



RADIO FREQUENCY IMPACT, SAFETY & STATEMENT OF COMPLIANCE

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

As shown in Appendix A the WUCW channel 22 request for a minor modification of construction permit as proposed herein will operate with a maximum ERP of 790 kW from an elliptically polarized non-directional transmitting antenna with a centerline height of 408.2 meters above ground level (AGL). Considering the elevation pattern provided elsewhere in this submission, the vertical plane relative field factor is less than 0.100 at all depression angles greater than 8 degrees. The proposed WUCW facility is predicted to produce a worst-case power density at two meters above ground level, at 108.8 meters from the tower base, of $0.306 \mu\text{W}/\text{cm}^2$, which is 0.09% of the FCC guideline value of $347.33 \mu\text{W}/\text{cm}^2$ for an "uncontrolled" environment, and 0.018% of the FCC's guideline value for "controlled" environments. Therefore, pursuant to Section 1.1307(b)(3) of the FCC Rules, the proposed facility would not exceed 5% of the uncontrolled and controlled exposure limits, so the proposal's power density contribution is considered insignificant.

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. In light of the above, the proposed facility should be categorically excluded from RF environmental processing under Section 1.1307(b) of the Commission's Rules

WUCW

Channel 22 - Minneapolis, Minnesota
ERP = 790000.00 WATTS

APPENDIX A

Maximum ERP 790 kW

Polarization ----- 2 Circular meters 1339.2 feet
 Antenna Height Above Ground -- 408.2
 FCC Uncontrolled RFR Limit ---- 347.33 $\mu\text{W}/\text{cm}^2$

Maximum Computed Power Density **0.306** $\mu\text{W}/\text{cm}^2$
 0.09% 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)	WUCW ERP (kW)	WUCW Calculated Power Density $\mu\text{W}/\text{cm}^2$	Percent Limit	Limit Exceeded?
0			1.000	790.0000			
5	4642.9	4660.6	0.174	23.9180	0.074	0.02%	No
10	2303.7	2339.2	0.070	3.8710	0.047	0.01%	No
15	1516.0	1569.4	0.037	1.0815	0.029	0.01%	No
20	1116.0	1187.6	0.053	2.2191	0.105	0.03%	No
25	871.1	961.2	0.020	0.3160	0.023	0.01%	No
30	703.6	812.4	0.042	1.3936	0.141	0.04%	No
35	580.1	708.2	0.020	0.3160	0.042	0.01%	No
40	484.1	631.9	0.013	0.1335	0.022	0.01%	No
45	406.2	574.5	0.016	0.2022	0.041	0.01%	No
50	340.8	530.3	0.015	0.1778	0.042	0.01%	No
55	284.4	495.9	0.031	0.7592	0.206	0.06%	No
60	234.5	469.0	0.020	0.3160	0.096	0.03%	No
65	189.4	448.2	0.034	0.9132	0.304	0.09%	No
70	147.8	432.3	0.032	0.8090	0.289	0.08%	No
75	108.8	420.5	0.032	0.8090	0.306	0.09%	No
80	71.6	412.5	0.012	0.1138	0.045	0.01%	No
85	35.5	407.8	0.011	0.0956	0.038	0.01%	No
90	0.0	406.2	0.000	0.0000	0.000	0.00%	No

