



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

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

As shown in Appendix A the proposed WTVZ-TV channel 33 post-transition permanent facility proposed herein will operate with a maximum ERP of 1000 kW from an elliptically polarized non-directional transmitting antenna with a centerline height of 374.3 meters above ground level (AGL). Considering the elevation pattern submitted elsewhere in this application, the vertical plane relative field factor is less than 0.1 at all depression angles greater than 7 degrees. The WTVZ-TV permanent facility is predicted to produce a worst-case power density at two meters above ground level, at 173.6 meters from the tower base, of  $3.278 \mu\text{W}/\text{cm}^2$ , which is 0.84% of the FCC guideline value of  $391.33 \mu\text{W}/\text{cm}^2$  for an "uncontrolled" environment, and 0.168% 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 and coordinate with other any other site users and reduce power 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.

**WTVZ-TV**  
**Channel 33- Norfolk, Virginia**  
**ERP = ##### WATTS**

**APPENDIX A**

**Maximum ERP** 1000 kW

Polarization ----- 2 Circular  
 Antenna Height Above Ground - 374.3 meters 1228.0 feet  
 FCC Uncontrolled RFR Limit ---- 391.33  $\mu\text{W}/\text{cm}^2$

Maximum Computed Power Density 3.278  $\mu\text{W}/\text{cm}^2$   
 0.84% 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)	WTVZ-TV ERP (kW)	WTVZ-TV Calculated Power Density $\mu\text{W}/\text{cm}^2$	Percent Limit	Limit Exceeded?
0.7			1.000	1000.0000			
5	4255.4	4271.7	0.129	16.6410	0.061	0.02%	No
10	2111.4	2144.0	0.051	2.6010	0.038	0.01%	No
15	1389.4	1438.5	0.031	0.9610	0.031	0.01%	No
20	1022.9	1088.5	0.047	2.2090	0.125	0.03%	No
25	798.4	880.9	0.035	1.2250	0.105	0.03%	No
30	644.8	744.6	0.007	0.0490	0.006	0.00%	No
35	531.7	649.1	0.012	0.1440	0.023	0.01%	No
40	443.7	579.2	0.003	0.0090	0.002	0.00%	No
45	372.3	526.5	0.003	0.0090	0.002	0.00%	No
50	312.4	486.0	0.014	0.1960	0.055	0.01%	No
55	260.7	454.5	0.009	0.0810	0.026	0.01%	No
60	214.9	429.9	0.007	0.0490	0.018	0.00%	No
65	173.6	410.8	0.091	8.2810	3.278	0.84%	No
70	135.5	396.2	0.029	0.8410	0.358	0.09%	No
75	99.8	385.4	0.014	0.1960	0.088	0.02%	No
80	65.6	378.0	0.009	0.0810	0.038	0.01%	No
85	32.6	373.7	0.002	0.0040	0.002	0.00%	No
90	0.0	372.3	0.000	0.0000	0.000	0.00%	No

