

To: The Department of Health and Human Services (HHS)

Subject: Response to RFI on Electromagnetic Field (EMF) Exposures and Potential Health Effects

Date: October 8, 2026

1. Introduction and Personal Background I am submitting this report in response to the HHS's request for information on environmental factors affecting human health, specifically concerning electromagnetic field (EMF) and radio frequency (RF) exposures. I am a Ph.D. researcher with two decades of expertise in wireless technologies and IoT. Ironically, two decades after dedicating my research to advancing these very technologies, I have become profoundly disabled by them. I now suffer from severe Electromagnetic Hypersensitivity (EHS), an environmentally acquired illness that has forced me to become virtually homebound, stalling my career and eliminating my ability even to participate in social and volunteer work.

2. The Reality of EHS and Cellular Vulnerability Finding a tolerable environment is nearly impossible in today's wirelessly saturated world. I currently rent a home on a dead-end street with relatively low ambient EMF, but I still must utilize expensive EMF-shielding bed canopies and clothing just to function. Public transportation, air travel, and even basic public spaces are inaccessible to me due to the unpredictable, high-density RF emissions from surrounding wireless devices.

My condition is not psychosomatic; it is rooted in biological susceptibility. My medical providers have identified that my EHS is compounded by genetic mutations related to connective tissue disorders, a history of childhood allergies, and severe mold exposure—a common environmental hazard that affects a vast portion of the population. Emerging research in environmental medicine indicates that toxic exposures can compromise cellular membranes, making individuals exponentially more vulnerable to EMFs. This is supported by foundational research demonstrating that electromagnetic fields interact directly with biology by activating voltage-gated calcium channels (VGCCs) in cell membranes, triggering oxidative stress and widespread physiological disruption (Pall, 2013).

3. Well-Documented Public Health Risks Beyond individual hypersensitivity, there are well-documented risks to the general population from chronic EMF exposure that the U.S. government has historically overlooked:

- **Childhood Leukemia in Public Spaces:** Many older public buildings, such as libraries and schools with outdated ungrounded Romex wiring, expose occupants to elevated magnetic fields. Pooled analyses of epidemiological studies have repeatedly shown that prolonged exposure to magnetic fields above 0.2 to 0.4 microTeslas (2 to 4 mG) is associated with an increased risk of childhood leukemia (Ahlbom et al., 2000). It is unconscionable that our children and librarians are unwittingly exposed to these carcinogenic fields in public institutions.
- **Occupational Hazards and Brain Cancer:** The link between magnetic fields and severe health outcomes like brain cancer and leukemia has been observed in occupational studies of electrical workers. Large-scale epidemiological studies have demonstrated elevated cancer risks among workers chronically exposed to magnetic fields (Thériault et al., 1994; Floderus et al., 1993).
- **Cell Phone Radiation and Gliomas:** My own father passed away from Glioblastoma Multiforme (GBM), a deadly brain cancer, following years of heavy cell phone use. His case is not an anomaly. The U.S. National Toxicology Program's (NTP) comprehensive animal studies have already shown clear and some evidence linking RF radiation to malignant schwannomas and gliomas. The chronic inflammation and immune suppression caused by these exposures can

no longer be ignored.

4. Policy Recommendations and Future Planning As a scientist, I am deeply concerned not only for my own future but for the wellbeing of future generations. We must stop burying our heads in the sand and look to European countries that are successfully implementing precautionary measures (such as the Council of Europe's Resolution 1815, which advocates for lowering exposure limits and protecting EHS individuals).

I urge HHS to implement the following actions:

- 1. Fund and Protect EMF-Quiet Zones:** The U.S. currently maintains the National Radio Quiet Zone in West Virginia primarily for astronomical research. We desperately need residential EMF-quiet villages and cities equipped with medical and educational services catering to individuals disabled by technology-acquired illnesses.
- 2. Ensure Accessible Long-Term Care:** As EHS individuals age, we face a terrifying reality. Almost all assisted living and long-term care facilities are high-density, high-EMF environments. Without low-EMF infrastructure in medical and eldercare facilities, we are left with no safe options for our later years.
- 3. Mandate Public Education:** The government must allocate resources to educate primary care physicians, parents, and school administrators about the biological effects of EMFs and the reality of EHS.
- 4. Update Safety Standards:** Base future regulatory standards on biological effects (such as VGCC activation and oxidative stress) rather than outdated thermal (heating) limits.

We cannot continue rolling out pervasive wireless infrastructure at the expense of public health. I respectfully request that HHS take these scientific findings and lived realities into account to protect vulnerable populations before the damage becomes irreversible.

Sincerely,

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