

MODIFY BNPFT-20030826ANC
PEG BROADCASTING, LLC
W245BJ FM TRANSLATOR STATION
CH 245D - 96.9 MHZ - 0.25 KW
CROSSVILLE, TENNESSEE
July 2010

EXHIBIT D

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 nearby stations, specifically the co-located WAEW and WCSV, and utilizes the appropriate formulas contained in the OET Bulletin.¹

The proposed W245BJ antenna system is to be mounted with its center of radiation 59.4 meters (195.0 feet) above the ground at the existing tower location and will operate with an effective radiated power of 0.250 kilowatt in the horizontal and vertical planes (circularly polarized). At 2.0 meters above the ground at the base of the tower, the height of an average person, the W245BJ antenna system will contribute 0.003 mw/cm².² Based on exposure limitations for a controlled environment, 0.3% of the allowable ANSI limit is reached at 2.0 meters above the ground at the base of the tower. For uncontrolled environments, 1.6% of the ANSI limit is reached at 2.0 meters above the ground at the base of the tower.

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- 1) The FMModel Program was used for all calculations for the FM station contributions. The EPA single bay dipole antenna was used unless otherwise noted.
 - 2) This level of field occurs at 16.0 meters out from the base of the tower and is considered worst case.

The WAEW AM radiator operates with a nominal power of 1.0 kilowatts at 1330 kHz (with an electrical height of 97.4°). A fence is installed a minimum of 3.0 meters out from the base of the tower. At this distance, WAEW delivers an electric field of 28.8 V/m and 0.244 A/m at the fence perimeter. As WAEW operates below 1340 kHz, the levels for both controlled and uncontrolled environments are the same. WAEW contributes 4.7% of the maximum electric field at this distance, and 14.9% of the magnetic field. Since the magnetic level field is highest, it will be considered worst case for WAEW.

The WCSV AM radiator operates with a nominal power of 1.0 kilowatts at 1490 kHz (with an electrical height of 109.1°). A fence is installed a minimum of 3.0 meters out from the base of the tower. At this distance, WCSV delivers an electric field of 39.6 V/m and 0.218 A/m at the fence perimeter. As WCSV operates above 1340 kHz, the levels for both controlled and uncontrolled environments are different. For controlled environments, WCSV contributes 6.5% of the maximum electric field and 13.3% of the magnetic field. For uncontrolled environments, WCSV contributes 7.2% of the maximum electric field and 14.8% of the magnetic field. Since the magnetic field in uncontrolled environments is highest, it will be considered worst case for WCSV.

Combining the contributions of W245BJ, WAEW and WCSV, a total of less than 31.3% is reached at 2.0 meters above the ground at the fence perimeter. Since this level for uncontrolled environments is below the limit as defined by the Commission, the proposed

W245BF facility is believed to be in compliance with the radio frequency radiation exposure limits, as required by the Federal Communications Commission. Further, Peg has posted warning signs in the vicinity of the tower warning of potential radio frequency radiation hazards at the site. Additionally, Peg 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.