

Environmental Effects

Educational Media Foundation (“EMF”) certifies that KAKL 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 the facility is located near two AM broadcast facilities. Therefore, EMF used RFHAZ, a commercial software package created by V-Soft Communications, to determine compliance for this site.

The site is near several other 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
KAKL	203	67.8	11	2-bay “Double V”	200	29.98	14.99
KEAG †	247	100	55	6-bay Dielectric DCRM	200	30.59	15.29
KEAG-AUX †	247	59.8	5.3	4-bay Vertical Dipole	200	3.53	1.76
KDBZ	271	100	23	6-bay Dielectric DCRM	200	12.79	6.40
KBRJ	281	100	55	6-bay Dielectric DCRM	200	30.59	15.29
KWHL	293	93	100	8-bay “Rototiller” ‡	200	45.06	22.53
Totals						152.54	76.27

† The KEAG main and AUX facility should never be active simultaneously. Nonetheless, the facility clears OET-65 even if they were.

‡ Antenna data as shown in KWHL’s CP application.

Additionally, KAKL is located near two AM broadcast facilities, as follows:

Call	Freq	Type	Power (kW)	Distance from KAKL	# of towers	Tower Height	Value from OET-65 Supp. A, Tables
KHAR	590	Unlimited	5.000	0.06 km	1	75.6°	2 m (0.25λ, 5kW) £
KOAN	1080	Unlimited	10.000	0.06 km	1	138.4°	3 m (0.5λ, 10kW) £

£ OET-65 does not include tables for 0.21λ or 0.38λ, so 0.25 and 0.5 λ were substituted to obtain similar and worst-case results.

Since the acceptable uncontrolled access distance from the AM tower is a maximum of three meters, and the distance between KAKL and these AM sites is significantly greater than that, the AM stations can be effectively ignored in evaluating the potential for RF exposure at the KAKL site.

Based on this evaluation, the site is better than 76.27% of the public (uncontrolled) exposure limits, and therefore fully complies with the FCC’s maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments.