

Environmental Effects

Educational Media Foundation (“EMF”) certifies that KLVH 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 Television and FM broadcast facilities. These were each evaluated using the RFHAZ software. The results are as follows:

Call	Channel	COR AGL Meters	ERP	EPA Antenna used	Max Controlled (uW/cm ²)	Max	% of Max Controlled
KLVH	215	28	58kw	ERI rototiller	1000	337.4	33.74
K18DD-D	18	28	2.5kw	Power Density Equation**	1656	.468	.03
K16BP-D	16	38	5kw	Power Density Equation**	1616	.508	.03
K06AE-D	6	18.3	.5kw	Power Density Equation**	1000	.294	.029
KATZ-TV	36	61.6	15	Power Density Equation**	2016	2.32	.115
K31NF	31	15.2	2.26kw	Power Density Equation**	1916	1.44	.08
K280A-D	28	18	15kw	Power Density Equation**	1856	6.803	.367
K35MU	35	18	4.37kw	Power Density Equation**	1990	1.98	.01
K29LM-D	29	18	15kw	Power Density Equation**	1876	6.803	.363
K34EE-D	34	41	1.6kw	Power Density Equation**	1977	.14	.001
K44CN-D	33	15	15kw	Power Density Equation**	1957	6.803	.247
K242BZ	242	47	.093kw	Power Density Equation**	1000	.28	.028
KKLD	240	56	21kw	ERI Rototiller EPA Type 3	1000	46.9	4.69
KAHM	271	24	58kw	Antenna VEP Data	1000	474	47.4
K238CB	238	25	.25kw	Vertical Dipole Type 1	1000	.26	.026
K287BZ	287	14	.01kw	Vertical Dipole Type 1	1000	.33	.033
K234CF	234	40	.2	Vertical Dipole Type 1	1000	.82	.082
K250BI-CP	250	11	.025	Vertical Dipole Type 1	1000	1.36	.136
K296GN	296	25	.025	Vertical Dipole Type 1	1000	2.62	.262
KVRD-FM	289	27	.3kw	ERI Rototiller EPA Type 3	1000	2.88	.288
K227AP	227	15	.01kw	Vertical Dipole Type 1	1000	.29	.029
K273AN	273	15	.01kw	Vertical Dipole Type 1	1000	.29	.029
K285HA	285	14	.042kw	Double V EPA Type 2	1000	3.94	.394
K277AR	277	15	.01	Vertical Dipole Type 1	1000	.29	.029
				Total Percent of Permissible Controlled Environment*			88.44

*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

The KLVH tower site is located inside a chain link fence with a locked gate to prevent unauthorized access to the tower. In addition, vehicle access to the road leading to the KLVH tower site is restricted by a locked gate. Warning signs are posted in appropriate locations. This site is considered a remote area, not likely to be accessed by the public, and therefore, achieving compliance as defined in *Section 4: Controlling Exposure to RF Fields* of OET Bulletin 65.

Based on this evaluation, the site is currently approximately 88% of the controlled site exposure limits, and access is limited to the general public, therefore fully complies with the FCC's maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments.