§ 25.144 Licensing provisions for the 2.3 GHz satellite digital audio radio service.

- (a) Qualification Requirements:
- (1) [Reserved]
- (2) General Requirements: Each application for a system authorization in the satellite digital audio radio service in the 2310–2360 MHz band shall describe in detail the proposed satellite digital audio radio system, setting forth all pertinent technical and operational aspects of the system, and the technical, legal, and financial qualifications of the applicant. In particular, applicants must file information demonstrating compliance with §25.114 and all of the requirements of this section.
- (3) Technical Qualifications: In addition to the information specified in paragraph (a)(1) of this section, each applicant shall:
- (i) Demonstrate that its system will, at a minimum, service the 48 contiguous states of the United States (full CONUS):
- (ii) Certify that its satellite DARS system includes a receiver that will permit end users to access all licensed satellite DARS systems that are operational or under construction; and
- (b) Milestone requirements. Each applicant for system authorization in the satellite digital audio radio service must demonstrate within 10 days after a required implementation milestone as specified in the system authorization, and on the basis of the documentation contained in its application, certify to the Commission by affidavit that the milestone has been met or notify the Commission by letter that it has not been met. At its discretion, the Commission may require the submission of additional information (supported by affidavit of a person or persons with knowledge thereof) to demonstrate that the milestone has been met. The satellite DARS milestones are as follows, based on the date of authorization:
- (1) One year: Complete contracting for construction of first space station or begin space station construction;
- (2) Two years: If applied for, complete contracting for construction of second space station or begin second space station construction;

- (3) Four years: In orbit operation of at least one space station; and
- (4) Six years: Full operation of the satellite system.
- (c) [Reserved]
- (d) The license term for each digital audio radio service satellite and any associated terrestrial repeaters is specified in §25.121.
- (e) SDARS Terrestrial Repeaters. (1) Only entities holding or controlling SDARS space station licenses may construct and operate SDARS terrestrial repeaters and such construction and operation is permitted only in conjunction with at least one SDARS space station that is concurrently authorized and transmitting directly to subscribers.
- (2) SDARS terrestrial repeaters will be eligible for blanket licensing only under the following circumstances:
- (i) The SDARS terrestrial repeaters will comply with all applicable power limits set forth in $\S25.214(d)(1)$ of this chapter and all applicable out-of-band emission limits set forth in $\S25.202(h)(1)$ and (h)(2).
- (ii) The SDARS terrestrial repeaters will meet all applicable requirements in part 1, subpart I, and part 17 of this chapter. Operators of SDARS terrestrial repeaters must maintain demonstrations of compliance with part 1, subpart I, of this chapter and make such demonstrations available to the Commission upon request within three business days.
- (iii) The SDARS terrestrial repeaters will comply with all requirements of all applicable international agreements.
- (3) After May 20, 2010, SDARS licensees shall, before deploying any new, or modifying any existing, terrestrial repeater, notify potentially affected WCS licensees pursuant to the procedure set forth in §25.263.
- (4) SDARS terrestrial repeaters are restricted to the simultaneous retransmission of the complete programming, and only that programming, transmitted by the SDARS licensee's satellite(s) directly to the SDARS licensee's subscribers' receivers, and may not be used to distribute any information not also transmitted to all subscribers' receivers.

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- (5) Operators of SDARS terrestrial repeaters are prohibited from using those repeaters to retransmit different transmissions from a satellite to different regions within that satellite's coverage area.
- (6) Operators of SDARS terrestrial repeaters are required to comply with all applicable provisions of part 1, subpart I, and part 17 of this chapter.
- (7)(i) Each SDARS terrestrial repeater transmitter utilized for operation under this paragraph must be of a type that has been authorized by the Commission under its certification procedure.
- (ii) In addition to the procedures set forth in subpart J of part 2 of this chapter, power measurements SDARS repeater transmitters may be made in accordance with a Commission-approved average power technique. Peak-to-average power ratio (PAPR) measurements for SDARS repeater transmitters should be made using either an instrument with complementary cumulative distribution function (CCDF) capabilities to determine that the PAPR will not exceed 13 dB for more than 0.1 percent of the time or another Commission approved procedure. The measurement must be performed using a signal corresponding to the highest PAPR expected during periods of continuous transmission.
- (iii) 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.
- (8) Applications for blanket authority to operate terrestrial repeaters must be filed using Form 312, except that Schedule B to Form 312 need not be filed. Such applications must also include the following information as an attachment:
- (i) The space station(s) with which the terrestrial repeaters will communicate, the frequencies and emission designators of such communications, and the frequencies and emission designators used by the repeaters to retransmit the received signals.

- (ii) The maximum number of terrestrial repeaters that will be deployed under the authorization at 1) power levels equal to or less than 2-watt average EIRP, and 2) power levels greater than 2-watt average EIRP (up to 12-kW average EIRP).
- (iii) A certification of compliance with the requirements of §25.144(e)(1) through (7).
- (9) SDARS terrestrial repeaters that are ineligible for blanket licensing must be authorized on a site-by-site basis. Applications for site-by-site authorization must be filed using Form 312, except that Schedule B need not be provided. Such applications must also include the following information, as an attachment:
- (i) The technical information for each repeater required to be shared with potentially affected WCS licensees as part of the notification requirement set forth in §25.263(c)(2).
- (ii) The space station(s) with which the terrestrial repeaters will communicate, the frequencies and emission designators of such communications, and the frequencies and emission designators used by the repeaters to retransmit the received signals.

[62 FR 11105, Mar. 11, 1997, as amended at 68 FR 51504, Aug. 27, 2003; 70 FR 32254, June 2, 2005; 75 FR 45067, Aug. 2, 2010; 79 FR 8320, Feb. 12, 2014]

§ 25.146 Licensing and operating provisions for NGSO FSS space stations

- (a) An NGSO FSS applicant proposing to operate in the 10.7–30 GHz frequency range must certify that it will comply with:
- (1) Any applicable power flux-density levels in Article 21, Section V, Table 21-4 of the ITU Radio Regulations (incorporated by reference, §25.108), except that in the 19.3-19.4 GHz and 19.6-19.7 GHz bands applicants must certify that they will comply with the ITU PFD limits governing NGSO FSS systems in the 17.7-19.3 GHz band; and
- (2) Any applicable equivalent power flux-density levels in Article 22, Section II, and Resolution 76 of the ITU Radio Regulations (both incorporated by reference, §25.108).
- (b) In addition, an NGSO FSS applicant proposing to operate in the 10.7-