

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

In the Matter of )  
)  
Notice of Proposed Rulemaking )  
18 FCC Rcd 13187, 13188 ¶1 (2003) ) ET Docket No. 03-137  
)  
And )  
)  
Service Rules for the Advanced Wireless Services ) WT Docket No. 12-357  
H Block---Implementing 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

Comment Filed by:

Antoinette "Toni" Stein PhD  
892 Arlington Ave  
Berkeley, CA 94707  
650-823-7662  
[tweil@igc.org](mailto:tweil@igc.org)

February 4, 2013

## **AFFIDAVIT OF Antoinette Stein**

I, Antoinette Stein attest that my statements are true to the best of my knowledge.

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

1. My name is Antoinette Stein .
2. My mailing address and contact info is 892 Arlington Ave, Berkeley, CA 94707, 650-823-7662, tweil@igc.org.

3. **FCC must remediate the known “harmful interference”**

Although there is skyrocketing demand for speed, capacity, and ubiquity of the nation’s wireless networks, it is critical that the FCC not hastily jump or move forward and permit the Spectrum Act’s auctions for the ten megahertz of spectrum for flexible use in the Advanced Wireless Services (AWS) H Block without first remediating the known “harmful interference”. It is essential that the FCC must create needed updates to the technical requirements to address the known “harmful interferences” that the docket record indicates are anticipate. FCC should not gloss over this critical issue.

**Do NOT use the existing definition of “harmful interference”**

It is critical to note that the Spectrum Act **does not define the term “harmful interference”** The FCC should properly hold public rulemaking on this definition. FCC should NOT use the existing definition of “harmful interference” in the Commission’s rules because it fails to properly address disabled persons and the overlapping issues with the ADA. Under the Commission’s rules harmful interference fails to encompass the issues affecting persons with disabilities that should not be discounted . FCC must be respectful and full recognize the harmful interference issues that involve disabled persons that include persons that are hard of hearing, have heart disease and wear pace makers or other medical devices with electronic devices’ as well as persons with Multiple Schlerosis MS such as myself, and children with PANDAS, EHS and CHS individuals all of which EMF radiation exposures impact and affect. FCC should not adopt the limited definition of “harmful interference” to mean “[i]nterference which endangers the functioning of a radionavigation service or of other safety services or seriously degrades, obstructs, or repeatedly interrupts a radiocommunication service operating in accordance with [the International

Telecommunications Union] Radio Regulations.” FCC must study carefully the health impacts of the transmitting exposures on the disabled and the human populations and must carefully redefine the term “harmful interference” . For example for EHS individuals that are hyper sensitive to RF the FCC must provide accommodations for them to live. FCC in its technical rules must revisit and update its labeling rules to protect and accommodate properly persons with disabilities.

**4. The FCC needs to include funding allocation for RF Safety from the Public Safety Trust Fund**

The FCC in this rule making should articulate in rule that funding from the band bidding that is deposited into the Public Safety Trust Fund shall be used for education and outreach on RF Safety to PCS and AWS users and businesses for purposes of educating the public on RF Safety for public safety in addition to the FCC’s disclosed buildout of the Public Safety Broadband Network by the First Responder Network Authority. *The FCC in this rule making should ensure that adequate funding in the Public Safety Trust Fund be allocated for comprehensive outreach and education to on RF Safety to the public PCS and AWS users, workers, and residents in the economic regions..* There currently is no federal funding to educate the Public on RF Safety while there is a clear cut expected rise in wireless broadband to consumers. This imbalance should be remediated in this rulemaking process. Because there is expected economic growth, job creation, and global competitiveness the FCC is obligated to apply a portion of the profits to educate the public on RF Safety including educating on the RF Standards, guidelines and best practices and guidance to reduce possible adverse exposures.

**5. The Commission shall comport with the statutory mandates of section 303(y)**

The FCC shall comply with the Communications Act and section 6401 of the Spectrum Act. In particular the FCC must sustain actions that are in the Public interest and that are consistent with international agreements to which the United States is a party. Because the US is a member of the World Health Organization the FCC is required by law to uphold the constitution of the WHO which the US has formally signed on to [www.who.int/governance/eb/who constitution en.pdf](http://www.who.int/governance/eb/who_constitution_en.pdf) . And because the WHO in 2011 classified EMF as a possible carcinogen the FCC is allowed by law only to permit use of the H Blocks with adequate RF Safety measures that sufficiently address the possible carcinogenic emission exposures from the transmitters that will be permitted in this rule. The FCC must therefore before

permitting any auction bids the FCC must update its RF Safety standards to address the WHO's toxic classification since the US is a member of the WHO and because Dr N. Daulaire, Director, Office of Global Affairs, Department of Health and Human Services, Washington, DC is Executive Board Member of the WHO.

