

KTLM Application to Modify STA for Interim Broadcast Facility

Engineering Exhibit

The purpose of this application is to request modification of the granted special temporary authority (STA) LMS file number 0000093470 for an interim broadcast facility for KTLM, Facility ID 62354, Rio Grande City, Texas, licensed to NBC Telemundo License LLC, on its pre-auction channel 40. Construction of the station's authorized post incentive auction facility (construction permit file number 0000034929) will require removal of the KTLM main antenna to make room for installation of the antenna for the new channel. Review of the rigging plan for the tower work showed the height authorized in the original STA will interfere with the antenna installation. Modification of the existing STA is required to allow KTLM to install the interim antenna and continue serving over-the-air viewers until tower top work is completed, the antenna replaced, and the station has transitioned to its post-auction channel on or before March 13, 2020.

Antenna System

This application specifies use of a Dielectric TFU-24WB-R C160 broadband slot antenna. The antenna is horizontally polarized with a maximum horizontally polarized effective radiated power (ERP) of 440 kW, electrical beam tilt of 0.4 degrees, and no mechanical tilt. The main beam axis of symmetry is 85 degrees. The requested modification does not change the antenna, ERP or other electrical characteristics. The only change is a reduction in the center of radiation from 550.3 meters above ground to 480.1 meters above ground. The antenna data exhibit included with the application for the current STA, LMS file number 0000093470, has not changed but a copy is attached to this application for reference.

The question "Does the proposed antenna propose elevation radiation patterns that vary with azimuth for reasons other than the use of mechanical beam tilt?" in the Elevation Data item in the Antenna Technical Data section of this application is checked "Yes" solely to allow uploading elevation pattern data for the antenna and not because there is any variation in elevation pattern with azimuth.

Environmental Statement

The facilities requested in this application are located on an existing tower (FCC ASR # 1056488). No new tower construction is required. The antenna will be side mounted on the tower.

RF power density from the antenna located 480.1 meters above ground was calculated using the procedures described in FCC Office of Engineering and Technology Bulletin 65. Access to the site is through locked gates with appropriate RF exposure signage. The maximum power density from the proposed facility was calculated at 12 meters above ground to allow for person, building, and power pole height and determined to be 0.001936 mW/cm². This is 0.46% of the maximum permissible exposure level for an uncontrolled environment of 0.419 mW/cm² at the operating frequency of 629 Mhz.

This facility will be used only when the current licensed main facility has to be shut down to allow workers to safely work on top of the tower during removal and installation of antennas on the tower and after replacement of the KTLM main antenna prior to the transition to the post-auction KTLM antenna. Power will be reduced or shut off as required to protect workers on the tower from RF exposure above the limits specified in FCC rule §1.1310.

February 25, 2020

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Broadcast Facility

Compliance with Section 73.616: The contour of the proposed facility is entirely contained within the current licensed contour. See the attached map showing the licensed service area contour and the contour of the facility requested in this application. No new interference is predicted.

Compliance with Section 73.622(c): The facility will use KTLM's allotted channel.

Compliance with Section 73.623(e): Not applicable

Compliance with Section 73.625: The proposed contour does not exceed that of the KTLM licensed contour and provides a community grade contour over Rio Grande City, the community of license, as shown on the attached map.

Compliance with Section 73.1030: Not applicable for an interim broadcast facility STA in this location.

Compliance with Section 73.1125: Not applicable for an interim broadcast facility STA

Doug Lung
February 25, 2020

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