To the Commissioners: August 15, 2013

FCC ET 03-137

I am a private citizen speaking on behalf of myself and many others who have expressed deep concerns over the health effects of emf radiation, in particular with radiation from Wi-FI devices and other such devices operating in the 2.5 GHz range, but not limited to that frequency.

As a retired, licensed, medical physician (MD) with a MS in Electrical Engineering, my professional interests have spanned working on the Apollo moon project, service in the Bio-Medical Engineering Branch of the National Institutes of Health, university teaching positions, and the private practice of medicine. During my years at the University of California Los Angeles, I became acquainted with Dr. Ross Adey and his decades of research into the impacts of non-ionizing emf fields on living systems. He cautioned that the unregulated explosion in the use of various communication devices was subjecting humans to unrecognized cumulative biological damage. Fellow physician Robert Becker's published works on the effect of emf fields on tissue regeneration and bone growth include the "*Body Electric*," which had furthered my interest in the topic.

FCC ET 03-137 invites comments related to the health impacts of emf exposure to biological systems, including human exposure, and the re-evaluation of "safe" levels of exposure. I note that in prior responses to public expressions of concern (Norbert Hankin July 16, 2002; Julius Knapp August 5, 2013) that the FCC states its policy of shared concern, but defers to other agencies and organizations such as the IEEE and NCRP. OET Bulletin No. 65 is referenced in the August 5, 2013 letter, but that and other FCC literature all fall back on 1996 IEEE determinations based on short-term, emf tissue heating effects as modeled on an healthy adult male. Biological impacts secondary to non-ionizing radiation are dismissed out-of-hand, as certain consultants deny such effects.

Since then, a plethora of independent scientific reports from scientists around the world have documented other, non-thermal (in the macro sense of measurable body heating) effects. See: http://www.bioinitiative.org/ These include enzymatic and tissue membrane impacts, and learning and behavioral disturbances in young school children. See: http://www.bioinitiative.org/report/wp-content/uploads/pdfs/sec20_2012_Findings_in_Autism.pdf The term "electro-hypersensitivity" has clinical medicine recognition in many countries, and a general incidence in the public estimated at 3-5%.

The imposition of electrical metering via "Smart Meters" by various electric utilities has resulted in so many customer health complaints attributed to the associated emf

radiation, that utilities from Maine to California now offer “Opt-Out” programs in which a non-communicating meter replaces the rf-enabled meter.

In my area here in Albemarle County, VA, the local school board has made an official public statement that “they have determined” that chronic Wi-Fi exposure to K-12 school children is safe, even as the FCC is calling for this public input to re-evaluate existing guidelines. There is an apparent intoxication with technology, without full understanding of negative consequences. An environmental health specialist organization has released an advisory letter to school boards recommending against school room Wi-Fi. See: http://aaemonline.org/docs/PeelSD.pdf Parents are concerned with the chronic health effect on their young children of Wi-Fi blanketed classrooms over 5-6 hour days, 5-6 days a week, over ten or more years. Where is the FCC safety standard for this particular class of exposure?

Current FCC safety standards originated by the telecommunication industry do not consider such chronic and cumulative exposures. They do not consider the age of the subject. Children are not “little adults” when pharmaceutical guidelines are established. Will parents be offered an opt-out or informed consent documentation before their small children are placed into the captive school room environment and continuously radiated?

Dr. Becker noted the push-back from telecommunications commercial interests as well as from government grant funding sources in the last chapter of his book “Electric Body,” once his research findings disclosed health impacts from emf radiation. Others have reported that the majority of studies with funding traceable to telecommunication interests find little or no health impact from emf exposure; truly independent researchers are reported to find a more definite health or biological impact. As a physician, I came to understand that the patient was always “right,” even if I could not understand or give a rational explanation for his or her complaints. The general public is concerned that all contributors to the FCC position of health safety standards, put human safety first, with commercial interests and convenience as secondary considerations. A level of “proof” or certainty of biological harm is an inappropriate standard to require. Let the standard be “proof” of no harm, especially to young children.

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