

## A Look At The FCC's Action On RF Exposure Limits

*Law360, New York (April 24, 2013, 11:54 AM ET)* -- The Federal Communications Commission recently released an order, further notice of rulemaking and notice of inquiry (NOI) on radio frequency exposure limits and policies. The FCC explains that its action is intended to ensure that its rules regarding RF exposure comply with federal environmental requirements and that the public is appropriately protected from any potential adverse effects from RF exposure from mobile phones and other devices, as well as from transmitting towers and other communications facilities.

The commission took care to note that the rule changes adopted in the order and proposed in the further notice do not alter the existing RF exposure limits or have a practical effect on human exposure to RF radiation. Rather, the new rules and proposals consist of technical changes in how RF exposure is evaluated and how compliance with the existing RF exposure limit is demonstrated. Lastly, the NOI seeks to create a comprehensive and fresh record that reflects the scientific research that has taken place since the current RF exposure limits were adopted in 1996.

Many companies are likely to take an interest in this proceeding given its potential to affect an array of sectors, including: communications and Internet technology companies, wireless device manufacturers, communications infrastructure providers, and health care and energy companies. Although the effective date of the new rules depend on when they are published in the Federal Register, we expect that they will likely take effect in June, and we expect that comments and reply comments on the further notice and the NOI will be due in late summer or early autumn 2013.

### Summary

#### **1) In the order:**

Regarding evaluation of RF exposure, the FCC:

- Amends its rules to reference the underlying whole-body and partial-body exposure limits for specific absorption rate and to allow evaluation of SAR in lieu of power density or field strength for demonstrating compliance of all fixed and mobile RF sources below 6 GHz;

- Discontinues use of Supplement C of Office of Engineering and Technology Bulletin 65 because the OET now provides up-to-date information on RF exposure limits for portable and mobile devices in its Knowledge Database;
- Classifies the pinna (outer ear) as an extremity and thus subjects the pinna to the same RF exposure limit currently applicable to hands, wrists, feet and ankles; and
- Corrects an inconsistency in its rules with respect to medical radio devices regulated under Part 95 of the commission's rules.

Regarding mitigation of RF exposure, the FCC:

- For devices intended for occupational use only — adopts more specific labeling and instructional requirements;
- For individuals exposed as a consequence of their employment — requires providing: (1) written and/or verbal information, at the discretion of the responsible party, as necessary to ensure compliance with the occupational/controlled limits and (2) with the exception of transient individuals, appropriate training regarding work practices that will ensure that exposed persons are “fully aware of the potential for exposure and can exercise control over their exposure;” and
- At fixed sites with multiple transmitters — clarifies that all site occupants that contribute to exposure will share responsibility in the event of an exposure.

***2) In the further notice, the FCC proposes:***

- New power- and distance-based exemptions that are intended to streamline the determination of whether preparation of a routine RF evaluation is necessary;
- Post-evaluation mitigation procedures to ensure that humans are not exposed to RF levels that exceed the prescribed limit (e.g., labels, signs and physical barriers); and
- Clarifications involving the use of calculation or measurement methodologies to determine potential exposure levels.

***3) As noted earlier, the NOI initiates a more comprehensive, fresh examination of RF issues. Areas of inquiry include:***

- Technical differences that have been raised in more recent standards-setting activities and ongoing research, such as partial-body and whole-body averaging of exposure, averaging time, averaging area, peak pulsed RF fields, contact currents, frequency range and conductive implanted objects;
- How to improve information flow to consumers and the public about RF exposure;

- Approaches to controlling RF exposure, including use of conventional exposure limits versus other precautionary measures and differences in current worldwide implementation of these methods;
- Possible improvements to the FCC's RF evaluation procedures; and
- The FCC's current portable device separation distance policy when determining compliance with the RF regulations.

## Analysis

The worldwide scientific community has conducted research into the health effects of RF emissions for many years. To date, available scientific evidence — including the World Health Organization's findings in its Interphone Study released May 17, 2010 — shows no increased health risk due to RF energy. Taken as a whole, the order, further notice and NOI suggest that the FCC is willing to explore this subject in a dispassionate manner; according to the FCC, "our intent is to adequately protect the public without imposing an undue burden on industry."

On the other hand, discussion of possible health effects resulting from RF emission exposure tends to stir passions and elicit a great deal of input, especially at the consumer level. This has been the case with respect to requests to site broadcast communication facilities, consumer use of wireless phones and transitions to the use of "smart meters" by energy companies. For these reasons, the FCC is likely to receive a larger than usual number of comments filed directly by consumers. We also expect the proceeding to be lengthy, likely spanning over a few years.

Given these factors, it appears that entities that employ and/or sell devices that emit RF energy may be best suited to provide the FCC with an ample record of fact-based, scientific analysis on the efficacy, currency and adequacy of the RF exposure regulations, and to propose new policy approaches if necessary. Indeed, the agency will require a great deal of specific, supported data, along with cogent, legally sustainable policy justification, as it attempts to equitably balance the health and safety of the public with the costs and potential burdens on the business community.

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