

MINOR CHANGE APPLICATION
RODGERS BROADCASTING CORPORATION
WLPK AM RADIO STATION
1580 kHz - 0.0046/0.245 kW - NDU
CONNERSVILLE, INDIANA
October 2014

EXHIBIT #4

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 stations and utilizes the appropriate formulas contained in the OET Bulletin.

At the WLPK frequency of 1580 kHz, the WLPK tower has an electrical height of 114.977° (0.319 λ). The tower is fenced at a minimum distance of 1.0 meter (3.3 feet) from the radiating structure. Based on the guidelines of the OET bulletin, at the WLPK daytime licensed power of 0.25 kilowatt¹, calculations indicate that 80.1 V/m and 0.275 A/m will be present at the fence perimeter. Since the WLPK frequency is above 1340 kHz, the calculations for the controlled and uncontrolled environments are different. This electric field value represents 13.0% of the controlled electric field limit of 614 V/m and 15.4% of the uncontrolled electric field limit of 521.5 V/m. This magnetic field represents 16.9% of the controlled magnetic limit of 1.63 A/m and 19.8% of the uncontrolled magnetic field limit of 1.386 A/m. In this case, the magnetic field contribution to the uncontrolled limit of 19.8% is considered as the worst case contribution.

1) Considered a worst case condition

The co-located authorized FM translator W295BT's antenna system is mounted with its center of radiation 65.0 meters (213 feet) above the ground at the tower location and operates with an effective radiated power of 0.25 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 W295BT antenna system contributes 0.00253 mw/cm^2 .² Based on exposure limitations for a controlled environment of 1.0 mw/cm^2 , 0.25% of the allowable ANSI limit is reached at 2.0 meters above the ground at the base of the tower. For uncontrolled environments, 1.3% of the ANSI limit of 0.2 mw/cm^2 is reached at 2.0 meters above the ground at the base of the tower.

The co-located authorized FM translator W283AJ's antenna system is mounted with its center of radiation 20.0 meters (66 feet) above the ground at the tower location and operates with an effective radiated power of 0.08 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 W283AJ antenna system contributes 0.00993 mw/cm^2 .³ Based on exposure limitations for a controlled environment of 1.0 mw/cm^2 , 1.0% of the allowable ANSI limit is reached at 2.0 meters above the ground at the base of the tower. For uncontrolled environments, 5.0% of the ANSI limit of 0.2 mw/cm^2 is reached at 2.0 meters above the ground at the base of the tower.

Combining the contributions of WLPK, W295BT, and W283AJ, a total of 26.1% of the FCC limit is reached at the base of the tower. Since this contribution level is below the 100%

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- 2) This level of field occurs at 16.9 meters out from the base of the tower and is considered worst case.
 - 3) This level of field occurs at 4.9 meters out from the base of the tower and is considered worst case.

limit defined by the Commission, the corrected WLPK facility is believed to be in compliance with the radio frequency radiation exposure limits, as required by the Federal Communications Commission. Further, Rogers will verify that warning signs have been posted at the tower base warning of potential radio frequency radiation hazards at the site. In addition, Rogers will reduce the power of the proposed facilities or cease operation as necessary, in cooperation and coordination with other tower users to protect persons having access to the site, tower or antenna from radio frequency radiation in excess of FCC guidelines.