in the application whether or not the antenna structure owner has notified the FAA of the proposed construction or alteration and applied to the FCC for an Antenna Structure Registration Number in accordance with part 17 of this chapter for the antenna structure in question.

(f) Construction permits are not required for U.S.-licensed space stations. Construction of such stations may commence, at the applicant's own risk, prior to grant of a license. Prior to commencing construction, however, applicants must notify the Commission in writing they plan to begin construction at their own risk.

(g) A launch authorization and station license (*i.e.*, operating authority) must be applied for and granted before a space station may be launched and operated in orbit. Request for launch authorization may be included in an application for space station license. However, an application for authority to launch and operate an on-ground spare satellite will be considered pursuant to the following procedures:

(1) Applications for launch and operation of an on-ground spare NGSO-like satellite will be considered pursuant to the procedures set forth in §25.157, except as set forth in paragraph (g)(3) of this section.

(2) Applications for launch and operation of an on-ground spare GSO-like satellite will be considered pursuant to the procedures set forth in §25.158, except as set forth in paragraph (g)(3) of this section.

(3) Neither paragraph (g)(1) nor (g)(2) of this section will apply in cases where the space station to be launched is determined to be an emergency replacement for a previously authorized space station that has been lost as a result of a launch failure or a catastrophic in-orbit failure.

[56 FR 24016, May 28, 1991, as amended at 61 FR 4366, Feb. 6, 1996; 61 FR 9951, Mar. 12, 1996; 61 FR 55582, Oct. 28, 1996; 62 FR 5927, Feb. 10, 1997; 62 FR 64172, Dec. 4, 1997; 68 FR 51502, Aug. 27, 2003]

§25.114 Applications for space station authorizations.

(a) A comprehensive proposal shall be submitted for each proposed space station on FCC Form 312, Main Form, together along with attached exhibits as described in paragraph (c) of this section. If an applicant is proposing more than one space station, information common to all space stations may be submitted in a consolidated system proposal.

(b) Each application for a new or modified space station authorization must constitute a concrete proposal for Commission evaluation. Each application must also contain the formal waiver required by section 304 of the Communications Act, 47 U.S.C. 304. The technical information for a proposed satellite system need not be filed on any prescribed form but should be complete in all pertinent details. Applications for new space station authorizations other than authorizations for the Direct Broadcast Service (DBS) and Digital Audio Radio Satellite (DARS) service must be filed electronically through the International Bureau Filing System (IBFS).

(c) The following information in narrative form shall be contained in each application:

(1) Name, address, and telephone number of the applicant;

(2) Name, address, and telephone number of the person(s), including counsel, to whom inquiries or correspondence should be directed;

(3) Type of authorization requested (*e.g.*, launch authority, station license, modification of authorization);

(4) General description of overall system facilities, operations and services;

(5) Radio frequencies and polarization plan (including beacon, telemetry, and telecommand functions), center frequency and polarization of transponders (both receiving and transmitting frequencies), emission designators and allocated bandwidth of emission, final amplifier output power (identify any net losses between output of final amplifier and input of antenna and specify the maximum EIRP for each antenna beam), identification of which antenna beams are connected or switchable to each transponder and TT&C function, receiving system noise temperature, the relationship between satellite receive antenna gain pattern and gain-to-temperature ratio and

saturation flux density for each antenna beam (may be indicated on antenna gain plot), the gain of each transponder channel (between output of receiving antenna and input of transmitting antenna) including any adjustable gain step capabilities, and predicted receiver and transmitter channel filter response characteristics;

(6)(i) For satellites in geostationary-satellite orbit, orbital location, or locations if alternatives are proposed, requested for the satellite, the factors that support such an orbital assignment, the range of orbital locations from which adequate service can be provided and the basis for determining that range of orbital locations, and a detailed explanation of all factors that would limit the orbital arc over which the satellite could adequately serve its expected users;

(ii) For satellites in non-geostationary-satellite orbits, the number of space stations and applicable information relating to the number of orbital planes, the inclination of the orbital plane(s), the orbital period, the apogee, the perigee, the argument(s) of perigee, active service arc(s), and right ascension of the ascending node(s); and

(iii) If applicable, the feeder link and inter-satellite service frequencies requested for the satellite, together with any demonstration otherwise required by this chapter for use of those frequencies (*see, e.g.*, § 25.203(j) and (k));

(7) Predicted space station antenna gain contour(s) for each transmit and each receive antenna beam and nominal orbital location requested. These contour(s) should be plotted on an area map at 2 dB intervals down to 10 dB below the peak value of the parameter and at 5 dB intervals between 10 dB and 20 dB below the peak values, with the peak value and sense of polarization clearly specified on each plotted contour;

(8) A description of the types of services to be provided, and the areas to be served, including a description of the transmission characteristics and performance objectives for each type of proposed service, details of the link noise budget, typical or baseline earth station parameters, modulation parameters, and overall link performance analysis (including an analysis of the effects of each contributing noise and interference source);

(9) For satellites in geostationary-satellite orbit, accuracy with which the orbital inclination, the antenna axis attitude, and longitudinal drift will be maintained;

