

KNTV Application for Auxiliary Construction Permit

Engineering Exhibit

The purpose of this application is to request a construction permit for an auxiliary broadcast facility for KNTV, Facility ID 35280, San Jose, California, licensed to NBC Telemundo License LLC, on its post-auction channel 13. This auxiliary facility is requested to allow the station to continue broadcasting in the event it is unable to use its main antenna during work near the antenna or in the event of problems with the main antenna.

Antenna System

This application specifies use of an Dielectric THA-MC2-3H/6U-1(S) VHF panel antenna. The antenna is horizontally polarized with a maximum horizontally polarized effective radiated power (ERP) of 125 kW and no electrical beam tilt or mechanical tilt. The main beam axis of symmetry is 50 degrees with a center of radiation 45.72 meters above ground.

Complete antenna data is provided in the attachment "KNTV13-Aux-CP-73.625(c)_antenna_system-data.pdf". 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 # 1010567). No new tower construction is required.

RF power density from the facility was calculated using the procedures described in FCC Office of Engineering and Technology Bulletin 65. Access to the site is through a locked gate with appropriate RF exposure signage. RF power density was calculated in the surrounding areas accessible to the public, including hill tops off the main road to the site and a hiking trail below the transmitter site. The maximum power density 2 meters above ground (to allow for the height of a person) from the proposed facility at any studied location accessible to the public was under 25 percent of the maximum permissible exposure (MPE) level for an uncontrolled environment of 1.000 mW/cm^2 at the operating frequency of 207 Mhz. The highest level calculated was approximately 0.0443 mW/cm^2 (22% of the MPE for a public environment) on a hill 261 meters from the site at a bearing of 342 degrees and along the fence between the KNTV transmitter site and a public parking lot. Because the contribution from this facility is above 5% of the MPE for an uncontrolled environment and there are other broadcast facilities as close as 177 meters from the KNTV tower, KNTV will take measurements in the public areas to ensure the combined RF power from the proposed facility and existing facilities do not result in RF exposure above the limits specified in FCC rule §1.1310

This facility will be used only when the authorized main facility is not available or has to be shut down to allow workers to safely work on top of the tower. 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.

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Broadcast Facility

Compliance with Section 73.616: The contour of the proposed facility is entirely contained within the post-auction contour authorized in the KNTV post-auction construction permit (LMS File Number 0000034344). See the attached map showing the authorized service area contour and the contour of the facility requested in this application. The contour of the requested facility was calculated in TVStudy using the derived azimuth pattern at the radio horizon. A study using the default parameters and LMS database dated 03/25/2020 showed no new interference to any post-auction facility. The study showed the facility is predicted to receive 0.77 percent interference from the KGO-TV post-auction CP (LMS file number 0000033605). To the extent required, KNTV agrees to accept interference from this existing authorization.

Compliance with Section 73.622(i): The facility will use the channel (13) that the FCC has assigned to KNTV.

Compliance with Section 73.623(e): Not applicable

Compliance with Section 73.625: See "KNTV13-Aux-CP-73.625(c)_antenna_system-data.pdf" (separate antenna data attachment) and the attached map showing community grade contour coverage of San Jose, the community of license.

Compliance with Section 73.1030: The contour of the proposed facility does not exceed the contour of the KNTV facility previously authorized in LMS File Number 0000034344 thus no additional coordination or consultation is required. Predicted field strength at the FCC monitoring station in Livermore, CA is 68.3 dB μ V/m (2.6 mV/m).

Compliance with Section 73.1125: The KNTV main phone number, (408) 432-6221, is a local (toll-free) call in San Jose, the community of license.

Doug Lung
April 7, 2020

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