

DISPLACEMENT/MINOR CHANGE APPLICATION
CUMULUS LICENSING LLC
W241AE FM TRANSLATOR STATION
CH 270D - 101.9 MHZ - 0.250 KW
CONWAY, SOUTH CAROLINA
November 2009

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 all nearby contributing stations, specifically the co-located WPJS, and utilizes the appropriate formulas contained in the OET Bulletin.¹

The proposed/existing W241AE antenna system is mounted with its center of radiation 102.9 meters (338.0 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 W241AE antenna system will contribute 0.0010 mw/cm².² Based on exposure limitations for a controlled environment, 0.1% of the allowable ANSI limit is reached at 2.0 meters above the ground at the base of the tower. For uncontrolled environments, 0.5% 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 27.0 meters out from the base of the tower and is considered worst case.

The WPJS AM radiator on 1330 kHz operates with a nominal power of 3.2 kilowatts using a 170.4° radiator. A fence is installed around the tower with a minimum distance of 2.0 meters about from the base of the tower. As WPJS operates below 1340 kHz, the contributions for the controlled and uncontrolled environment are the same. Using the formulas in the Bulletin, at a power of 3.2 kilowatts, WPJS contributes an electric field of 286.5 V/m and 0.225 A/m. This represents 46.7% of the electric field maximum and 13.8% of the magnetic field maximum. Since the contribution in the electric field is the highest, it will be used as a worst case level.

Combining the contributions of the proposed W241AE and WPJS, a total of less than 47.2% of the uncontrolled limit is reached at 2.0 meters above ground at the fence perimeter. Since this level for uncontrolled environments is well below the 100% limit defined by the Commission, the proposed W241AE antenna is believed to be in compliance with the radio frequency radiation exposure limits as required by the Federal Communications Commission. Further, Cumulus 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, Cumulus 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.