

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

In the Matter of)	
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Reassessment of Federal Communications Commission Radiofrequency Exposure Limits and Policies)	ET Docket No. 13-84
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Proposed Changes in the Commission's Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields)	ET Docket No. 03-137
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To: Office of the Secretary
Federal Communications Commission
Washington, DC 20554

Comment Filed by: Susan D. Foster, MSW
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AFFIDAVIT OF Susan D. Foster, MSW

State of California]

San Diego County]

I, Susan D. Foster, MSW, attest that my statements are true to the best of my knowledge.

Comment round for FCC ET Docket No. 13-84 and ET Docket No. 03-137

1. My name is Susan D. Foster, MSW. My address is 15957 Avenida Calma, Rancho Santa Fe, CA 92091.
2. I am a medical writer and the organizer of a brain study of California firefighters exposed to RF radiation from a cell tower adjacent to their fire station of over 5 years.
3. In 2004 I organized a pilot study of California firefighters who worked up to ninety (90) hours per week in fire stations with cell towers in close proximity to the two (2) stations where the firefighters work, eat, and sleep. The men were experiencing profound neurological symptoms following activation of the towers in 1999.
4. The symptoms experienced by the firefighters, all of whom had passed rigorous physical and cognitive exams prior to being hired by the fire department, included but were not limited to the following: headaches, extreme fatigue, sleep disruption, anesthesia-like sleep where the men woke up for 911 calls “as if they were drugged”, inability to sleep, depression, anxiety, unexplained anger, getting lost on 911 calls in the town they grew up in, a twenty (20) year medic forgetting basic CPR in the midst of resuscitating a coronary victim, immune-suppression manifest in frequent colds and flu-like symptoms.
5. The neurological testing and SPECT scans [single-photon emission computed tomography] of the brain were conducted by Gunnar Heuser, MD, PhD and J. Michael Uszler, MD. All six (6) firefighters were found to have brain abnormalities on SPECT scan. The doctors thought they would find areas of limited function in the brain based on the

symptomatology. Instead, they found a pervasive, hyper-excitability of the neurons which suggested the exposure to RF (microwave) radiation was causing the neurons to continually fire, without rest. RF radiation appeared to act as a constant stimulant even when the men were away from the station, and in repose. The SPECT scans were considered abnormal in all 6 firefighters.

6. Cognitive function, reaction time, and impulse control were measured objectively using T.O.V.A. testing [Test of Variables of Attention]. In all six (6) firefighters, impairment was found with cognitive function, reaction time and impulse control. Three (3) of the six (6) firefighters were captains. The captain on each shift is in charge of making life altering decisions for all firefighters and potential victims. They order firefighters into a burning building, and conversely, they order them out before a roof may collapse, for example. Impairment of all three critical functions could cost firefighters and the community they serve either life or limb.

7. The testing was conducted in 2004. The cell towers are in place at the two (2) fire stations where the test subjects work for the duration of a twenty-two (22) year lease. The men we tested have remained at the stations as this is the only work they know in the only community they have ever lived in. One (1) of the six (6) men tested did move to another department after his wife gave birth to a boy who was diagnosed with Autism at age 2. This was the first live birth experienced by the “firefighter family” at this department since activation of the tower three (3) years earlier.

8. I have followed up with the firefighters who report continued symptoms as described in paragraph 4. Additionally, all firefighters report profound memory loss.

9. Two (2) of the firefighters, men we did not test in the pilot study but men who were exposed to RF radiation from the cell tower since their installation and activation in 1999, have gone out on psychiatric disability. This is almost unheard of among firefighters. The diagnosis was Post Traumatic Stress Disorder for one firefighter; he went out on an emergency run, and simply stopped talking after he returned to the station. The second

firefighter suffered an apparent break with reality. This occurred in the fire station when he returned following a short term disability for an unrelated injury. This break with reality was followed by an abrupt collapse and loss of consciousness. Because two (2) women have suffered strokes while in the fire station with the towers fully activated, Vascular Spasm Stroke (VSS) is suspected as a possible cause by Dr. Heuser and myself of having caused not only the strokes, but it is suspected in the potentially inaccurate diagnoses of the two (2) “psychiatric” cases among the firefighters. If not treated with rest and supplemental oxygen, it is possible for some VSS patients to have difficulty regaining speech and full cognitive abilities. This may be a case of misdiagnosis by the treating physicians who were unfamiliar with the potential of cell towers to create thermal effects well under the FCC limit of 1,000 $\mu\text{W}/\text{cm}^2$, thus heating blood in the brain and inducing VSS. Further study of these men is imperative.

