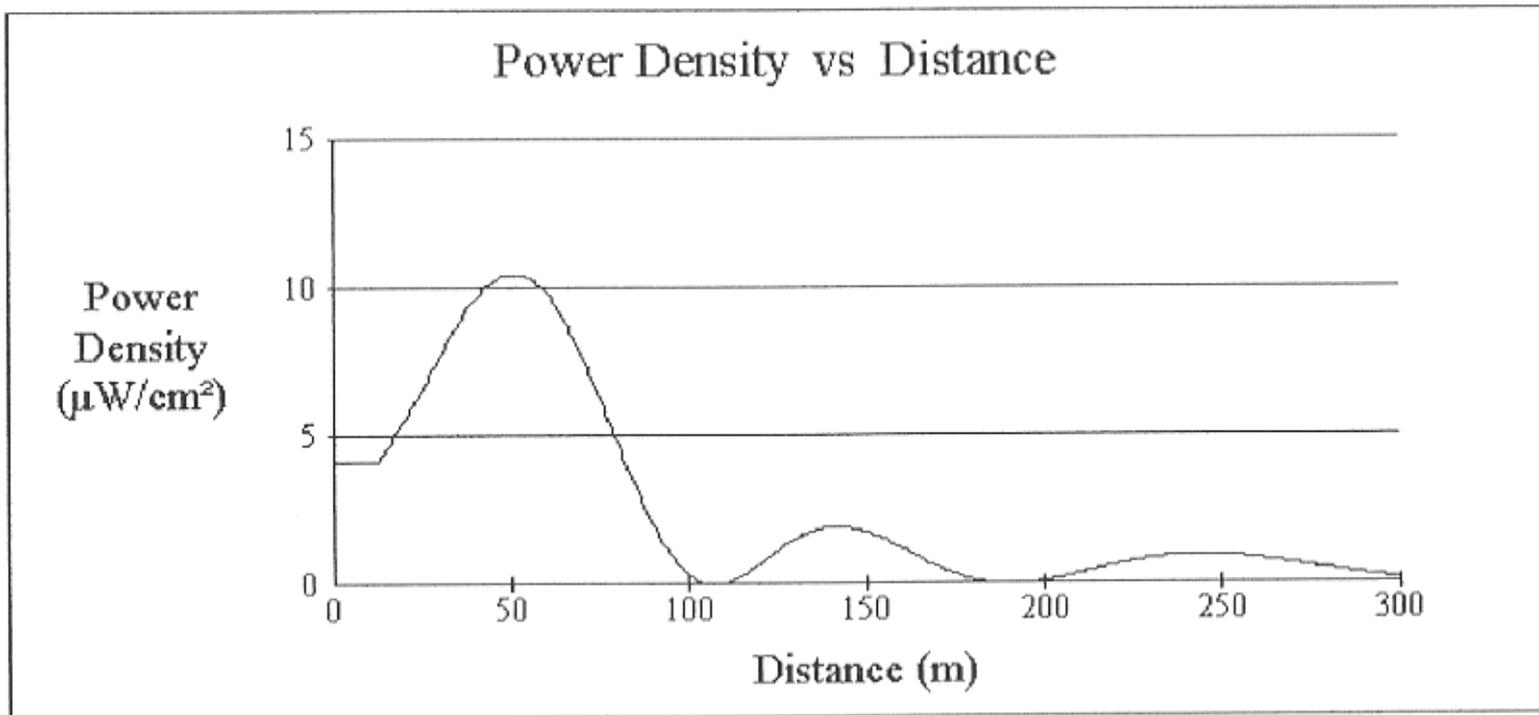


NONIONIZING RADIATION COMPLIANCE

Xavier University  
Rogers City, MI

The proposed WVXA facilities will fully comply with the current FCC Standard with regard to human exposure to nonionizing radiation. The proposed WVXA antenna will be an ERI SHP-5AE, five bay circularly polarized antenna which will be mounted at the 144.8 meter level on a new, taller tower that will be erected to replace the shorter tower which supports the antenna for the presently licensed WVXA operating facilities. The proposed WVXA facilities will operate with a nondirectional effective radiated power of 42 kilowatts. The power density levels at two meters above ground level were calculated using the FCC's "FM Model" computer program. The results of these calculations are shown in Figure 29.0. As can be seen from an examination of this figure, the maximum power density predicted for the proposed WVXA facilities at two meters above ground level is  $10.4 \mu\text{W}/\text{cm}^2$ , which will occur at a distance of 50.4 meters from the base of this tower. Since the maximum permitted power density for uncontrolled exposure in the FM band is  $200 \mu\text{W}/\text{cm}^2$ , this amounts to 5.2% of the permitted level for uncontrolled exposure. Thus, the implementation of the proposed WVXA facilities from this site will not expose members of the general public to levels of nonionizing radiation that are in excess of the permitted level for uncontrolled exposure.

WVXA will also take appropriate steps to insure that workers that must be on this tower will not be exposed to levels of nonionizing radiation that are in excess of the permitted level for controlled exposure. These steps will include the cessation of operation or a reduction in power, as appropriate, when work becomes necessary on this tower in areas where the power density levels are in excess of the permitted level for controlled exposure.



Office of Engineering and Technology

Distance (m):     Antenna Type:

Horizontal ERP (W):     Number of Elements:

Vertical ERP (W):     Element Spacing:

Antenna Height (m):

FIG. 29.0

WVXA POWER DENSITY CALCULATIONS

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