account of the general guidance that Ofcom can provide, the RSGB guidance will be much more specific – and much more valuable – to Amateur Radio installations.

Please contact John Rogers, M0JAV emc.chairman@rsgb.org.uk if you need further advice.