

Site Selection and RF Energy Exposure

KUVN License Partnership, L.P.
KUVN-DT Garland, TX
Channel 33 280 kW-DA (Aux) 517 m

This application proposes use of a multiple-use communications tower owned by American Tower, located in the “antenna farm” near Cedar Hill, TX. Use of currently utilized, shared sites in areas with similar structures is environmentally preferred. The proposed antenna is shared with sister station KSTR-DT and will be mounted on the same candelabra arm as that station’s pre-repack antenna, but at a lower elevation in order to reduce support structure loading.

Operation on channel 33, with its center frequency of 587 MHz, implies a radiofrequency radiation exposure guideline value of $391 \mu\text{W}/\text{cm}^2$ for the “uncontrolled” locations. The proposed RFS SAA26-KSTR-E300-ET6R-3433 antenna will have its radiation center 472.1 meters above ground level, with vertical ERP at 30% of horizontal ERP. The maximum downward radiation value, at depression angles greater than 55° , does not exceed 0.03. Consequently, the worst-case predicted exposure level at 2 meters above ground level will not exceed $0.05 \mu\text{W}/\text{cm}^2$. This exposure level is 0.01% of the guideline value for “uncontrolled” areas, far below the “responsibility threshold” of 5%. Access to the site and tower base is restricted by two gated fences and marked by appropriate warning signs. A formal RFE exposure control protocol is in effect for on-tower work. The applicant recognizes its responsibility to reduce power or interrupt operation during tower work, to ensure safe working conditions for rigging personnel.



Karl D. Lahm, P.E.
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