

RF HAZARD STATEMENT
APPLICATION FOR CONSTRUCTION PERMIT
TV STATION WWBT
RICHMOND, VIRGINIA
CHANNEL 10 29 KW (MAX-DA) 237 m

With respect to the potential for human exposure to radio frequency (RF) energy, calculations prepared in accordance with FCC Bulletin OET-65 (Edition 97-01) indicate that the proposal will not result in human exposure to RF energy at ground level in excess of FCC standards. Power density calculations were conducted at 2-m above ground¹ based on the following conservative assumptions, with the following results:

Call Sign	Channel	Total ERP (kW) ²	Distance (m)	Relative Field Factor ³	FCC Limit ⁴ (uW/cm ²)	Percentage of Limit
WWBT	10	43.5	226.1	0.1	200	0.14%

As indicated above, the exposure to RF energy at 2-m above ground level will not exceed 0.14% of the FCC limit for general population / uncontrolled exposure.

Therefore, the proposal complies with the FCC limits for human exposure to RF energy and it is categorically excluded from environmental processing.

Public access to the transmitting site is restricted and appropriately marked with RFR warning signs. Furthermore, a protocol will be in effect in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measures are taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing “accepted” RFR protective clothing and/or RFR exposure.

¹ The radiation center is located 228.1 m above ground level.

² Horizontally polarized ERP 29 kW, Vertically polarized ERP 14.5 kW.

³ This is a conservative assumption for the maximum relative field at steep downward angles. See attached vertical relative field pattern.

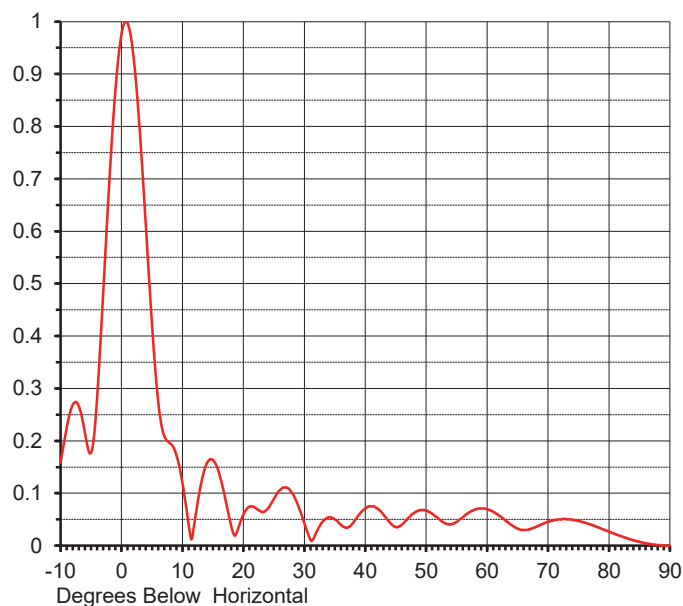
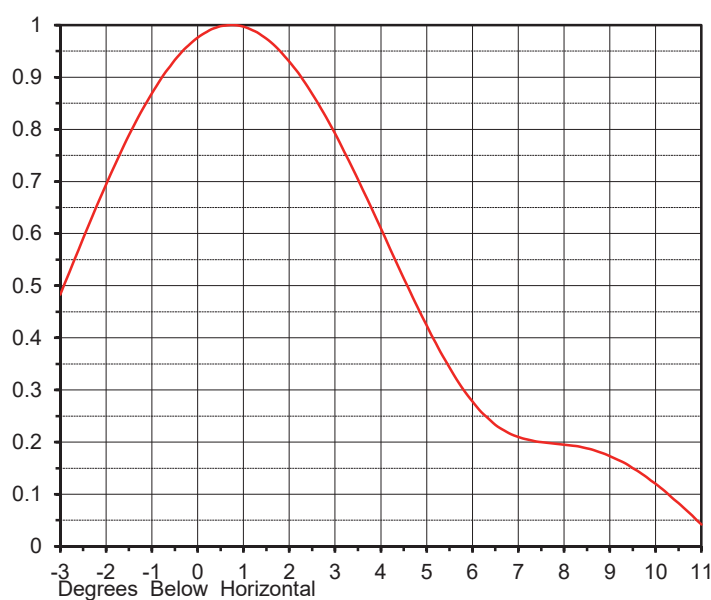
⁴ For general population/uncontrolled environments

ELEVATION PATTERN

Proposal No. **C-70097**
 Date **12-Feb-17**
 Call Letters **WWBT 10**
 Frequency **195 MHz**
 Antenna Type **THV-10A10/VP-R 04**

RMS Directivity at Main Lobe **10.00 (10.00 dB)**
 RMS Directivity at Horizontal **9.50 (9.78 dB)**
Calculated

Beam Tilt **0.75 deg**
 Drawing Number **10V100075**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.158	10.0	0.120	30.0	0.043	50.0	0.067	70.0	0.045
-9.0	0.225	11.0	0.042	31.0	0.011	51.0	0.061	71.0	0.049
-8.0	0.269	12.0	0.045	32.0	0.026	52.0	0.052	72.0	0.050
-7.0	0.266	13.0	0.115	33.0	0.046	53.0	0.043	73.0	0.051
-6.0	0.215	14.0	0.157	34.0	0.054	54.0	0.041	74.0	0.049
-5.0	0.177	15.0	0.164	35.0	0.050	55.0	0.045	75.0	0.047
-4.0	0.283	16.0	0.139	36.0	0.040	56.0	0.054	76.0	0.044
-3.0	0.483	17.0	0.091	37.0	0.034	57.0	0.063	77.0	0.040
-2.0	0.694	18.0	0.038	38.0	0.043	58.0	0.069	78.0	0.036
-1.0	0.869	19.0	0.028	39.0	0.059	59.0	0.071	79.0	0.031
0.0	0.976	20.0	0.059	40.0	0.071	60.0	0.070	80.0	0.027
1.0	0.997	21.0	0.074	41.0	0.075	61.0	0.065	81.0	0.022
2.0	0.930	22.0	0.072	42.0	0.071	62.0	0.057	82.0	0.018
3.0	0.792	23.0	0.065	43.0	0.059	63.0	0.048	83.0	0.014
4.0	0.610	24.0	0.070	44.0	0.045	64.0	0.039	84.0	0.010
5.0	0.424	25.0	0.089	45.0	0.036	65.0	0.032	85.0	0.007
6.0	0.278	26.0	0.106	46.0	0.040	66.0	0.030	86.0	0.005
7.0	0.210	27.0	0.111	47.0	0.052	67.0	0.031	87.0	0.003
8.0	0.195	28.0	0.101	48.0	0.062	68.0	0.036	88.0	0.001
9.0	0.173	29.0	0.076	49.0	0.068	69.0	0.041	89.0	0.000
								90.0	0.000

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