

I originally submitted comments online (ESFS Express) concerning FCC standards for human exposure to RF radiation, Proceeding Number 13-84, on September 2, 2013, but apparently there was a computer glitch and my comments did not register. So today I am resubmitting my comments, below:

The FCC standards for human exposure to radio frequency radiation SHOULD DEFINITELY BE MUCH MORE RESTRICTIVE, by orders of magnitude. This is obvious because of thousands of research studies showing biological effects at low levels, and because of the rapidly growing number of persons now developing electrical sensitivities (a physical, not a psychological phenomenon). ***In real science it is not necessary to understand the mechanism of a phenomenon before accepting its existence.*** Though we are not yet sure of mechanisms, the huge amount of current evidence of both short-term and long-term biological harm by RF must not be ignored.

The present FCC standards were not set by biologists, but by persons who did not have an understanding of molecular biology. The scientists, engineers and organizations (including the IEEE) that the FCC has been relying on so far for guidance, though considered knowledgeable and "expert", are in fact either highly biased or uninformed or both. They set their standards to prevent the cooking of flesh. But harm to humans actually occurs at much lower, non-thermal levels of RF, as demonstrated by thousands of research papers. This is an inconvenient truth denied by electronic engineers, the telecommunications industry and the present military. Research has produced much evidence of DNA and sperm damage, leakage of blood-brain barrier, effects on brain function, harmful immune, neurological and other effects at levels of RF considered "very low" by electronic engineers and the FCC (but "very low" on an electronic scale, not a biological one).

Not all biological effects have a 10 to 30 year latency period: today people are becoming electrically sensitive at an exponential rate, with debilitating symptoms within seconds to months of exposure, particularly from exposure to smart meters; the symptoms are real and physical, and are in most cases not at all psychological but are actually caused by RF exposure. Please see the report on Biological Effects by Ronald M. Powell, Ph.D. (Harvard) attached below, in particular the color chart on the last page. Also be sure to carefully read the comments and supporting documents already submitted into Proceeding Number 13-84 by Ed Friedman and by Joshua Hart concerning the health effects of smart meters.

Presently here is no funding to support research to re-confirm and study biological effects, and therefore the FCC should work with a neutral, unbiased agency (the EPA has been of little help so far; possibly the NIEHS would be a possibility, or a non-government agency) to fund honest research on the effects of low levels of RF/EMF on humans and other life forms. This funding could come from a mandatory tax on the telecommunication companies. The research should be evaluated in transparent manner by a board of biologists and medical scientists who have no ties to government or industry, ***a board that must include those scientists (worldwide) who already have published findings of non-thermal effects.***

Common sense and kindness to humanity should prevail over vested interests, convenience and the present momentum of exponentially expanding proliferation of RF in our environment. This on-going inadvertent experiment on human beings would never be approved by an Institutional Review Board, is very risky and is likely to cause much loss of function, outright disability, suffering and greatly increased health care costs. In the meantime the exposure limits should be reduced by at least 100-fold or more. Follow the lead of many countries around the world who have much more restrictive standards. FCC Class A and B electronic device standards should also be made more restrictive.

I want to re-emphasize that in spite of popular arguments often used, in real science it is not necessary to understand the mechanism of a phenomenon before accepting its existence. Though we are not yet sure of mechanisms, the huge amount of current evidence of possible and actual biological harm by RF should not be ignored. Health should be given more priority than convenience and profit. Telecommunications companies and their engineers will cry that more restrictive FCC standards would disrupt society and destroy their industry. But ***above all other considerations, do no physical harm: give biology top priority.*** Are we not all biological beings? If the FCC and telecom industry would cease denial and be willing to face reality, they would sponsor extensive honest research into non-thermal effects on humans and come up with biologically safer ways to accomplish their goals. There is always another way. For example, by determining the least harmful frequencies and modulation schemes. That would be a lot more sensible and humane than hands on ears, eyes squeezed shut and screaming in denial like the response of a child being told something he doesn't want to hear.

Denial hurts everyone in the long run. The potential for harmful consequences are of too great a magnitude to leave matters to personal beliefs or opinions, or to the proclamations of large organizations having vested interests. Unbiased research of high quality is the answer. What has been happening is just the opposite: the withdrawal of funding for good research on RF effects, the unwarranted discounting of studies showing effects, and the publication of lots of junk science refuting the possibility of significant non-thermal effects (such as the scientifically invalid papers on the subject by Asher Sheppard and by James Rubin, for example). This behavior demeans whoever participates in it and whoever cites this "science", which is funded by the telecommunications industries. It is criminal behavior, and reminds one of the tobacco companies and many others before that.

You are on a very perilous course. Token measures are not enough. We need much more restrictive standards, and right now.

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