

Environmental Effects

Educational Media Foundation ("EMF") certifies that KRKL 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 it is located near a television facility. Therefore, EMF used RFHAZ, a commercial software package created by V-Soft Communications, to determine compliance for this site.

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

| Call | Channel | COR AGL | ERP | EPA Antenna used | Max Public ($\mu\text{W}/\text{cm}^2$) | Max | % of Public uncontrolled |
|---------|---------|------------|--------|-----------------------------|--|---------|-----------------------------|
| KRKL | 227 | 47m | 42kw | Type 2 "Double V" | 200 | 117.4 | 58.7 |
| KZHR | 223 | 21m | 54kw | Type 2 "Double V" * | 200 | 981.69 | 490.8 |
| KGTS | 217 | 19m | 7kw | Shively 6800 Series Type 6* | 200 | 31.2 | 15.6 |
| K225CJ | 225 | 38m | .115kw | Type 2 "Double V" * | 200 | 1.46 | .73 |
| K259CR | 259 | 44 | .17kw | Type 1 "Ring Stub" | 200 | 3.53 | 1.765 |
| K21JQ-D | 21 | 1.36 | 11m | SCA 4DR-4-2HW * | 343.34 | 30.04 | 8.75 |
| Totals | | | | | | 1165.32 | 576.345 |

* Per the FCC database. Since the antennas are mounted on three different tower structures at different elevations and have a different number of bays, the maximum RF levels will not fall at the same distance from each tower. However, in the interest of simplicity, the maximum values were simply added.

Based on these calculations, the worst-case value for the area is $1165.32\mu\text{W}/\text{cm}^2$, which is 116.532% of the controlled/worker limits of OET-65. The area that exceeds uncontrolled/public exposure limits is fenced with appropriate warning signs posted, and there are warning signs posted within the fenced area to warn those with access to the location of areas exceeding the controlled/worker limits.

Therefore, KRKL fully complies with the FCC's maximum permissible radiofrequency electromagnetic exposure rules for controlled and uncontrolled environments.