

Meeting of the  
FCC Intergovernmental Advisory Committee  
July 1, 2013



Federal  
Communications  
Commission

Local and State  
Government  
Advisory  
Committee

A Local Government Official's Guide to  
Transmitting Antenna RF Emission Safety:  
Rules, Procedures, and Practical Guidance



June 2, 2000

*Updating...*

**“A Local Government Official's  
Guide to Transmitting Antenna  
RF Emission Safety: Rules,  
Procedures, and Practical  
Guidance”**

*Presenter...*

**Jonathan L. Kramer, Esq., J.D., LL.M**



**Jonathan Kramer Esq.**

- **Principal Attorney: Telecom Law Firm, PC, Los Angeles, California Attorney and Counselor at Law licensed in California and New Mexico**
  - **34 years in telecommunications engineering (RF, broadband, fiber, outside plant safety, code compliance, RF safety)**
  - **Licensed by FCC since early 70s**
    - ✓ **General Radiotelephone License, Radar Endorsement (Lic. PG11352898)**
    - ✓ **GMDSS Operators License, Radar Endorsement (Lic. DB00000530)**
    - ✓ **GMDSS Maintainers License, Radar Endorsement (Lic. DM00000680)**
    - ✓ **Amateur Radio License, Extra Class (Lic. W6JLK)**
    - ✓ **Restricted Radiotelephone Permit (Lic. RR00066117)**
  - **Licensed communications contractor ~32 years (CA CSLB Lic. C7-433113)**
  - **29 years consulting on telecom matters > 800+ local and state governments , Army, Navy, Marine Corps**
  - **20 years of wireless facilities siting, planning cases: >1,500 planning cases**
  - **Expert witness, trial advisor in over 40 wired and wireless telecom cases including FCC's testifying technology expert in *Playboy v. U.S.* (1998)**
- **Co-author, co-editor, illustrator of the FCC's "A Local Government Official's Guide to Transmitting Antenna RF Emission Safety: Rules, Procedures, and Practical Guidance" (June, 2000)**
- **Member: Federal Communications Bar Association, IMLA, NATOA**
  - **Education: J.D. *with honors*, LL.M. IT/Telecom Law *with distinction***

# Timeline to the Original LSGAC Guide

- 1996: Congress adopts the Telecommunications Act of 1996 (Pub. Law 104-104 – Feb. 8, 1996)
  - Directs FCC to complete action on ET Docket 93-62: “Within 180 days after the enactment of this Act, the Commission shall complete action in ET Docket 93–62 to prescribe and make effective rules regarding the environmental effects of radio frequency emissions.” [P.L. 104-104 § 704(b)]
  - “No State or local government or instrumentality thereof may regulate the placement, construction, or modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission’s regulations concerning such emissions.” (47 U.S.C. § 332(c)(7)(B)(iv))
- 1997: FCC Report and Order (August 1, 1996)
  - Environment rules: 47 C.F.R. § 1.1307 *et seq*
  - FCC OET Bulletin 65 (*Evaluating Compliance With FCC Guidelines for Human Exposure to Radio frequency Electromagnetic Fields*)

# Timeline to the Original LSGAC Guide

- 1997: LSGAC Recommendation 5
  - “[T]he Commission should work with state and local governments and the industry to establish a mutually acceptable RF testing and documentation mechanism that providers may use to demonstrate compliance with the RF radiation guide lines, and state and local governments may accept as demonstrating compliance with such guidelines.”
- 1998-2000: Development of “A Local Government Official's Guide to Transmitting Antenna RF Emission Safety: Rules, Procedures, and Practical Guidance”
  - Jeffrey Steinberg , Robert F. Cleveland, et al (for the Commission)
  - Various LSGAC members and their staff, Jonathan Kramer, et al (for state and local governments)

# Formal Release Ceremony for the LSGAC Guide

(June 2000)



FCC Commissioner  
**Gloria Tristani**

FCC Chairman  
**William E. Kennard**

# The Guide's "Appendix A" Form

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Local Official's Guide to RF

## Optional Checklist for Local Government To Determine Whether a Facility is Categorically Excluded

Purpose: The FCC has determined that many wireless facilities are unlikely to cause human exposures in excess of RF exposure guidelines. Operators of those facilities are exempt from routinely having to determine their compliance. These facilities are termed "categorically excluded." Section 1.1307(b)(1) of the Commission's rules defines those categorically excluded facilities. This checklist will assist state and local government agencies in identifying those wireless facilities that are categorically excluded, and thus are highly unlikely to cause exposure in excess of the FCC's guidelines. Provision of the information identified on this checklist may also assist FCC staff in evaluating any inquiry regarding a facility's compliance with the RF exposure guidelines.

