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Peter Luff MP
House of Commons
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Dear Peter,

10 July 2007

TELEPHONE MASTS

Thank you for your letter of 20 June to Yvette Cooper MP enclosing correspondence from Bishampton and Throckmorton Parish Council regarding the installation of a mobile phone mast in your constituency. I am replying since telecommunications and planning policy falls within my ministerial responsibilities. I have been asked to reply.

I hope the following information may be useful in answering the questions posed by the Parish Council.

The form of radiation given off by mobile phones and mobile phone base stations is called non-ionising radiation. Non-ionising radiation is the term used to describe two main types of radiation namely optical radiation (ultraviolet, visible and infrared) and electromagnetic fields (power frequencies, microwaves and radio frequencies). The signals from mobile phone base stations operate at radio frequencies.

Electromagnetic fields (EMFs) arise whenever electrical energy is used. So for example, electromagnetic fields arise in our home from electrical appliances in the kitchen and in the world at large from radio, television and from mobile phone masts.

When radio waves pass through the body some of the energy is absorbed. The only established biological effects of absorbing radio waves are due to partial heating or whole body heating, which could cause local damage to tissues or heat stress. At lower frequencies currents may be induced in the body, which could influence the functioning of the nervous system.

In the United Kingdom, the Health Protection Agency advises the Government on the health effects of non-ionising radiation. The Health Protection Agency's advice on limits for exposure to radiation is based on the guidelines set out by the International Commission on Non-Ionizing Radiation Protection (ICNIRP). The World Health Organisation also recommends that ICNIRP guidelines are followed. Guidelines are designed to avoid all identified hazards, from short and long term exposure, with a large margin of safety incorporated into the limit values. Actual exposure levels are nearly always far below recommended limits.

ICNIRP is a body of independent scientific experts whose principal aim is to disseminate information and advice on the potential health hazard of exposure to non-ionising radiation including electromagnetic fields. Their guidelines on exposure to EMFs have been developed as a result of an extensive process of expert review of the scientific literature and consultation with other experts and professional bodies. ICNIRP's guidelines are based on comprehensive reviews of scientific studies in the fields of epidemiology, medicine, biology, physics and engineering.

The Government takes very seriously public concern about the possibility of health effects associated with telecommunications systems. Our advice is based on the Stewart Report on health effects of mobile phones and base stations (www.iegmp.org.uk) which was published in 2000. Stewart recommended a precautionary approach to mobile phone technology as there are still uncertainties about the extent of risk to human health e.g. adopting more stringent guidelines on exposure to radiation, as outlined below.

For base stations Stewart concluded that: *"the balance of evidence indicates that there is no general risk to the health of people living near to base stations on the basis that exposures are expected to be small fractions of guidelines."*

The Government accepted the precautionary approach and as a result introduced new measures to ensure that people's exposures from base stations meet the guidelines of the International Commission on Non-Ionizing Radiation Protection (ICNIRP) outlined above. These guidelines are tighter than they had previously been for the public and include TETRA and 3G base stations.

Another recommendation of the Stewart Report was the auditing of emissions from base stations. In an ongoing audit, Ofcom (formerly the Radiocommunications Agency) has measured exposures around more than 500 base stations to date. The results of this audit can be accessed via Ofcom's website (www.ofcom.org.uk). In all cases exposures have been below, and mostly thousands of times below, the guidelines.

The Stewart Group had already noted that *"for base station emissions, exposures of the general public will be to the whole body but normally at levels many times less than those from handsets."*

The Stewart Group also recommended further research which has been followed up through the new Mobile Telecommunications and Health Research (MTHR) programme (www.mthr.org) that is jointly funded by both Government and industry. The research programme is managed by an independent group of expert scientists and cannot be influenced by Government or the industry. The research is aimed mainly at the areas identified in the Stewart Report and those proposed in a report on Terrestrial Trunked (TETRA) Radio by the then National Radiological Protection Board's (now the Health Protection Agency) independent Advisory Group on Non-ionising Radiation (AGNIR). The process will ensure that Government and the public are kept up to date with new research findings.

