

RF HAZARD STATEMENT
APPLICATION FOR CONSTRUCTION PERMIT
TV STATION WTNZ
KNOXVILLE, TENNESSEE
CHANNEL 15 300 KW (DA) 529 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
WTNZ	15	300	411	0.2	319.3	0.74%

As indicated above, the exposure to RF energy at 2-m above ground level will not exceed 0.74% 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 413 m above ground level.

² Horizontally polarized ERP 300 kW.

³ This is a conservative presumption for the maximum relative field at steep downward angles. See attached antenna information.

⁴ For general population/uncontrolled environments

Figure 3

Proposal Number **DCA-9330**
 Date **31-Mar-01**
 Call Letters **Channel 34**
 Location **Knoxville, TN**
 Customer **Spectrasite**
 Antenna Type **TUD-O5-16/80H-2-B**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **16U318075-B34-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.027	2.4	0.224	10.6	0.061	30.5	0.013	51.0	0.015	71.5	0.019
-9.5	0.046	2.6	0.231	10.8	0.070	31.0	0.020	51.5	0.029	72.0	0.019
-9.0	0.027	2.8	0.236	11.0	0.072	31.5	0.018	52.0	0.039	72.5	0.018
-8.5	0.060	3.0	0.222	11.5	0.047	32.0	0.009	52.5	0.038	73.0	0.016
-8.0	0.096	3.2	0.186	12.0	0.024	32.5	0.011	53.0	0.029	73.5	0.013
-7.5	0.075	3.4	0.138	12.5	0.041	33.0	0.015	53.5	0.015	74.0	0.010
-7.0	0.029	3.6	0.098	13.0	0.027	33.5	0.011	54.0	0.014	74.5	0.008
-6.5	0.058	3.8	0.097	13.5	0.031	34.0	0.008	54.5	0.023	75.0	0.006
-6.0	0.046	4.0	0.128	14.0	0.057	34.5	0.018	55.0	0.024	75.5	0.005
-5.5	0.060	4.2	0.160	14.5	0.050	35.0	0.022	55.5	0.017	76.0	0.005
-5.0	0.130	4.4	0.176	15.0	0.018	35.5	0.016	56.0	0.023	76.5	0.006
-4.5	0.128	4.6	0.173	15.5	0.026	36.0	0.008	56.5	0.048	77.0	0.007
-4.0	0.052	4.8	0.152	16.0	0.029	36.5	0.012	57.0	0.075	77.5	0.007
-3.5	0.081	5.0	0.118	16.5	0.017	37.0	0.013	57.5	0.094	78.0	0.007
-3.0	0.083	5.2	0.080	17.0	0.043	37.5	0.007	58.0	0.100	78.5	0.007
-2.8	0.063	5.4	0.055	17.5	0.054	38.0	0.013	58.5	0.090	79.0	0.006
-2.6	0.086	5.6	0.060	18.0	0.035	38.5	0.022	59.0	0.065	79.5	0.006
-2.4	0.156	5.8	0.079	18.5	0.014	39.0	0.023	59.5	0.036	80.0	0.005
-2.2	0.243	6.0	0.090	19.0	0.026	39.5	0.015	60.0	0.045	80.5	0.004
-2.0	0.329	6.2	0.089	19.5	0.019	40.0	0.009	60.5	0.087	81.0	0.004
-1.8	0.398	6.4	0.075	20.0	0.023	40.5	0.014	61.0	0.129	81.5	0.003
-1.6	0.440	6.6	0.053	20.5	0.046	41.0	0.015	61.5	0.161	82.0	0.002
-1.4	0.444	6.8	0.035	21.0	0.045	41.5	0.009	62.0	0.179	82.5	0.002
-1.2	0.405	7.0	0.045	21.5	0.021	42.0	0.012	62.5	0.183	83.0	0.002
-1.0	0.324	7.2	0.068	22.0	0.018	42.5	0.023	63.0	0.174	83.5	0.002
-0.8	0.216	7.4	0.088	22.5	0.025	43.0	0.026	63.5	0.153	84.0	0.002
-0.6	0.154	7.6	0.099	23.0	0.015	43.5	0.020	64.0	0.126	84.5	0.003
-0.4	0.258	7.8	0.098	23.5	0.045	44.0	0.009	64.5	0.091	85.0	0.003
-0.2	0.435	8.0	0.087	24.0	0.074	44.5	0.010	65.0	0.064	85.5	0.003
0.0	0.617	8.2	0.068	24.5	0.072	45.0	0.016	65.5	0.044	86.0	0.003
0.2	0.778	8.4	0.046	25.0	0.038	45.5	0.014	66.0	0.035	86.5	0.003
0.4	0.902	8.6	0.031	25.5	0.029	46.0	0.009	66.5	0.034	87.0	0.003
0.6	0.978	8.8	0.033	26.0	0.068	46.5	0.018	67.0	0.034	87.5	0.003
0.8	1.000	9.0	0.043	26.5	0.086	47.0	0.029	67.5	0.033	88.0	0.003
1.0	0.967	9.2	0.050	27.0	0.076	47.5	0.032	68.0	0.028	88.5	0.003
1.2	0.885	9.4	0.048	27.5	0.056	48.0	0.025	68.5	0.022	89.0	0.003
1.4	0.765	9.6	0.039	28.0	0.032	48.5	0.013	69.0	0.016	89.5	0.003
1.6	0.621	9.8	0.033	28.5	0.017	49.0	0.010	69.5	0.012	90.0	0.003
1.8	0.472	10.0	0.023	29.0	0.018	49.5	0.018	70.0	0.012		
2.0	0.342	10.2	0.030	29.5	0.017	50.0	0.018	70.5	0.015		
2.2	0.254	10.4	0.046	30.0	0.009	50.5	0.011	71.0	0.018		