

Health & Safety

# Radio Frequency Compliance.





# Who is Cornerstone?

Cornerstone is the UK's leading mobile infrastructure services company. We acquire, manage and maintain over 20,000 mobile phone base station sites across the UK.

We enable telecom operators, like Vodafone and Telefónica (O2), to deploy their networks in the UK to provide the public with high-quality electronic communications services.

To achieve this, Cornerstone needs to acquire sites on which mobile infrastructure such as masts, antennas and dishes can be installed and operated.

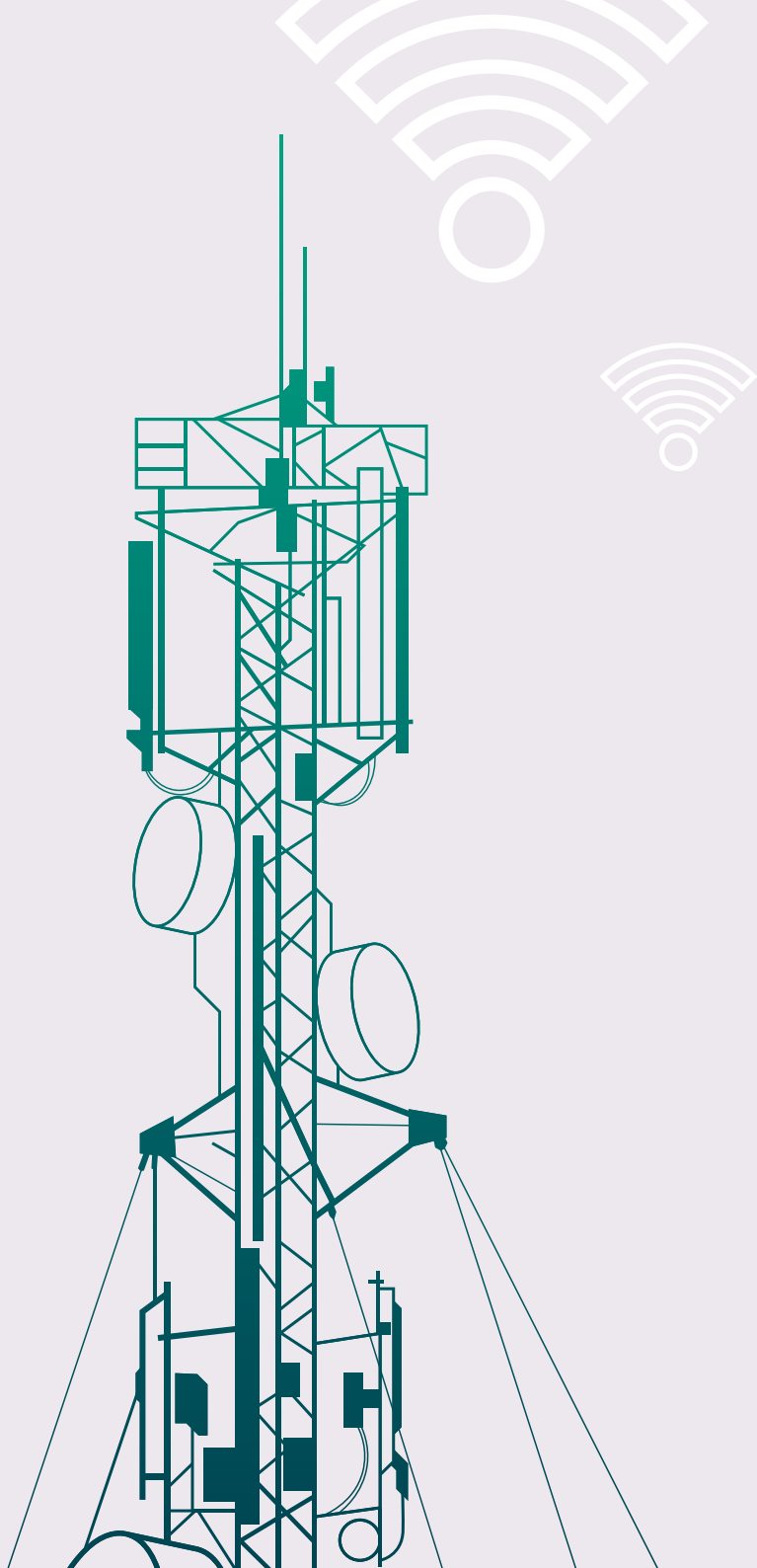
As 5G technology is deployed across the country, more services will become available, and our lifestyles, economy and even the way we commute will be transformed. Additional base stations and upgrades to existing sites will be needed to meet this demand and improve the quality of service.

