Contact address:

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18th October 2024

Sent via Email

From: Eileen O'Connor, Director UK EM Radiation Research Trust

For the attention of Debbie Campbell, David McCullough, and All Sefton Councillors,

Cc. Brian Stein CBE Chairman EM Radiation Research Trust

Dear Debbie Campell and All Sefton Councillors,

Thank you for your email of 7th October 2024 in response to the EM Radiation Research Trust questions submitted to Sefton Council for the 12th of September 2024 Council meeting calling for Sefton Council to review wireless radiation exposures from 2G, 3G, 4G, 5G and the Internet of Things as a matter of urgency due to our **reasons for concern for public health and especially for children**.

The response you supplied from the UK Health Security Agency (HSA) does not address or acknowledge the UK legal rulings on electrosensitivity or the recent High Court case Thomas vs Cheltenham Borough Council who ruled that there was a potential risk to people with medical implants. The UKHSA also ignored the thousands of publications on the biological effects of non-thermal RF-EMF wireless radiation?

Knowing that the ICNIRP Certificate/guidelines does not certify safety for those suffering with EHS or protect those with metal/medical implants, will Sefton Councillors now take health into consideration when determining phone mast applications, small cell deployment, 5G and the Internet of Things? The EM Radiation Research Trust letters containing questions and information submitted to Sefton Council are available to download here: https://www.radiationresearch.org/news/5g-supplementary-question-for-sefton-council-public-meeting-12th-september-2024/.

We are informing you that the EM Radiation Research Trust submitted a Freedom of Information (FOI) request to the UK Health Security Agency (HSA) on 14th October 2024 calling for all evidence to support the HSA's claim that there should be no consequences for public health for the whole population, including children and susceptible groups of individuals, and those with metal/medical implants. The HSA also claim that the guidelines are protective for those who suffer with electromagnetic hypersensitivity (EHS) when exposed to 5G and other wireless technologies within the ICNIRP guidelines. The EM Radiation Research Trust (RRT) FOI request is available to download via our website. [1] The main points are highlighted below for your convenience.

Under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004 the EM Radiation Research Trust UK charity call for:

1. Any/all evidence to support the UKHSA's main advice on EMFs regarding the claim that there should be no consequences for public health providing wireless exposures comply with the exposure guidelines published by the International Commission on Non-Ionizing Radiation Protection (ICNIRP).
2. Any/all evidence to support "safety" for those with metal or medical implants when exposed RF/EMF wireless radiation.
3. Any/all evidence to support "safety" assurances offered by HSA specifically for children.
4. Any/all evidence to show how ICNIRP arrived at their current standards and the science behind the origination of the standards to protect children, plants, animals, and the environment.
5. Any/all evidence to prove symptoms cannot be detected by those who consider themselves sensitive to RF EMFs below the ICNIRP guidelines for electromagnetic hypersensitivity (EHS) sufferers.
6. Any/all evidence to prove safety for the unborn child during pregnancy.
7. Any/all evidence to support claims of safety for long term exposure.

HSA'S WARNING REGARDING ELETROMAGNETIC INTERFERENCE CONTRADICTS HSA'S ASSURANCES OF SAFETY WITH EXPOSURE WITHIN ICNIRP'S GUIDELINES:

Here is the HSA's Overview with respect to Electromagnetic interference (EMI) from the link you sent.

https://www.gov.uk/government/publications/electromagnetic-interference-sources/electromagnetic-interference-sources

1. Overview

Electromagnetic interference (EMI) can affect several types of medical devices that have electrical or electronic systems. EMI can cause electronics to malfunction or stop working altogether. Examples of devices that can be affected include:

1. pacemakers or defibrillators – implanted or external -
2. implanted neurostimulators
3. programmable hydrocephalus shunts
4. cochlear implants
5. ECG monitors
6. infusion pumps

The UKHSA lists the above implements, implants and devices that may be interfered with which proves that this radiation goes through the skin, through tissue to major critical organs including the brain and spinal cord (*implanted neurostimulators, programmable hydrocephalus shunts*), the heart (*pacemakers may be in or external to the heart*), muscle and bone (*cochlear implants*), infusion pumps for multiple reasons including but not limited to insulin for diabetes and chemotherapy for cancer treatment (*infusion pumps are typically placed under the skin in the abdomen – belly area – with a catheter inserted into specific blood vessels depending on the medication delivered*).

