

Attachment 46
Environmental Considerations
KWEX License Partnership, L.P.
KWEX-DT San Antonio, TX
Channel 41 580 kW-DA 432 m

This application proposes continued use of the present KWEX-TV/KWEX-DT transmitter site, which is a multiple-user facility owned by Telemundo of San Antonio License Corp. No physical construction is proposed outside the existing transmitter building. Use of currently utilized, shared sites located in areas where other towers are present is environmentally preferred. Implementation of this proposal will result in an 80% reduction in radiated energy with respect to the current analog and transitional digital facilities of this station at this site. Previous applications for construction permits and licenses have demonstrated that excessive exposure to electromagnetic energy does not occur under present conditions.

Operation is proposed on channel 41, with its center frequency of 635 MHz yielding a radiofrequency radiation exposure guideline value of $423 \mu\text{W}/\text{cm}^2$ for the general population. The Andrew ATW30H4-ESC-41H antenna has its radiation center 433 meters above ground level. It may be presumed to have maximum downward radiation values, at depression angles of 60° or higher, of 0.1 for its horizontally-polarized component and 0.15 for its vertically-polarized component, which has 20% of the horizontally-polarized power. Consequently, the worst-case predicted exposure level at 2 meters above ground level is $1.51 \mu\text{W}/\text{cm}^2$. This exposure level is 0.36% of the guideline value, far below the "responsibility threshold" of 5%. Access to the site and tower base is restricted by fencing.

17 June 2008



Karl D. Lahm, P.E.
California Registration #E010307
Engineering Manager
Univision Management Company
P.O. Box 647
Lake Villa, IL 60046
847.245.8699