Radiation Research Trust
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United Kingdom

18th March, 2010

Dear Ofcom Members,

Objection to increased radiation limits for 3G masts and future 2 GHz licences

The Radiation Research Trust (RRT) (www.radiationresearch.org)

Reg. Charity No: 1106304

The RRT object to the increase in transmission power from 3G masts and 2 GHz licences from 62 to 68 dBM.

The UK Radiation Research Trust (RRT) is a charitable trust to inform and educate the public about the potential dangers of electromagnetic radiation from mobile telephones and wireless communication systems.

I am the Director for the Radiation Research Trust, publisher for Rewire.me eMagazine www.rewire.me and Co-author "Cell phones and Brain Tumours: 15 Reasons for Concern"

http://www.radiationresearch.org/pdfs/15reasons.asp

RRT Trustee Members of Parliament are Andrew Mitchell, Conservative, Joe Benton, Labour and Willie Rennie, Liberal Democrat. Trustee members of the European Parliament are Dr Caroline Lucas, Green Party, Liz Lynne, Lib Democrat, and Jill Evans, Plaid Cymru Member for the European Parliament for Wales. Other members are Devon based Scots Lawyer and environmentalist, Michael Bell, Graham Philips, Powerwatch UK, Dr Ian Gibson, doctorate in biochemistry and previous member of Parliament and Chairman Brian Stein Chief Executive Samworth Brotheres Ltd.

I had suffered for years with sleep problems, headaches, dizzy spells and vertigo only to be told by my doctors that it was stress or a virus. I eventually developed breast cancer at the age of 38 and discovered that I was living in a cancer cluster.

We now understand that we are not alone, there are many other people living in cancer clusters around phone masts in the UK and throughout the world. I had been living 100m from a phone mast and I now realise the symptoms reported to my doctor are known as a condition called electro sensitivity.

My colleagues Brian Stein, Liz Lynne MEP and Professor Olle Johansson visited residents living in a cancer cluster around a base station with 18 antennas in Kingswinford where 14 people have died of cancer and a further 20 people in the area have contracted the disease.

People are truly suffering ill health and I believe this situation is very real. Evidence from ordinary people should be taken seriously as it ties in with much of the published scientific research and this is why it should be given some credence.

Growing numbers of people worldwide are reporting electrohypersensitivity, symptoms related to non-ionizing electromagnetic field (EMF) exposure.

Electrohypersensitivity (EHS) is a complex condition and can be a disabling for many people. Some individuals report mild symptoms, which diminishes or disappears away from the EMF source. Others are so severely affected that they cease work and change their entire lifestyle and some are forced to live a life of isolation.

An Austrian telephone study of a cross section of 526 people showed that an increasing number of people suffer from non-specific health symptoms such as headaches, sleep disturbances, difficulties in concentrating etc and attribute their ill health to electromagnetic hypersensitivity (EHS) and electromagnetic pollution. It showed an EHS prevalence of 3.5% compared with 2% estimated in 1994.

In 2007, a UK survey aimed at a randomly selected group of 20,000 people found a prevalence of 4% for symptoms attributed to electromagnetic exposure.

UK Doctors are not trained to recognise the condition and could be misdiagnosing patients and treating them with medication for conditions such as headaches, sleep problems and depression.

EHS people deserve respect and immediate attention.

In April 2009 the European Parliament by a vote of 559 to 22 (8 abstentions) called for a set of changes. The following recommendation was included in the appeal. "Calls on Member States to follow the example of Sweden and to recognise persons that suffer from electrohypersensitivity as being disabled so as to grant them adequate protection as well as equal opportunities".

Discriminating people who are disabled goes against the UN 22 Standard Rules on the Equalisation of Opportunities for People with Disabilities – since 2007 upgraded into The UN Convention on Human Rights for Persons with Functional Impairments, http://www.un.org)

Other examples of discrimination:

Epilepsy

- Epilepsy girl, 12, will learn at home
- Sep 27 2005
  Daniel Davies, Western Mail
- EDUCATION chiefs agreed to teach a 12-year-old girl with epilepsy at home after it was claimed a police radio mast near her school was giving her fits

The ICNIRP guidelines does not offer any safety with regards to interference with effects on medical devices such as pacemakers and cochlear implants. They state that interference may occur at levels below the recommended levels.

