

## ENVIRONMENTAL AND RADIO FREQUENCY SAFETY

The licensee of WFGX is committed to the protection of station personnel and/or tower contractors working in the vicinity of the WFGX 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 WFGX must be considered, in addition to predicted emissions from any other proposed or existing stations at the site. For WFGX, which will operate on television Channel 14 (470-476 MHZ), the MPE is 315.33 microwatts per centimeter squared (µW/cm<sup>2</sup>) in an "uncontrolled" environment and 1,576.7 µW/cm<sup>2</sup> in a "controlled" environment. The proposed WFGX facility will operate with a maximum ERP of 1000 kW from an elliptically polarized directional transmitting antenna with a centerline height of 574.9 meters above ground level (AGL). Considering a predicted vertical plane relative field factor of 0.300 the WFGX facility is predicted to produce a power density at two meters above ground level of 18.323  $\mu$ W/cm<sup>2</sup>, which is 5.81% of the FCC guideline value for an "uncontrolled" environment, and 1.162% of the FCC's guideline value for "controlled" environments. There are two other full-power DTV facilities and three LPTV DTV facilities that are located at the WFGX site. Therefore, the total estimated percentage of the ANSI value at the proposed site, including the cumulative radiation from all authorizations within the relevant proximity, is 15.68% of the limit applicable to "uncontrolled" environments, and 3.14% of the limit for "controlled" environments. (See Appendix A)

## SUMMARY OF RADIOFREQUENCY RADIATION STUDY

WFGX, Fort Walton Beach, FL Channel 14, 1000 kW, 582.8 m HAAT August, 2017

							VERT.	WORST-CASE	FCC	
							RELATIVE	PREDICTED	UNCONTROLLED	PERCENT OF
				POLAR-	ANTENNA	ERP	FIELD	POWER DENSITY	LIMIT	UNCONTROLLED
CALL	<u>SERVICE</u>	<u>CHANNEL</u>	FREQUENCY	<b>IZATION</b>	<u>HEIGHT</u>	<u>(kW)</u>	FACTOR	<u>(µW/cm²)</u>	<u>(µW/cm²)</u>	<u>LIMIT</u>
WFGX	DT	14	473	H & V	574.9	1000.000	0.300	18.323	315.33	5.81%
WEAR	DT	17	491	Н	567	1000.000	0.300	9.419	327.33	2.88%
WEDS-LD (CP)	DT	29	563	Н	111.3	13.000	0.300	3.272	375.33	0.87%
WHBR	DT	34	593	Н	403	1000.000	0.300	18.699	395.33	4.73%
WMOE-LD (CP)	DT	42	641	Н	111.3	10.000	0.300	2.517	427.33	0.59%
WWBH-LP	DT	47	671	Н	111.3	14.200	0.300	3.574	447.33	0.80%

TOTAL PERCENTAGE OF FCC GUIDELINE VALUE =

15.68%

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

