

VIA ELECTRONIC FILING

Ms. Marlene H. Dortch  
Secretary, Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554

RE: Comments on the FCC's Proposed Rule (Docket No. 19-226): "Targeted Changes to the Commission's Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields"

Dear Ms. Dortch,

As medical and public health professionals, we are writing to express our opposition to the above captioned rule because of the Commission's failure to adequately consider the established and newly emerging science on RF microwave radiation and its impact on human health, particularly for vulnerable populations.

First and foremost, the proposed rule completely ignores the documented adverse health effects that can occur at the FCC's current radiofrequency (RF) exposure limits, much less those that may occur at the expanded range of frequencies contemplated in the proposed rule. That the Commission fails to even mention 'health effects', 'toxicity', or 'carcinogenicity' anywhere in this document is astonishing, given the extensive and expanding scientific literature currently available and the Commission's obligation to ensure the "safety of life" for all Americans as set forth in the Communications Act of 1934.

To address the specific issues raised in the proposed rule, we offer these comments:

**Response to Paragraphs 125 and 126** - The Commission appears to be pushing ahead with plans for the next generation of wireless while scientists are still documenting evidence of cancer and other biological harms from 2G, 3G and 4G exposures. There are no human or animal studies yet on these much higher frequencies, but an absence of studies does not mean an absence of harm. The Commission's own admission that it is unaware of adverse non-thermal effects demonstrates either a failure to actively investigate the issue and engage with scientists studying the short and long-term biological impacts to the human population and possible interference with systems of the natural world, or a conscious effort to disregard science to facilitate the rapid deployment of new technologies for purely commercial reasons.

**Response to Paragraphs 131-135** - Averaging RF microwave exposures over time may be convenient for manufacturers seeking to comply with FCC limits, but this is not how humans experience these exposures. To our knowledge, there is no scientific basis for the claim that periodic, high-level exposures are not harmful. As one scientist remarked recently, the average

wind speed in Tornado Alley is 6 miles per hour.

As such, we do not support the proposed change to allow manufacturers to produce wireless devices that govern their own radiation power output by averaging radiated power, especially for notebooks and tablets frequently used by children who, according to the International Agency for Research on Cancer (IARC), are more vulnerable to RF radiation than adults. Given the increasing use of wireless devices by children and adolescents, we encourage the FCC to seek out and utilize testing protocols that reflect real-world situations as has been suggested by the American Academy of Pediatrics. The FCC should establish temporal limits for both Specific Absorption Rate (SAR) and power density.

**Response to Paragraphs 141-143** - We recommend that before the Commission considers even tentative approval of Wireless Power Transfer (WPT) devices operating at ranges in excess of 50 cm., that it first require manufacturers to conduct pre-market testing to demonstrate the safety of such devices when used in all possible “worst case” scenarios, and develop mitigation techniques that can limit or eliminate inadvertent or collateral damage to the public. Such an analysis must include consideration of non-thermal biological impacts.

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Science moves slowly, and while this may be inconvenient for the restless purveyors of wireless technologies, it does not excuse the Commission from its obligation to protect public health and safety. Thus, considerations of human safety must come first in any decisions made by the Commission and we strongly urge the FCC to reconsider and re-evaluate its RF exposure standards with full consideration of potential adverse health effects for the general public as well as for occupational exposures.

Americans are entitled to know the full extent of any potential health risks associated with exposure to RF microwave radiation, particularly at this time when wireless companies are busy installing hundreds of thousands of new wireless antennas in close proximity to homes and apartments. The determination of potential health risks or adequate safety can best be evaluated from properly conducted, independent studies. The alternative of waiting 20 to 30 years to learn whether these exposures increased disease rates in human populations and in the natural world is a dangerous and irresponsible strategy.

Thank you for your careful consideration of these comments.

Sincerely,