The health problems and long term consequences associated with electromagnetic fields could drive up health care costs, diminishes quality of life, resulting in declines in economic productivity and causes genetic problems that may well affect generations to come.

The Radiation Research Trust advocate that the UK urgently adopt biologically based EMF human exposure guidelines to enable policy-makers, researchers and practitioners to be effective.

There is now mounting concern that the UK is doing too little to tackle the issue.

Many countries have adopted guidelines set by the International Commission on Non-Ionising Radiation Protection ('ICNIRP'). The ICNIRP standard does not offer any form of protection other than from the heating effects of radiofrequency radiation. In other words, the ICNIRP, guidelines only protect one's body from high levels of elevated temperatures. However, a very substantial body of peer-reviewed scientific evidence clearly shows many biological changes caused by low–level non-thermal exposure.

The current ICNIRP guidelines do not specify limits to ensure safety for long term exposure or the safety of EHS people.

Advice from the May 2000 Stewart Report

People can vary in their susceptibility to environmental hazards. It is not possible at present to say that exposure to RF radiation, even at levels below national guidelines, is totally without potential adverse health effects, and that the gaps in knowledge are sufficient to justify a precautionary approach.
Base stations sited within or near school grounds, should not have a beam of greatest intensity that falls on any part of the school grounds or buildings without agreement from the school and parents.

In 2004 Sir William stated that he believed that the evidence for possible harm has become stronger in the (almost) 5 years since the publication of his original IEGMP Report.

Validity of ICNIRP?

Appeal decision *(9)* by Mr C Jarvis (Bristol Inspectorate): "I question the validity of ICNIRP….proposed mast should not be granted…likely effects of the project on the health of local people".

On 8th & 9th September, 2008 the Radiation Research Trust brought together leading experts in the fields of science, politics and regulation from across the globe to debate the health effects of electromagnetic fields. This was the first time that such a conference was organised to include experts from both sides of the health debate.

Entitled 'Electromagnetic fields and health – a global issue', the conference took place at the Royal Society, London and was attended by a number of highly prominent speakers. These included speakers from world establishments such as ICNIRP, WHO, RNCNIRP and national bodies such as the UK Health Protection Agency and the MTHR. They were joined by scientists, politicians, lawyers and concerned citizens, each offering differing viewpoints in order to encourage discussion around risk assessment, precautionary measures, social policy and areas where further research is required.

The UK Radiation Research Trust are calling for the precautionary approach in line with Ex-Chairman for the UK Health Protection Agency. Quote from Sir William Stewart at the RRT Conference, 2008

"Since 2000 there has been a mass of publications, reports, observations, and views purporting at the very least to implicate phones/base stations as a cause of adverse health effects. At a time of uncertainty when more information is required, non-peer reviewed articles should not be ignored. Doing so is ridiculous. They may be right but unproven and/or offer pointers to be thought about and followed up."

Many other scientists presenting at the RRT conference reported children at risk

Example:

"The potential risk to children's health is very high and a completely new problem. Use of mobile phones for those under 18 or pregnant should be restricted.
Children have a unique vulnerability as they grow and develop; there are 'windows of susceptibility' periods when their organs and systems may be particularly sensitive to the effect of certain environmental threats.
The existing standards cannot guarantee the safe, healthy development of the next generation."
Professor Yury Grigoriev, Chairman of Russian National Committee on Non-Ionizing Radiation Protection

Paolo Vecchia, Chairman for ICNIRP presented at the RRT conference in September, 2008. In his presentation, he made it very clear that:
"the ICNIRP guidelines are neither mandatory prescriptions for safety, the "last word" on the issue nor are they defensive walls for Industry or others."

This statement makes it clear that the decision to adopt these guidelines into national legislation as "sufficient to protect public health" is political. The government's misuse of ICNIRP is the primary issue.

