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ENVIRONMENTAL AND RADIO FREQUENCY SAFETY

The licensee of WDKY-TV is committed to the protection of station personnel and/or tower contractors working in the vicinity of the WDKY-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 WDKY-TV must be considered, in addition to predicted emissions from any other proposed or existing stations at the site. For WDKY-TV, which will operate on television Channel 19 (500-506 MHZ), the MPE is 335.33 microwatts per centimeter squared ($\mu W/cm^2$) in an "uncontrolled" environment and 1,676.7 $\mu W/cm^2$ in a "controlled" environment. The proposed WDKY-TV facility will operate with a maximum ERP of 1000 kW from an elliptically polarized omni-directional transmitting antenna with a centerline height of 343.2 meters above ground level (AGL). Considering a conservative predicted vertical plane relative field factor of 0.300 the WDKY-TV facility is predicted to produce a power density at two meters above ground level of 51.657 $\mu W/cm^2$, which is 15.40% of the FCC guideline value for an "uncontrolled" environment, and 3.08% of the FCC's guideline value for "controlled" environments. There is one other full-power DTV facility and three full-power FM station that are located at the WDKY-TV 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 30.56% of the limit applicable to "uncontrolled" environments, and 6.11% of the limit for "controlled" environments. (See Appendix A)

SUMMARY OF RADIOFREQUENCY
RADIATION STUDY
WDKY-TV, Danville, KY
Channel 19, 1000 kW, 351.9 m HAAT
October, 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
WDKY-TV	DT	19	503	H & V	343.2	1000.000	0.300	51.657	335.33	15.40%
WKLE	DT	35	599	H	240.2	40.000	0.300	2.120	399.33	0.53%
WEKU	FM	205	88.9	H & V	205	50.000	<note 1>	0.522	200.00	0.26%
WUKY	FM	217	91.3	H & V	221.6	100.000	<note 1>	0.892	200.00	0.45%
WVLK-FM	FM	268	101.5	H & V	149	9.000	1.000	27.830	200.00	13.91%
								TOTAL PERCENTAGE OF FCC GUIDELINE VALUE =		30.56%

** 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, 8-bay, 0.5 wave spaced antenna,

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