

## § 24.52

(b) Any manufacturer of radio transmitting equipment to be used in these services may request equipment authorization following the procedures set forth in subpart J of part 2 of this chapter. Equipment authorization for an individual transmitter may be requested by an applicant for a station authorization by following the procedures set forth in part 2 of this chapter.

(c) Applicants for certification of transmitters that operate in these services must determine that the equipment complies with IEEE C95.1-1991, "IEEE Standards for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz" as measured using methods specified in IEEE C95.3-1991, "Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields—RF and Microwave." The applicant for certification is required to submit a statement affirming that the equipment complies with these standards as measured by an approved method and to maintain a record showing the basis for the statement of compliance with IEEE C.95.1-1991.

[58 FR 59183, Nov. 8, 1993. Redesignated at 59 FR 18499, Apr. 19, 1994, as amended at 63 FR 36604, July 7, 1998]

## § 24.52 RF hazards.

Licensees and manufacturers are subject to the radiofrequency radiation exposure requirements specified in §§1.1307(b), 2.1091 and 2.1093 of this chapter, as appropriate. Applications for equipment authorization of mobile or portable devices operating under this section must contain a statement confirming compliance with these requirements for both fundamental emissions and unwanted emissions. Technical information showing the basis for this statement must be submitted to the Commission upon request.

[61 FR 41018, Aug. 7, 1996]

## § 24.53 Calculation of height above average terrain (HAAT).

(a) HAAT is determined by subtracting average terrain elevation from antenna height above mean sea level.

(b) Average terrain elevation shall be calculated using elevation data from a

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30 arc second or better Digital Elevation Models (DEMs). DEM data is available from United States Geological Survey (USGS). The data file shall be identified. If 30 arc second data is used, the elevation data must be processed for intermediate points using interpolation techniques; otherwise, the nearest point may be used. If DEM data is not available, elevation data from the Defense Mapping Agency's Digital Chart of the World (DCW) may be used.

(c) Radial average terrain elevation is calculated as the average of the elevation along a straight line path from 3 to 16 kilometers extending radially from the antenna site. At least 50 evenly spaced data points for each radial shall be used in the computation.

(d) Average terrain elevation is the average of the eight radial average terrain elevations (for the eight cardinal radials).

(e) The position location of the antenna site shall be determined to an accuracy of no less than  $\pm 5$  meters in both the horizontal (latitude and longitude) and vertical (ground elevation) dimensions with respect to the National Geodetic Reference System.

[58 FR 59183, Nov. 8, 1993; 59 FR 15269, Mar. 31, 1994]

## § 24.55 Antenna structures; air navigation safety.

Licensees that own their antenna structures must not allow these antenna structures to become a hazard to air navigation. In general, antenna structure owners are responsible for registering antenna structures with the FCC if required by part 17 of this chapter, and for installing and maintaining any required marking and lighting. However, in the event of default of this responsibility by an antenna structure owner, each FCC permittee or licensee authorized to use an affected antenna structure will be held responsible by the FCC for ensuring that the antenna structure continues to meet the requirements of part 17 of this chapter. See § 17.6 of this chapter.

(a) *Marking and lighting.* Antenna structures must be marked, lighted and maintained in accordance with part 17 of this chapter and all applicable rules and requirements of the Federal Aviation Administration.