

Reference: 01454146

Katherine Childs  
Information Rights Advisor  
[Information.requests@ofcom.org.uk](mailto:Information.requests@ofcom.org.uk)

09 June 2022

### Freedom of Information: Right to know request

Thank you for your request for information in relation to ICNIRP certificates and base stations' compliance.

We received this request on 10 May 2022 and have considered it under the Freedom of Information Act 2000 and Environmental Information Regulations 2004.

### Your request

You asked:

*I am wondering what Ofcom protocols and implementation of checks have been introduced to ensure ICNIRP certificates, and subsequently base stations, are compliant? I have read a number of published Ofcom Reports, and kindly request further clarification please. Could I please request the following information under the Freedom of Information Act. As a Regulator, I am sure Ofcom has all of this information to hand. My questions relate to the last 12 months:*

- 1. Does Ofcom ever independently verify ICNIRP certificates PRIOR to mast installation or upgrade? I am interested in all types of mast, but in particular ground-based monopoles for 5G. If the answer is yes, how many masts have been checked PRIOR to installation in the last year?*
- 2. For new ground-based masts, how many times has Ofcom asked for the background information and data information used by the Telecoms operator to create the ICNIRP certificate compliance sheet? Both BEFORE and AFTER installation?*
- 3. If you receive this data, does Ofcom have the technical ability/software (like the telecoms operators must have) to process the data (frequency, power output, angle of antenna etc) to double check themselves the validity of the ICNIRP certificate?*
- 4. In your report: Guidance on EMF Compliance and Enforcement dated 18 May 2021; Item 12 is all about how Operators must keep appropriate records demonstrating compliance and*

*I quote "Ofcom may, from time to time, conduct EMF compliance checks and audits. Spectrum users should therefore be in a position to explain the steps they have taken to ensure compliance with the general public EMF limits and provide appropriate records demonstrating their compliance."*

*- In terms of the above, how many times in the last 12 months has Ofcom conducted EMF compliance checks and audits:*

*4.1 prior to a 4G & 5G mast being built*

*4.2 prior to a 4G & 5G mast being upgraded*

*4.3 after a 4G & 5G mast has been built?*

*- Could you please give a number of examples of how the Spectrum user has in reality;*

*4.4 explained the steps they take to ensure this compliance*

*4.5 provided appropriate records demonstrating their compliance. Naturally, I am expecting this information to be redacted if appropriate.*

*5. In your EMF measurements near 5G mobile phone base stations Technical Report (version 4) dated 1/3/2021,*

*5.1 The report states 33 locations in 18 towns we assessed. How many actual masts do these numbers relate to? Is it 33 masts?*

*5.2 I am presuming you have a mast register for England? How many 3G, 4G & 5G masts are there currently in the UK please?*

*5.3 And how many of these masts in England are ground based masts?*

*5.4 How many are 5G?*

*5.5. How many ground based masts were included in the assessed masts in this report?*

*5.6. Of this number, how many are 5G monopoles?*

*6. Has Ofcom ever revoked a Spectrum License due to ICNIRP non-compliance either before or after mast installation?*

*7. And finally, if a member of the public has a genuine concern about a breach of ICNIRP compliance PRIOR to a mast installation, what role/advice does Ofcom offer in this respect and would they independently verify the particular site of concern prior to installation?*

## Our response

We respond to your questions in turn below.

### *Questions 1-3:*

Ofcom has no involvement in the planning process for physical structures that may host radio equipment (such as masts, buildings, lampposts or other street furniture), or in the enforcement of planning law. This is a matter for local planning authorities. The responsibility for planning policy falls to the DLUHC – [Department for Levelling Up, Housing and Communities](#). In particular, Section 10 (Communications) of the [National Planning Policy Framework](#) (2021) outlines the planning criteria for communications infrastructure in England.

There is also a [Code of best practice on mobile network development in England](#). This Code of Practice explains that MNOs are committed to compliance with internationally agreed levels of exposure to electromagnetic fields and requires MNOs to sign a declaration (sometimes referred to as an “ICNIRP Certificate”) confirming that they have complied with these levels when applying for planning permission for a new site or a change to an existing site.

As we have no role in the planning approval process, we do not assess or verify ICNIRP certificates prior to mast installation. Planning decisions also concern proposals for new, or changes to existing, mobile sites and therefore proposed levels of exposure to electromagnetic fields (EMF) rather than current EMF exposure levels, which are the subject of our [EMF licence condition](#).

If you have any views or questions about planning applications for any specific site, you can address those to the [relevant local planning authority](#).

