

MODIFICATION OF STATION LICENSE
VERO BEACH FM RADIO PARTNERSHIP
WGNX (FM) RADIO STATION
CH 259C2 - 99.7 MHZ -50.0 KW
VERO BEACH, FLORIDA
May 2004

EXHIBIT B

Radio Frequency Radiation Assessment

A study has been made to determine whether this proposal is in compliance with 47 C.F.R. §1.1307(b) of the Commission's rules and with OET Bulletin #65, dated August 1997 ("Bulletin"), regarding human exposure to radio frequency radiation in the vicinity of broadcast towers. This study considers all nearby stations, specifically FM stations WOSN, WCZR and WQOL, and utilizes the appropriate formulas contained in the OET Bulletin.¹

The authorized WGNX antenna system is mounted with its center of radiation 131.0 meters (429.8 feet) above the ground at the existing tower location and operates with an effective radiated power of 50.0 kilowatts in the horizontal and vertical planes (circularly polarized). The WGNX antenna is a Shively Labs 6810, 5 five bay, ½ wavelength spaced, system (EPA/FCC Type #6). At two meters, the height of an average person, above the ground at the base of the tower, the WGNX antenna system will contribute 0.0031 mw.² Based on exposure limitations for a controlled environment, 0.3% of the allowable ANSI limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 1.6% of the ANSI limit is reached at two meters above the ground at the base of the tower.

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- 1) The contributions of the FM stations are calculated using the FMModel program. The single bay EPA dipole antenna was used for calculations, unless otherwise specified.
 - 2) This level of field occurs at 640 meters out from the base of the tower and is considered worst case.

The authorized WOSN antenna system is mounted with its center of radiation 103.0 meters (337.9 feet) above the ground at the existing tower location and operates with an effective radiated power of 23.0 kilowatts in the horizontal and vertical planes (circularly polarized). The WOSN antenna is a three bay SWR antenna, which is similar to the Jampro double V system (EPA/FCC Type #2). At two meters, the height of an average person, above the ground at the base of the tower, the WOSN antenna system will contribute 0.0239 mw.³ Based on exposure limitations for a controlled environment, 2.4% of the allowable ANSI limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 12.0% of the ANSI limit is reached at two meters above the ground at the base of the tower.

The authorized WCZR antenna system is mounted with its center of radiation 117.0 meters (383.9 feet) above the ground at the existing tower location and operates with an effective radiated power of 4.2 kilowatts in the horizontal and vertical planes (circularly polarized). The WCZR antenna is a three bay ERI rototiller style system (EPA/FCC Type #3). At two meters, the height of an average person, above the ground at the base of the tower, the WCZR antenna system will contribute 0.0022 mw.⁴ Based on exposure limitations for a controlled environment, 0.2% of the allowable ANSI limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 1.1% of the ANSI limit is reached at two meters above the ground at the base of the tower.

3) This level of field occurs at 46.4 meters out from the base of the tower and is considered worst case.

4) This level of field occurs at 57.6 meters out from the base of the tower and is considered worst case.

The authorized WQOL antenna system is mounted with its center of radiation 141.0 meters (462.6 feet) above the ground at the existing tower location and operates with an effective radiated power of 50.0 kilowatts in the horizontal and vertical planes (circularly polarized). The WQOL antenna is a BE/ERI five bay rototiller style system (EPA/FCC Type #3).⁵ At two meters, the height of an average person, above the ground at the base of the tower, the WQOL antenna system will contribute 0.0130 mw.⁶ Based on exposure limitations for a controlled environment, 1.3% of the allowable ANSI limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 6.5% of the ANSI limit is reached at two meters above the ground at the base of the tower.

Combining the contributions of WGNX, WOSN, WCZR and WQOL, a total of 21.2% of the worst case limit is reached at two meters above the ground at the base of the tower. Since this level is far below the 100% limit defined by the Commission, the WGNX facility is believed to be in compliance with the radio frequency radiation exposure limits as required by the Federal Communications Commission. Further, Vero has posted signs in the vicinity of the tower warning of potential radio frequency radiation hazards at the site. In addition, Vero will reduce the power of the facility or cease operation, in cooperation and coordination with other tower users, as necessary, to protect persons having access to the site, tower or antenna from radio frequency radiation in excess of FCC guidelines. Based on the above factors, this proposal is categorically excluded from environmental processing pursuant to §1.1306 of the Commission's rules.

5) The antenna type was listed in the Commission's CDBS database.

6) This level of field occurs at 49.6 meters out from the base of the tower and is considered worst case.