

APPLICATION FOR STATION LICENSE
GGB LAS VEGAS LLC
KOAS AUXILIARY FM ANTENNA
KOAS RADIO STATION
CH 289C - 105.7 MHZ - 2.50 KW (DA)
DOLAN SPRINGS, ARIZONA
June 2011

TECHNICAL STATEMENT

This Technical Statement was prepared on behalf of GGB Las Vegas LLC (“GGB”), licensee of radio station KOAS, Channel 289C, Dolan Springs, Arizona. GGB holds an outstanding permit to construct an auxiliary antenna system for KOAS to be used when the main antenna system is out of service for repairs or maintenance (BXPB-20080813ADR). GGB herein submits a license application to cover the outstanding auxiliary permit. A calculation of the transmitter power output of the KOAS auxiliary facility is attached as Exhibit A. It is respectfully requested that the Commission’s staff review this instant application for license and allow GGB to operate with full power should it be necessary to operate the KOAS auxiliary facility.

There are seven conditions/restrictions on the KOAS auxiliary permit. The first condition states that sufficient measurements will be taken to demonstrate that the operation of the antenna, which is shared with station KVGS-FM, is in compliance with §73.317 of the Commission’s rules. The KOAS antenna system is also used by FM booster stations KOAS-FM1 and KVGS-FM1. The authorized KOAS auxiliary is to allow the facility to continue operation should the main KOAS go off the air.¹ A series of emission measurements were taken when the booster

1) The KOAS-FM1 booster must cease operation should the main KOAS site be off the air.

antenna system was initially installed. A copy of those measurements is attached as Exhibit B. The measurements show that with both KOAS and KVGS operating, the antenna system is in compliance with §73.317 of the rules. Therefore, Condition #1 has been satisfied.

Conditions #2 through #5 relate to the directional antenna system for KOAS. KOAS will operate with an Electronics Research, Inc. (“ERI”), directional antenna system. Attached as Exhibit C is a Directional Antenna Proof of Performance for the KOAS antenna from ERI.² Condition #5 states that at a bearing of 280° True the power must not exceed 0.026 kilowatt. As indicated in Exhibit B, Figure #12, the KOAS directional antenna proof tabulated relative field pattern from ERI, the relative field of the measured pattern at 280° is 0.087 (horizontal), a power level of 0.019 kilowatt and 0.102 (vertical), a power level of 0.026 kilowatt. Therefore, at the restricted azimuth, the power level is below the maximum values.

Attached as Exhibit D is a statement from surveyor licensed in the state of Nevada attesting that the azimuth of the installed antenna is oriented at 125.4° True.³ Attached as Exhibit E is a statement from an engineer indicating the antenna system was assembled and installed in accordance with the manufacturer’s instructions.⁴

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- 2) The proof of performance was originally run to demonstrate that the KOAS-FM1 booster system was in compliance with the rules. As this is the antenna to be used for the KOAS auxiliary, the proof is re-submitted herein. The original measurements were conducted in 2004.
 - 3) The ERI study indicates an antenna orientation at 126°. The undersigned has checked with the Commission’s Audio Division staff regarding the less than 1.0° difference and was told this slight variance was acceptable.
 - 4) The engineer’s certification was based on the installation of the original booster antenna system for KOAS-FM1 and KVGS-FM1, which is the same antenna that will be used for the KOAS auxiliary system.

The sixth condition states that GGB will reduce the power of the KOAS auxiliary antenna, or cease operation in coordination with other users of the tower, to protect persons having access to the site from radiofrequency electromagnetic fields in excess of FCC guidelines. GGB will comply with this condition.

The seventh and final condition states that the permittee specified the use of an ERI MP-2E-DA-HW antenna to demonstrate compliance with the radiofrequency exposure limits. Were any other antenna used, automatic program tests provisions would not apply. As indicated in this instant application, the KOAS auxiliary antenna is the ERI MP-2E-DA-HW system. Therefore, this condition is satisfied and the KOAS auxiliary is allowed automatic program tests.

Based on the foregoing, it is believed that the KOAS auxiliary is constructed in compliance with the Commission's rules and that all conditions have been met.