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

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

Comments for FCC ET Docket No. 013-84 and ET Docket No. 03-137

1. My name is Elizabeth Kelley and my address is 3031 N. Gaia Place, Tucson, AZ, 85745.

2. I am a public health advocate on the adverse health effects of electromagnetic fields and have been involved since the Wireless Digital Age was formally initiated following the enactment of the Federal Telecommunications Act of 1996. I am currently the Director of the Electromagnetic Safety Alliance, Inc. In 1997, I joined a citizen-led appeal challenging the FCC in the U.S. Court of Appeals for issuing final radiofrequency human exposure guidelines that were inadequate to protect the health of workers or the general public. This policy appeal was entitled "Cell Phone Task Force vs. FCC" and represented were several filings by citizens groups and the Communications Workers of America. After the appellate court denied the appeal in 2000, the EMR Network, Inc. filed a writ for certiorari to the U.S. Supreme Court, which they denied. This current rulemaking offers, for the first time in 15 years, another opportunity to participate in a public review of FCC's human exposure radiofrequency radiation guidelines. I was a signatory to the Porto Alegre Resolution in 2009 and this resolution continues to call for great health protection under most national radiofrequency exposure guidelines or standards.

3. The rapid deployment of wireless enabled devices and infrastructure designed to enable a global internet, where "things talk to things", represents the largest technological

build-out in the history of mankind. This technology rollout has been taking place for the past two decades. Federal preemptions authorized in the Federal Telecommunications Act of 1996 have been reinforced by a nationwide campaign, by an army of industry lobbyists and public relations spokespersons. This has had a chilling effect on scientists and citizens who point to credible scientific studies reporting biological changes and adverse health effects. These industry tactics have managed to instill a code of silence that has limited the open public debate that needs to take place in order to assure radiofrequency exposure guidelines protect health and safety. Concerns raised by scientists, engineers, medical doctors, public advocates and individuals are generally ignored. Now two years following the 2011 World Health Organization's classification of radiofrequency radiation as possibly carcinogenic, the U.S. Institutes of Health and the FDA/FCC positions on potential health effects of radiofrequency radiation have remained unchanged.

4. I am including, as an attachment, a letter sent by members of the Federal Radio Frequency Interagency Working Group to the IEEE in June 1999. This is an informal networking group of radiofrequency experts who represent several federal health and safety agencies, including FDA, NIEHS, EPA, NIOSH, OSHA along with the FCC and NTIS. They sent a letter to IEEE outlining their specific concerns about the FCC guidelines, which were revised two years prior, in 1987. One wonders whether these expert scientists were motivated to write this letter at that time, because their concerns had not been taken into account earlier, during the rulemaking process. There was no reply by the IEEE and no public comment from the FCC to this letter!

5. Since 1999, several bills were introduced in Congress to repeal federal preemptions and calling for a review of the FCC RFR exposure guidelines but they all died in committee. Scientists and medical doctors who seek to educate Congress and the Administration are being ignored. These scientists have not been able to receive federal research grants to investigate the biological and health effects of electromagnetic fields in the U.S. All the independent clinical laboratories that had the capability to conduct clinical research on electromagnetic radiation were forced to close. The Federal public health agencies are not investigating reports of harm to people due to exposure to personal wireless devices and antennas. There is very limited monitoring of environmental exposure to ensure compliance with the FCC's RFR human exposure guidelines. Reports from more and more people who develop brain tumors or who become electrically hypersensitive from exposure to wireless signals have not served to galvanize the public health agencies into investigating the potential causes of these worrisome disease trends. Meanwhile, the U.S. Department of Education is promoting wireless enabled technologies for our children's classrooms and the U.S. Department of Energy is funding smart grid grants, to encourage the installation of microwave emitting smart wireless utility meters on every building in the U.S. by 2020. The political leadership at the FCC and its counterpart federal agencies that are cognizant over health and safety issues are practicing benign neglect by not evaluating health risks or reports of actual harm from environmental exposure to wireless signals now commonplace in classrooms, workplaces and outdoor public spaces. New wireless personal devices and monitoring sensors are becoming available all the time, with increased signal strength due to

increased bandwidth and increased customer demand, the levels of background radiation, particularly in urban areas, is increasing. The possibility exists that more people are being harmed but since there are no population studies underway to assess morbidity and mortality due to exposure to wireless and electronic devices and wireless enabled infrastructure, the U.S. telecommunications industry will not permit access to its phone records showing the usage, duration of calls, etc. so, the public is not being informed..

