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ENVIRONMENTAL AND RADIO FREQUENCY SAFETY

The licensee of WTVH is committed to the protection of station personnel and/or tower contractors working in the vicinity of the WTVH 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 WTVH must be considered, in addition to predicted emissions from any other proposed or existing stations at the site. For WTVH, which will operate on television Channel 18 (494-500 MHZ), the MPE is 331.33 microwatts per centimeter squared ($\mu W/cm^2$) in an "uncontrolled" environment and 1,656.7 $\mu W/cm^2$ in a "controlled" environment. The proposed WTVH facility will operate with a maximum ERP of 274 kW from a horizontally polarized omni-directional transmitting antenna with a centerline height of 161 meters above ground level (AGL). Considering a predicted vertical plane relative field factor of 0.300 the WTVH facility is predicted to produce a power density at two meters above ground level of 32.589 $\mu W/cm^2$, which is 9.84% of the FCC guideline value for an "uncontrolled" environment, and 1.97% of the FCC's guideline value for "controlled" environments. There is one FM radio station that is also located at the WTVH 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 25.44% of the limit applicable to "uncontrolled" environments, and 5.09% of the limit for "controlled" environments. (See Appendix A)

SUMMARY OF RADIOFREQUENCY
RADIATION STUDY
WTVH, Syracuse, NY
Channel 18, 274 kW, 290.1 m HAAT
July, 2017

CALL	SERVICE	CHANNEL	FREQUENCY	POLAR-IZATION	ANTENNA HEIGHT	ERP (kW)	VERT. RELATIVE FIELD FACTOR*	WORST-CASE PREDICTED POWER DENSITY (μW/cm²)	FCC UNCONTROLLED LIMIT (μW/cm²)	PERCENT OF UNCONTROLLED LIMIT
WTVH	DT	18	497	H	161	274.000	0.300	32.589	331.33	9.84%
WWHT	FM	300	107.9	H & V	92	50.000	<Note 1>	31.210	200.00	15.61%
								TOTAL PERCENTAGE OF FCC GUIDELINE VALUE =		25.44%

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

Note 1: FM Model Antenna: EPA Type 3; ERI Rototiller Type, 5-bay, full-wave spaced antenna.

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