Logic dictates that with HSA's warning of radiofrequency-electromagnetic radiation interference with the above referenced medical devices, it cannot also state that children with their inherent vulnerability to radiofrequency-electromagnetic radiation will remain unharmed.

In fact, EM Radiation Research Trust would like to point out that independent expert doctors and scientists in the UK and at an International level have examined the accumulated body of research and disagree with ICNIRP's assertions of safety below their extraordinarily high allowable limit of RF-EMF. The same doctors and scientists are calling for lower levels of radiation to protect public health. [2]

We would like to point out that the following critical organs in the human body most affected by RF-EMF are:

Eyes: Since the 1950's eyes are deemed to be a potentially radiosensitive organ. RF radiation can cause heating of the eyes, especially the cornea, which can lead to cataracts. Also, the thickness of the sclera of the eyes is very thin in children.

Skin: The late Professor Yury Grigoriev states: The skin is rich in nerves and very sensitive. It connects to the brain and central nervous system (CNS) and blood vessels which in turn are critically interconnected with the other organs of the body." Millimeter wave "window's, showing that various frequency ranges are more biologically active (Devyakov, Betsky & Golant, 1986; Eidy, 1980). [3]

Testes: RF radiation can cause heating of the testes (reference sperm damage below). [4]

Sperm: RF radiation can impair sperm motility and morphology, and lower sperm counts. [5]

Brain: RF radiation can affect the central nervous system, brain chemistry, and blood-brain barrier. It can also cause neurological and neuropathological changes. [6]

Developing brain [This means children.] RF radiation can expose deeper brain structures in children to greater radiation doses. [7]

Heart: RF radiation can affect heart rate variability and trigger tachycardia and cardiac arrhythmia. [8]

Science tells us that the bone marrow of the skull of children can exceed that in adults by a factor of about 10, which is due to the high electric conductivity of the tissue at a young age. [9] Children are more vulnerable than adults because of their thinner skulls and smaller heads, radiation goes deeper into their brains, they have rapidly developing brains, they have higher water content in their brains and RF radiation is more easily absorbed as a result, they have smaller body mass so exposure has greater impact in their small bodies than it would with an adult, and children have more active stem cells in their bodies. Stem cells are more reactive to low levels of microwave radiation than other cells. Stem cells are the cells that differentiate into specialized cell types, and they make more cells. They are the critical cells responsible for children's development yet the cells most impacted by RF radiation.

With the above-mentioned biological vulnerabilities in mind, how can you say the existing ICNIRP standards are safe for children? If electrical devices can be interfered with, so can developing brains and bodies of children.

Please provide any evidence you have that would support the HSA theory that the critical human organs are less sensitive to EMFs than the artificial medical aids listed above. The human body relies upon electrical impulses to function. The heart would cease to function without electrical impulses. Each cell in the human body generates a small electrical potential due to the movement of ions across its membrane. These movements are crucial for multiple cellular functions.

Both the ICNIRP 1998 and 2020 caution of the risk to certain individuals with metallic and medical implants. Radiofrequency EMFs may also interfere with electrical equipment more generally (i.e., not only implantable medical equipment), which can affect health indirectly by causing equipment to malfunction. This is referred to as electromagnetic compatibility and is **outside the scope of these guidelines.** [10]

A Recent High Court case Thomas vs Cheltenham Borough Council ruled that there was a potential risk to people with medical implants below the ICNIRP limits. This needs to be taken into account by the authority**.** [11]

PUBLIC HEALTH IS INDEED AT RISK

Again, we ask you, with this information readily available through science, how is it the UKHSA can claim "there should be no consequences for public health" in the face of the 5G rollout in general and particularly following the deaths of school children at Millstead School, Everton, Liverpool for no known reason with a phone mast next to the school? A peak reading of **1,554932 µW/m** was

recorded outside Millstead school. The postcode area for the school provides details for a number of telecom operators that are currently using 2G, 3G, 4G, 5G and 5G ultra. [12]

