



RADIO FREQUENCY IMPACT, SAFETY & STATEMENT OF COMPLIANCE

The licensee of KAID is committed to the protection of station personnel and/or tower contractors working in the vicinity of the KAID transmitting antenna and will reduce power or cease operation, when necessary, to ensure protection to personnel.

As shown in Appendix A the KAID channel 21 facility, as proposed herein, will operate with a maximum ERP of 603 kW from an elliptically polarized non-directional transmitting antenna with a centerline height of 90 meters above ground level (AGL). Considering the elevation pattern provided elsewhere in this submission, the vertical plane relative field factor is less than 0.165 at all depression angles greater than 7 degrees. The proposed KAID channel 21 facility is predicted to produce a worst-case power density at two meters above ground level, at 32.0 meters from the tower base, of $65.39 \mu\text{W}/\text{cm}^2$, which is 19.05% of the FCC guideline value of $344.33 \mu\text{W}/\text{cm}^2$ for an “uncontrolled” environment, and 3.81% of the FCC’s guideline value for “controlled” environments.

Since the proposed facility’s worst-case predicted power density would exceed 5% of the uncontrolled environment at one location less than 35 meters from the support tower base the proposal does not qualify for treatment pursuant to Section 1.1307(b)(3) of the FCC Rules. Even so, the applicant believes that only one isolated location within the restricted boundary of the common site with predicted power density of 19.05% of the “uncontrolled” public exposure guideline can in no known or imagined situation present danger to anyone that would be authorized to have access to the restricted site.

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However, the applicant is prepared, if required, to make on-site measurements in conjunction with other occupants of the site. Further, the Applicant will continue to cooperate/coordinate with other site users and reduce power and/or cease operation during times of service or maintenance of the transmission systems as necessary to avoid potentially harmful exposure to personnel.

KAID
Channel 21 - Boise Idaho
ERP = 603000.00 WATTS

APPENDIX A

Maximum ERP 603 kW

Polarization ----- 1.25 Elliptical
 Antenna Height Above Ground -- 90 meters 295.3 feet
 FCC Uncontrolled RFR Limit ---- 343.33 $\mu\text{W}/\text{cm}^2$

Maximum Computed Power Density **69.860** $\mu\text{W}/\text{cm}^2$
20.35% of limit

Angle Below Horizontal (degrees)	<Point X> Horiz Distance from tower to 2 m AGL (meters)	Slant Distance from antenna to Point X (meters)	Vertical Pattern (REL. FIELD)	KAID ERP (kW)	KAID Calculated Power Density $\mu\text{W}/\text{cm}^2$	Percent Limit	Limit Exceeded?
1			1.000	603.0000			
5	1005.8	1009.7	0.138	11.4835	0.470	0.14%	No
10	499.1	506.8	0.088	4.6696	0.759	0.22%	No
15	328.4	340.0	0.038	0.8707	0.314	0.09%	No
20	241.8	257.3	0.022	0.2919	0.184	0.05%	No
25	188.7	208.2	0.003	0.0054	0.005	0.00%	No
30	152.4	176.0	0.037	0.8255	1.113	0.32%	No
35	125.7	153.4	0.025	0.3769	0.668	0.19%	No
40	104.9	136.9	0.051	1.5684	3.494	1.02%	No
45	88.0	124.5	0.106	6.7753	18.264	5.32%	No
50	73.8	114.9	0.006	0.0217	0.069	0.02%	No
55	61.6	107.4	0.067	2.7069	9.792	2.85%	No
60	50.8	101.6	0.023	0.3190	1.290	0.38%	No
65	41.0	97.1	0.064	2.4699	10.938	3.19%	No
70	32.0	93.6	0.156	14.6746	69.860	20.35%	No
75	23.6	91.1	0.052	1.6305	8.202	2.39%	No
80	15.5	89.4	0.016	0.1544	0.807	0.24%	No
85	7.7	88.3	0.002	0.0024	0.013	0.00%	No
90	0.0	88.0	0.000	0.0000	0.000	0.00%	No

