



RADIO FREQUENCY IMPACT, SAFETY & STATEMENT OF COMPLIANCE

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

As shown in Appendix A the proposed WOAI-TV channel 28 auxiliary facility, as proposed herein, will operate with a maximum ERP of 345 kW from an elliptically polarized directional transmitting antenna with a centerline height of 330.9 meters above ground level (AGL). Considering the elevation pattern provided elsewhere in this submission, the vertical plane relative field factor is less than 0.200 at all depression angles greater than 10 degrees. The proposed WOAI-TV channel 28 auxiliary facility is predicted to produce a worst-case power density at two meters above ground level, at 328.9 meters from the tower base, of $1.044 \mu\text{W}/\text{cm}^2$, which is 0.28% of the FCC guideline value of $371.33 \mu\text{W}/\text{cm}^2$ for an "uncontrolled" environment, and 0.056% of the FCC's guideline value for "controlled" environments. Therefore, pursuant to Section 1.1307(b)(3) of the FCC Rules, because the proposed facility would not exceed 5% of the uncontrolled and controlled exposure limits, 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.

WOAI-TV - Auxiliary Facility
Channel 28 - San Antonio, Texas
ERP = 345000.00 WATTS

APPENDIX A

Maximum ERP 345 kW

Polarization ----- 2 Circular
 Antenna Height Above Ground -- 330.9 meters 1085.6 feet
 FCC Uncontrolled RFR Limit ---- 371.33 $\mu\text{W}/\text{cm}^2$

Maximum Computed Power Density 1.044 $\mu\text{W}/\text{cm}^2$
 0.28% of limit

Angle Below Horizontal (degrees)	<Point X>		Vertical Pattern (REL. FIELD)	WOAI-TV - Auxiliary Facility			
	Horiz Distance from tower to 2 m AGL (meters)	Slant Distance from antenna to Point X (meters)		WOAI-TV - Auxiliary Facility ERP (kW)	Calculated Power Density $\mu\text{W}/\text{cm}^2$	Percent Limit	Limit Exceeded?
0			1.000	345.0000			
5	3759.3	3773.7	0.198	13.5254	0.063	0.02%	No
10	1865.3	1894.1	0.159	8.7219	0.162	0.04%	No
15	1227.5	1270.8	0.033	0.3757	0.016	0.00%	No
20	903.6	961.6	0.173	10.3255	0.746	0.20%	No
25	705.3	778.2	0.081	2.2635	0.250	0.07%	No
30	569.7	657.8	0.003	0.0031	0.000	0.00%	No
35	469.7	573.4	0.088	2.6717	0.543	0.15%	No
40	392.0	511.7	0.015	0.0776	0.020	0.01%	No
45	328.9	465.1	0.099	3.3813	1.044	0.28%	No
50	276.0	429.3	0.043	0.6379	0.231	0.06%	No
55	230.3	401.5	0.064	1.4131	0.586	0.16%	No
60	189.9	379.8	0.069	1.6425	0.761	0.20%	No
65	153.4	362.9	0.059	1.2009	0.609	0.16%	No
70	119.7	350.0	0.042	0.6086	0.332	0.09%	No
75	88.1	340.5	0.011	0.0417	0.024	0.01%	No
80	58.0	334.0	0.016	0.0883	0.053	0.01%	No
85	28.8	330.2	0.006	0.0124	0.008	0.00%	No
90	0.0	328.9	0.000	0.0000	0.000	0.00%	No

