

WT Docket No. 04-356  
WT Docket No. 02-353

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

Reply Comment Filed by: Ronald Cronin  
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To whom it may concern:

I submit the following in response to the FCC's request for comment relating to the tentative conclusion set forth in the "RF Safety" section of the Notice of Proposed Rule Making adopted September 9, 2004 in Docket Nos. 04-356 and 02-353 (paragraph 114). That section sets a threshold for environmental review of 1000 watts of effective radiated power ("ERP") and asserts that this will prevent human exposure to potentially unsafe levels of radio frequency ("RF") radiation in compliance with the National Environmental Policy Act (NEPA).

I oppose the FCC's adoption of the proposed rules as superficial, arbitrary and capricious, and I urge the FCC to initiate or request thorough and comprehensive research and study of the rule's impact on human health using a biological approach.

I am a past Secretary Treasurer of my Local, Brookline Firefighters Local 950, a Delegate of the Professional Fire Fighters of Massachusetts (PFFM) and a Fire Lieutenant with 28 year of service in Brookline, Massachusetts. As a graduate student at Suffolk University in Boston I designed and oversaw a study of electromagnetic radiation that was coordinated between the PFFM, Boston University and Suffolk University engineering students that measures electromagnetic fields at all manned firehouses on Cape Cod in Massachusetts. Our measurement effort and data was use extensively by the National Academy of Science in a recent health study (January 2005) of the PAVE PAWS radar installation located on Cape Cod.

I have attached the International Association of Firefighters (IAFF) Resolution 15 which I helped author and get passed at our national convention in Boston in August 2004. The resolution requires the IAFF to oppose any and all cell tower and antenna

installations on or within a firehouse in the United States or Canada until a comprehensive health study is completed. I have attached Resolution 15 and posted it below for your review.

Revised and Amended IAFF Resolution No. 15; August 2004

Study of Firefighters Exposed to Radio Frequency (RF) Radiation from Cell Towers/Masts

WHEREAS, fire stations across the United States and Canada are being sought by wireless companies as base stations for the antennas and towers for the conduction of cell phone transmissions; and

WHEREAS, many firefighters who are living with cell towers on or adjacent to their stations are paying a substantial price in terms of physical and mental health. As first responders and protectors of the general public, it is crucial that firefighters are functioning at optimal cognitive and physical capacity at all times; and

WHEREAS, the brain is the first organ to be affected by RF radiation and symptoms manifest in a multitude of neurological conditions including migraine headaches, extreme fatigue, disorientation, slowed reaction time, vertigo, vital memory loss and attention deficit amidst life threatening emergencies; and

WHEREAS, most of the firefighters who are experiencing symptoms can attribute the onset to the first week(s) these towers/antennas were activated; and

WHEREAS, RF radiation is emitted by these cellular antennas and RF radiation can penetrate every living cell, including plants, animals and humans; and

WHEREAS, both the U. S. and Canadian governments established regulatory limits for RF radiation based on thermal (heat) measurements with no regard for the adverse health effects from non-thermal radiation which is proven to harm the human brain and immune system; and

WHEREAS, the U. S. Environmental Protection Agency stated in a July 16, 2002, letter, "Federal health and safety agencies have not yet developed policies concerning possible risk from long-term, non-thermal exposures. The FCC's exposure guideline is considered protective of effects arising from a thermal mechanism (RF radiation from cell towers is non-thermal) but not from all possible mechanisms. Therefore, the generalization by many that the guidelines protecting human beings from harm by any or all mechanisms is not justified"; and

WHEREAS, an Expert Panel Report requested by the Royal Society of Canada prepared for Health Canada (1999) stated that, "Exposure to RF fields at intensities far less than levels required to produce measurable heating can cause effects in cells and tissues. These biological effects include alterations in the activity of the enzyme ornithine decarboxylase, in calcium regulation, and in the permeability of the blood-brain barrier. Some of these biological effects brought about by non-thermal exposure levels of RF could potentially be associated with adverse health effects"; and

WHEREAS, based on concerns over growing scientific evidence of dangers from RF radiation, an international conference was convened in Salzburg, Austria, in the summer of 2000 where renowned scientists declared the upper-most RF radiation exposure limit from a tower-mast should be 1/10th of 1 microwatt (Note that 1/10th of 1 microwatt is 10,000 times lower than the uppermost limit allowed by the U. S. or Canada.); and it should be noted this limit was set because of study results showing brain wave changes at 1/10th of 1 microwatt; and

WHEREAS, in a recently cleared paper by Dr. Richard A. Albanese of the U. S. Air Force, a highly recognized physician in the area of the impact of radiation on the human body, Dr. Albanese states, "I would ask a good faith effort in achieving as low exposure rates as are possible within reasonable financial constraints. Also I would fund targeted studies using animal subjects and human groups living or working in high radiation settings or heavy cellular phone users, emphasizing disease causations. I urge acceptance of the ideal that there should be no unmonitored occupational or environmental exposures whose associated disease rates are unknown." (The opinions expressed herein are those of Dr. Albanese, and do not reflect the policies of the United States Air Force.); and

WHEREAS, recently a study, not affiliated with the wireless industry, was conducted of firefighters exposed to RF radiation from cell towers/antennas affixed to their stations. The study revealed brain damage that can be differentiated from chemical causation (such as inhalation of toxic smoke) suggesting RF radiation as the cause of the brain damage found on SPECT scans; and

WHEREAS, firefighters are the protectors of people and property and should be protected under the Precautionary Principle of Science and therefore, unless radiation is proven safe and harmless, cellular antennas should not be placed on or near fire stations; therefore be it

RESOLVED, That the IAFF shall seek funding for an initial U. S. and Canadian study with the highest scientific merit and integrity, contrasting firefighters with residence in stations with towers to firefighters without similar exposure; and be it further

RESOLVED, That in accordance with the results of the study, the IAFF will establish protective policy measures with the health and safety of all firefighters as the paramount objective; and be it further

RESOLVED, That the IAFF oppose the use of fire stations as base stations for antennas and towers for the conduction of cell phone transmissions until such installations are proven not to be hazardous to the health of our members.

### **Conclusion**

I propose that the FCC postpone the implementation of its proposed rules relating to the broadband spectrum for advanced wireless services until the completion and thorough review of the low-intensity RF research and studies. The FCC needs to initiate a rule-making process to adopt new, low-intensity RF exposure guidelines that are protective of public health related to chronic, non-thermal levels of RF and which are biologically rather than thermally based. Such exposures are currently found in the workplaces of firefighters throughout the United States and Canada and we will undertake any and all actions necessary to protect firefighters and the citizens of the United States we swore to protect.

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