Engineering Statement
In Support of an

Application for a Construction Permit

KZHK, Bunkerville, Nevada

Human Exposure To Radiofrequency Radiation Study

CALL	Service	Channel	Freq.	Polori-zation	Antenna Height** (AGL)	ERP (kW)	Relative Field Factor	Vertical Predicted Power Density $(mWcm^2)$	FCC Uncontrolled Limit (Wcm^2)	Percent of Uncontrolled Limit
KADD	FM	228	93.5	H	51	82.000	1.000	0.0031989	0.200	1.5994%
KZHK	FM	240	95.9	H	51	82.000	1.000	0.0030397	0.200	1.5198%

Total Percentage of ANSI (uncontrolled) value =   3.119%

* The antenna height indicated above is 2 meters less than the actual antenna height so that the predicted power density consider the 2 meter human height allowance.

KADD has proposed to use a 12 element, 0.5 wavelength Shively 6800 Series antenna. By using the Shively 6810 Series antenna of the FM Model for Window, a facility operating with 82 kilowatts (horizontal only) at 51 meters above ground level will produce 3.199 µW/cm² at 586 meters from the base of the tower. At 3 meters from the base of the tower, the power density would be less than 0.001 µW/cm². The highest number is used for this study.

KZKK proposes to share the KADD antenna. The 12 element Shively 6800 Series would be 0.513 wavelength for 95.9 MHz. By using the Shively 6810 Series antenna of the FM Model for Window, a facility operating with 82 kilowatts (horizontal only) at 51 meters above ground level will produce 3.040 µW/cm² at 601 meters from the base of the tower. At 3 meters from the base of the tower, the power density would be 0.018 µW/cm². The highest number is used for this study.

The results of the detailed study is that the power density is 3.119% of the limit for "uncontrolled" environments and 0.62% of the limit for "controlled" environments.