MINOR CHANGE APPLICATION/
CHANGE COMMUNITY OF LICENSE
QANTUM OF CAPE COD LICENSE COMPANY, LLC
WRZE (FM) RADIO STATION
CH 242B1 - 96.3 MHZ - 25.0 KW
DENNIS, MASSACHUSETTS
January 2007

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. This study considers all nearby contributing stations, specifically the co-located WCOD-FM and W08CH[1], and utilizes the appropriate formulas contained in the OET Bulletin.[2]

The proposed WRZE antenna system is to be mounted with its center of radiation 74.7 meters (245.0 feet) above the ground at the tower location and will operate with an effective radiated power of 25.0 kilowatts in the horizontal and vertical planes (circularly polarized). The WRZE antenna will be a Shively Labs 6800 series antenna system (FCC/EPA Type #6)[3]. At 2.0 meters above the ground at the base of the tower, the height of an average person, the WRZE antenna system will contribute 0.0674 mw/cm^2.[4] Based on exposure limitations for a controlled

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1) LPTV station W08CH is presently silent, but its contribution will be considered for a worst case review.

2) The contributions of the FM facilities were calculated using the FMModel program. A single bay EPA dipole antenna was used for calculation purposes. In cases where the number of bays of the antenna was known, this data was used in the FMModel program.

3) A single bay was used for calculation purposes. Qantum will likely use a higher bay count, which will lower the contribution to the RF environment.

4) This level of field occurs at 75.0 meters out from the base of the tower and is considered worst case.

environment, 6.7% of the allowable limit is reached at 2.0 meters above the ground at the base of the tower. For uncontrolled environments, 33.7% of the ANSI limit is reached at two meters above ground at the base of the tower.

The authorized WCOD-FM antenna system is mounted with its center of radiation 101.0 meters (331.4 feet) above the ground at the tower location and operates with an effective radiated power of 50.0 kilowatts in the horizontal and vertical planes (circularly polarized). The WCOD-FM antenna is a Shively Labs 6800 series antenna 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 antenna system contributes 0.0726 mw/cm^2.[5] Based on exposure limitations for a controlled environment, 7.3% of the allowable limit is reached at 2.0 meters above the ground at the base of the tower. For uncontrolled environments, 36.3% of the ANSI limit is reached at 2.0 meters above ground at the base of the tower.

The authorized W08CH Channel 8 LPTV antenna system is mounted with its center of radiation 60.0 meters (196.7 feet) above the ground at the tower location and operates with an effective radiated power of 0.793 kilowatt in the horizontal plane. At 2.0 meters above the ground at the base of the tower, the height of an average person, the W08CH antenna system contributes 0.0047 mw/cm^2. Based on exposure limitations for a controlled environment, 0.5% of the allowable limit is reached at 2.0 meters above the ground at the base of the tower. For uncontrolled environments, 2.4% of the ANSI limit is reached at 2.0 meters above the ground at the base of the tower.

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5) This level of field occurs at 102.0 meters out from the base of the tower and is considered worst case.

Combining the contributions of the WRZE, WCOD-FM, and W08CH, a total of 72.4% of the uncontrolled environment is reached at 2.0 meters above the ground at the base of the tower. Since these levels for controlled and uncontrolled environments are below the 100% limit defined by the Commission, the proposed WRZE facility is believed to be in compliance with the radio frequency radiation exposure limits as required by the Federal Communications Commission. Further, Qantum has posted 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 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.