In 2000, the same year the Stewart Report, T-Mobile in Germany commissioned the ECOLOG Institute in Hanover, to review all relevant available research to date with regards to the health risks of mobile telecommunications. This review of over 220 peer reviewed and published papers found evidence effects on central nervous system. cancer initiating and promoting effects, impairments of certain brain functions, loss of memory and cognitive function. Ecolog called for an immediate downward regulation for the guidelines.

We therefore call on Ofcom to reject the appeal for an increase in power levels and call for the precautionary approach.

It is likely if you are a company or incorporated public body, that you could be additionally liable under the draft Corporate Manslaughter Bill, if it can be shown that you have caused death through negligence or failure in your duty of care. Or, as a public body, you have failed under the Human Rights Act 1998, and other legislation which impose responsibilities upon you as Landlord and employer and or provider of a service.

Please see enclosed example of successful court cases for your consideration.

Court delivers blow against mobile masts

Ruling cites public health riskTen mobile telephone antennas must be removed as they pose a threat to public health, the Athens Appeals Court ruled on 18/7/2006.

In justifying its ruling, the court cited *"urgent concerns regarding the protection of public health."*

The danger of relay antennas to health finally recognized
Paris - February 5, 2009

The Greens Senators welcomed the decision of the Versailles Court of Appeal to order the dismantling of an antenna relay Bouygues Telecom in Tassin la Demi-lune in the Rhone. This press release and the original court decision have been provided courtesy of Next-Up in France:

"This decision comes to confirm the condemnation pronounced by the Court of Nanterre in opposition to the corporation Bouygues Telecom considering that the presence of an antenna relay of mobile communication nearby of dwellings constitutes an abnormal disturbance of neighbourhood to be remedied by the dismantling of the antenna.
This ruling gives legal recognition to the risks posed by the masts or mobile phones on human health, which may result in serious disorders such as cancers.

The decision rests in particular on the Bioinitiative 2007 Initiative which was created by a group of independent scientists, industrialists and mobile operators, and which requires public authorities of each country to review the exposure standards electromagnetic fields.

It is now up to the Government to take responsibility for setting new standards to protect the health of the population and thus avoid a new health catastrophe from happening."

The constitutional court in Brussels recently dismissed the phone companies and government appeals in order to avoid the risk of irreversible damage to the environment and public health. 2009 Decision taken to adopt 3V/m

Other reasons for concern

An international working group of scientists, researchers and public health policy professionals produced the 2007 BioInitiative report. The report provides detailed scientific information on health impacts when people are exposed to electromagnetic radiation hundreds or even thousands of times below the ICNIRP guidelines.

The authors reviewed more than 2000 scientific studies and concluded that the existing public safety limits are inadequate to protect public health. From a public health policy standpoint, new public safety limits, and limits on further deployment of risky technologies are warranted based on the total weight of evidence.

Download the link to a pie chart which was highlighted at a workshop at the EU Commission in Brussels; the chart was taken from the WHO website.

http://www.buergerwelle.de/pdf/who_and_pubmed_epidemiological_studies_on_base_stations_2006.pdf

To date FOURTEEN epidemiological studies on mobile telecommunication base stations have been published and are referenced either on the EMF WHO database and/or on PUBMED. 10 studies (70%) DID find significant increases in the symptoms being analysed.

In September 2008, MEPs voted 522 to 16 to urge ministers across Europe to bring in stricter radiation limits and said: “The limits on exposure to electromagnetic fields (EMFs) which have been set for the general public are obsolete.The European Parliament "is greatly concerned at the Bio-Initiative international report which points in its conclusions to the health risks posed by emissions from devices such as mobile telephones, UMTS, WiFi, WiMax and Bluetooth, and also DECT telephones".

Levels in other countries

Italy (1999) has a max level for schools of 6 V/m for all signals combined (see also below)

Switzerland has a max level for the public of 4 V/m at 900 MHz and 6 V/m at 1800 MHz

Wallonia (in Belgium) has a max public level of 3 V/m

Vienna has a max public level of 1.9 V/m

Italy (2003) has a max public exposure level of 0.6 V/m for any one individual base station.