I write today to remind the FCC Commission that they must comply with Section 303(y) and shall not violate the agreement that the US has signed with the WHO. The WHO writes in its constitution, "Governments have a responsibility for the health of their peoples which can be fulfilled *only by the provision of adequate health and social measures.*"

**6. FCC must update its TECHNICAL RULES to stop harmful interference**

Importantly the FCC must enact critically needed updated technical rules to stop harmful interference including to legacy PCS devices from potential Lower H Block fixed and mobile transmissions. Development of these critically needed rules should be initiated in a fast track and should be conducted within the public process for which specific comments may be submitted on these needed technical rules. The current Notice of Proposed Rulemaking bundles way too many technical topics together to properly serve as the public process for the critically needed update to the technical rules. FCC should formally reissue a 2013 Notice of Proposed Rulemaking for the RF Safety Standards since in this FCC NPRM the FCC does not properly notice Rulemaking for these technical standards. They are buried in this rule making notice within a footnote (footnote number 95) on page 19 and they were not properly included in this NPRM Table of Contents.

**7. FCC should update its RF Safety Standards as part of this rule making process.**

In May 31, 2011, the World Health Organization's International Agency for Research on Cancer (IARC) classified radiofrequency fields as a 2B "possible carcinogen." The FCC's standards do not adequately address biological impacts and need to be updated as many . The FCC according to more current biological models. Current standards are obsolete, based solely on thermal effects. Nor do the present standards – or the standards issued by the International Council on Non-Ionizing Radiation Protection (ICNIRP) -- address the current state of the peer-reviewed science that EMF emissions are biologically toxic and carcinogenic.

The FCC shall to adopt and update new more protective standards and use and enforce them as technical requirements for all transmitters within the FCC's radiofrequency jurisdiction. The FCC shall protect human and children's health in step with the economic benefits. FCC shall not fail to acknowledge the current

scientific findings of health impacts and shall therefore update the FCC RF Safety standard and shall in this rule making begin the needed rule making for the update of the FCC RF Safety standard.

I have been a member of the Technical Electronic Product Radiation Safety Standards Committee of the FDA Roster of the Technical Electronic Product Radiation Safety <http://www.fda.gov/AdvisoryCommittees/CommitteesMeetingMaterials/Radiation-EmittingProducts/TechnicalElectronicProductRadiationSafetyStandardsCommittee/ucm124738.htm> There is great need for the FCC and the FDA and the Federal Governments multi agency EMF Working Group to convene to work on updating the RF EMF Standards. The attached report includes the excessive costs of treating brain cancer.

**8. The Lower H Band power density should not be increased.**

The Lower H band, 1915-1920 MHz band allocated for fixed services should absolutely not be permitted to employ a higher power level than mobiles operating in that band without the inclusion and stipulation of critical technical rules that do not currently exist. FCC should not permit higher power levels without first instituting proper public rule making that includes concrete and specific provisions for RF Safety. FCC should not be permitted to rely on wishful thinking that new fixed station antennas will be located at some distance above ground level without setting technical requirements if there is to be any increased power that could increase human exposures and could possibly adversely impact the population. FCC needs to revise both its RF Safety standards and its height and distance technical requirements if there is to be any increase in power levels permitted.

**9. FCC should integrate EPP into its bidding process.**

Regarding the competitive bidding that the FCC has asked about in this NPRM. The FCC should evoke and include Environmentally Preferable Purchasing (EPP) competitive bidding rules. In particular the FCC should work in collaboration with the US EPA and the GSA to enact bidding for products and services that have a lesser or reduced effect on human health and the environment when compared to other products and services that serve the same purpose, a.k.a environmentally preferable purchasing. FCC should include in its rulemaking restrictions consistent with FAR 23.703 that requires agencies to implement cost-effective green contracting preference programs, employ sustainable acquisition strategies. Executive Orders:

EO 13514 [PDF - 113K] , EO 13423 that requires agencies to acquire and use EPP products and services.

