

**Engineering Statement
In Support of an
Application for a Construction Permit
WIXV, Savannah, Georgia**

Human Exposure To Radiofrequency Radiation Study

<u>CALL</u>	<u>Service</u>	<u>Channel</u>	<u>Frequency</u>	<u>Polarization</u>	<u>Antenna Height* (AGL)</u>	<u>ERP (kW)</u>	<u>Vertical Relative Field Factor</u>	<u>Predicted Power Density (mWcm²)</u>	<u>FCC Uncontrolled Limit (mWcm²)</u>	<u>Percent of Uncontrolled Limit</u>
WIXV	FM	238	95.5	H&V	302.1*	98.000	1.000	0.004	0.200	2.00%
WJCL-FM	FM	243	96.5	H&V	356	100.000	1.000	0.003	0.200	1.50%
WZAT	FM	271	102.1	H&V	404	98.000	1.000	0.002	0.200	1.00%
WJCL (TV)	TV	22	521	H	437	3800.000	1.000	0.266	0.347	75.57%
WJCL(DTV)	DTV	23	527	H	415	200.000	1.000	0.019	0.351	5.40%

Total Percentage of ANSI value = 85.47%

* The antenna height indicated above is 2 meters less than the actual antenna height so that the predicted power density consider the 2 meter human height allowance.

The FM Model for window was used to determine the power density at 2 meters above ground level for each facility on the supporting structure. Although other antennas are in use and will be used as the proposed, for study purposes, a ERI or Jampro JBCP “Rototiller” (EPA) antenna with full wavelength spacing between elements was used for each facility. WIXV proposes to move its current 8 element ERI antenna up on the structure, WJCL-FM has a 10 element ERI antenna and WZAT has a 10 element Harris antenna.

For the TV facilities, Equation (2), found on Page 30 of Supplement A to FCC OET Bulletin No. 65, detail the calculation technique for determining the power density levels at the base of the tower, assuming 100% downward radiation from the individual antennas.

As demonstrated, the total percentage of the ANSI values at the proposed site, considering the radiation of proposed facility and the existing facilities is 85.47% of the limit for “uncontrolled” environments when using an EPA dipole antenna for study purposes. The total percentage for “controlled” environments is only 17.09%.