## FCC 12-152

## Before the Federal Communications Commission Washington, D.C. 20554

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Notice of Proposed Rulemaking	)	
18 FCC Rcd 13187, 13188 ¶1 (2003)	)	ET Docket No. 03-137
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And		
Allu	)	
	)	
Service Rules for the Advanced Wireless Services	)	WT Docket No. 12-357
H BlockImplementing Section 6401 of the	)	
Middle Class Tax Relief and Job Creation Act of	)	
2012 Related to the 1915-1920 MHz and	)	
1995-2000 MHz Bands ¶53 footnote 95	)	

To: Office of the Secretary Federal Communications Commission Washington, DC 20554

Reply Comment Filed by:	Susan Brinchman, Director	
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March 5, 2013

#### AFFIDAVIT OF Susan Brinchman, Center for Electrosmog Prevention

State of California

San Diego County

I, Susan Brinchman, attest that my statements are true to the best of my knowledge.

**Reply Comment** round for ET Docket No. 03-137 and WT Docket No. 12-357.

- 1. My name is Susan Brinchman. My address is PO Box 655, La Mesa, CA 91944.
- 2. I am the Director of the Center for Electrosmog Prevention (CEP), a California-based national nonprofit which provides information and advocacy regarding prevention and solutions for electrosmog, a new form of extensive, hazardous pollution caused by manmade electromagnetic fields. CEP represents the general public and utility customers. CEP's website is www.electrosmogprevention.org.
- 3. *In the interest of protection of the public health as the highest priority*, CEP submits this Reply Comment.
- 4. CEP agrees with all Public Commenters who support biologically-based guidelines, for the following reasons.
- 5. US citizens and tax payers deserve radiofrequency radiation safety limits based on biology, not physics. In order for the FCC to fulfill its Congressional mandate to protect the public health and safety from harm from radiofrequency radiation it must update its RF safety regulations based on a robust body of independent biological research. "In the Telecom Act of 1996 Congress directed the FCC to set its own RF safety regulations for emissions from Personal Wireless Services Facilities (PWSF). The House Committee on Commerce said it was the Commission's responsibility to adopt uniform RF regulations "with adequate safeguards of the public health and safety." (H.R. Report No. 104-204, p. 94) This directive has not yet been followed, nearly 20 years later, with dire impacts already seen in the public health as a result.
- 6. There is now a serious public health crisis as a result of the FCC not following the directive to provide adequate safeguards of the public health and safety pertaining to

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its handling of radio frequencies and RF guidelines. Independent researchers and physician associations point to a broad range of medical conditions that may be associated with exposures to RF radiation, including cancer, autism, Alzheimers (dementia), learning disabilities, behavioral disorders, attention deficit disorder (ADD, ADHD), immune system, neurological system, and other disorders.

- 7. Children and even babies are now exposed to high levels of rf radiation on a regular basis, with devices specifically marketed to these populations, such as cell phones and cell phone applications ("apps"), notebooks, reading devices, and baby monitors. Most Americans communicate throughout the day on cell phones, as well as using them as computers, radios, televisions, and to watch movies and videos, increasing exposure exponentially. One has only to look at what Americans are doing many are using cell phones and other wireless technologies on a near continuous basis, following heavy industry marketing without regard for safety.
- 8. Wi-Fi is being installed in most of our nation's schools, medical facilities, senior care centers, public libraries, and other public places, including entire towns and cities, without regard for the dangers of continuous exposure to biologically-based hazardous levels of rf radiation, often equivalent to that of cell towers.
- "Smart" utility meters are being forced on the general public in their residences and in every business setting, providing continuous 24/7 biologically-based hazardous pulsed rf exposures, often at close range.
- 10. It must be noted that there is no safe range established for pulsed rf radiation.
- 11. The current FCC OET-65 guideline is 3,333,333 times higher than biologically-based guidelines (as derived from BioInitiative Report 2012).

# Various radiofrequency (RF) radiation guideline recommendations (given as $\mu W/m2^*$ ):

## 10 000 000 μW/m2 – FCC (USA) OET-65, recommendation

9 000 000 μW/m2 – ICNIRP 1998; WHO, recommendation
100 000 μW/m2 – Russia and Italy, recommendation \*\*
1 000 μW/m2 – the Bioinitiative Report 2007, recommendation
170 μW/m2 – the Seletun Statement 2010, recommendation
3 μW/m2 – the Bioinitiative Report 2012, revised recommendation (*Precautionary ceiling (top) level for 2013, may be revised at a later date*)
0.1 μW/m2 – contribution from the sun at daytime during big solar storms

0.0 001 – 0.000 000 001 μW/m2 – this is the natural background during normal cosmic activities; proposed by Olle Johansson, Karolinska Institutet (1997), as a genuine hygienic safety value. Above this level we could say electrosmog pollution is present, unless in the midst of a large solar storm.