#### **10. Information on the Antoinette Stein**

I am an Environmental Engineer with a PhD in Air Quality Control from the University of Cincinnati, 2001, Masters of Science in Engineering in Manufacturing Processes and Systems from Milwaukee School of Engineering (MSOE), and Bachelors of Science in Engineering Mechanics from the University of Wisconsin-Madison 1983. I speak on behalf of myself as an individual and not on behalf of any organization including not on behalf of my employer. My Day Job employment is an Associate Procurement Engineer in Environmentally Preferable Purchasing for the State of California, Department of General Services, Procurement Division. At the State of CA I have authored a number of EPP specifications that are protective of the environment and public health including specifications for IT electronic devices. I participated on the Corporate Performance Committee for the EPEAT standard update for multi-functional imaging devices and televisions addressing corporate performance and environmental impact disclosure including for toxic emissions. I worked for the State of California Department of Public Health in the Indoor Air Quality Program from 2005 to 2008 for three years. My focus was on toxics and protection of children in schools. I have been the Chair of the Indoor Environmental Quality sub-committee for the Collaborative for High Performance Schools (CHPS) since 2006 and our committee has worked on development of EMF Safety Best Practices for Schools. I am an environmental volunteer working on EMF Safety topics; I have been co-moderating the Collaborative for Health and the Environment's EMF Workgroup with Michael Lerner <http://www.healthandenvironment.org/initiatives/emf> since the start of 2012. The CHE-EMF has hosted in three EMF teleconferences with expert scientists including the CHE Fertility and Reproductive Health and CHE EMF working group call: with Dr. Ashok Agarwal, PhD, HCLD Slides: EMF and Reproductive Health Risks Articles: Cell Phones and Male Infertility: A Review of Recent Innovations in Technology and Consequences Pathophysiology of cell phone radiation: oxidative stress and carcinogenesis with focus on male reproductive system Effect of cell phone usage on semen analysis in men attending infertility clinic: an observational study Effects of radiofrequency electromagnetic waves (RF-EMW) from cellular phones on human ejaculated semen: an in vitro pilot study Epigenetics and its role in male infertility **Dr. De-Kun Li, MD, PhD, MPH** Slides: Effect of Exposure to Magnetic Fields on Pregnancy Outcomes, Health of Offspring, and Male Fertility Articles: A Population-Based Prospective Cohort Study of

Personal Exposure to Magnetic Fields During Pregnancy and the Risk of Miscarriage

Exposure to magnetic fields and the risk of poor sperm quality Maternal Exposure to

Magnetic Fields During Pregnancy in Relation to the Risk of Asthma in Offspring

**Carlo V. Bellieni, MD & Iole Pinto, PhD** Slides: Physical Hazards in Fetuses and

Newborns: Electromagnetic Fields Articles: Exposure to Electromagnetic Fields From

Laptop Use of "Laptop" Computers Reduction of exposure of newborns and caregivers to

very high electromagnetic fields produced by incubators Electromagnetic fields produced by

incubators influence heart rate variability in newborns C.V. BELLINI, M. RIGATO, M.

FORTUNATO, D.M. CORDELLI, F. BAGNOLI. Increasing the engine-mattress distance in

neonatal incubators: a way to decrease exposure of infants to electromagnetic fields. ITAL J

PEDIATR 2003;29:74-80.

CHE EMF Working Group call: Cell Antennas and Health: The State of the Science

With Speakers: **Dr. Henry Lai** - download slides (PDF) **Additional resources of**

**interest:** Biological effect from exposure to electromagnetic radiation emitted by cell

tower base stations and other antenna arrays B. Blake Levitt and Henry Lai

Download the PDF Cell Towers: Wireless Convenience? or Environmental Hazard?

Proceedings of the "Cell Towers Forum" State of the Science/State of the Law

## **2. B. Blake Levitt**

Read more Cell Towers: Wireless Convenience? or Environmental Hazard? (excerpt

from the book: Biological Effects of Radiofrequency Radiations from Wireless

Transmission Towers)

Download the excerpt (PDF) Additional publications on cell towers (plus abstracts)

Download the list (PDF) Public health implications of wireless technologies

Cindy Sage and David Carpenter

Download the PDF BioInitiative Report: A Rationale for a Biologically-based Public

Exposure Standard for Electromagnetic Fields (ELF and RF)

Read more

Listen to the MP3 recording

11. I have been volunteering in EMF Policy development and reviewing the state of the science for the Environmental Health Trust.
12. I have been volunteering with the California Brain Tumor Association on children's health protection.
13. And I am a Technical Advisor for Informed Green Solutions
14. I strongly urge the FCC not to extend out ten megahertz of spectrum for flexible use in the Advanced Wireless Services (AWS) H Block without first updating the RF Safety Standard.

Respectfully submitted by

A handwritten signature in black ink that reads "A Stein". The letter "A" is stylized with a long vertical stroke and a horizontal crossbar. The word "Stein" is written in a cursive, flowing script.

February 4, 2013

ANTOINETTE  
STEIN