

Environmental Effects

Educational Media Foundation (“EMF”) certifies that KLCF complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments.

The RF worksheet in the Instructions to form 303-S was unusable to determine compliance for this facility because of the “worst case” nature of the worksheet. Therefore, EMF used RFHAZ, a commercial software package created by V-Soft Communications, to determine compliance for this site.

The site is shared with other TV and FM broadcast facilities. These were each evaluated using the RFHAZ software. The results are as follows:

Call	Channel	COR AGL	ERP	EPA Antenna used	Max Pub (uW/cm ²)	Max	% of Max Pub
KLCF	216	29	1kw H+V	Shively 6800 Series Type 6	200	10.4	5.2
KBWK	204	9	.17kw H+V	“Double V” EPA Type 2*	200	38.56	19.28
K28QE-D	28	15.2	1kw H	Power Density Equation**	371	.636	.17
Totals						49.596	24.65

*Per FCC database. Since the antennas are mounted at different elevations and have a different number of bays, the maximum RF levels will not fall at the same distance from the tower. However, in the interest of simplicity, the maximum values were simply added. Since the site complies using this over-simplified math, no more detailed evaluation was performed.

**Power Density Equations Per OET Bulletin 65

$S = (33.4(F2)[0.4ERP_V + ERPA]) / (R^2)$ - Television Broadcast

$S = (33.4(F2)[ERP_H + V]) / (R^2)$ - FM Broadcast

S = power density in microwatts/sq. cm ($\mu W/cm^2$)

F = relative field factor in the downward direction of interest (-60° to -90° elevation)

ERP_V - total peak visual ERP in watts

ERPA = total aural ERP in watts

ERP_H+V = horizontal and vertical ERP components for FM broadcast

R = distance above ground to center of radiation in meters

Based on this evaluation, the site is currently approximately 24% of the public (uncontrolled) exposure limits, therefore fully complies with the FCC’s maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments.