

**MINOR CHANGE APPLICATION**  
**APEX BROADCASTING, INC.**  
**WHLZ (FM) RADIO STATION**  
**CH 223C - 92.5 MHZ - 100.0 KW (DA)**  
**MONCKS CORNER, SOUTH CAROLINA**  
**March 2002**

**EXHIBIT A**

**Radio Frequency and Environmental Assessment**

Since the proposed WHLZ antenna is to be mounted on an existing tower on which there are numerous FM and TV antennas, 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 Bulletin.

**Environmental Analysis**

The existing tower does not involve the use of high intensity white lighting (strobes) in a residential neighborhood. The structure is not located in an officially designated wilderness area or wildlife preserve, nor does it threaten the existence or habitat of endangered species. The facility does not affect districts, sites, buildings, structures or objects significant in American history, architecture, archaeology, engineering or culture that are listed in the National Register of Historic Places, or are eligible for listing, nor does it affect Indian religious sites. Further, the site is not located in a floodplain and did not, to the knowledge of the applicant, require significant change in surface features (wetland fill, deforestation or water diversion) at the time of construction.

## **Radio Frequency Radiation Study**

This radio frequency radiation study is being conducted to determine whether this proposal is in compliance with OET Bulletin Number 65, dated August 1997, regarding human exposure to radio frequency radiation in the vicinity of broadcast towers. This study considers all nearby contributing stations, specifically FM stations WSCI and WSUY and TV stations WCIV, WCIV-DT, WCSC, WCSC-DT, WITV, WITV-DT and WCDB-DT, and utilizes the appropriate formulas contained in the OET Bulletin.<sup>2</sup>

The WHLZ antenna system will be mounted with its center of radiation 538 meters (1,766 feet) above the ground at the proposed tower location and will operate 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 existing tower, the WHLZ antenna system will contribute 0.0139 mw.<sup>3</sup> Based on exposure limitations for a controlled environment, 1.4% of the allowable limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 7.0% of the limit is reached at two meters above the ground at the base of the tower.

The WSUY antenna system is mounted with its center of radiation 538 meters (1,766 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 existing tower, the WSUY

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2) The contributions of all the FM facilities were calculated using the FM Model program. A single bay EPA dipole antenna was used for calculation purposes, unless otherwise stated.

3) This level of field occurs at 144 meters out from the base of the tower and is considered worst case.

antenna system will contribute 0.0139 mw.<sup>4</sup> Based on exposure limitations for a controlled environment, 1.4% of the allowable limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 7.0% of the limit is reached at two meters above the ground at the base of the tower.

The WSCI antenna system is mounted with its center of radiation 414 meters (1,358 feet) above the ground at the proposed 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 existing tower, the WSCI antenna system will contribute 0.0237 mw.<sup>5</sup> Based on exposure limitations for a controlled environment, 2.4% of the allowable limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 11.9% of the limit is reached at two meters above the ground at the base of the tower.

The WCIV Channel 4 antenna system is mounted with its center of radiation 596 meters (1,956 feet) above the ground at the existing tower location and operates with an effective radiated power of 100.0 kilowatts in the horizontal plane. At two meters, the height of an average person, above the ground at the base of the tower, the WCIV antenna system will contribute 0.0057 mw. Based on exposure limitations for a controlled environment, 0.6% of the allowable ANSI limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 2.8% of the ANSI limit is reached at two meters above the ground at the base of the tower.

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4) This level of field occurs at 144 meters out from the base of the tower and is considered worst case.

5) This level of field occurs at 110.4 meters out from the base of the tower and is considered worst case.

The WCSC Channel 5 antenna system is mounted with its center of radiation 596 meters (1,956 feet) above the ground at the existing tower location and operates with an effective radiated power of 100 kilowatts in the horizontal plane. At two meters, the height of an average person, above the ground at the base of the tower, the WCSC antenna system will contribute 0.0057 mw. Based on exposure limitations for a controlled environment, 0.6% of the allowable ANSI limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 2.8% of the ANSI limit is reached at two meters above the ground at the base of the tower.

The WITV Channel 7 antenna system is mounted with its center of radiation 560 meters (1,838 feet) above the ground at the existing tower location and operates with an effective radiated power of 316 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 WITV antenna system will contribute 0.0407 mw. Based on exposure limitations for a controlled environment, 4.1% of the allowable ANSI limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 20.3% of the ANSI limit is reached at two meters above the ground at the base of the tower.

The proposed WCSC-DT Channel 47 antenna system will be mounted with its center of radiation 520 meters (1,706 feet) above the ground at the existing tower location and will operate with an effective radiated power of 1,000 kilowatts in the horizontal plane.<sup>6</sup> At two

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6) There is an outstanding permit for WCSC-DT on Channel 52, with the same proposed facilities as specified on Channel 47. Since the licensee of WCSC petitioned for a change in DTV channels from 52 to 47, only the Channel 47 facility is considered in this instant review.

meters, the height of an average person, above the ground at the base of the tower, the WCSC-DT TV antenna system will contribute 0.0772 mw. 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, 17.3% of the ANSI limit is reached at two meters above the ground at the base of the tower.

The proposed WITV-DT Channel 49 antenna system will be mounted with its center of radiation 520 meters (1,706 feet) above the ground at the existing tower location and will operate with an effective radiated power of 1,000 kilowatts in the horizontal plane. At two meters, the height of an average person, above the ground at the base of the tower, the WITV-DT TV antenna system will contribute 0.0772 mw. Based on exposure limitations for a controlled environment, 3.4% of the allowable ANSI limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 17.0% of the ANSI limit is reached at two meters above the ground at the base of the tower.

The proposed WCIV-DT Channel 53 antenna system will be mounted with its center of radiation 519 meters (1,703 feet) above the ground at the existing tower location and will operate with an effective radiated power of 8.0 kilowatts in the horizontal plane. At two meters, the height of an average person, above the ground at the base of the tower, the WCIV-DT TV antenna system will contribute 0.0006 mw. 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.

Combining the contributions of the WHLZ, WSUY, WSCI, WCSC, WCSC-DT, WCIV, WCIV-DT, WITV and WITV-DT, a total of 86.2% of the level is reached at two meters above the ground at the base of the tower for uncontrolled environments. Since this level is below the 100% limit defined by the Commission, the proposed WHLZ facility is believed to be in compliance with the radio frequency radiation exposure limits as required by the Federal Communications Commission. Further, Apex Broadcasting, Inc. ("Apex") will insure warning signs are posted in the vicinity of the tower warning of potential radio frequency radiation hazards at the site. In addition, Apex 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. Based on the above factors, this proposal is categorically excluded from environmental processing pursuant to §1.1306 of the Commission's rules.