

**Written Statement**

**Of**

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**Federal Communications Commission**

**Before the**

**Committee on Oversight and Government Reform**

**Subcommittee on Domestic Policy**

**U.S. House of Representatives**

**“Tumors and Cell Phone Use: What the Science Says.”**

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Good morning Chairman Kucinich, Ranking Member Issa and members of the subcommittee. My name is Julius Knapp, and I am Chief of the Office of Engineering and Technology at the Federal Communications Commission. I thank you for the opportunity to participate in this hearing today on this very important topic.

As you know, the Federal Communications Commission is responsible for, among other things, regulating telecommunications services and devices, everything from multi-kilowatt broadcast antennas to microwatt medical implants and anti-shoplifting tags, and all manner of transmitters in between, including cellphone transmit towers, cell phones, and other personal devices that transmit and radiate RF energy.

Pursuant to the National Environmental Policy Act of 1969 (NEPA), the Commission has established guidelines for human exposure to radiofrequency (“RF”) radiation. The FCC guidelines, which were first established in 1985, regulate the amount of RF radiation to which humans may be exposed by various transmitters regulated by the FCC. The guidelines and methods for evaluating the environmental effects of RF have been revised as scientific knowledge in the area has advanced and standards-setting bodies upon which the Commission relies in setting its exposure guidelines have revised their maximum acceptable exposure criteria.

The current guidelines were finalized in 1997, based on the recommendations and advice of federal agencies and groups with expertise in health –related areas and in standard-setting. The guidelines were based primarily on criteria developed by the Congressionally-chartered National Council on Radiation Protection and Measurement (NCRP) and the American National

Standards Institute/Institute of Electrical and Electronics Engineers (ANSI/IEEE). Their adoption was supported by the Environmental Protection Agency and other health and safety agencies. Three years ago, the Court of Appeals for the District of Columbia Circuit upheld the Commission's continued reliance on its existing rules to protect the public from potential health hazard from RF exposure.

The NCRP and ANSI/IEEE guidelines specify limits for human exposure to RF emissions from hand-held RF devices in terms of specific absorption rate, or SAR. For exposure of the general public, e.g., exposure of the user of a cellular or PCS phone, the SAR limit is an absorption threshold of 1.6 watts/kg (W/kg), as measured over any one gram of tissue.

To ensure compliance with the RF exposure limits, cell phones must be certificated before they can be marketed to the public. In order to receive certification, each device must be tested to demonstrate compliance with the SAR limit. The test data and test methodologies are reviewed before certification is granted. Once certification is granted, the application and test data are made available to the public.

In addition to establishing and enforcing exposure limits, the FCC provides information to consumers and to industry through various publications and our RF web site. The FCC and the Food and Drug Administration (FDA) have also developed a joint website to provide health-related information for consumers who are concerned about cell phones, base station towers, and other transmitters and wireless products. Among other things, the joint website includes a link to the Commission's equipment database with instructions on how to find SAR information on

individual cell phones, and refers to outside websites which compile information on SAR for individual cell phones in a more readily accessible format. This website is currently being revised by the FDA to include the most recent information regarding research on RF exposure.

In order to ensure the continued propriety and efficacy of our RF emissions limits, FCC staff continuously monitors relevant studies and literature, and attends and participates in a number of groups and pertinent standards-setting bodies. In addition, our staff participate with scientists from federal health and safety agencies in an informal Radiofrequency Interagency Working Group, which was chartered in 1995 to provide a “coordinated federal approach to health issues associated with existing and proposed technologies, which use and produce exposure to RF radiation.” Commission staff also meet regularly with staff from the Food and Drug Administration.

Although the Commission is responsible for setting and enforcing limits for human exposure to radio frequency (RF) energy from the devices we authorize, it is important to understand that we rely on guidance from U.S. health, safety, and environmental agencies in setting those limits. The FCC staff is not sufficiently qualified to speak with authority to the science of health effects of RF absorption in the body.

If agencies with expertise on the health effects of RF exposure were to suggest that our standards should be modified, the Commission would initiate a rulemaking to consider changes to the standards.

In closing, the Commission recognizes the public concerns about cell phone use. The science concerning the health effects of RF exposure from cell phones has been subject to study and intense debate. We are continuing to monitor developments and the Commission stands ready to take action if it appears appropriate to do so.