SUMMARY OF RADIOFREQUENCY RADIATION STUDY

MOBILE, AL, MARKET AUXILIARY APPLICATION

8/21/2019

CALL	SERVICE	CHANNEL	FREQUENCY	POLAR-IZATION	ANTENNA HEIGHT	ERP (kW)	VERT. RELATIVE FIELD FACTOR	FM WORST-CASE PREDICTED POWER DENSITY (μW/cm²)	AM WORST-CASE PRDICTED POWER DENSITY (μW/cm²)	APPLICABLE UNCONTROLLED FCC LIMIT (μW/cm²)	PERCENT OF UNCONTROLLED LIMIT
WABD-AUX APP	FM	248	97.5	H & V	71.3	4.700	note 1	8.790	N/A	200.00	4.40%
WBLX-AUX APP	FM	248	97.5	H & V	71.3	4.700	note 1	8.790	N/A	200.00	4.40%
WDLT-AUX-APP	FM	248	97.5	H & V	71.3	4.700	note 1	8.790	N/A	200.00	4.40%
WXQW	AM		660 kHz		0.184 λ	10.000	note 2	N/A	5282.292	100000.00	5.28%

TOTAL PERCENTAGE OF FCC GUIDELINE VALUE = 18.47%

note 1: FM Model Antenna: EPA Type 2; Shively 6842, 4-bay, full-wave spaced antenna.

note 2: The WXQW AM tower is located 160 meters from the proposed FM auxiliary antenna. A worst-case tower height (0.1λ) and the maximum distance of 15 meters was considered for a worst-case analysis (OET Bulletin 65, Supplement A, Figure 1) resulting in the following predicted magnetic and electrical field strength values:

H field: 0.348 A/m

E field: 151.79 V/m

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