

## § 73.54

the interim, that its monitor performs in accordance with the standards in this section on these 10 channels.

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082 (47 U.S.C. 154, 155, 303))

[38 FR 1917, Jan. 19, 1973, as amended at 49 FR 3999, Feb. 1, 1984; 49 FR 29069, July 18, 1984; 50 FR 32416, Aug. 12, 1985; 50 FR 47054, Nov. 14, 1985; 51 FR 2707, Jan. 21, 1986; 56 FR 64859, Dec. 12, 1991; 57 FR 43290, Sept. 18, 1992; 60 FR 55480, Nov. 1, 1995; 63 FR 36604, July 7, 1998; 66 FR 20755, Apr. 25, 2001]

### § 73.54 Antenna resistance and reactance measurements.

(a) The resistance of an omnidirectional series fed antenna is measured at either the base of the antenna without intervening coupling or tuning networks, or at the point the transmission line connects to the output terminals of the transmitter. The resistance of a shunt excited antenna may be measured at the point the radio frequency energy is transferred to the feed wire circuit or at the output terminals of the transmitter.

(b) The resistance and reactance of a directional antenna shall be measured at the point of common radiofrequency input to the directional antenna system after the antenna has been finally adjusted for the required radiation pattern.

(c) A letter of notification must be filed with the FCC in Washington, DC, Attention: Audio Division, Media Bureau, when determining power by the direct method pursuant to § 73.51. The letter must specify the antenna or common point resistance at the operating frequency. The following information must also be kept on file at the station:

(1) A full description of the method used to make measurements.

(2) A schematic diagram showing clearly all components of coupling circuits, the point of resistance measurement, the location of the antenna ammeter, connections to and characteristics of all tower lighting isolation circuits, static drains, and any other fixtures connected to and supported by the antenna, including other antennas and associated networks. Any network or circuit component used to dissipate radio frequency power shall be specifically identified, and the impedances of all components which control the level

## 47 CFR Ch. I (10–1–15 Edition)

of power dissipation, and the effective input resistance of the network must be indicated.

(d) AM stations using direct reading power meters in accordance with § 73.51, can either submit the information required by paragraph (c) of this section or submit a statement indicating that such a meter is being used. Subsequent station licenses will indicate the use of a direct reading power meter in lieu of the antenna resistance value in such a situation.

[66 FR 20755, Apr. 25, 2001, as amended at 67 FR 13231, Mar. 21, 2002]

### § 73.57 Remote reading antenna and common point ammeters.

Remote reading antenna and common point ammeters may be used without further authority according to the following conditions:

(a) Remote reading antenna or common point ammeters may be provided by:

(1) Inserting second radio frequency current sensing device directly in the antenna circuit with remote leads to the indicating instruments.

(2) Inductive coupling to radio frequency current sensing device for providing direct current to indicating instrument.

(3) Capacity coupling to radio frequency current sensing device for providing direct current to indicating instrument.

(4) Current transformer connected to radio frequency current sensing device for providing direct current to indicating instrument.

(5) Using transmission line current meter at transmitter as remote reading ammeter. See paragraph (c) of this section.

(6) Using the indications of the antenna (phase) monitor, provided that when the monitor is used to obtain remote reading indication of non-directional antenna base current, the monitor calibration can be independently made and maintained for each mode of operation.

(b) Devices used for obtaining remote reading antenna or common point current indications, except antenna monitor coupling elements, shall be located