Lichtenstein (2008) legislated for a max public exposure level of 0.6 V/m for any one individual base station from 2013.

Salzburg (1998 & 2000) set a max public exposure levels of 0.6 V/m.

Areas of France have now also adopted a max public exposure levels of 0.6 V/m

BioInitiative suggested a max public exposure levels of no more that 0.6 V/m for now and "that may be too high".

Salzburg (2002) set a max outside exposure level for the public of 0.06 V/m

The Radiation Research Trust strongly encourages Ofcom to take public concerns seriously and also listen to advice from independent scientists.

Further scientific evidence published in the journal Pathophysiology by scientists from the USA, Spain, Finland, Sweden, Greece and Austria are reported health concerns for people exposed to wireless

technology such as mobile phones, phone masts, Wi-Fi etc; Scientific research is demonstrating a decline in public health and animal populations. The scientists also report that some people are more susceptible and may be at risk from such exposures.

Dr Blackman, past president of the Bioelectromagnetics Society, published a paper in Pathophysiology - "Evidence from ELF and RF studies supporting more inclusive risk identification and assessment" this paper is very interesting. Section 1.2. states: "Modulation signals are one important component in the delivery of EMF signals to which cells, tissues, organs and individuals can respond biologically." He also mentions that "more recent studies of modulated RF signals report changes in human cognition, reaction time, brainwave activity, sleep disruption and immune function." Dr Blackman includes the following sentence within the conclusion of his paper: "Current standards have ignored modulation as a factor in human health impacts, and thus are inadequate in the protection of the public in terms of chronic exposure to some forms of ELF-modulated RF signals. The current IEEE and ICNIRP standards are not sufficiently protective of public health with respect to chronic exposure to modulated fields (particularly new technologies that are pulse-modulated and heavily used in cellular telephony). The collective papers on modulation appear to be omitted from consideration in the recent WHO and IEEE science reviews. This body of research has been ignored by current standard setting bodies that rely only on traditional energy-based (thermal) concepts."

Please take action and follow the precautionary principle now and reject the appeal to increase the power levels.

Wingspread Statement http://www.gdrc.org/u-gov/precaution-3.html

"It is necessary to implement the Precautionary Principle: When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically. In this context the proponent of an activity, rather than the public, should bear the burden of proof. "The process of applying the Precautionary Principle must be open, informed and democratic and must include potentially affected parties. It must also involve an examination of the full range of alternatives, including no action".

European Environment Agency, 2004

"The **Precautionary Principle** provides a framework, procedures and policy tools for public policy actions in situations of scientific complexity, uncertainty and ignorance, where there may be a need to act before there is strong proof of harm in order to avoid, or reduce, potentially serious or irreversible threats to health or the environment, using an appropriate level of scientific evidence, and taking into account the likely pros and cons of action and inaction".

Treaty on European Union (Maastricht Treaty), 1992

"Community policy on the environment …shall be based on the **precautionary principle** and on the principles that preventative actions should be taken, that the environmental damage should as a priority be rectified at source and that the polluter should pay."

Please take the following 10 questions into consideration.

1) Has the Government taken people who suffer with electrosensitivity into consideration, within the current limits?

2) Has any account been given to the unique susceptibility of growing children to ELF and RF/MW?

3) What do you do if you have a phone mast next to your home or suffer as a result of exposure to mobile phones, Wi-Fi, WIMAX or DECT phones?

4) Should our children and the world's workforce be forced to go to school and work surrounded in a sea of untested and unregulated radiation?

5) Have we given our Government and the Industry permission to include us in this experiment?

6) Hasn't the Government got a duty of care to alert the public to the non-thermal biological effects?

7) What are the long term consequences?

8) Is financial gain more important than health?

9) Do we really want to leave a legacy of enormous proportions with regards to health and the economic consequences for our children?

10) Is it ethical?

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Director

Radiation Research Trustee

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