

HEALTH AND MOBILE PHONE BASE STATIONS

2012/2013

We recognise that the growth in mobile technology has led in some cases to public concern about perceived health effects of mobile technology and its deployment, in particular about siting masts close to local communities. Quite naturally, the public seeks reassurance that they are not in any way harmful or dangerous.

We take these public concerns seriously and are committed to providing the latest independent peer-reviewed research findings, information, advice and guidance from national and international agencies on radiofrequency (RF) electromagnetic fields.

Vodafone and Telefónica ensure that our radio base stations are designed and operated so that the public are not exposed to radio frequency fields above the guidelines set by the International Commission on Non-Ionizing Radiation Protection (ICNIRP). In fact, radio base stations operate at low power and emit low levels of radiofrequency fields, typically hundreds to thousands of times lower than the ICNIRP general public guidelines.

Research Reviews

There are about 1400 peer-reviewed publications on the biological and health effects of RF signals¹, which are used in mobile communication technology. The scientific community have collated, summarised and assessed these publications in research reviews, the most influential in the UK being the Mobile Phones and Health Report (also known as the Stewart Report) by the Independent Expert Group on Mobile Phones under the chairmanship of Professor Sir William Stewart. These research reviews are used by Governments to develop policy on exposure to radiofrequency signals.

Published in May 2000, the Stewart Report concluded that the balance of evidence did not suggest that exposures to radio frequency fields below international guidelines could cause adverse health effects, although it acknowledged that biological effects might occur below these values. The report stressed, however, that a biological effect does not necessarily mean a negative impact on health. Walking, drinking a glass of water or listening to music all produce biological effects.

Since 2000, over 30 further reviews have been carried out, carefully considering many hundreds of pieces of research. Most have made similar recommendations and have come to similar conclusions: that research should continue to address any gaps in the knowledge; and that overall, the possibility of adverse health effects from mobile communications remains unproven.

In June 2011 the World Health Organisation (WHO) noted that *"A large number of studies have been performed over the last two decades to assess whether mobile phones pose a potential health risk. To date, no adverse health effects have been established as being caused by mobile phone use"* WHO factsheet 193: Electromagnetic fields and public health: mobile telephones

In April 2012 the Health Protection Agency's independent Advisory Group on Non-ionising Radiation (AGNIR) published a report entitled "Health Effects from Radiofrequency Electromagnetic Fields". This report concluded that there is no convincing evidence that mobile phone technologies cause adverse effects on human health. In addition, AGNIR found that although a substantial amount of research has been conducted, there is no convincing evidence that RF field exposure below the internationally agreed guideline levels applied in the UK causes health effects in adults or children.

¹ Source: MMF web site: <http://www.mmfa.org/public/research-overview.cfm?lang=eng>

Research reviews are used by guideline setting bodies and Governments to develop advice and public policy on exposure to the signal used by mobile communications technology.

Compliance with International Exposure Guidelines

All Vodafone and Telefónica installations are designed, constructed and operated in compliance with the precautionary ICNIRP public exposure guidelines as adopted in EU Council Recommendation of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz). These guidelines have been set following a thorough review of the science and take into consideration both thermal and non-thermal effects and are there to protect all members of the public 24 hours a day. In addition, precautionary measures have been taken into account when setting relevant guideline limits for the public (i.e. in the UK a safety factor of 50 times is applied to the public exposure guideline).

When measured, field strengths are typically hundreds to thousands of times lower than the precautionary ICNIRP general public guidelines.

An ICNIRP certificate is provided with every planning application and this certifies that the mobile phone base station, when operational, will meet the precautionary ICNIRP guidelines. We also provide further documentation to clarify that the ICNIRP certificate declares that emissions from all mobile phone network operators' equipment on the site are considered when determining compliance.

ICNIRP Guidelines

The radiofrequency public exposure limits for EMF fields were developed by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) <http://www.icnirp.org> following reviews of all the peer-reviewed scientific literature, including thermal and non-thermal effects. ICNIRP is a non-governmental organisation formally recognised by WHO. Established biological and health effects have been used as the basis for the ICNIRP exposure restrictions. The ICNIRP guidelines have been adopted for use in the European Union and the UK.

