



**ET Docket No. 03-137 - Comments on the Proposed Changes in the Commission's Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields**

We respectfully submit these comments to the commission:

We have noted recent ex parte filings to the Commission with great interest. There have been suggestions made that local governments have no authority, responsibility, or jurisdiction to utilize the methods and means of determining compliance with FCC RF exposure limits.

Specifically, Holland+Knight's filing of December 10<sup>th</sup>, 2004 states:

"It remains the case that when material issues of compliance with the RF emission rules are raised, only the FCC has the jurisdiction and the expertise to make binding compliance determinations."

We submit that if this statement were true in practice, then the entire text of OET-65 would become moot, as only the Commission would have any meaningful ability to determine compliance, so no further definition of compliance would need to be defined.

We do not believe this interpretation is in the best interest of public safety, nor does it meet with the intent of the Commission in publishing guidelines for meeting RF exposure limits.

In fact, the Commission, in the LSGAC document quoted extensively by Holland+Knight also states: "*By applying the principles discussed in this guide about RF emissions, exposure and the FCC's guidelines, state and local officials can fulfill a vital role in identifying and winnowing out situations that merit further attention.*"

Clearly, the Commission intends for its guidelines to be used by localities, and not just the Commission itself. It is explicitly stated in the LSGAC document that:

*"...as a practical matter, state and local governments have a role to play in ensuring compliance with the FCC's limits..."*

and also:

*"At the same time, state and local governments may wish to verify compliance with the FCC's exposure limits in order to protect their own citizens."*

Further, local authorities oversight and approval over the practice of engineering (through the building permit process) is well established in law. Building codes, established to protect public safety, and the compliance with such codes are clearly and rightfully the responsibility of localities.

In fact, the Commission has in the past laid out what localities could request without coming into conflict with the Telecommunications Act. In a letter to Mr. Mike Loucy (dated October 17, 1997) the Commission stated:

*“For categorically excluded facilities, the Commission would be less likely to find a violation if the local government simply requested a written statement signed by the personal wireless service provider or its representative containing:*

- (1) a statement that the proposed or existing facility does or will comply with the Commission's guidelines;*
- (2) a statement or explanation of how compliance was determined;*
- (3) an explanation as to what, if any, restrictions on access will be maintained to ensure compliance; and*
- (4) a statement as to whether other significant transmitting sources are located at or near the transmitting site and, if so, whether their emissions were considered in determining compliance.”*

This demonstrates Commission precedent for cooperation with and oversight by localities.

Criticisms and affirmations of the LSGAC document notwithstanding, We believe that the LSGAC document requires significant revision and updating due to technological developments, likely revisions to the RF Exposure guidelines by the Commission, increased collocation on existing infrastructure, as well as the increasingly pervasive deployment of wireless technology.

With regard to ordinances that are in force in various localities, we request that the Commission state that an ordinance would be generally acceptable and in general agreement with the Commissions authority if the ordinance:

- Does not attempt to regulate the right to use spectrum that is duly licensed/regulated by the FCC
- Does not preclude the use, zoning, or construction of facilities on the basis of RF exposure limits contrary to those in FCC rules.
- Does not limit or exclude engineering methods used to demonstrate RF compliance, as long as the methods are consistent with Commission guidelines

Further localities should be allowed request as part of their permitting process (note similarity to the Loucy letter):

- Proof of RF Compliance
- Details on how RF Compliance was determined
- How RF Compliance will be assured on an ongoing basis
- Details assuring that Composite RF Exposure from all RF sources were considered.



An underlying philosophy of all ordinances implemented by localities should be to recognize the authority of the FCC in regulating licensees.

We believe, that the analysis and design of wireless facilities is and properly should be considered the practice of engineering. We do not believe that the Commission has any objection to the enforcement of building codes, even though these codes require compliance with engineering standards – the failure to do so could impede the deployment of wireless technology. Where compliance with RF exposure standards is codified in certain localities, the effect is the same.

In most states and localities, compliance with engineering standards, building and electrical codes is required. In fact most localities require a structural engineering analysis for co-locating wireless infrastructure. Wireless licensees already commonly comply with this practice without complaint to the Commission. Demonstration of compliance with various codes, and standards requires analysis that is clearly the practice of engineering. The practice of engineering is the domain of individual state boards of engineering.

There is also ample precedent for the recognition of the authority of state boards. The Commission, and the FAA requires what is termed a “2-C survey” to establish the location and height of wireless infrastructure. The practice of surveying (the ability to conduct a “2-C” survey) is also clearly regulated by state boards, often the same board that regulates the practice of engineering. The Commission, and the FAA does not object that this practice is in the regulatory domain of the states.

We do not believe that it is the Commissions intent to regulate the practice of engineering. Acceding to the request of Holland+Knight and the CTIA by leaving the sole remedy for the enforcement of engineering codes and standards applying to the local level with the FCC is not in the best interest of the public. There is reason to believe that it would be found to be federally regulating the practice of engineering, for which there is little legal precedent.

The proper practice of engineering, duly regulated by individual states, and codified by each locality, provides a needed level of accountability (through the state engineering boards) that is already recognized. The engineering required to demonstrate compliance with standards recognized by the FCC with regard to RF compliance is no different.

As long as localities recognize the standards that are agreeable to the Commission, and those standards are equally applied to all potential and existing wireless licensees, then we believe that the Commission should have no opinion on the methods used by localities to determine compliance as long as they are consistent with those of the Commission.



We agree with Holland+Knight that there is some reason to object to some of the local zoning requirements. Specifically:

- The requirements of the Thurston, Washington ordinance to test all RF emitters at full power appears to be an excessive requirement and technically unnecessary, from an engineering standpoint. Furthermore, it may be technically unreasonable and be a source of system interference, cause network outages, or other adverse problems. A qualified Professional Engineer can perform calculations that will demonstrate compliance/non-compliance without the difficult coordination task of bringing all licensees to maximum output power at a particular location.
- The Medina, Washington requirement for annual recertification of the wireless facility appears to be an excessive requirement, from an engineering perspective. A qualified Professional Engineer can perform the worst-case calculation that will demonstrate compliance/non-compliance. As long as the emitters on the wireless facility do not exceed the original calculated maximums, and no additional emitters are placed on a facility, or there are no changes in the vicinity of the site that might cause exposure, the original compliance demonstration will be valid.

We do not agree with Holland+Knight that there is anything unreasonable from an engineering perspective that:

- St Mary's County, Maryland require that a professional engineer provide calculations that demonstrate compliance with FCC exposure standards, and that subsequent co-locators likewise re-demonstrate compliance when the RF environment changes.
- Spotsylvania County, Virginia require that a professional engineer provide calculations demonstrating compliance with FCC exposure standards at any accessible point near the facility.

It is unclear to us why Holland + Knight would object to complying with FCC standards, and demonstrating compliance to a locality that asked for it. Further, it is unclear why the Commission would need to get involved in the demonstration of compliance in either Spotsylvania or St Mary's County



In all of the above ordinances, the localities recognize that the determination of compliance with FCC RF exposure standards represents the practice of engineering, with accountability for those calculations, and ultimately the safety of the general public resting with a duly licensed Professional Engineer. This is exactly the same mechanism used for accountability for structural engineering calculations and the accountability for Land Surveying measurements for which the Commission presumably has no objection.

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