

APPLICATION TO RE-LICENCE FORMER MAIN
AS AN AUXILIARY
J. L. BREWER BROADCASTING OF CLEVELAND, LLC
WALV (FM) RADIO STATION
CH 237A - 95.3 MHZ
CLEVELAND, TENNESSEE
December 2000

EXHIBIT # B

Radio Frequency and Environmental Assessment

Since the WALV auxiliary antenna is mounted on an AM tower, the radio frequency radiation worksheet could not be used to demonstrate compliance with the Commission's rules. Therefore, 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 WALV auxiliary antenna tower does not involve the use of high intensity white lighting (strokes) 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 the co-located AM station WBAC, and utilizes the appropriate formulas contained in the OET Bulletin.¹

The existing WALV three bay antenna system will be mounted with its center of radiation 94.0 meters (308.0 feet) above the ground at the tower location and will operate with an effective radiated power of 0.11 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 WALV antenna system will contribute 0.0005 mw.² Based on exposure limitations for a controlled environment, 0.05% of the allowable ANSI limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 0.25% of the ANSI limit is reached at two meters above the ground at the base of the tower.

Co-located with the WALV auxiliary antenna is AM station WBAC, 1340 kHz, Cleveland, Tennessee. WBAC operates with a nominal power of 1.0 kilowatt with a 156.9°

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- 1) The contributions of the FM facilities were determined using the FMModel program. The EPA single bay dipole antenna was used for calculation purposes.
 - 2) This level of field occurs at 26 meters out from the base of the tower and is considered worst case.

tower. A fence is installed a minimum distance of 2.0 meters out from the base of the tower. At this distance, the WBAC facilities delivers 139.3 V/m and 0.172 A/m. This represents 22.7% of the electronic field for controlled environments and 10.5% of the magnetic field. For uncontrolled environments, this represents 22.65% of the electronic field and 10.52% of the magnetic field. The electronic field (in the controlled environment) is the worst case value for WBAC.

Combining the contributions of WALV and WBAC, a total of 22.95% of the limit is reached at the fence perimeter. Since this level is below the 100% limit defined by the Commission, the WALV facility is believed to be in compliance with the radio frequency radiation exposure limits, as required by the Federal Communications Commission. Further, J. L. Brewer Broadcasting of Cleveland, LLC ("BBC") has posted warning signs in the vicinity of the tower warning of potential radio frequency radiation hazards at the site. In addition, BBC 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.