October 2012
KLTG(FM) Channel 243C1 Corpus Christi, Texas
KMJR(FM) Channel 252C2 Odem, Texas
RF Exposure Study

Facilities Proposed

Diplexed operation of KLTG and KMJR is proposed with a directional antenna which will be side-mounted on a uniform cross-section guyed tower located near Sinton, Texas, currently used by KOUL(FM). The FCC Antenna Structure Registration Number for this tower is 1060584.

The proposed operation of KLTG will be on Channel 243C1 (96.5 MHz) with a maximum lobe effective radiated power of 100 kilowatts.

The proposed operation of KMJR will be on Channel 252C2 (98.3 MHz) with a maximum lobe effective radiated power of 19 kilowatts.

RF Exposure Calculations

The power density calculations shown below were made using the techniques outlined in OET Bulletin No. 65. "Ground level" calculations in this report have been made at a reference height of 2 meters above ground to provide a worst-case estimate of exposure for persons standing on the ground in the vicinity of the tower. The equation shown below was used to calculate the ground level power density figures from each antenna.

$$S(\mu W / cm^2) = \frac{33.40981 \times AdjERP(Watts)}{D^2}$$

Where: *AdjERP(Watts)* is the maximum lobe effective radiated power times the element pattern factor times the array pattern factor.

D is the distance in meters from the center of radiation to the calculation point.

Ground level power densities have been calculated for locations extending from the base of the tower to a distance of 1000 meters. Values past this point are increasingly negligible.

The antenna make and model to be used for the combined KLTG/KMJR operation has not yet been selected. Therefore, “worst case” calculations of the power density produced by the proposed

antenna system have been made assuming that the antenna will radiate 100% power straight down to a point 2 meters above ground at the base of the tower (245 meters below the antenna radiation center). Under this worst-case assumption, the highest calculated ground level power density occurs at the base of the antenna support structure. At this point the power density for KLTG is calculated to be 111.3 μW/cm², and for KMJR is calculated to be 21.2 μW/cm².

Calculations of the power density produced by KLTG, KMJR, and the other station at this transmitter site are summarized in the following table:

Call	Avg or Peak ERP Antenna Model	Relative Field	Height AGL	Calculated Max Exposure	Gen Pub FCC Limit	% of Limit
KLTG 243C1	100 kW avg antenna not yet chosen	1.000 assumed	247 m	111.3 μW/cm²	200 μW/cm²	55.7%
KMJR 252C2	19 kW avg antenna not yet chosen	1.000 assumed	247 m	21.2 μW/cm²	200 μW/cm²	10.6%
KOUL 279C1 Main License	100 kW avg ERI SHPX-10AC 10-bay full-wave	FMModel	288 m	4.2 μW/cm²	200 μW/cm²	2.1% or
Auxiliary CP	31 kW avg 5-bay full-wave Double V	FMModel	91 m	31.4 μW/cm²	200 μW/cm²	15.7%

While CDBS includes a record for a construction permit for KXCO-LD on Channel 25 at this site (see FCC File No. BDISDTL-20090630AHN), that permit was subsequently modified to a different transmitter site by BMPDTL-20110316AAD. That facility is now licensed as BLDTL-20110328ACB. Therefore, the KXCO-LD permit at this site is no longer valid.

These calculations show that the worst case maximum calculated power density produced at two meters above ground level by the proposed operations of KLTG and KMJR and the present operation of KOUL (were their maxima to coincide, which they do not) is 163.9 μW/cm^2, which is 82% of 200 μW/cm^2 (the FCC standard for uncontrolled environments).

The permittee/licensee in coordination with other users of the site must reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency exposure in excess of FCC guidelines.