These levels are within the International Commission on Non-Ionizing Radiation Protection [ICNIRP] guidelines, but much higher than limits allowed in other countries such as Russia, China, Italy, and much of Eastern Europe, and higher than recommendations from many independent scientists and medical doctors. [13]

ICNIRP has never offered proof of safety of wireless technologies. They claim RF radiation does not have health consequences "under the level of heating." This thermal only-theory of safety has been disproven time and again by thousands of peer-reviewed independent studies showing biological harm at the non-thermal level. That is to say, significant harm has been found at below the threshold of heating. This harm includes but is not limited to cancer, neurodegenerative diseases, learning disabilities, behavioural problems, adverse impacts on the central nervous system, peripheral nervous system, and immune system as well as infertility and miscarriage. [14]

The HSA advises the UK government with respect to electromagnetic frequencies, and for your guidance to the United Kingdom, you rely on ICNIRP. If you really want to know about the source that is advising you as to how you should protect the residents of the United Kingdom, as you are tasked with doing, then perhaps you should read an exceedingly well-researched article by **Investigate Europe** - **How Much is Safe? 4 January 2019.** [15]

It is known that ICNIRP is not a government agency but rather a nonprofit well-funded by telecommunications interests and criticized by the court for conflicts of interests. Their safety guidelines are an illusion, slanted most heavily in favor of the telecommunications industry and each new generation of technology. [16]

The UK HSA and ICNIRP have also totally ignored the recent scientific case reports on Microwave Syndrome associated with 5G. These studies reinforce the urgency to inhibit the deployment of 5G until more safety studies have been performed. [17]

Microwave Syndrome, also known as eletrosensitivity cannot be ignored, and these people should not face discrimination. A new paper by Peter Hensinger and Bernd I. Budzinski published in the journal umwelt-medizin-gesellschaft entitled "**Why electrosensitivity (EHS) is a biologically expected reaction to harmful radiation**" concludes:

"There is a science-based explanation as to why people become electrohypersensitive: The non-ionising radiation from wireless communication leads to oxidative cell stress, this is undisputed in science. Oxidative cell stress leads to inflammatory processes in the organism. The claim that electrohypersensitivity cannot exist because the limit values protect against the harmful effects of electromagnetic fields is used to market digital products**. The ICNIRP limits are scientifically untenable.**

The argument of a lack of causality is being instrumentalized to undermine the precautionary principle and thus a protection policy. **The effects of non-ionising radiation on the metabolism in the organism have been proven by over a thousand studies.** These effects, triggered by EMF, are felt by people with electrohypersensitivity. The arguments to cast doubt on electrohypersensitivity are not based on medical-biological facts, but on business interests and expert opinions of convenience. It is damaging to the industry's business if its products are associated with the consequences of illness. It created the "mental disorder" narrative, a marketing story to protect its products. The authorities continue to spread it and ignore the medical causes**."** [18]

Paolo Vecchia, ICNIRP Chair from 2004 until 2012 said, “The ICNIRP guidelines are neither mandatory prescriptions for safety, the 'last word' on the issue nor are they defensive walls for Industry or others.” [19]

The Health and Social Care Act 2012, obliges local (and national government) to protect their residents from ionising and non-ionising radiation.

HEALTH SECURITY AGENCY (HSA) & SEFTON COUNCIL MUST ACCEPT LIABILITY FOR HARM IN EXCHANGE FOR BASELESS ASSURANCES OF SAFETY

We ask if Sefton Council officials and the UKHSA will stand by your reassurances of safety regarding exposure to 5G and the Internet of Things within the millimeter range (including within the ICNIRP guidelines) so much so that you will accept liability if anyone with metal or medical implants, those with electrosensitivity or children with their inherent vulnerabilities suffer harm – including, but not limited to, loss of life.

