

## Site Selection and RF Energy Exposure

prepared 8/31/2020 for

**Univision Bakersfield LLC**

KABE-CD Bakersfield, CA

Channel 35 15 kW-DA 388 m

This application proposes a power increase of a licensed Class A LPTV facility, at its authorized transmitter site and with no antenna modification. The towers is located at an established communications site owned by American Tower, located remotely in the Sierra foothills northeast of Bakersfield, an area used for cattle grazing. Use of currently utilized, shared sites in areas with similar structures is environmentally preferred.

KABE-CD seeks increase of effective radiated power (ERP) from 13 kW to 15 kW, on channel 35. Its center frequency of 599 MHz implies a radiofrequency radiation exposure guideline value of  $399 \mu\text{W}/\text{cm}^2$  for uncontrolled areas. The radiation center of the licensed RFS EPR16-SK-572602-M3S is 33.5 meters above ground level, with vertical ERP at 19% of horizontal ERP. The maximum downward radiation value, at depression angles greater than  $45^\circ$ , does not exceed 0.09. Consequently, the worst-case predicted exposure level at 2 meters above ground level is calculated at  $4.86 \mu\text{W}/\text{cm}^2$ . This exposure level is 1.22% of the guideline value, below the “responsibility threshold” of 5%.

Four broadcast facilities will utilize this tower, KUVI-DT (channel 26), KABE-CD (channel 35), KBTF-CD (channel 31), and KUZZ-FM (107.9 MHz). KUZZ-FM will be the dominant contributor to RF energy levels near the tower, with its auxiliary antenna use representing the worst case. As the tower lessor, Univision, the parent of the KUVI-DT licensee, will ensure that all stations follow a formal RF exposure protection protocol during any above-ground work. The applicant recognizes its responsibility to reduce power or interrupt operation during tower work, to ensure safe working conditions for rigging personnel.

Entry to the site is restricted by a locked gate where the site access road meets the nearest county road and cattle fencing elsewhere. Access to the tower base will be restricted by fencing and marked by appropriate warning signs.

A handwritten signature in black ink, appearing to read "Karl D. Lahm", written over a horizontal line.

Karl D. Lahm, P.E.  
California Registration #E010307