Further information is available on our [masts and planning](#) webpage and in our [statement on EMF compliance](#) (see paragraphs 4.37 – 4.43).

### *Question 4.1: Re: audits prior to a 4G & 5G mast being built?*

We do not hold this information. We do not carry out compliance checks in advance of masts being built. Please refer to our answer above.

### *Question 4.2: Re: audits prior to a 4G & 5G mast being upgraded?*

In general, we do not carry out compliance checks in advance of masts being upgraded. However, we have carried out paperwork checks in relation to one mast before it was upgraded.

### *Question 4.3: Re: audits after a 4G & 5G mast has been built?*

We have carried out checks on 78 masts over the last 12 months. All checks were compliant i.e. all EMF levels measured were well within the ICNIRP general public EMF limits.

*Question 4.4 and 4.5: Re: examples of how the Spectrum user has in reality: explained the steps they take to ensure this compliance; provided appropriate records demonstrating their compliance.*

For checks of mobile masts, we usually carry out measurements ourselves. Where we have asked for records of compliance, this can be in the form of an explanation of how they ensure members of the general public cannot access areas in which the ICNIRP general public EMF limits could potentially be breached and asking to see planning diagrams showing ICNIRP exclusions zones. However, the specific questions that we ask depend on the circumstances.

*Question 5.1: The report states 33 locations in 18 towns we assessed. How many actual masts do these numbers relate to? Is it 33 masts?*

Each of the measurement locations in this report were chosen based on their close proximity to a specific 5G-enabled mast in an area with high footfall. However, as there tend to be higher numbers of mobile masts in built up areas, the levels we measured would have also included contributions from other mobile masts in the vicinity. We did not specifically record the numbers of additional mobile masts in the vicinity of these measurements.

*Questions 5.2 – 5.6:*

We have interpreted “mobile masts” to mean physical telecommunication sites with transmitters of mobile phone signals.

We do not hold an accurate number for the total number of physical mobile masts in the UK across all technologies, as some operators share sites, sites may be temporary, under construction or reconfigured. The data with which we are provided by MNOs may not always enable us to account for these aspects, and network development or modification is always a fast-changing situation. However, an approximate number for the total across all technologies is in the region of 41,000 in the UK and 30,000 in England.

We do not hold information to differentiate between different mast structures including between transmitters installed on separately built masts or on other sites such as in or on buildings and street furniture.

For 5G, we reported in [Connected Nations](#) that MNOs had deployed c.6,500 5G sites in the UK by October 2021, with 87% of these sites located in England. This is the most recent such estimate provided to us, and includes the combined total of sites each individual MNO informed us it had in operation for 5G – therefore it may include a number of locations where physical structures are shared or co-located.

*Question 6: Has Ofcom ever revoked a Spectrum License due to ICNIRP non-compliance either before or after mast installation?*

No. However, note that our EMF licence condition has only recently come into force (18 November 2021 for frequencies at 110 MHz or above).

*Question 7: And finally, if a member of the public has a genuine concern about a breach of ICNIRP compliance PRIOR to a mast installation, what role/advice does Ofcom offer in this respect and would they independently verify the particular site of concern prior to installation?*

We provide a wide range of information and advice on our [website](#) in relation to EMF. However, as explained above, we do not verify ICNIRP compliance prior to mast installation and do not have any role in relation to the planning approval process.

If you have any queries, then please contact [information.requests@ofcom.org.uk](mailto:information.requests@ofcom.org.uk). Please remember to quote the reference number above in any future communications.

Yours sincerely,

Katherine Childs

If you are unhappy with the response you have received in relation to your request for information and/or consider that your request was refused without a reason valid under the law you may ask for an internal review. If you ask us for an internal review of our decision, it will be subject to an independent review within Ofcom.

The following outcomes are possible:

- the original decision is upheld; or
- the original decision is reversed or modified.

#### Timing

If you wish to exercise your right to an internal review **you should contact us within two months of the date of this letter**. There is no statutory deadline for responding to internal reviews and it will depend upon the complexity of the case. However, we aim to conclude all such reviews within 20 working days, and up to 40 working days in exceptional cases. We will keep you informed of the progress of any such review. If you wish to request an internal review, you should contact [information.requests@ofcom.org.uk](mailto:information.requests@ofcom.org.uk).

If you are not content with the outcome of the internal review, you have the right to apply directly to the Information Commissioner for a decision. Further information about this, and the internal review process can be found on the Information Commissioner's Office [here](#). Alternatively, the Information Commissioner can be contacted at:

Information Commissioner's Office  
Wycliffe House  
Water Lane  
Wilmslow  
Cheshire

SK9 5AF