

MINOR CHANGE APPLICATION
ROOT COMMUNICATIONS LICENSE COMPANY, LP
WEGX (FM) RADIO STATION
CH 225C - 92.9 MHZ - 100.0 KW
DILLON, SOUTH CAROLINA
February 2003

EXHIBIT B

Radio Frequency and Environmental Assessment

Since WEGX is to be located with two television stations, 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 stations and utilizes the appropriate formulas contained in the Bulletin.

Environmental Analysis

The proposed WEGX tower does not involve the use of high intensity white lighting (strobes) in a residential neighborhood. The structure is not located in an officially designated wilderness area or wildlife preserve, nor does it threaten the existence or habitat of endangered species. The facility does not affect districts, sites, buildings, structures or objects significant in American history, architecture, archaeology, engineering or culture that are listed in the National Register of Historic Places, or are eligible for listing, nor does it affect Indian religious sites. Further, the site is not located in a floodplain and did not, to the knowledge of the applicant, require significant change in surface features (wetland fill, deforestation or water diversion) at the time of construction.

Radio Frequency Radiation Study

This radio frequency radiation study is being conducted to determine whether this proposal is in compliance with OET Bulletin Number 65, dated August 1997, regarding human exposure to radio frequency radiation in the vicinity of broadcast towers. This study considers all nearby contributing stations, specifically the co-located WBTW and WBTW-DT², and utilizes the appropriate formulas contained in the OET Bulletin.³

The WEGX antenna system is mounted with its center of radiation 486.2 meters (1,595.0 feet) above the ground at the tower location and will operate with an effective radiated power of 100.0 kilowatts in the horizontal and vertical planes (circularly polarized). At two meters, the height of an average person, above the ground at the base of the proposed tower, the WEGX antenna system will contribute 0.01715 mw.⁴ Based on exposure limitations for a controlled environment, 1.7% of the allowable limit is reached at two meters above the ground at the base of the proposed tower. For uncontrolled environments, 8.6% of the limit is reached at two meters above the ground at the base of the tower.

The WBTW analog Channel 13 antenna system is mounted with its center of radiation 593.9 meters (1,948.6 feet) above the ground at the tower location and operates with an effective radiated power of 316.0 kilowatts in the horizontal and vertical planes (circularly polarized). At

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- 2) The licensed coordinates of the NTSC facilities of WBTW are at slight variance with the coordinates specified in this instant application. This difference is based on the correction of coordinates as a result of tower registration. The licensed WBTW facilities are located on the same physical tower as the proposed WEGX.
 - 3) The contribution of the FM facility was calculated using the FM Model program. A single bay EPA dipole antenna was used for calculation purposes.
 - 4) This level of field occurs at 129.6 meters out from the base of the tower and is considered worst case.

two meters, the height of an average person, above the ground at the base of the tower, the WBTW antenna system will contribute 0.0362 mw. Based on exposure limitations for a controlled environment, 3.6% of the allowable limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 18.1% of the limit is reached at two meters above the ground at the base of the tower.

The WBTW-DT digital Channel 56 antenna system will be mounted with its center of radiation 555.9 meters (1,823.9 feet) above the ground at the tower location and will operate with an effective radiated power of 1,000 kilowatts in the horizontal plane. At two meters, the height of an average person, above the ground at the base of the tower, the WBTW-DT antenna system will contribute 0.0675 mw. Based on exposure limitations for a controlled environment, 2.8% of the allowable limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 14.0% of the limit is reached at two meters above the ground at the base of the tower.⁵

Combining the contributions of WEGX, WBTW and WBTW-DT, a total of 40.7 % of the uncontrolled limit is reached at two 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 WEGX facility is believed to be in compliance with the radio frequency radiation

5) WBTW-DT is presently authorized to operate with Special Temporary Authority from the same tower as the authorized WBTW-DT facility, with a maximum effective radiated power of 19.54 kilowatts and an antenna center of radiation at 395.9 meters (1,299.0 feet) above ground. This STA facility contributes 0.0026 mw at the base of the tower. This represents 0.1% of the controlled and 0.5% of the uncontrolled limits. Since these contributions are considerably less than the authorized WBTW-DT permit, the permitted facilities were considered worst case for this instant analysis.

exposure limits as required by the Federal Communications Commission. Further, Root Communications License Company, LP (“Root”) will insure warning signs are posted in the vicinity of the tower warning of potential radio frequency radiation hazards at the site. In addition, Root 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. Based on the above factors, this proposal is categorically excluded from environmental processing pursuant to §1.1306 of the Commission's rules.