10. What is particularly germane to the critical decisions the FCC is currently facing regarding RF safety guidelines is the fact the FCC currently allows 1,000 microwatts per centimeter squared ($\mu\text{W}/\text{cm}^2$) as an emission standard from cell towers. Yet all the symptoms attributed by the firefighters, as well as measurable brain and central nervous system abnormalities described above, occurred within close proximity to a cell tower measured at between 1 - 2 $\mu\text{W}/\text{cm}^2$ by Peter Sierck, BBEC, CEO of Environmental Testing & Technology in Encinitas, CA. Thus the emissions from towers were measured at approximately 1/1000th to 1/500th of the FCC’s allowable limit. “Hot spots” of reflected radiation were measured at 15 and 30 $\mu\text{W}/\text{cm}^2$, yet these “hot spots” were still a fraction of what the FCC allows. Therefore, **I strongly suggest the FCC is not basing its standards on biological effects by taking into consideration non-thermal effects, but rather physics with respect to the belief only thermal effects can be deleterious.** The FCC must recognize the principles of physics do not protect the brains and central nervous systems of the strongest among us, our firefighters.

11. The failure to protect our populations based on biological effects of exposure to RF (microwave) radiation at non-thermal levels is an inherent shortcoming of the current FCC policy with respect to cell tower emissions and cell phone absorption. The adverse biological

impact of these exposures are grossly underestimated. The FCC does not have independent science that can justify the massive exposure to RF radiation that currently exists from cell towers and cell phones. The story told by our small pilot study of firefighters in California should be a warning with respect to the current failure to recognize **harmful neurological impact of non-thermal levels of RF radiation**.

12. Based on the neurological abnormalities Dr. Heuser and I found in the firefighters, including hyper-excitability of the neurons which can result in cell death and consequent neuro-degenerative diseases such as Alzheimer's, Parkinson's Disease and ALS, I urge the FCC to reflect on the gravity of the decision facing you now, and I implore all Commissioners to reduce the allowable level of RF radiation immediately, and to not only recognize the adverse health effects from non-thermal levels of RF radiation, but to actively and aggressively protect and educate the general public through policy change and PSAs.

13. Finally, the FCC is not a health agency, yet it is entrusted with making decisions that impact the health of every American, including the unborn and those who cannot – through inability or lack of knowledge of the issues and dangers at hand – speak for themselves. Many consumers are encouraged through industry advertising to believe that their children will be disadvantaged if they do not have the latest wireless technology. Given the most recent culling of science in the BioInitiative Report 2012, this reckless promotion without any proof of safety puts them and their progeny at risk for neurological, immunological and reproductive harm. Furthermore, the “revolving door”-culture between the FCC and the telecommunications industry works against the best interest of consumers' health and safety. Both the FCC and the industry reach for a common refrain to hang on to their egregiously high regulatory limits which the FCC tries to pass off as “safety limits”, but clearly they are not. That refrain tells the public time and again that “there is a lack of scientific consensus about the adverse health effects” at exposure levels at or below the existing FCC limits. **No, there is not a true lack of consensus.** There is a flagrant disregard by the FCC for excellent, peer review science showing adverse health effects at less than 1% of what the FCC allows. Even if this were not the case, when have we determined everyone must be on the same side, the same page, before precautionary approaches are implemented? Did we

wait for this 100% accord on the science regarding DDT? No, if we had done that, Dow Chemical would never have agreed their product was dangerous and the world would be a less safe place than it is now. The same argument can be used for tobacco. It is past time for the FCC to lean toward the side of protecting human life rather than telecommunications industry profits. I contend a true Precautionary Approach would be both efficient and practical. It would protect human life, the quality of those lives, prevent disease, enhance the opportunity for human potential by not insidiously eroding our greatest natural resource – the human brain, and it would keep health care costs down. I implore the FCC to recognize that six (6) out of six (6) SPECT brain scans were abnormal for the firefighter subjects, and they are the strongest of the strong among us.

Respectfully submitted by

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September 2, 2013

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(Electronically submitted)