

Formula (7) from Section II of OET 65:

$$S = (2.56) (EIRP) / (4) (PI) (R) \gg$$

Where:

S = Highest power density (mW/cm \gg) at ground level

R = Distance from center antenna to ground in cm,

EIRP = 1.64 times ERP relative to dipole in mW,

Power is calculated at worst case conditions

MAX S = 1.0 mW/cm \gg for FM station between 88 and 108 MHz

ERP = (horizontal and vertical added times field factor \gg .)

Station: MANOKOTAK with antenna up 6 meters and ERP 0.1 kW

$$S = \frac{(2.56) (1.64) (1000) (100) (1.000) \gg}{(4) (3.14) (600) \gg}$$

S = 0.093 mW/cm \gg , 9.3 % of Controlled Exposure allowed.
S = 0.093 mW/cm \gg , 46.4 % of Uncontrolled Exposure allowed.

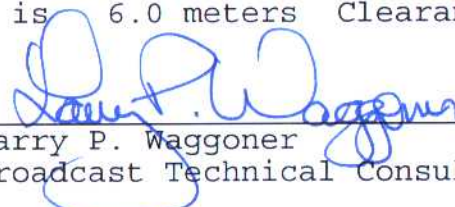
Distances from FM Table 5, OET 65-A for minimum clearance

Power 0.1 kW Worst Case height AGL is 5.2 meters

Best Case height AGL is 4.7 meters

Proposed height AGL is 6.0 meters Clearance +0.8 m

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