

November 15, 2016

KTLM Application for Minor Modification of BMPCDT-20110810AAD

Engineering Exhibit

This attachment describes minor differences in the facility as-built compared with those outlined in the original application for construction permit.

The antenna height above ground had to be reduced from 137 meters to 129.54 meters to avoid an existing antenna on the tower.

The Superior Broadcast Products UMPL-6 antenna specified in the construction permit was replaced with a Jampro JUHD-6/1(6) that has an azimuth pattern identical to that specified in the construction permit.

Due to the lower antenna height, the loss in the 1-5/8" foam dielectric transmission line was recalculated to reflect the reduced length. With a transmitter output of 450 watts (the transmitter power is adjustable only in 10 watt increments), a transmission line efficiency of 0.593, and an antenna gain of 55.9, the effective radiated power (ERP) is 14.92 kW, very slightly less than the 15.0 kW specified on the construction permit.

These modifications result in a slight reduction in coverage and thus will not result in any increase in interference above that allowed in the original permit.

Environmental

Other than the slight reduction in ERP and antenna height, the site considerations have not changed since the grant of the original construction permit. The antenna is mounted on an existing communications tower. No new tower construction was required for this facility.

An RF exposure study conducted using the procedures outlined in FCC OET Bulletin 69 shows the exposure level drops below the 1.74 mw/cm² maximum permissible occupational/controlled environment exposure level at distances greater than 17.2 meters in the main beam of the antenna. Exposure is below the 0.347 mw/cm² maximum permissible exposure level for public/uncontrolled environments at distances greater than 38.4 meters from the antenna in the main beam. There are no other towers or buildings in the main beam within this distance. The maximum power calculated power level 5 meters above ground is 0.000129 mw/cm² and occurs 28.8 meters from base of the tower. This level is only 0.04% of the public/uncontrolled maximum permissible exposure level.

KTLM agrees to reduce power or shutdown this digital replacement translator, as necessary, to protect workers on the tower from exposure to RF radiation above the maximum permitted exposure levels for a controlled environment.

Doug Lung
November 15, 2016