(10) Calculation of power flux density levels within each coverage area and of the energy dispersal, if any, needed for compliance with § 25.208;

(11) Arrangement for tracking, telemetry, and control;

(12) Physical characteristics of the space station including weight and dimensions of spacecraft, detailed mass (on ground and in-orbit) and power (beginning and end of life) budgets, and estimated operational lifetime and reliability of the space station and the basis for that estimate;

(13) [Reserved]

(14) A clear and detailed statement of whether the space station is to be operated on a common carrier basis, or whether non-common carrier transactions are proposed. If non-common carrier transactions are proposed, describe the nature of the transactions and specify the number of transponders to be offered on a non-common carrier basis. In addition, satellite applications in the Direct Broadcast Satellite service must provide a clear and detailed statement of whether the space station is to be operated on a broadcast or non-broadcast basis.

(15) Dates by which construction will be commenced and completed, launch date, and estimated date of placement into service;

(16) Public interest considerations in support of grant;

(17) Applications for authorizations for domestic fixed-satellite space stations shall also include the information specified in § 25.140;

(18) Applications for authorizations in the Radiodetermination Satellite Service shall also include the information specified in § 25.141;

(19) Applications for authorizations in the Mobile-Satellite Service in the 1545–1559/1646.5–1660.5 MHz frequency bands shall also provide all information necessary to comply with the policies and procedures set forth in Rules and Policies Pertaining to the Use of Radio Frequencies in a Land Mobile

Satellite Service, 2 FCC Rcd 485 (1987) (Available at address in §0.445 of this chapter.);

(20) Applications to license multiple space station systems in the non-voice, non-geostationary mobile-satellite service under blanket operating authority shall also provide all information specified in §25.142; and

(21) Applications for authorizations in the 1.6/2.4 GHz Mobile-Satellite Service or 2 GHz Mobile-Satellite Service shall also provide all information specified in §25.143.

(22) Applications for authorizations in the non-geostationary satellite orbit fixed-satellite service (NGSO FSS) in the bands 10.7 GHz to 14.5 GHz shall also provide all information specified in §25.146.

(23) For satellite applications in the Direct Broadcast Satellite service, if the proposed system's technical characteristics differ from those specified in the Appendix 30 BSS Plans, the Appendix 30A feeder link Plans, Annex 5 to Appendix 30 or Annex 3 to Appendix 30A, each applicant shall provide:

(i) The information requested in Appendix 4 of the ITU's Radio Regulations. Further, applicants shall provide sufficient technical showing that the proposed system could operate satisfactorily if all assignments in the BSS and feeder link Plans were implemented; and

(ii) Analyses of the proposed system with respect to the limits in Annex 1 to Appendices 30 and 30A.

(d) Applicants requesting authority to launch and operate a system comprised of technically identical, non-geostationary satellite orbit space stations may file a single ''blanket'' application containing the information specified in paragraph (c) of this section for each representative space station.

[62 FR 5927, Feb. 10, 1997, as amended at 65 FR 59142, Oct. 4, 2000; 67 FR 51113, Aug. 7, 2002; 67 FR 53510, Aug. 16, 2002; 68 FR 37772, June 25, 2003; 68 FR 51503, Aug. 27, 2003]

§25.115 Application for earth station authorizations.

(a) Transmitting earth stations. Except as provided under §25.113(b), Commission authorization must be obtained for authority to construct and/or operate a transmitting earth station. Applications shall be filed on FCC Form 312, Main Form and Schedule B, and include the information specified in §25.130.

(b) Receive-only earth stations. Applications to license or register receive only earth stations shall be filed on FCC Form 312, Main Form and Schedule B, and conform to the provisions of §25.131.

(c)(1) Large Networks of Small Antennas operating in the 12/14 GHz frequency bands with U.S.-licensed or non-U.S. licensed satellites for domestic services. Applications to license small antenna network systems operating in the 12/14 GHz frequency band under blanket operating authority shall be filed on FCC Form 312, Main Form and Schedule B, for each large (5 meters or larger) hub station, and Schedule B for each representative type of small antenna (less than 5 meters) operating within the network.

(c)(2) Large Networks of Small Antennas operating in the 4/6 GHz frequency bands with U.S.-licensed or non-U.S. licensed satellites for domestic services (CSATs). Applications to license small antenna network systems operating in the standard C-Band, 3700–4200 MHz and 5925–6425 MHz frequency band shall be filed electronically on FCC Form 312, Main Form and Schedule B.

(i) An initial lead application providing a detailed overview of the complete network shall be filed. Such lead applications shall fully identify the scope and nature of the service to be provided, as well as the complete technical details of each representative type of small antenna (less than 4.5 meters) that will operate within the network. Such lead applications for a single CSAT system must identify:

(A) No more than three discrete geostationary satellites to be accessed;

(B) The amount of frequency bandwidth sought, up to a maximum of 20 MHz of spectrum in each direction at each of the satellites (The same 20 MHz of uplink and 20 MHz of downlink spectrum at each satellite would be accessible by all CSAT earth stations in the system. The 20 MHz of uplink and 20 MHz of downlink spectrum need not be the same at each satellite location);