In August 2009, ICNIRP published a review of the guidelines for limiting RF exposure and concluded that *"it is the opinion of ICNIRP that the scientific literature published since the 1998 guidelines has provided no evidence of any adverse effects below the basic restrictions and does not necessitate an immediate revision of its guidance on limiting exposure to high frequency electromagnetic fields."*

Further Information:

- ▶ **World Health Organisation** - <http://www.who.int/peh-emf/en/>
EMF Project
- ▶ **ICNIRP** - <http://www.icnirp.org/>
International Commission on Non-Ionizing Radiation Protection
- ▶ **HPA** - <http://www.hpa.org.uk/HPA/Topics/Radiation/UnderstandingRadiation/1158934607698/>
- ▶ **UK Mobile Telecommunications and Health Research** - <http://www.mthr.org.uk/>
- ▶ **UK Mobile Operators Association** - <http://www.mobilemastinfo.com/>

Or contact:

EMF Enquiries, CTIL
The Exchange, Arlington Business Park, Theale, Berks, RG7 4TY
Tel. 01753 564306, emf.enquiries@cornerstonemobile.net

**Declaration of Conformity with ICNIRP
Public Exposure Guidelines
“ICNIRP Declaration”**

CTIL

and

Vodafone Limited

The Chief Planning Officer
Liverpool City Council
Planning and Building Control
PO Box 88
Municipal Buildings
Dale Street
Liverpool
L2 2DH

Clarke Telecom Limited
Partington House
Stock Lane
Chadderton
Oldham
Lancashire

31 May 2013

Our Ref: CTIL_130167_43169_45119

CLARIFICATION OF THE DECLARATION OF ICNIRP COMPLIANCE ISSUED AS PART OF THE PLANNING APPLICATION ATTACHED FOR SITE CELL REF: 130167/43169/45119 BRODIE AVENUE

PROPOSED BASE STATION INSTALLATION FOR SITE CTIL_130167/43169/45119 ADOPTED GRASSED CENTRAL RESERVATION ON BRODIE AVENUE, LIVERPOOL, L18 4QZ - (NGR E 339625 / N 386105)

I refer to the Declaration of Conformity with ICNIRP Public Exposure Guidelines ("ICNIRP Declaration"), sent with this application in relation to the proposed telecommunications installation as detailed above.

The "ICNIRP Declaration" certifies that the site is designed to be in full compliance with the requirements of the radio frequency (RF) guidelines of the International Commission on Non-ionizing Radiation (ICNIRP) for public exposure as expressed in the EU Council recommendation of July 1999.

The ICNIRP declaration produced by Clarke Telecom takes into account the cumulative effect of the emissions from the proposed installation and all radio base stations present at, or near, the proposed location.

The radio emission compliance calculation is based upon the maximum possible cumulative values.

All operators of radio transmitters are under a legal obligation to operate those transmitters in accordance with the conditions of their licence. Operation of the transmitter in accordance with the conditions of the licence fulfils the legal obligations in respect of interference to other radio systems, other electrical equipment, instrumentation or air traffic systems. The conditions of the licence are mandated by Ofcom, an agency of national government, who are responsible for the regulation of the civilian radio spectrum. The remit of Ofcom also includes investigation and remedy of any reported significant interference.

The telecommunications infrastructure the subject of this application accords with all relevant legislation and as such will not cause significant and irremediable interference with other electrical equipment, air traffic services or instrumentation operated in the national interest

If you have any further enquiries concerning the "ICNIRP Declaration" certificate or anything else in this letter then please contact the Cornerstone EMF UNIT on 01753 564306.

Yours faithfully

A handwritten signature in black ink, appearing to read 'S. Stephens', written in a cursive style.

Simon Stephens
Design Manager

Our ref: CTIL_130167_43169_45119

Declaration of Conformity with ICNIRP Public Exposure Guidelines
("ICNIRP Declaration")

Vodafone Limited
Vodafone House
The Connection
Newbury
Berkshire
RG14 2FN

Declares that the proposed equipment and installation as detailed in the attached
GPDO application at:

**ADOPTED GRASSED CENTRAL RESERVATION
ON BRODIE AVENUE
LIVERPOOL
L18 4QZ**

(NGR E 339625 / N 386105)

is designed to be in full compliance with the requirements of the radio frequency (RF)
public exposure guidelines of the International Commission on Non-Ionizing
Radiation (ICNIRP), as expressed in the EU Council recommendation of 12 July
1999* "on the limitation of exposure of the general public to electromagnetic fields (0
Hz to 300 GHz)".

* Reference: 1999/519/E

Date: 31 May 2013

Signed: _____



Name: Simon Stephens

Position: Design Manager