



ENVIRONMENTAL AND RADIO FREQUENCY SAFETY

The licensee of WNYO-TV is committed to the protection of station personnel and/or tower contractors working in the vicinity of the WNYO-TV 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 predicted emissions of WNYO-TV must be considered, in addition to predicted emissions from any other proposed or existing stations at the site. For WNYO-TV, which will operate on television Channel 16 (482-488 MHz), the MPE is 323.33 microwatts per centimeter squared ($\mu\text{W}/\text{cm}^2$) in an “uncontrolled” environment and 1,616.7 $\mu\text{W}/\text{cm}^2$ in a “controlled” environment. The proposed WNYO-TV facility will operate with a maximum ERP of 575 kW from an elliptically polarized directional transmitting antenna with a centerline height of 328.5 meters above ground level (AGL). Considering a predicted vertical plane relative field factor of 0.300 the WNYO-TV facility is predicted to produce a power density at two meters above ground level of 32.336 $\mu\text{W}/\text{cm}^2$, which is 10.00% of the FCC guideline value for an “uncontrolled” environment, and 2.00% of the FCC’s guideline value for “controlled” environments. There is one other full power DTV station and one Class A LPTV station that are also located at the WNYO-TV site. The total estimated percentage of the ANSI value at the proposed site, including the cumulative radiation from all facilities within the relevant proximity, is 24.97% of the limit applicable to “uncontrolled” environments, and 4.99% of the limit for “controlled” environments. (See Appendix A)

APPENDIX A

**SUMMARY OF RADIOFREQUENCY
RADIATION STUDY**

WNYO-TV, Buffalo, NY
Channel 16, 575 kW, 329 m HAAT
October, 2017

<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>
WNYO-TV	DT	16	485	H & V	329	575.000	0.300	32.338	323.33	10.00%
WBNF-CD	DT	15	479	H & V	168	15.000	0.300	3.274	319.33	1.03%
WUTV	DT	36	605	H & V	329	1000.000	0.300	56.241	403.33	13.94%
TOTAL PERCENTAGE OF FCC GUIDELINE VALUE =										24.97%

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