

EXHIBIT 22  
(Page 1 of 3)

NONIONIZING RADIATION COMPLIANCE

Positive Alternative Radio, Inc.  
Fredericksburg, VA

The proposed WJYJ facilities will fully comply with the current FCC Standard with regard to human exposure to nonionizing radiation. The proposed facilities will utilize a Jampro JMPC-5R-DA five bay circularly polarized directional antenna that will be mounted at the 131.1 meter level on an existing 152.4 meter tower. The tower which will support the proposed WJYJ antenna presently supports the antenna for WWUZ(FM) - Bowling Green, Virginia, which operates on Channel 245A with a circularly polarized effective radiated power of 2.95 kilowatts using a three bay antenna which is mounted at a height of 147 meters above ground. Assuming, as a worst case, 100% downward radiation for WWUZ and using Equation 9 found on Page 21 of OET Bulletin 65, the WWUZ power density is predicted to be 9.37 microwatts/square centimeter at 2 meters above ground level. Since the maximum permitted power density for uncontrolled exposure in the FM band is 200 microwatts/square centimeter, this is only 4.69% of the permitted level. Since this is less than 5% of the permitted level, WWUZ need not be considered in conjunction with the proposed WJYJ facilities to evaluate compliance with this standard. Since there are no other non-excluded RF sources located within 315 meters of this site, it is not necessary to consider any other facilities in conjunction with the proposed WJYJ facilities to document compliance with this exposure standard.

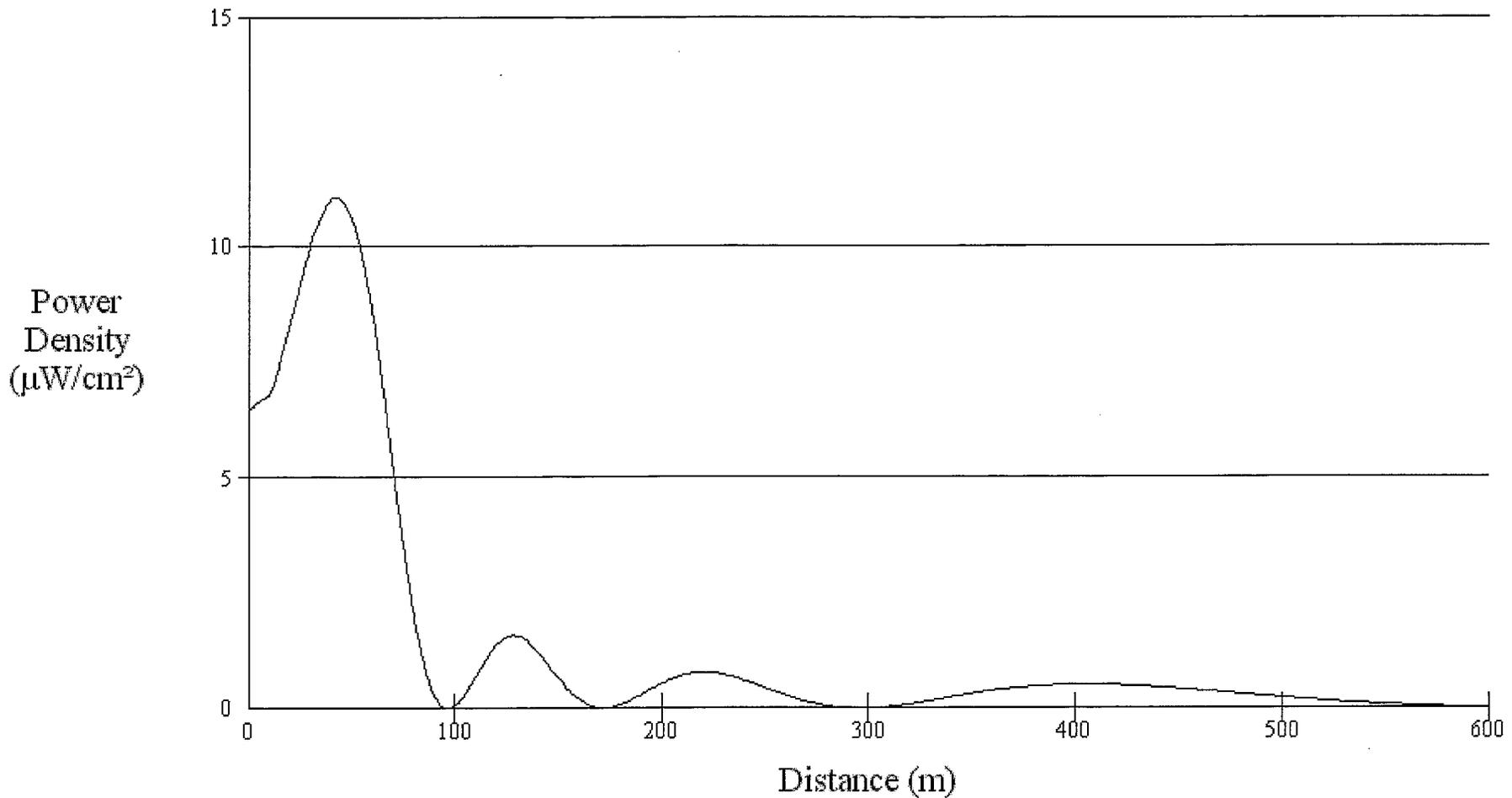
The power density levels at two meters above ground level for the proposed WJYJ facilities were calculated using the FCC's "FM Model" computer program. The results of these calculations are shown in Figure 22.0. This figure shows that the worst case predicted power density at two meters above ground level for these proposed facilities will be  $11.1 \mu\text{W}/\text{cm}^2$ , which will occur at a horizontal distance of 42 meters from the base of this tower. Since the permitted power density in the FM band is 200 microwatts/square centimeter, this amounts to only 5.6% of the permitted level for uncontrolled exposure. Thus, the implementation of the proposed facilities will not be predicted to result in

EXHIBIT 22  
(Page 2 of 3)

power densities that are in excess of the permitted level for uncontrolled exposure in areas which are accessible to the general public.

The applicant 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 in areas on this tower where the power density levels are in excess of the permitted level for controlled exposure.

### Power Density vs Distance



Office of Engineering and Technology

Distance (m):	600	Antenna Type:	Jampro "Double V" (EPA)
Horizontal ERP (W):	23000	Number of Elements:	5
Vertical ERP (W):	23000	Element Spacing:	1
Antenna Height (m):	131.1		

FIG. 22.0

WJYJ POWER DENSITY CALCULATIONS  
 Positive Alternative Radio, Inc.  
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