

**MINOR CHANGE APPLICATION**  
**CUMULUS LICENSING, LLC**  
**WXQW AM RADIO STATION**  
**660 kHz - .019/10.0 kW - NDU**  
**FAIRHOPE, ALABAMA**  
**December 2016**

**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 WXQW frequency of 660 kHz, the tower is  $66.2^\circ$  ( $0.184\lambda$ ) in electrical height. The tower is fenced at a minimum distance of 4.0 meters (13.1 feet) from the radiating structure. Based on the guidelines of the OET bulletin, at the WXQW power of 10.0 kilowatts, calculations indicate that 460.4 V/m and 1.12 A/m will be present at the fence perimeter. Since the frequency is below 1340 kHz, the electric and magnetic field limits are the same for controlled and uncontrolled environments. These calculated values represent 75% of the electric field limit of 614 V/m and 68.7% of the magnetic field limit of 1.63 A/m. In this case, the electric field contribution to uncontrolled environments of 75% is considered as the worst case contribution.

Since this contribution level is less than the ANSI limits, it is believed the proposed WXQW facility is in compliance with the radio frequency radiation exposure limits, as required

by the Federal Communications Commission. Cumulus will also insure that warning signs have been posted 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 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.