The Stewart Group also recommended that the issue was reviewed again after three years and in 2003 the National Radiological Protection Board's Advisory Group on Non-Ionising Radiation (AGNIR) published their report "Health Effects from Radiofrequency Electromagnetic Fields". AGNIR examined recent experimental and epidemiological evidence for health effects due to exposure to radiofrequency transmissions, including

those associated with mobile telephone handsets and base stations. They also concluded *"Exposure levels from living near to mobile base stations are extremely low and the overall evidence indicates that they are unlikely to pose a risk to health."*

The National Radiological Protection Board also published an update of the Stewart Report entitled *Mobile Phones and Health 2004* (published in early 2005), which concluded *"The Board believes that the main conclusions reached in the Stewart Report in 2000 still apply today and that a precautionary approach to the use of mobile phone technologies should continue to be adopted"*.

It also noted *"Since then (the first Stewart Report), the widespread development and use of mobile phones world-wide has not been accompanied by associated, clearly established increases in adverse health effects. Within the UK there is a lack of hard information showing that the mobile phone systems in use are damaging to health. It is important to emphasise this crucial point"*.

However, I can assure you that the Government is keeping the whole area of mobile phone technologies under review in the light of further research.

The Parish Council may be interested in the Health Protection Agency's advice about the use of Wi-fi which is summarised below:

- There is no consistent evidence to date that exposure to radiofrequency (RF) signals from WiFi and Wireless Local Access Networks (WLANs) adversely affect the health of the general population
- The signals from WiFi are very low power, typically 0.1 watt (100 milliwatts) in both the computer and the mast (or router) and resulting exposures should be well within internationally accepted guidelines
- The frequencies used are broadly the same as those from other RF applications such as FM radio, TV and mobile phones
- Based on current knowledge, RF exposures from WiFi are likely to be lower than those from mobile phones
- On the basis of current scientific information, exposures from WiFi equipment satisfy international guidelines. There is no consistent evidence of health effects from RF exposures below guideline levels and no reason why schools and others should not use WiFi equipment

Current planning guidance on electronic communications is set out in Planning Policy Guidance Note 8: *Telecommunications* (PPG8). This includes national policies for the protection of National Parks, Areas of Outstanding Natural Beauty, conservation areas and Sites of Special Scientific Interest. The installation of any communications mast in such areas, and of a mast of more than 15 metres in height elsewhere, is subject to a full planning application. Any such application will be decided by the local planning authority (or the Secretary of State on appeal) in the light of development plan policies and any other material considerations, including any relevant representations either for or against the proposal. The guidance can be accessed via our website at the following address:
<http://www.communities.gov.uk/index.asp?id=1143962>

Electronic communications operators are licensed under the Electronic Communications Act 2003 and are authorised under *Part 24 of the Town and Country Planning (General Permitted Development) Order 1995*, as amended, (the GPDO) to install specified communications apparatus without the need to make a planning application to the local authority. This permitted development right generally applies to the most discreet communications apparatus.

Certain types of development however, such as the installation of ground-based masts of up to 15 metres in height are subject to a prior approval procedure, under which the local planning authority has the opportunity to say whether it wishes to approve details of the siting and appearance of the installation. The authority is able to refuse approval to the siting and appearance of the installation.

The Stewart report recommended that all telecommunications development (regardless of mast height) should be subject to the normal planning process in order to improve local consultation. As a result of this recommendation, the Government introduced new consultation arrangements for those masts below 15m (which are the subject of the prior approval process) so that they were the same as those for an application for planning permission and local people have a greater opportunity to make representations. The arrangements therefore meet the basis on which the Stewart report made this recommendation.

The revised regulations give authorities more time to consider proposals but the key difference between prior approval and the normal planning process is that under prior approval consent is deemed to be granted if no decision has been made after 56 days so that development is not delayed. We believe this approach provides an appropriate balance between the need to improve consultation with local people but also to ensure that the decision making process is not open ended. As outlined above, authorities are able to turn down prior approval applications for masts where they do not consider the siting and design aspects of the development have been adequately addressed.

I hope that this information is useful.

Yours ever,



IAIN WRIGHT