

**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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**Comments of Marv Wessel
Submitted September 01, 2013**

Marv Wessel, CEO of the consulting firm Global RF Solutions d.b.a. RF Solutions LLC, submits the following comments as a response to the publication of FCC 13-39, First Report and Order, Further Notice of Proposed Rule Making and Notice of Inquiry (ET Docket No. 13-84 and ET Docket No. 03-137) released March 29, 2013 by the FCC. Marv Wessel founded Global RF Solutions in 1998, a consulting company that specializes in the measurement, analysis and mitigation of radiofrequency (RF) hazards. He has been directly involved in the measurement and analysis of numerous commercial broadcast communications sites and thousands of fixed wireless telecommunications installations. He is currently a member of IEEE and a working subcommittee member for IEEE PC95.1™/D2.2 Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic and Electromagnetic Fields, 0 Hz to 300GHz and a voting member of the IEEE’s International Committee on Electromagnetic Safety (ICES). These comments represent Marv Wessel’s professional opinion, and in no way should be interpreted to represent the IEEE or ICES opinions on any of the following comments.

These comments are submitted in the order that references the corresponding paragraphs related to each comment.

175-183: These paragraphs attempt to define the two MPE exposure categories “General Population” (lower tier) and “Occupational” (upper tier). Apparently a third exposure category is being proposed, the “Transient” exposure category? I find the concept of the

“Transient” exposure category to be both confusing and contradictory. The following is the IEEE C95.1-2005 and IEEE C95.7-2005 definition of a “Controlled Environment” *An area where the occupancy and activity of those within is subject to control and accountability as established by an RF safety program for the purpose of protection from RF exposure hazards.* I would propose referring to the upper MPE limit as the “Occupational/Controlled” limit and the lower MPE limit as the “General Population/Uncontrolled” limit for clarity. A person can be “Controlled” or “Uncontrolled” but I don’t see how it is possible to be both. The document suggests taking a “Transient” person and have them supervised (Controlled) by a “Trained Occupational Person” (no definition of what the requirements are for this person has been given) but only up to the “General Population/Uncontrolled Limit” and prohibited from any “Occupational/Controlled” exposure. This “Transient” person is theoretically being controlled to a higher standard of protection (if the trained supervising person is truly competent) against over exposure to RF energy than an “Occupational/Controlled” person that has had the minimum required training (yet to be defined) and requires no additional supervision to work in and around the “Occupational/Controlled” environment.

190: The statement “given that most sites already likely comply with these proposed requirements” is a huge assumption. Based on my sample of thousands of rooftop sites with fixed transmitters from wireless telecommunications services installed on them, an extremely low percentage of these locations have demonstrated that signage with appropriate information, associated training or procedures exists to properly identify the corresponding exposure categories present at each site.

192: I propose the “positive restriction on access” (positive access control) be referred to as “Controlled Access”. The IEEE C95.7-2005 definition of “Controlled Environment” would suggest that the persons granted access to areas above a “Category 2 Exposure” location would be granted access if they meet the requirements for the “Occupational/Controlled” exposure category. I have surveyed hundreds of examples of fixed transmitter sites with locked doors, ladder cages, etc. Unfortunately, authorized access is granted to persons that do not have any knowledge or means to control their exposure or more specifically are still classified as Public/Uncontrolled persons. The “positive restriction on access” does not necessarily ensure that the access restriction creates a site with a “Controlled Environment”.

193: The lack of cooperation between property owners, managers, licensees and subcontractors is the primary reason the implementation of site RF Safety Plans is a systemic failure throughout the wireless telecommunications industry. Based on my sample of thousands of fixed transmitter wireless telecommunications sites, less than 0.1% of these sites have demonstrated that the property owner/manager or their representatives had any knowledge or active participation in an RF Safety Program for the site they owned or managed.

I have observed a property owner/manager being issued a Notice of Violation (NOV) for harmful interference originating from fluorescent light ballasts by the FCC EB. The property owner/manager was not the importer or manufacturer of this device and yet was held accountable because it was on their property. If a property owner/manager can be held

accountable for the harmful interference caused by fluorescent ballast, they should also be held at least partially accountable for NOV's issued under cases where RF exposure limits are in violation of FCC rules at sites managed by them. An article written by Gloria Vogel, CFA titled "Hidden Insurance Risk Lurks in Property Leases" <http://www.claimsjournal.com/news/national/2013/08/21/235352.htm> offers some examples of property owner/manager risks associated with RF exposure.

195: "Training" for the purpose of enabling a person to be categorized in the "Occupational/Controlled" RF environment needs a clear and detailed definition. Although it is possible to place signage with basic instructions at a site to supply sufficient awareness and training, it is extremely improbable that this can be achieved due to the current lack of cooperation between the license holder and property owners/managers. Signage, barriers and placards simply will not remain in place if their intent is not clearly conveyed to the managers of the site.

200: Persons accessing rooftops are typically there to perform a maintenance function on a rooftop, often dispatched with some urgency. Contact information provided on placards and signs require a contact phone number that must offer specific assistance in a timely manner. Defining "timely" is extremely important.