

**Federal Communications Commission - Local and State Government
Advisory Committee
(June 2000)**

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

Over the past two years, the Federal Communications Commission (FCC) and its Local and State Government Advisory Committee (LSGAC) have been working together to prepare a voluntary guide to assist state and local governments in devising efficient procedures for ensuring that the antenna facilities located in their communities comply with the FCC's limits for human exposure to radiofrequency (RF) electromagnetic fields. The attached guide is the product of this joint effort.

We encourage state and local government officials to consult this guide when addressing issues of facilities siting within their communities. This guide contains basic information, in a form accessible to officials and citizens alike, that will alleviate misunderstandings in the complex area of RF emissions safety. This guide is not intended to replace OET Bulletin 65, which contains detailed technical information regarding RF issues, and should continue to be used and consulted for complex sites. The guide contains information, tables, and a model checklist to assist state and local officials in identifying sites that do not raise concerns regarding compliance with the Commission's RF exposure limits. In many cases, the model checklist offers a quick and effective way for state and local officials to establish that particular RF facilities are unlikely to exceed specific federal guidelines that protect the public from the environmental effects of RF emissions. Thus, we believe this guide will facilitate federal, state, and local governments working together to protect the public while bringing advanced and innovative communications services to consumers as rapidly as possible. We hope and expect that use of this guide will benefit state and local governments, service providers, and, most importantly, the American public.

We wish all of you good luck in your facilities siting endeavors.

William E. Kennard, Chairman
Federal Communications Commission

Kenneth S. Fellman, Chair
Local and State Government
Advisory Committee

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APPENDIX A

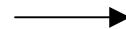
**Optional Checklist for Local Government
To Determine Whether a Facility is Categorically Excluded**

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



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 feet): _____
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 32.8 feet (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"

TABLE 1: TRANSMITTERS, FACILITIES AND OPERATIONS SUBJECT TO ROUTINE ENVIRONMENTAL EVALUATION

SERVICE (TITLE 47 CFR RULE PART)	EVALUATION REQUIRED IF:
Experimental Radio Services (part 5)	power > 100 W ERP (164 W EIRP)
Multipoint Distribution Service (subpart K of part 21)	<u>non-building-mounted antennas</u> : height above ground level to lowest point of antenna < 10 m <u>and</u> power > 1640 W EIRP <u>building-mounted antennas</u> : power > 1640 W EIRP
Paging and Radiotelephone Service (subpart E of part 22)	<u>non-building-mounted antennas</u> : height above ground level to lowest point of antenna < 10 m <u>and</u> power > 1000 W ERP (1640 W EIRP) <u>building-mounted antennas</u> : power > 1000 W ERP (1640 W EIRP)
Cellular Radiotelephone Service (subpart H of part 22)	<u>non-building-mounted antennas</u> : height above ground level to lowest point of antenna < 10 m <u>and</u> total power of all channels > 1000 W ERP (1640 W EIRP) <u>building-mounted antennas</u> : total power of all channels > 1000 W ERP (1640 W EIRP)

TABLE 1 (cont.)

SERVICE (TITLE 47 CFR RULE PART)	EVALUATION REQUIRED IF:
Personal Communications Services (part 24)	(1) Narrowband PCS (subpart D): <u>non-building-mounted antennas</u> : height above ground level to lowest point of antenna < 10 m <u>and</u> total power of all channels > 1000 W ERP (1640 W EIRP) <u>building-mounted antennas</u> : total power of all channels > 1000 W ERP (1640 W EIRP) (2) Broadband PCS (subpart E): <u>non-building-mounted antennas</u> : height above ground level to lowest point of antenna < 10 m <u>and</u> total power of all channels > 2000 W ERP (3280 W EIRP) <u>building-mounted antennas</u> : total power of all channels > 2000 W ERP (3280 W EIRP)
Satellite Communications (part 25)	all included
General Wireless Communications Service (part 26)	total power of all channels > 1640 W EIRP
Wireless Communications Service (part 27)	total power of all channels > 1640 W EIRP
Radio Broadcast Services (part 73)	all included

TABLE 1 (cont.)

SERVICE (TITLE 47 CFR RULE PART)	EVALUATION REQUIRED IF:
<p>Experimental, auxiliary, and special broadcast and other program distributional services (part 74)</p>	<p>subparts A, G, L: power > 100 W ERP</p> <p>subpart I: <u>non-building-mounted antennas</u>: height above ground level to lowest point of antenna < 10 m <u>and</u> power > 1640 W EIRP <u>building-mounted antennas</u>: power > 1640 W EIRP</p>
<p>Stations in the Maritime Services (part 80)</p>	<p>ship earth stations only</p>
<p>Private Land Mobile Radio Services Paging Operations (part 90)</p>	<p><u>non-building-mounted antennas</u>: height above ground level to lowest point of antenna < 10 m <u>and</u> power > 1000 W ERP (1640 W EIRP) <u>building-mounted antennas</u>: power > 1000 W ERP (1640 W EIRP)</p>
<p>Private Land Mobile Radio Services Specialized Mobile Radio (part 90)</p>	<p><u>non-building-mounted antennas</u>: height above ground level to lowest point of antenna < 10 m <u>and</u> total power of all channels > 1000 W ERP (1640 W EIRP) <u>building-mounted antennas</u>: total power of all channels > 1000 W ERP (1640 W EIRP)</p>

TABLE 1 (cont.)

SERVICE (TITLE 47 CFR RULE PART)	EVALUATION REQUIRED IF:
Amateur Radio Service (part 97)	transmitter output power > levels specified in § 97.13(c)(1) of this chapter
Local Multipoint Distribution Service (subpart L of part 101)	<p><u>non-building-mounted antennas</u>: height above ground level to lowest point of antenna < 10 m <u>and</u> power > 1640 W EIRP</p> <p><u>building-mounted antennas</u>: power > 1640 W EIRP</p> <p>LMDS licensees are required to attach a label to subscriber transceiver antennas that: (1) provides adequate notice regarding potential radiofrequency safety hazards, <i>e.g.</i>, information regarding the safe minimum separation distance required between users and transceiver antennas; and (2) references the applicable FCC-adopted limits for radiofrequency exposure specified in § 1.1310 of this chapter.</p>

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