### BACKGROUND INFORMATION

1. Facility Operator's Legal Name: \_\_\_\_\_
2. Facility Operator's Mailing Address: \_\_\_\_\_
3. Facility Operator's Contact Name/Title: \_\_\_\_\_
4. Facility Operator's Office Telephone: \_\_\_\_\_
5. Facility Operator's Fax: \_\_\_\_\_
6. Facility Name: \_\_\_\_\_
7. Facility Address: \_\_\_\_\_
8. Facility City/Community: \_\_\_\_\_
9. Facility State and Zip Code: \_\_\_\_\_
10. Latitude: \_\_\_\_\_
11. Longitude: \_\_\_\_\_

continue  
→

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## Optional Local Government Checklist (page 2)

### EVALUATION OF CATEGORICAL EXCLUSION

12. Licensed Radio Service (see attached Table 1): \_\_\_\_\_
13. Structure Type (free-standing or building/roof-mounted): \_\_\_\_\_
14. Antenna Type (omnidirectional or directional (includes sectored)): \_\_\_\_\_
15. Height above ground of the lowest point of the antenna (in meters): \_\_\_\_\_
16.  Check if all of the following are true:
  - (a) This facility will be operated in the Multipoint Distribution Service, Paging and Radiotelephone Service, Cellular Radiotelephone Service, Narrowband or Broadband Personal Communications Service, Private Land Mobile Radio Services Paging Operations, Private Land Mobile Radio Service Specialized Mobile Radio, Local Multipoint Distribution Service, or service regulated under Part 74, Subpart I (see question 12).
  - (b) This facility will not be mounted on a building (see question 13).
  - (c) The lowest point of the antenna will be at least 10 meters above the ground (see question 15).

If box 16 is checked, this facility is categorically excluded and is unlikely to cause exposure in excess of the FCC's guidelines. The remainder of the checklist need not be completed. If box 16 is not checked, continue to question 17.

17. Enter the power threshold for categorical exclusion for this service from the attached Table 1 in watts ERP or EIRP\* (note:  $EIRP = (1.64) \times ERP$ ): \_\_\_\_\_
18. Enter the total number of channels if this will be an omnidirectional antenna, or the maximum number of channels in any sector if this will be a sectored antenna: \_\_\_\_\_
19. Enter the ERP or EIRP per channel (using the same units as in question 17): \_\_\_\_\_
20. Multiply answer 18 by answer 19: \_\_\_\_\_
21. Is the answer to question 20 less than or equal to the value from question 17 (yes or no)? \_\_\_\_\_

If the answer to question 21 is YES, this facility is categorically excluded. It is unlikely to cause exposure in excess of the FCC's guidelines.

If the answer to question 21 is NO, this facility is not categorically excluded. Further investigation may be appropriate to verify whether the facility may cause exposure in excess of the FCC's guidelines.

\*"ERP" means "effective radiated power" and "EIRP" means "effective isotropic radiated power"

# Time to Look Forward...

“The *Local Official’s Guide* provides a framework for local and state governments and wireless service providers to cooperate in the determination of compliance with the Commission’s RF exposure limits. We request comment on what additional information should be provided to consumers and in what format to assist in making decisions about reducing exposure. We also specifically seek comment on how we can ensure that such information is presented in formats that are accessible to people with disabilities.” (R&O at ¶ 231)

