

MINOR CHANGE APPLICATION
CUMULUS LICENSING LLC
WXFX RADIO STATION
CH 236C2 - 95.1 MHZ - 5.4 KW
PRATTVILLE, ALABAMA
January 2006

EXHIBIT B

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 FM stations W220DG, WLWI-FM, WMXS, WHHY-FM and WLBF, and TV stations WMCF-TV, WMCF-DT and WFRZ-LP,¹ and utilizes the appropriate formulas contained in the OET Bulletin.²

The WXFX antenna system will be mounted with its center of radiation 342.0 meters (1,122 feet) above the ground at the tower location and will operate with an effective radiated power of 5.4 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 tower, the WXFX antenna system will contribute 0.0019 mw/cm².³ Based on exposure limitations for a controlled

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- 1) There are two towers located at the site. Some of the contributors are located on the tall tower, others are located on a shorter structure. All contributors are considered to be co-located for the purposes of this instant analysis.
 - 2) The contributions of the FM stations were calculated with the FMModel program. The EPA single bay dipole antenna was used for calculations unless otherwise noted.
 - 3) This level of contribution occurs at 91.0 meters out from the tower and is considered worst case.

environment, 0.2% of the allowable ANSI limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 1.0% of the ANSI limit is reached at two meters above the ground at the base of the tower.

The W220DG antenna system is mounted with its center of radiation 128.0 meters (400 feet) above the ground at the tower location and operates with an effective radiated power of 0.01 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 tower, the W220DG antenna system contributes 0.00002 mw/cm^2 .⁴ Based on exposure limitations for a controlled environment, <0.1% of the allowable ANSI limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, <0.1% of the ANSI limit is reached at two meters above the ground at the base of the tower.

The WLWI-FM antenna system is mounted with its center of radiation 342.0 meters (1,122 feet) above the ground at the tower location and operates 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 tower, the WLWI-FM antenna system contributes 0.0348 mw/cm^2 .⁵ Based on exposure limitations for a controlled environment, 3.5% of the allowable ANSI limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 17.4% of the ANSI limit is reached at two meters above the ground at the base of the tower.

4) This level of contribution occurs at 34.0 meters out from the tower and is considered worst case.

5) This level of contribution occurs at 91.0 meters out from the tower and is considered worst case.

The WMXS antenna system is mounted with its center of radiation 342.0 meters (1,122 feet) above the ground at the tower location and operates 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 tower, the WMXS antenna system contributes 0.0348 mw/cm^2 .⁶ Based on exposure limitations for a controlled environment, 3.5% of the allowable ANSI limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 17.4% of the ANSI limit is reached at two meters above the ground at the base of the tower.

The WHHY-FM antenna system is mounted with its center of radiation 342.0 meters (1,122 feet) above the ground at the tower location and operates 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 tower, the WHHY-FM antenna system contributes 0.0348 mw/cm^2 .⁷ Based on exposure limitations for a controlled environment, 3.5% of the allowable ANSI limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 17.4% of the ANSI limit is reached at two meters above the ground at the base of the tower.

The WLBF antenna system is mounted with its center of radiation 172.0 meters (564.3 feet) above the ground at the tower location and operates with an effective radiated power of 100.0 kilowatts in the horizontal and vertical planes (circularly polarized). The WLBF antenna

6) This level of contribution occurs at 91.0 meters out from the tower and is considered worst case.

7) This level of contribution occurs at 91.0 meters out from the tower and is considered worst case.

is a Shively Labs 6810-7, seven bays antenna system (FCC/EPA Type #6). At two meters, the height of an average person, above the ground at the base of the tower, the WLBF antenna system contributes 0.0105 mw/cm^2 .⁸ Based on exposure limitations for a controlled environment, 1.1% of the allowable ANSI limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 5.3% of the ANSI limit is reached at two meters above the ground at the base of the tower.

The WMCF-TV, Channel 45, antenna system is mounted with its center of radiation 316.0 meters (1,036.8 feet) above the ground at the tower location and operates with an effective radiated power of 617 kilowatts in the horizontal plane. As denoted in OET Bulletin #65, Supplement A, Page 31, the typical UHF antenna system has a downward radiation field of 0.1. As such, the WMCF-TV antenna system radio frequency radiation calculations were made based on an effective radiated power of 6.17 kilowatts. At two meters, the height of an average person, above the ground at the base of the tower, the WMCF-TV antenna system contributes 0.0013 mw/cm^2 . Based on exposure limitations for a controlled environment, 0.1% of the allowable ANSI limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 0.3% of the ANSI limit is reached at two meters above the ground at the base of the tower.

The WMCF-DT, Channel 46, antenna system is to be mounted with its center of radiation 182.8 meters (600 feet) above the ground at the tower location and operates with an effective

8) This level of contribution occurs at 54.0 meters out from the tower and is considered worst case.

radiated power of 500 kilowatts in the horizontal plane.⁹ As denoted in OET Bulletin #65, Supplement A, Page 31, the typical UHF antenna system has a downward radiation field of 0.1. As such, the WMCF-DT antenna system radio frequency radiation calculations were made based on an effective radiated power of 5.0 kilowatts. At two meters, the height of an average person, above the ground at the base of the tower, the WMCF-DT antenna system contributes 0.0032 mw/cm². Based on exposure limitations for a controlled environment, 0.1% of the allowable ANSI limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 0.7% of the ANSI limit is reached at two meters above the ground at the base of the tower.

The WFRZ-LP, Channel 34, antenna system is mounted with its center of radiation 152.0 meters (498.7 feet) above the ground at the tower location and operates with an effective radiated power of 29.9 kilowatts in the horizontal plane. As denoted in OET Bulletin #65, Supplement A, Page 31, the typical UHF antenna system has a downward radiation field of 0.1. As such, the WFRZ-LP antenna system radio frequency radiation calculations were made based on an effective radiated power of 0.299 kilowatt. At two meters, the height of an average person, above the ground at the base of the tower, the WRFZ-LP antenna system contributes 0.0003 mw/cm². Based on exposure limitations for a controlled environment, <0.1% of the allowable ANSI limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 0.1% of the ANSI limit is reached at two meters above the ground at the base of the tower

9) There is an outstanding permit for WMCF-DT, which specifies the same level of power, but higher on the tower. As such, the pending modification application has a greater contribution to the RF environment and, therefore, was used as a worst case contributor.

Combining the contributions of WXXF, W220DG, WLWI-FM, WMXS, WHHY-FM, WLBF, WMCF-TV, WMCF-DT and WFRZ-LP, a total of less than 58.7% 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 below the 100% limit defined by the Commission, the proposed WXXF facility is believed to be in compliance with the radio frequency radiation exposure limits as required by the Federal Communications Commission. Further, Cumulus will post 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.