

Formula (7) from Section II of OET 65:

$$S = (2.56) (EIRP) / (4) (\pi) (R)^2$$

Where:

S = Highest power density (mW/cm<sup>2</sup>) 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<sup>2</sup> for FM station between 88 and 108 MHz

ERP = (horizontal and vertical added times field factor<sup>2</sup>.)

Station: W293BA with antenna up 39 meters and ERP 0.0 kW

$$S = \frac{(2.56) (1.64) (1000) (\pi) (54) (1.000)^2}{(4) (3.14) (3,900)^2}$$

S = 0.001 mW/cm<sup>2</sup>, 0.1 % of Controlled Exposure allowed.

S = 0.001 mW/cm<sup>2</sup>, 0.6 % 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  
 Bays 2 Best Case height AGL is 4.7 meters  
 Proposed height AGL is 39.0 meters Clearance +33.8 m