Waiver Non-Compliant Antenna

Re: Call Sign E120058
1.0 Meter Fixed Earth Station
Fixed Satellite Service
Ku-Band 11700 – 12200 and 14000 – 14500 MHz

This previously licensed antenna is a 1.0 Meter antenna and it does not strictly comply with 25.209 of the FCC Rules and Regulations.

In the Part 25 Earth Station Fifth Report and Order, the Federal Communications Commission (Commission) adopted streamlined procedures for reviewing non-routine earth station license applications. As part of that Report and Order, the Commission directed the International Bureau to create a list of approved non-routine earth station antennas to be posted on the Commission's website. The Commission concluded that a website listing approved non-routine antennas, including antenna gain patterns and the conditions placed on the use of each antenna, would help applicants in preparing applications for non-routine earth station licenses and expedite review of these applications.

Earth station applicants proposing to use an antenna that is on this list will no longer need to attach antenna radiation plots as an exhibit to their applications, as required by Section 25.132(b)(3) of the Commission's rules. They need only provide an attachment to their applications citing the particular non-routine earth station antenna they plan to use, and an application file number and call sign of a license in which that type of non-routine antenna has been approved.

The application file number (SES-LIC-20080528-00681) and call sign, (E080129) of a previously licensed VSAT remote antenna, Vertex/RSI 1.0 Meter, indicates that the 1.0 meter antenna proposed in this application will operate without conflict.

The Vertex/RSI 1.0 Meter antennas generally exhibit non-compliance in the region from 1.0° to 2° off axis from maximum gain in the transmit band, due to the width of their main gain lobe. They are compliant with the side lobe pattern requirements specified in Section §25.209 of the Commission’s Rules in the plane of the geostationary satellite orbit as it appears at the particular earth station location for off-axis angles starting at 2°

The antenna contained with this application exceeds the CFR §25.209 sidelobe specification for the sidelobe envelope in the 1° to 2º region. The Max EIRP Density at the Antenna Flange is -23.4 dBW/4KHz. This figure is below the maximum allowed of –14 dBW/4KHz by a margin of 9.4 dB.

This antenna is to be installed with a nominal pointing accuracy of less than or equal to +/-0.6 degrees and will operate at a maximum input power density at the antenna waveguide flange of -23.4 dBW/4 kHz, compliant with the -14.0 dBW/4 kHz FCC maximum for 2 degree compliant systems and routine licensing.

The applicant agrees to accept any adjacent satellite interference in the 11/12 GHz receive band as a result of the performance of the antenna. The applicant understands that adjacent satellite interference protection applies only to the extent of the criteria set forth in §25.209.

Should the use of this antenna cause interference to other systems; the applicant agrees to terminate transmission upon notice from the Commission.

The minimum elevation angle of the proposed earth station will not exceed the minimum elevation angle of 5° of the previously licensed 1.0 meter under Call Sign E080129, therefore the antenna gains for the proposed will not exceed those of that previously licensed with respect to any transmit power limitations.

Per §25.115(h)(4) the earth station applicant certifies that it will limit its pointing error to 0.5.

Summary

The antenna contained with this application exceeds the CFR §25.209 side lobe specification for the side lobe envelope in the 1.0° to 2° region. Outside the main beam, the antenna meets the requirements of §25.209.

The application file number (SES-LIC-20080528-00681) and call sign, (E080129), of a previously licensed Vertex/RSI 1.0 meter earth station, indicates that the antenna proposed in this application will operate without conflict.

The power density restrictions specified by the FCC for small diameter antennas utilizing digital traffic at Ku-Band is -14 dBW/4 kHz. This antenna will operate at a maximum transmit power density of -23.4 dBW/4 kHz.

If the use of this antenna should cause interference to other systems, the applicant will terminate such transmissions immediately upon notice from the FCC or offended parties.