

ATTACHMENT 29, Subpart 1

RADIATION HAZARD FORMULA  
W66AB  
MESHOPPEN, PA

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

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

$$S = \frac{(33.4)(F)(F)((0.4VP)+AP)}{(R)(R)}$$

where: S = Power Density

VP = Total visual power in watts (Horizontal + Vertical)

AP = Total aural 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:

Bogner Directional

In this case VP = 1460 and AP = 292 and R = 29

and F = 1 FCC General Population/

Uncontrolled Exposure limits permit up to 0.52133 mW/sq cm exposure

at this frequency. Therefore at ground level, S = 0.03479

mW/sq m, or: 6.67% of the allowable.

It is evident that no practical hazard should exist.