

ATTACHMENT 16, Subpart 1

RADIATION HAZARD FORMULA  
W229AQ  
MANSFIELD, PA

This proposal has been evaluated with respect to the RF  
radiation exposure guidelines contained in OET Bulletin 65.

For the FM band, the power density may be computed from the formula:

$$S = \frac{(33.4)(F)(F)(P)}{(R)(R)}$$

where: S = Power Density

P = Total power in watts (Horizontal + Vertical)

R = Height of center of radiation in  
meters above ground minus 2

F = Relative field factor in the downward direction of  
interest (-60 to -90 degrees elevation) as supplied  
by the antenna manufacturer.

The antenna model is: Armstrong FMA-707-1

In this case P = 140 and R = 10

and F = 1 FCC General Population/

Uncontrolled Exposure limits permit up to 0.2 mW/sq cm exposure

at this frequency. Therefore at ground level, S = 0.04676

mW/sq m, or: 23.38% of the allowable.

It is evident that no practical hazard should exist.

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RADIATION HAZARD FORMULA  
W247BK 97.9  
MANSFIELD, PA

This proposal has been evaluated with respect to the RF  
radiation exposure guidelines contained in OET Bulletin 65.

For the FM band, the power density may be computed from the formula:

$$S = \frac{(33.4)(F)(F)(P)}{(R)(R)}$$

where: S = Power Density

P = Total power in watts (Horizontal + Vertical)

R = Height of center of radiation in  
meters above ground minus 2

F = Relative field factor in the downward direction of  
interest (-60 to -90 degrees elevation) as supplied  
by the antenna manufacturer.

The antenna model is:

Scala FMVMP-1

In this case P = 250 and R = 6

and F = 0.31 FCC General Population/

Uncontrolled Exposure limits permit up to 0.2 mW/sq cm exposure

at this frequency. Therefore at ground level, S = 0.0222899

mW/sq m, or: 11.14% of the allowable.

It is evident that no practical hazard should exist.