

MINOR CHANGE APPLICATION
NEW AUXILIARY FM ANTENNA
QANTUM OF CAPE COD LICENSE COMPANY, LLC
WCOD-FM RADIO STATION
CH 291B - 106.1 MHZ - 8.1 KW
HYANNIS, MASSACHUSETTS
June 2008

EXHIBIT B

Radio Frequency Assessment

A study has been made to determine whether this proposal is in compliance with 47 C.F.R. §1.1307 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.¹ This study considers all co-located facilities, specifically, the authorized WRZE Class B1 facility, and utilizes the appropriate formulas contained in the OET Bulletin.²

The proposed WCOD-FM auxiliary antenna system will be mounted with its center of radiation 87.8 meters (288.0 feet) above the ground at the existing tower location and will operate with an effective radiated power of 8.1 kilowatts in the horizontal and vertical planes (circularly polarized). The WCOD-FM auxiliary antenna will be a two bay, full wavelength spaced Shively 6810 system (FCC/EPA Type #6). At 2.0 meters above the ground at the base of the tower, the height of an average person, the WCOD-FM auxiliary antenna system will contribute 0.0096 mw/cm².³ Based on exposure limitations for a controlled environment, 1.0%

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- 1) As the proposed auxiliary antenna will only be used when the main antenna system is out of service for repairs or maintenance, the contribution of the main antenna system to the radiofrequency is not considered.
 - 2) The FMModel Program was used for all calculations for the FM station contributions. The EPA single bay dipole antenna was used unless otherwise noted.
 - 3) This level of field occurs at 57.0 meters out from the base of the tower and is considered worst case.

of the allowable ANSI limit is reached at 2.0 meters above the ground at the base of the tower. For uncontrolled environments, 4.8% of the ANSI limit is reached at 2.0 meters above the ground at the base of the tower.

The authorized WRZE Class B1 antenna system will be mounted with its center of radiation 74.7 meters (245.0 feet) above the ground at the existing tower location and will operate with an effective radiated power of 25.0 kilowatts in the horizontal and vertical planes (circularly polarized). The WRZE B1 antenna will be a six bay, full wavelength spaced Shively 6813 system (FCC/EPA Type #6). At 2.0 meters above the ground at the base of the tower, the height of an average person, the WRZE B1 antenna system will contribute 0.0161 mw/cm^2 .⁴ Based on exposure limitations for a controlled environment, 1.6% of the allowable ANSI limit is reached at 2.0 meters above the ground at the base of the tower. For uncontrolled environments, 8.1% of the ANSI limit is reached at 2.0 meters above the ground at the base of the tower.

Combining the contributions of WCOD-FM auxiliary and WRZE, a total of 12.9% of the uncontrolled limit is reached at 2.0 meters above the ground at the base of the tower. Since this level for uncontrolled environments is well below the 100% limit defined by the Commission, the proposed WCOD-FM auxiliary antenna is believed to be in compliance with the radio frequency radiation exposure limits as required by the Federal Communications Commission.

4) This level of field occurs at 25.0 meters out from the base of the tower and is considered worst case.

Further, Qantum will insure that there are warning signs in the vicinity of the tower warning of potential radio frequency radiation hazards at the site. In addition, Qantum will reduce the power of the proposed 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.