6. The FCC guidelines protect against short term exposure only; six (6) minutes of cell phone use and thirty (30) minutes of environmental exposure to cellular antennas. These guidelines are not relevant to the real world out there with people on their cell phones for several hours per day. The FCC guidelines are based on a flawed assumption that protection is needed only from thermal-level exposure conditions, where heating of tissue, or burn, could result. There was little recognition of the state of the science in 1997, when the current FCC guidelines were adopted. More and more studies are showing non-thermal effects in living tissue but the bulk of this research is done in other countries and it is difficult to fund replication studies when biological effects are noted. The comments submitted to the FCC on this new rulemaking, includes statements from many scientists who have published studies that demonstrate adverse human health effects at these low intensities. Their findings argue for precautionary approach to limiting of exposure to wireless digital phones, computers and transmitters. The current guidelines do not address the combined and cumulative effects of long term exposure. These guidelines do not address environmental exposure to the myriad of signals, transmitting concurrently, operating at different frequencies constantly, at different power levels and with varying pulse modulation and amplitude we are living daily in. The FCC does not often investigate reports of harm unless it is shown that their safety limits are being exceeded. There is an enormous difference between the utility meter readings which are recorded by people who are reporting they are being harmed and the official safety threshold, which is thousands of times higher. A former EPA scientist issued a statement several years ago, saying: The public is not protected." The Cellular Telephone and Internet Association reports, as of 2013,"the U.S. wireless industry is valued at $195.5 billion, which is larger than publishing, agriculture, hotels and lodging, air transportation, motion picture and recording and motor vehicle manufacturing industry segments." There is a major imbalance between the pressure by these economic forces and the needs and rights of the citizens in this country. Since citizens are also consumers of wireless services it seems counterproductive for our government not to insist that wireless products and services are safe. A healthy people make a healthy economy and reduce future health care costs. The impact on future health care costs is the sleeping giant in this equation.

7. In early 2013, A.M. Best, the world's largest credit rating agency for the insurance industry, issued a statement indicating that radiofrequency radiation exposure to workers presents their number one underwriting risk (attached). While this statement seems directed particularly at utility workers who are employed directly or under sub-contract to the telecommunications and electrical power industries, the proliferation of chronic environmental exposure conditions that now exist in indoor environments or outdoor

public areas, that are not monitored to assure compliance with the FCC guidelines, raise the possibility that the general public are also at greater risk. We recommend routine independent RF assessments of all regulated wireless communications facilities. We also recommend that smart meters, and other radiological devices, which are not regulated by the FCC, should be subject to independent third party assessments. We have found by reviewing independent RF analyses that radiofrequency/microwave emissions from cell towers and utility meters are stronger and transmit more frequently than the utility industry represents.

8. In February, 2012, U.S. Senator John McCain kindly forwarded a letter that I wrote to Dr. Regina Benjamin, MD, who was the U.S. Surgeon General at that time. I signed this letter as the Director of the Electromagnetic Safety Alliance. In that letter, I asked Dr. Benjamin to "investigate the potential adverse health effects due to non-ionizing electromagnetic radiation from wireless communications technologies. I think this request was appropriate, since the primary duty of the U.S. Surgeon General is to "protect and advance the health of the nation through educating the public, advocating for effective disease prevention and health promotion programs and activities, and, providing a highly recognized symbol of national commitment to protecting and improving the public's health." The response from the Office of the U.S. Surgeon General that I received through Senator McCain in June 2012 was indeed puzzling. The enigmatic reply was, "we cannot answer a call to research the matter as it is not under our auspices to accept external research requests." As I was not requesting that this office undertake a research project but that it considers conducting an inquiry into a serious, emerging public health issue, I thought this reply was odd. It reflected that this U.S. Surgeon General was conducting her affairs in a manner far differently than some of the former U.S. Surgeon Generals I have watched over the years. When U.S. Surgeon General Carmona initiated a report that looked into environmental exposure to cigarette smoke and found that that exposure conditions could result in the same cancers that cigarette smokers developed, called"second hand smoke", his report brought the smoking and cancer issue to for the public health community, and California led the way by becoming the first state to regulate places where people could not smoke. I remain hopeful, however, that the next US. Surgeon General, will see his or her mission to look into this issue as an emerging public health issue.