\*microwatts per meter squared

\*\* EMF World Standards Database World Map (World Health Organization)

Please note: The range 0.000001 – 0.0000000001  $\mu$ W/m2 is the true natural background level during normal cosmic activities, which is what we have evolved to tolerate, according to Dr. Olle Johansson. In developed nations, according to Dr. Johansson, these levels might only be seen in a cave or specially designed military installation. However, it is instructive to see the great distance between *what we evolved to tolerate* and the suggested guidelines above. In the USA, the FCC guidelines make it currently legal to allow RF radiation levels at 10 000 000  $\mu$ W/m2, which is 10,000,000,000 (ten trillion) times higher than than the *upper* natural background levels we evolved to tolerate! Is it any wonder that bioeffects and health impacts would be observed under these alarming conditions?<sup>1</sup>

- 12. Specifically, CEP requests that the FCC changes its RF safety guidelines to provide a biologically-based precautionary RF safety guideline in conformance with the recommendations of the BioInitiative Report 2012 [www.bioinitiative.org], which suggests a limit of 3 microwatts per meter squared [3 uWm2; equivalent to 0.3 nanowatts per square centimeter or 0.0003 uWcm2 0.0003 microwatts per centimeter squared] for sensitive populations [which include but are not limited to children, infants, fetuses, pregnant women, seniors, disabled, medically ill, and electrosensitive persons]<sup>2</sup>.
- 13. Insofar as these populations cannot be separated from the general population, CEP recommends use of this guideline for all.
- 14. Insofar as the above suggested BioInitiative-biologically-based guideline is derived from findings from 1800 recent studies on RF/EMF, in addition to approximately 20,000 in the literature over the past 40 years, it may be necessary to change it

<sup>&</sup>lt;sup>1</sup> http://www.electrosmogprevention.org/smart-meter-resources-links/safety-guidelines-for-rf-exposure/

<sup>&</sup>lt;sup>2</sup> Conclusions Table 1-1, p. 14, BioInitiative Report, 2012

downward in the near future, based on additional independent scientific and epidemiological evidence.

- 15. In addition to adopting a BioInitiative-biologically-based guideline, FCC should recognize that some individuals and groups will be more sensitive than the above suggested guideline provides protection for, and FCC must specify that accommodations to lower levels must be made available for these individuals and groups.
- 16. "Public safety standards are 1,000 10,000 or more times higher than levels now commonly reported in mobile phone base station studies to cause bioeffects."(<u>http://www.bioinitiative.org/conclusions/</u>) You can find other great quotes relevant to your situation to include by visiting their conclusions section.
- 17. The Fenton Reaction, which is partially responsible for the carcinogenic nature of exposure to low levels of ionizing radiation, also occurs with exposure to radiofrequency radiation. See 2012 BioInitiative Report.
- 18. CEP requests that FCC should provide this protection for total exposures based on anticipated and actual co-locations of technologies, rather than on the output of individual devices or technologies.
- 19. CEP requests that FCC should cease and desist from releasing additional frequencies from the electromagnetic spectrum to industry, as there is no possible way to know that these are safe. Past FCC performance in this area has been *reckless and irresponsible*, leading to extensive hazardous electrosmog exposures based on industry-based input alone, with a complete lack of scientific rigor, and zero independent safety research.
- 20. CEP requests that FCC removes its approval for all technologies that do not meet the above suggested guidelines, individually, and as part of anticipated background levels.
- 21. CEP requests that FCC cease from allowing self-monitoring by industry, and instead, require licensees to be under a program whereby emissions may be routinely checked by FCC and members of the public and reported to FCC, whereupon violations will cause licensing to be immediately suspended or revoked.

- 22. CEP requests that FCC severely limit use of all frequencies that may endanger the public, such as those in the extremely low frequency (ELF) range, microwave and higher RF frequency ranges.
- 23. CEP requests that FCC be required to continually review its guidelines, formally, at least yearly, and more often, when independent scientific evidence warrants it or at the request of independent watchdog organizations representing the general public.
- 24. CEP requests that FCC must obtain and utilize only extensive independent, international scientific research and expert input, in developing its guidelines and must not utilize industry-based research or from sources with any industry-based conflicts of interest.
- 25. CEP requests that FCC must obtain and utilize informed US EPA and CDC input, based on current independent scientific research, in developing its guidelines.
- 26. CEP requests that FCC must develop and review its guidelines on a fast-track, taking no more than 3 months, with extensive solicitation of public and independent research comments and input.
- 27. CEP requests that FCC include, give strong consideration to, and act upon nonindustry-based Public Comments, which should be provided in a continuous, easily submitted, transparent and efficient manner.
- 28. CEP asserts that wireless technologies must be replaced by fiberoptics and safe wired solutions in order to protect the public health. This does not include sending signals along electric power lines, which produces additional RF and EMF exposures along wiring indoors and outdoors.

Respectfully submitted by

Ausan M. Brinchman

Susan Brinchman, CEP Director PO Box 655 La Mesa, CA 91944 March 5, 2013