

§ 25.132

47 CFR Ch. I (10–1–10 Edition)

Bureau Filing System (IBFS) in accordance with the applicable provisions of part 1, subpart Y of this chapter.

(b) Except as provided in paragraph (j) of this section, receive-only earth stations in the fixed-satellite service that operate with U.S.-licensed satellites may be registered with the Commission in order to protect them from interference from terrestrial microwave stations in bands shared co-equally with the fixed service in accordance with the procedures of §§ 25.203 and 25.251.

(c) Licensing or registration of receive-only earth stations with the Commission confers no authority to receive and use signals or programming received from satellites. *See* section 705 of the Communications Act. 47 U.S.C. 605.

(d) Applications for registration shall be filed on FCC Form 312, Main Form and Schedule B, accompanied by the coordination exhibit required by § 25.203, and any other required exhibits. Any application that is deficient or incomplete in any respect shall be immediately returned to the applicant without processing.

(e) Complete applications for registration will be placed on public notice for 30 days and automatically granted if no objection is submitted to the Commission and served on the applicant. Additional pleadings are authorized in accordance with § 1.45 of this chapter.

(f) The registration of a receive-only earth station results in the listing of an authorized frequency band at the location specified in the registration. Interference protection levels are those agreed to during coordination.

(g) Reception of signals or programming from non-U.S. satellites may be subject to restrictions as a result of international agreements or treaties. The Commission will maintain public information on the status of any such agreements.

(h) Registration term: Registrations for receive-only earth stations governed by this section will be issued for a period of 15 years from the date on which the application was filed. Applications for renewals of registrations must be submitted on FCC Form 312R (Application for Renewal of Radio Sta-

tion License in Specified Services) no earlier than 90 days and no later than 30 days before the expiration date of the registration.

(i) Applications for modification of license or registration of receive-only earth stations shall be made in conformance with §§ 25.117 and 25.118. In addition, registrants are required to notify the Commission when a receive-only earth station is no longer operational or when it has not been used to provide any service during any 6-month period.

(j)(1) Except as set forth in paragraph (j)(2) of this section, receive-only earth stations operating with non-U.S. licensed space stations shall file an FCC Form 312 requesting a license or modification to operate such station.

(2) Receive-only earth stations used to receive transmissions from non-U.S.-licensed space stations on the Permitted Space Station List need not file for licenses, provided that:

(i) The earth station antenna meets the antenna performance standards set forth in §§ 25.209(a) and (b), and

(ii) The space station operator and earth station operator comply with all applicable rules set forth in this chapter, and the conditions on the Permitted Space Station List applicable to that space station.

[56 FR 24016, May 28, 1991, as amended at 61 FR 9952, Mar. 12, 1996; 62 FR 5929, Feb. 10, 1997; 62 FR 64172, Dec. 4, 1997; 65 FR 58466, Sept. 29, 2000; 67 FR 12485, Mar. 19, 2002; 68 FR 62249, Nov. 3, 2003; 68 FR 63999, Nov. 12, 2003; 69 FR 29901, May 26, 2004; 69 FR 47795, Aug. 6, 2004; 70 FR 32253, June 2, 2005]

§ 25.132 Verification of earth station antenna performance standards.

(a)(1) All applications for transmitting earth stations, except for earth stations operating in the 20/30 GHz band, must be accompanied by a certificate pursuant to § 2.902 of this chapter from the manufacturer of each antenna that the results of a series of radiation pattern tests performed on representative equipment in representative configurations by the manufacturer demonstrates that the equipment complies with the performance standards set forth in § 25.209. The licensee must be prepared to demonstrate the

measurements to the Commission on request.

(2) All applications for transmitting earth stations operating in the 20/30 GHz band must be accompanied by the measurements specified in §§25.138(d) and (e).

(b)(1) In order to demonstrate compliance with §25.209 (a) and (b), the following measurements on a production antenna performed on calibrated antenna range, as a minimum, shall be made at the bottom, middle and top of each allocated frequency band and submitted to the Commission:

(i) Co-polarized patterns for each of two orthogonal senses of polarizations in two orthogonal cuts of the antenna.

(A) In the azimuth plane, plus and minus 7 degrees and plus and minus 180 degrees.

(B) In the elevation plane, zero to forty-five degrees.

(ii) Cross-polarization patterns in the E- and H-planes, plus and minus 9 degrees.

(iii) Main beam gain.

(2) The FCC envelope specified in §25.209 shall be superimposed on each pattern. The minimum tests specified above are recognized as representative of the performance of the antenna in most planes although some increase in sidelobe levels should be expected in the spar planes and orthogonal spar planes.

(3) Applicants seeking authority to use an antenna that does not meet the standards set forth in §§25.209(a) and (b), pursuant to the procedure set forth in §25.220, §25.221, §25.222, §25.223 or §25.226, are required to submit a copy of the manufacturer's range test plots of the antenna gain patterns specified in paragraph (b)(1) of this section.

(c) The tests specified in paragraph (b) of this section are normally performed at the manufacturer's facility; but for those antennas that are very large and only assembled on-site, on-site measurements may be used for product qualification data. If on-site data is to be used for qualification, the test frequencies and number of patterns should follow, where possible, the recommendations in paragraph (b) of this section, and the test data is to be submitted in the same manner as described in paragraph (a) of this section.

(d) For each new or modified transmitting antenna over 3 meters in diameter, the following on-site verification measurements must be completed at one frequency on an available transponder in each frequency band of interest and submitted to the Commission.

(1) Co-polarized patterns in the elevation plane, plus and minus 7 degrees, in the transmit band.

(2) Co-polarized patterns in the azimuth and elevation planes, plus and minus 7 degrees, in the receive band.

(3) *System cross-polarization discrimination on-axis*. The FCC envelope specified in §25.209 shall be superimposed on each pattern. The transmit patterns are to be measured with the aid of a cooperating earth station in coordination with the satellite system control center under the provisions of §25.272.

(e) Certification that the tests required by paragraph (c) of this section have been satisfactorily performed shall be provided to the Commission in notification that construction of the facilities has been completed as required by §25.133.

(f) Antennas less than 3 meters in diameter and antennas on simple (manual) drive mounts that are operated at a fixed site are exempt from the requirements of paragraphs (c) and (d) of this section provided that a detailed technical showing is made that confirms proper installation, pointing procedures, and polarization alignment and manufacturing quality control. These showing must also include a plan for periodic testing and field installation procedures and precautions.

(g) Records of the results of the tests required by this section must be maintained at the antenna site or the earth station operator's control center and be available for inspection.

[58 FR 13419, Mar. 11, 1993, as amended at 69 FR 5710, Feb. 6, 2004; 70 FR 32253, June 2, 2005; 72 FR 50028, Aug. 29, 2007; 74 FR 47102, Sept. 15, 2009; 74 FR 57098, Nov. 4, 2009]

§ 25.133 Period of construction; certification of commencement of operation.

(a)(1) Each license for an earth station governed by this part, except for