9. I was a signatory to the Porto Alegro Resolution, signed by experts on electromagnetic radiation health and safety in 2009, following an international scientific conference held in Brazil. The signators stated emphatically, "We are deeply concerned that current uses of non-ionizing radiation for mobile phones, wireless computers and other technologies place at risk the health of children and teens, pregnant women, seniors and others who are most vulnerable due to age or disability, including a health condition known as electromagnetic hypersensitivity. We strongly recommend preventive practices…" See attached resolution.

10. I would like to report two positive developments in Arizona where I live and where the Electromagnetic Safety Alliance, inc. is based. In 2009, The Board of Supervisors for Pima County in Arizona, unanimously voted for a resolution (No.188-2009), followed

by a similar resolution voted through the Mayor and City Council for the City of Tucson in August, 2013. These resolutions calls upon Congress to repeal federal preemptions under current federal telecommunications laws and restore local government control over the siting and management of antennas, and the prohibition against taking citizen health concerns into account when denying a permit application. These resolutions call upon the Pima County Health Department to investigate this matter. These resolutions are attached.

11. Also, in August, 2013, the Arizona Corporation Commission, while acknowledging that is it not a health agency, referred the many questions and concerns it has received from the public about smart meters to the Arizona State Health Department and requested it undertake a thorough review of the matter. These developments are encouraging but they also reveal that states have limited authority to protect health and safety, as it traditionally has always done, due to the federal preemptions under federal telecommunications laws. There is a need for stronger regulatory control to assure health, safety and well being of the people and to ensure the development of protective radiofrequency radiation exposure guidelines. Citizens need to know what they are being exposed and should not be burdened with the responsibility for proving causality should they be experiencing harm.

12. I join the national call for the establishment of an independent, federal program, under the auspices of the Environmental Protection Agency and the National Institutes of Environmental Health, to be authorized and fully funded on behalf of the entire federal government by the Congress with the responsibility for oversight, research and investigation activities of electromagnetic field health and safety on behalf of the Federal government. This authority would include the development of public health based EMF exposure guidelines that are commensurate with biological effects. American life is in being transformed by wireless digital technologies. There are serious fundamental questions being asked about whether human health and the environment are adversely affected. We are now living daily in new, chronic and ubiquitous environmental exposure conditions that life has never evolved in before and it is important to evaluate these exposure conditions. Actions are needed, which are sound and humanitarian, to serve the common good.

On behalf of the Electromagnetic Safety Alliance, I ask that these comments be given high priority consideration and that the FCC's radiofrequency human exposure guidelines be revised to take into account non-heating effects and be made more protective pending the development of biologically based standards.

Sincerely,

Elizabeth A. Kelley

Elizabeth Kelley, MA
Director, Electromagnetic Safety Alliance, Inc.

STATE OF ARIZONA)
COUNTY OF PIMA)
Subscribed and Sworn (or Affirmed) before me
This 3 day of September 2013

Notary Public
My Commission Expires: 08/14/2016

CLINTON J FARNSWORTH
NOTARY PUBLIC
COCHISE COUNTY, ARIZONA
My Comm. Expires 08-14-16

www.electromagneticsafety (dot) org

Attachments:

Letter sent on June 17, 1999 from the Radiofrequency Inter Agency Working Group to Ric Tell, Chair of the IEEE, SCC28 (SC4) Committee.

A.M. Best Report dated February 2013, identifying radiofrequency radiation exposure for workers as the number one liability risks in the insurance industry.

Letter dated February 3, 2012, transmitting my inquiry on behalf of the Electromagnetic Safety Alliance to the U.S. Surgeon General

Response dated June 3, 2012 to my inquiry to the U.S. Surgeon General sent to Senator McCain by the Office of the U.S. Surgeon General.

Porto Alegre Resolution of 2009 signed those experts who presented at an international scientific meeting on electromagnetic radiation and health that was held in Brazil.

Resolution No. 88-2099 in August 2009 enacted by the Board of Supervisors, Pima County, Arizona; and a Memorial to that Resolution enacted on August 9, 2013, by the Mayor and City Council of the City of Tucson, Arizona; where both resolutions call for repeal of the federal preemptions legislated under the Federal Telecommunications Act and for revising the FCC's Human Health Radiofrequency Radiation Guidelines to protect the health, safety and well being of their constituents.