



RADIO FREQUENCY IMPACT, SAFETY & STATEMENT OF COMPLIANCE

The licensee of WYDO is committed to the protection of station personnel and/or tower contractors working in the vicinity of the WYDO antenna, and is committed to reducing power or ceasing operation during times of maintenance of the transmission systems, when necessary, to ensure protection to personnel.

The proposed modification of the WYDO channel 19 post-transition facility will operate with a maximum ERP of 350 kW from an elliptically polarized directional transmitting antenna with a centerline height of 580.3 meters above ground level (AGL). Considering a conservative predicted vertical plane relative field factor of 0.300 the WYDO facility is predicted to produce a worst-case power density at two meters above ground level of $3.147 \mu\text{W}/\text{cm}^2$, which is 0.94% of the FCC guideline value of $335.33 \mu\text{W}/\text{cm}^2$ for an "uncontrolled" environment, and 0.188% of the FCC's guideline value for "controlled" environments. There is one other DTV facility to be located at the WYDO site. The total accumulated predicted power density at two meters above ground level of $3.453 \mu\text{W}/\text{cm}^2$, which is 1.090% of the FCC guideline value of $335.33 \mu\text{W}/\text{cm}^2$ for an "uncontrolled" environment, and 0.218% of the FCC's guideline value for "controlled" environments. (See Appendix A)

APPENDIX A

SUMMARY OF RADIOFREQUENCY RADIATION STUDY

WYDO
Greenville, North Carolina
December 9, 2019

<u>CALL</u>	<u>SERVICE</u>	<u>CHANNEL</u>	<u>FREQUENCY</u>	<u>POLAR- IZATION</u>	<u>ANTENNA HEIGHT</u>	<u>ERP (kW)</u>	<u>VERT. RELATIVE FIELD FACTOR</u>	<u>WORST-CASE PREDICTED POWER DENSITY ($\mu\text{W}/\text{cm}^2$)</u>	<u>FCC UNCONTROLLED LIMIT ($\mu\text{W}/\text{cm}^2$)</u>	<u>PERCENT OF UNCONTROLLED LIMIT</u>
WYDO	DT	19	503	H & V	580.3	350.000	0.300	3.147	335.33	0.94%
WCTI-TV	DT	10	195	H & V	581.6	34.200	0.300	0.306	200.00	0.15%

TOTAL PERCENTAGE OF FCC GUIDELINE VALUE = 1.09%

* For television stations a very conservative vertical relative field factor of 0.3 was assumed pursuant to OET Bulletin 65.