



## **RADIO FREQUENCY IMPACT, SAFETY & STATEMENT OF COMPLIANCE**

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

As shown in Appendix A the WCYB-TV channel 35 request for Amendment of the Table of Allotments as proposed herein will operate with a maximum ERP of 1000 kW from an elliptically polarized non-directional transmitting antenna with a centerline height of 116 meters above ground level (AGL). Considering the elevation pattern submitted 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 WCYB-TV channel 35 facility is predicted to produce a worst-case power density at two meters above ground level, at 65.8 meters from the tower base, of  $2.409 \mu\text{W}/\text{cm}^2$ , which is 0.60% of the FCC guideline value of  $399.33 \mu\text{W}/\text{cm}^2$  for an "uncontrolled" environment, and 0.120% 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.

**WCYB-TV**  
**Channel 35 - Bristol, Virginia**  
**ERP = 1000000.00 WATTS**

**APPENDIX A**

**Maximum ERP** 1000 kW

Polarization ----- 2 Circular meters 380.6 feet  
 Antenna Height Above Ground -- 116  
 FCC Uncontrolled RFR Limit ---- 399.33  $\mu\text{W}/\text{cm}^2$

Maximum Computed Power Density **2.409**  $\mu\text{W}/\text{cm}^2$   
 0.60% 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)	WCYB-TV ERP (kW)	WCYB-TV Calculated Power Density $\mu\text{W}/\text{cm}^2$	Percent Limit	Limit Exceeded?
0			1.000	1000.0000			
5	1303.0	1308.0	0.148	21.9040	0.855	0.21%	No
10	646.5	656.5	0.083	6.8890	1.068	0.27%	No
15	425.5	440.5	0.043	1.8490	0.637	0.16%	No
20	313.2	333.3	0.055	3.0250	1.819	0.46%	No
25	244.5	269.7	0.024	0.5760	0.529	0.13%	No
30	197.5	228.0	0.013	0.1690	0.217	0.05%	No
35	162.8	198.8	0.022	0.4840	0.818	0.20%	No
40	135.9	177.4	0.018	0.3240	0.688	0.17%	No
45	114.0	161.2	0.009	0.0810	0.208	0.05%	No
50	95.7	148.8	0.026	0.6760	2.039	0.51%	No
55	79.8	139.2	0.020	0.4000	1.380	0.35%	No
60	65.8	131.6	0.025	0.6250	2.409	0.60%	No
65	53.2	125.8	0.019	0.3610	1.524	0.38%	No
70	41.5	121.3	0.018	0.3240	1.471	0.37%	No
75	30.5	118.0	0.017	0.2890	1.386	0.35%	No
80	20.1	115.8	0.004	0.0160	0.080	0.02%	No
85	10.0	114.4	0.004	0.0160	0.082	0.02%	No
90	0.0	114.0	0.000	0.0000	0.000	0.00%	No