*Comments due September 3, 2013*

*Reply comments due November 1, 2013*

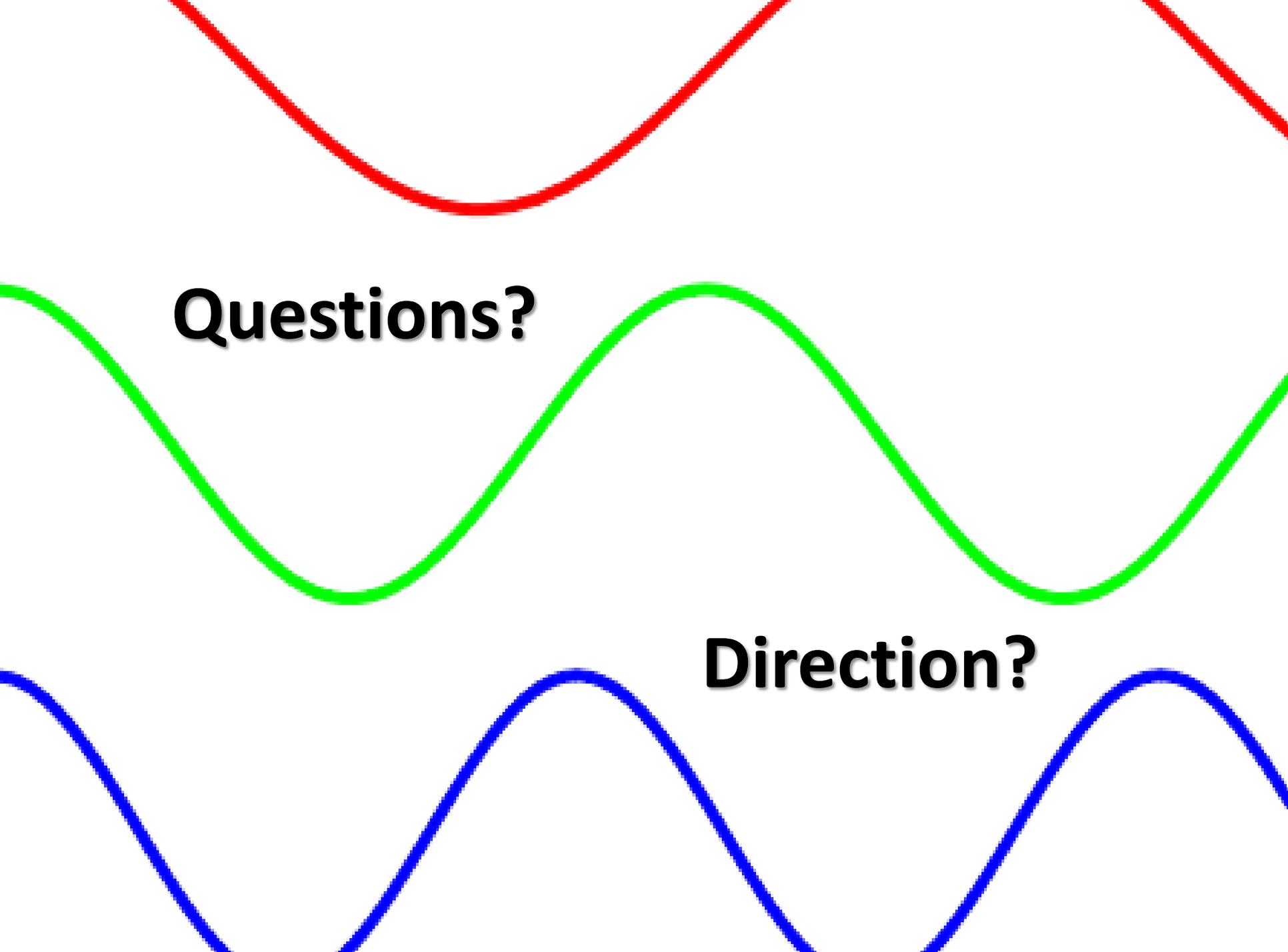
Federal Communications Commission		FCC 13-39
Before the Federal Communications Commission Washington, D.C. 20554		
In the Matter of	)	
Reassessment of Federal Communications Commission Radiofrequency Exposure Limits and Policies	)	ET Docket No. 13-84
Proposed Changes in the Commission's Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields	)	ET Docket No. 03-137
FIRST REPORT AND ORDER FURTHER NOTICE OF PROPOSED RULE MAKING AND NOTICE OF INQUIRY		
Adopted: March 27, 2013		Released: March 29, 2013
Comment Date: (90 days after date of publication in the Federal Register).		
Reply Comment Date: (150 days after date of publication in the Federal Register).		
By the Commission:		
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# Initial Work Plan to Revise and Update the Local Officials Guide

- Add: Table of Contents
- Add: Preface to second edition
- Add: Short introduction to radio frequency transmissions
- Update/clarify: Main body text; add material on new technology/small cells (heterogeneous networks), wireless backhaul, etc.
- Update, add: Illustrations and photographs

# Initial Work Plan to Revise and Update the Local Officials Guide

- Update: New means to demonstrate compliance with the new FCC rules once adopted
  - Update: Graphs to show bands of services
  - Update: Appendix A Form for multiple services
  - Add: Illustrated glossary of wireless terms
  - Add: Index
- 
- Target date for release: Very shortly after new rules are adopted by the Commission

The image features three thick, wavy lines stacked vertically. The top line is red, the middle line is green, and the bottom line is blue. Each line has a smooth, sinusoidal-like curve. The text 'Questions?' is positioned to the left of the green line, and 'Direction?' is positioned to the right of the blue line.

**Questions?**

**Direction?**