# Introduction to Radio Frequency Communications.

Radio base stations and handsets use radio waves, which are a particular type of high-frequency electromagnetic field (EMF) to transfer information and make communication possible with mobile phones and devices. Radio waves are used for television and radio transmissions, by the emergency services, public utilities, and many more. They are used for a wide range of personal and commercial equipment such as navigational devices, WiFi equipment, and monitoring devices. EMFs are also produced by household electrical appliances like fridges, vacuum cleaners, or electric shavers.

Various regulations and guidelines apply to the construction and operation of radio base stations, including those that serve to protect Health and Safety.





Health and Safety guidelines and regulations govern exposure to the radio signals used in telecommunications. The International Commission on Non-Ionizing Radiation Protection (ICNIRP) has developed the exposure limits adopted by the Government in the UK following a comprehensive assessment of all the peer-reviewed scientific literature, including thermal and non-thermal effects.

Radio waves are part of the non-ionizing portion of the electromagnetic spectrum. They have lower energy levels than other, better known electromagnetic waves, such as X-rays. The lower energy levels mean that radio waves do not have sufficient energy to damage DNA.

All Vodafone and Telefónica (O2) installations are designed to comply with the ICNIRP exposure limits as adopted in European Union directives and recommendations. The UK Government and Public Health England support this view.

Many countries have adopted international limits suggested by ICNIRP. These limits, which have the formal backing of the World Health Organisation, were developed following a thorough review of the science. They are designed to protect all sectors of the population, 24 hours a day, wherever they are in relation to a radio base station. The limits are made up of two parts: the first is based on established and proven science; the second part incorporates a precautionary factor.

In 2017 the ICNIRP reaffirmed that their limits protect against all known health effects of radiofrequency signals.

Various international assessments have concluded that below the International Commission on Non-Ionizing Radiation (ICNIRP) limits, there is no evidence of adverse health effects regarding wireless networks, including 5G.



# Our Health & Safety promise

Health and Safety is a top priority at Cornerstone and we always ensure we work to high standards. To support this, Cornerstone has been awarded the OHSAS 18001 which is the international standard for an effective Occupational Health and Safety Management System.

“Many measurements have been made and these continue to show that exposures of the general public to radio waves are well within the international health-related guideline levels that are used in the UK. These guidelines are from the International Commission on Non-Ionizing Radiation Protection (ICNIRP) and underpin health protection policies at UK and European levels.”

Guidance 5G technologies: radio waves and health, Public Health England, 2019



### **What guidance do I give to my staff who need access to a roof area for general maintenance activities?**

All our landlords are provided with a Landlord Information Guide which includes information on safe working for rooftop areas. Typically, Vodafone and Telefónica (O2) electronic communication installations are designed so that personnel can perform regular work tasks at roof standing level without accidentally entering an antenna exclusion zone. There are a small number of rooftop sites where areas of the roof need to be avoided. This is made clear via barriers and signage on the rooftop.

### **How do I identify if there are areas of my roof which need to be avoided?**

If the antenna exclusion zone does impinge upon a roof standing area, then that area will be demarked with barriers and signage.

### **As a landlord of a multi-tenanted building, who can I refer my tenants to if they have any concerns over the radio base station?**

For any queries, you should contact [community@ctil.co.uk](mailto:community@ctil.co.uk). The community team has a range of factsheets on various issues associated with mobile phone base stations and can escalate queries within Cornerstone.

### **How will the installation be affected by the introduction of 5G?**

5G is an evolutionary radio technology and it will not affect the way we manage ICNIRP compliance on our sites.

### **I am planning to do repair works to the roof – how can I establish whether or not an outage (equipment switch off) is required?**

In the first instance, refer to the information in the Landlord Information Guide. If you are uncertain, please contact [estatesadmin@ctil.co.uk](mailto:estatesadmin@ctil.co.uk) for further advice and remember to reference your operator site number.

### **If equipment switch off is required, how much notice is needed?**

Vodafone and Telefónica (O2) service operations teams typically require ten working days for a planned outage (switch off). However, in an emergency, the transmitters can be turned off by the Vodafone and Telefónica (O2) network operations centre immediately. In the case of an emergency, please contact the Mitie Service Desk on 0800 084 3454 or [ctilservicedesk@mitie.com](mailto:ctilservicedesk@mitie.com)

# FAQs.



For further information or to contact Cornerstone,  
please visit **[www.cornerstone.network](http://www.cornerstone.network)**

or write to us at:

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