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ENVIRONMENTAL AND RADIO FREQUENCY SAFETY

The licensee of WWMB is committed to the protection of station personnel and/or tower contractors working in the vicinity of the WWMB 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 WWMB must be considered, in addition to predicted emissions from any other proposed or existing stations at the site. For WWMB, which will operate on television Channel 26 (542-548 MHZ), the MPE is 363.33 microwatts per centimeter squared ($\mu W/cm^2$) in an "uncontrolled" environment and 1,816.7 $\mu W/cm^2$ in a "controlled" environment. The proposed WWMB facility will operate with a maximum ERP of 448 kW from an elliptically polarized directional transmitting antenna with a centerline height of 579 meters above ground level (AGL). Considering a conservative predicted vertical plane relative field factor of 0.300 the WWMB facility is predicted to produce a power density at two meters above ground level of 8.092 $\mu W/cm^2$, which is 2.23% of the FCC guideline value for an "uncontrolled" environment, and 0.446% of the FCC's guideline value for "controlled" environments. There is one other full-power DTV facility and two LPTV DTV facilities that are located at the WWMB site. The total estimated percentage of the ANSI value at the proposed site, including the cumulative radiation from all authorizations located within the relevant proximity, is 5.29% of the limit applicable to "uncontrolled" environments, and 1.058% of the limit for "controlled" environments. (See Appendix A)

SUMMARY OF RADIOFREQUENCY
RADIATION STUDY
WWMB, Florence, SC
Channel 26, 448 kW, 581 m HAAT
May, 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
WWMB	DT	26	545	H & V	579	448.000	0.300	8.092	363.33	2.23%
WPDE-TV	DT	27	551	H & V	598	543.000	0.300	9.193	367.33	2.50%
W15DC-D	DT	15	479	H	100	3.000	0.300	0.939	319.33	0.29%
WEQA-LD (CP)	DT	22	521	H	100	3.000	0.300	0.939	347.33	0.27%
								TOTAL PERCENTAGE OF FCC GUIDELINE VALUE =		5.29%

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

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