

Shofar Broadcasting Corporation

RF Exposure

Beckley, West Virginia

The proposed facility will be located on an existing tower that does not change the overall height of the structure.

The applicant proposes facilities of 1.05 kilowatts effective radiated power using vertical only polarization with an antenna center of radiation 20 meters above ground level.

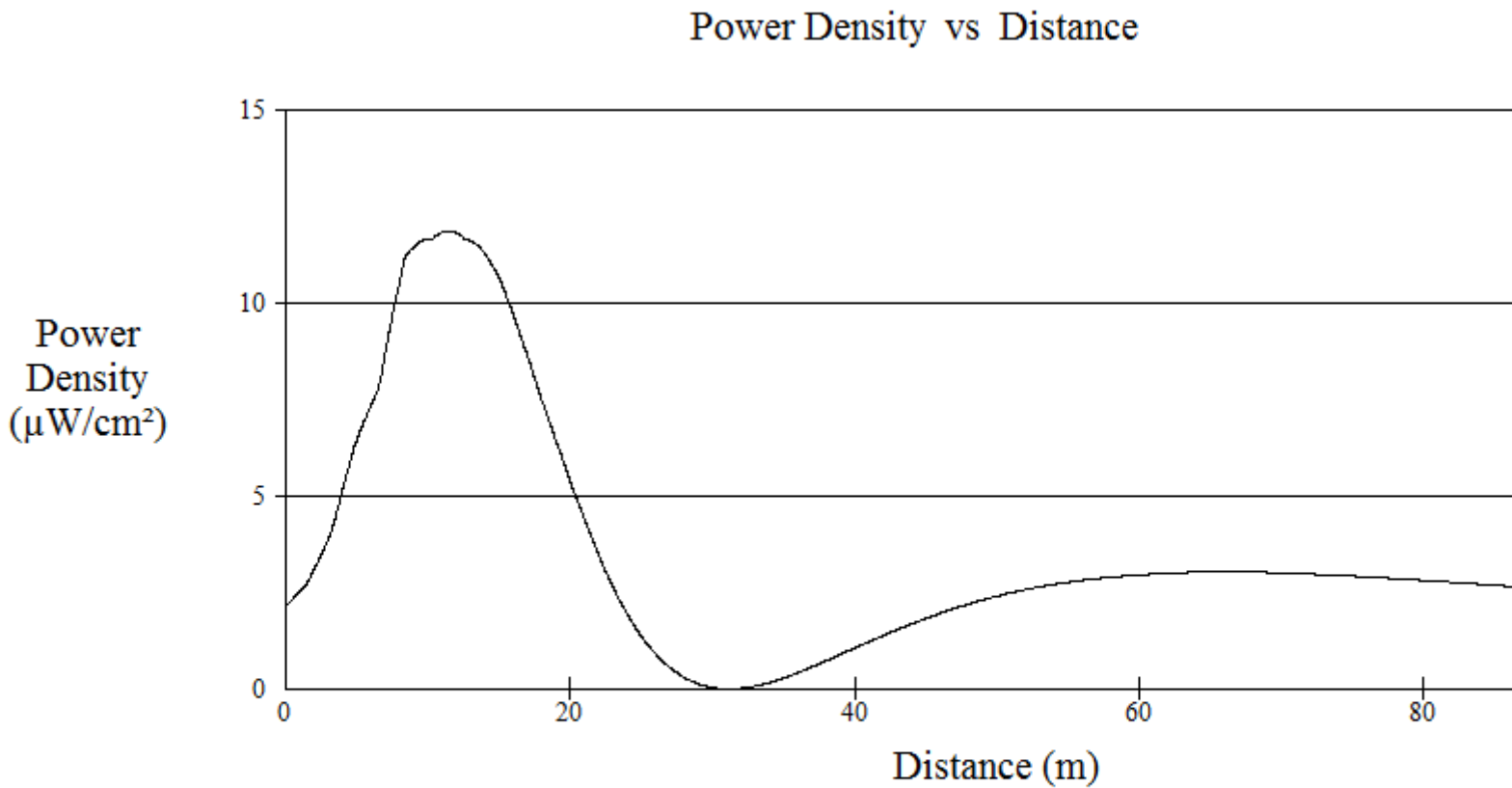
The power density for 1.05 kilowatts at 20 meters at a vertical radiation angle of 0 degrees is $11.8 \mu\text{W}/\text{cm}^2$, or 5.9% of the maximum allowed $200 \mu\text{W}/\text{cm}^2$ for the general population. Figure 1 shows the calculations from the FCC FM Model program, and the maximum power density is predicted to occur at 11.5 meters from the tower. Radiation at this location is within ANSI/FCC standards. Included is a graph of the predicted power density output from the FCC FM Model program.

As shown in the above paragraph, and in the included graph, the applicant complies with ground-level exposure limits concerning the general public, and respectfully requests that the special operating conditions numbered 2 through 4 be removed from the CP, and automatic test authority be granted.

Therefore, the proposal complies with OET 65 concerning ground level radiation exposure.

The applicant certifies that it will reduce power or cease operation as necessary to protect workers and others having access to the site from RFR in excess of FCC guidelines.

Figure 1
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Office of Engineering and Technology

Distance (m):	<input type="text" value="100"/>	Antenna Type:	<input type="text" value="Shively Model 6513/6510 Vertical Dipole"/>
Horizontal ERP (W):	<input type="text" value="0"/>	Number of Elements:	<input type="text" value="2"/>
Vertical ERP (W):	<input type="text" value="1050"/>	Element Spacing:	<input type="text" value="1"/>
Antenna Height (m):	<input type="text" value="20"/>		

Maximum Value of Graph. ✕

The Max Power Density was found to be 11.8476743722569 $\mu\text{W}/\text{cm}^2$ at 11.475 meters.

Note: Graph resolution is 4000 points.