THE EM RADIATION RESEARCH TRUST CALLS FOR A FULL INVESTIGATION INTO DEATHS OF TWO YOUNG SCHOOLCHILDREN AT MILLSTEAD SCHOOL, LIVERPOOL. THIS CANNOT AND SHOULD NOT BE IGNORED.

We call on you to share this email with all Sefton Councillors and please confirm receipt.

We look forward to your response.

Sincerely and without ill will, vexation, or frivolity,

Eileen O’Connor

Director EM Radiation Research Trust

And

Susan Foster

Medical Writer

USA Advisor for the EM Radiation Research Trust

Honorary Firefighter San Diego Fire Department

References:

1. EM Radiation Research Trust FOI request sent to HSAhttps://www.radiationresearch.org/uncategorised/freedom-of-information-request-sent-to-uk-health-security-agency/
2. Scientific evidence invalidates health assumptions underlying the FCC and ICNIRP exposure limit determinations for radiofrequency radiation implications for 5G https://ehjournal.biomedcentral.com/articles/10.1186/s12940-022-00900-9
3. Professor Yury Grigoriev - Frequencies used in telecommunications an integrated radiobiological assessment (Skin and Eyes) Effects https://www.radiationresearch.org/news/frequencies-used-in-telecommunications-an-integrated-radiobiological-assessment/

4. Effects of the exposure to mobile phones on male reproduction: a review of the literature. https://pubmed.ncbi.nlm.nih.gov/21799142/

5. Effects of Mobile Phones on Sperm Quality https://www.saferemr.com/2015/09/effect-of-mobile-phones-on-sperm.html

6. Wifi, Wireless Radio Frequency Radiation Can Damage The Blood Brian Barrier https://ehtrust.org/wi-fi-wireless-radio-frequency-radiation-can-damage-the-blood-brain-barrier/

7. "Cell phone radiation permeates children's brains deeper than adults" US Congress 2008 "Cell phone radiation permeates children's brains deeper than adults" US Congress 2008 - YouTube

8. Microwave Radiation affects the Heart https://magdahavas.com/from-zorys-archive/pick-of-the-week-24-microwave-radiation-affects-the-heart/

9. Spots with Extremely High Radiofrequency bone marrow of the skull of children can exceed that in adults by a factor of about 10. Page (74) IARC Publications Website - Non-ionizing Radiation, Part 2: Radiofrequency Electromagnetic Fields

10. ICNIRP 2020 Guidelines – page 2 https://www.icnirp.org/cms/upload/publications/ICNIRPrfgdl2020.pdf

11. Thomas v Cheltenham Borough Council https://www.casemine.com/judgement/uk/663a735283075d3d98341c7b

12. EM Radiation Research Trust call for a full investigation into the deaths of the two children at Millstead School: https://www.radiationresearch.org/uncategorised/the-em-radiation-research-trust-call-for-immediate-investigation-into-phone-mast-near-millstead-primary-school-following-the-deaths-of-two-children/

13. RF Safety Limits https://www.es-uk.info/wp-content/uploads/2018/11/03.2-RF-Radiation-Safety-Limits.pdf

14. BioInitative Report https://bioinitiative.org/

15. Investigate Europe How Much is Safe 4 January 2019 https://www.investigate-europe.eu/en/posts/how-much-is-safe

16. Judgment Summary Court of Appeal https://www.radiationresearch.org/wp-content/uploads/2020/01/Turin-Verdict-ICNIRP_Judgment-SUMMARY-of-the-Turin-Court-of-Appeal-9042019_EN-min.pdf

17. Summary of seven Swedish case reports on the microwave syndrome associated with 5G radiofrequency radiation https://pubmed.ncbi.nlm.nih.gov/38889394/

18. Why electrosensitivity (EHS) is a biologically expected reaction to harmful radiation https://ehtrust.org/why-electrohypersensitivity-ehs-is-a-biologically-expected-reaction-to-harmful-radiation/

19. Paolo Vecchia, ICNIRP slide number (16) https://www.radiationresearch.org/wp-content/uploads/2018/06/021145_vecchia.pdf