

MODIFY BPED-19980511IA
CENTRAL FLORIDA EDUCATIONAL FOUNDATION, INC.
WPOZ RADIO STATION
CH 202C1 - 88.3 MHZ - 20.0 KW DA
UNION PARK, FLORIDA
August 2007

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 radio station WMFE-FM and TV stations WKMG-TV, WFTV, WMFE-TV and WMFE-DT, and utilizes the appropriate formulas contained in the OET Bulletin.¹

The proposed WPOZ antenna system will be mounted with its center of radiation 396.2 meters (1,300 feet) above the ground at the tower location and will operate with an effective radiated power of 20.0 kilowatts 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 WPOZ antenna system will contribute 0.0052 mw/cm².² Based on exposure limitations for a controlled environment, 0.5% of the allowable ANSI limit is reached at 2.0 meters above the ground at the base of the tower. For uncontrolled environments, 2.6% of the ANSI limit is reached at 2.0 meters above the ground at the base of the tower.

-
- 1) The contribution of the FM station was calculated with the FMModel program. The EPA dipole antenna was used for calculations unless otherwise noted.
 - 2) This level of contribution occurs at 106.0 meters out from the tower and is considered worst case.

The authorized WMFE-FM antenna system is mounted with its center of radiation 213.0 meters (699 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 2.0 meters above the ground at the base of the tower, the height of an average person, the WMFE-FM antenna system contributes 0.0903 mw/cm^2 .³ Based on exposure limitations for a controlled environment, 9.0% of the allowable ANSI limit is reached at 2.0 meters above the ground at the base of the tower. For uncontrolled environments, 45.2% of the ANSI limit is reached at 2.0 meters above the ground at the base of the tower.

The WKMG-TV, Channel 06-, antenna system is mounted with its center of radiation 438 meters (1,437 feet) above the ground at the tower location and operates with an effective radiated power of 100 kilowatts in the horizontal plane. As denoted in OET Bulletin #65, Supplement A, Page 29, the typical VHF antenna system has a downward radiation field of 0.2. As such, the WKMG-TV antenna system radio frequency radiation calculations were made based on an effective radiated power of 4.0 kilowatts. At 2.0 meters above the ground at the base of the tower, the height of an average person, the WKMG-TV antenna system contributes 0.0004 mw/cm^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, 0.2% of the ANSI limit is reached at 2.0 meters above the ground at the base of the tower.

3) This level of contribution occurs at 57.0 meters out from the tower and is considered worst case.

The WFTV, Channel 09Z, antenna system is mounted with its center of radiation 470 meters (1,542 feet) above the ground at the tower location and operates with an effective radiated power of 316 kilowatts in the horizontal plane. As denoted in OET Bulletin #65, Supplement A, Page 29, the typical VHF antenna system has a downward radiation field of 0.2. As such, the WFTV antenna system radio frequency radiation calculations were made based on an effective radiated power of 12.64 kilowatts. At 2.0 meters above the ground at the base of the tower, the height of an average person, the WFTV antenna system contributes 0.0012 mw/cm². 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, 0.6% of the ANSI limit is reached at 2.0 meters above the ground at the base of the tower.

The WMFE-TV, Channel 24-, antenna system is mounted with its center of radiation 372 meters (1,220 feet) above the ground at the tower location and operates with an effective radiated power of 1,350 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 WMFE-TV antenna system radio frequency radiation calculations were made based on an effective radiated power of 13.5 kilowatt. At 2.0 meters above the ground at the base of the tower, the height of an average person, the WMFE-TV antenna system contributes 0.0020 mw/cm². 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, 0.6% of the ANSI limit is reached at 2.0 meters above the ground at the base of the tower.

The WMFE-DT, Channel 23, antenna system is mounted with its center of radiation 372 meters (1,220 feet) above the ground at the tower location and operates with an effective radiated power of 950 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 WMFE-DT antenna system radio frequency radiation calculations were made based on an effective radiated power of 9.5 kilowatt. At 2.0 meters above the ground at the base of the tower, the height of an average person, the WMFE-DT antenna system contributes 0.0009 mw/cm². 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, 0.3% of the ANSI limit is reached at 2.0 meters above the ground at the base of the tower.

Combining the contributions of WPOZ, WMFE-FM, WKMG-TV, WFTV, WMFE-TV and WMFE-DT, the total contributions for the uncontrolled environment will be less than 49.5% of the limit. Since this level for uncontrolled environments is below the 100% limit defined by the Commission, the proposed WPOZ facility is believed to be in compliance with the radio frequency radiation exposure limits as required by the Federal Communications Commission. Further, CFEF will post warning signs in the vicinity of the tower warning of potential radio frequency radiation hazards at the site. In addition, CFEF 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.