MINOR CHANGE APPLICATION
CONVERT FORMER MAIN TO AUXILIARY
ARSO RADIO CORPORATION
WPRM-FM RADIO STATION
CH 253B - 98.5 MHZ - 10.0 KW
SAN JUAN, PUERTO RICO
March 2005

EXHIBIT B

Radio Frequency Assessment

At the proposed WPRM-FM auxiliary tower, the antenna is mounted on relatively short tower, near two other FM stations also mounted on short towers. As such, the use of the worksheets to demonstrate compliance with the radio frequency radiation rules is not possible. Therefore, this 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, specifically WIDA-FM and WMEG,[5] and utilizes the appropriate formulas contained in the Bulletin.[6] The main WPRM-FM antenna, which is located on a tower approximately 55 feet from the proposed auxiliary antenna, will be considered a contributor (and co-located for the purposes of this review), although it is unlikely the WPRM-FM main and WPRM-FM auxiliary antenna would be energized at the same time.

The WPRM-FM auxiliary six bay antenna system will be mounted with its center of radiation 33.5 meters (109.9 feet) above the ground at the existing tower location and will

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5) These stations are located 40 meters from the WPRM-FM antenna system, but are considered co-located for this review. Stations at or beyond 60 meters were not considered.

6) The FM Model program was used to calculate the FM stations' contributions. The EPA single bay dipole was used unless otherwise stated.

operates with an effective radiated power of 10.0 kilowatts in the horizontal and vertical planes (circularly polarized). The WPRM-FM auxiliary antenna is a Shively Labs 6800 series antenna (FCC/EPA type #6). At two meters, the height of an average person, above the ground at the base of the tower, the WPRM-FM auxiliary antenna system will contribute 0.0343 mw.[7] 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 proposed tower. For uncontrolled environments, 17.2% of the ANSI limit is reached at two meters above the ground at the base of the tower.

The WPRM-FM main six bay antenna system is mounted with its center of radiation 58.1 meters (190.6 feet) above the ground at the existing tower location and operates with an effective radiated power of 25.0 kilowatts in the horizontal and vertical planes (circularly polarized). The WPRM-FM antenna is an Electronics Research, Inc. rototiller style system (FCC/EPA type #3). At two meters, the height of an average person, above the ground at the base of the tower, the WPRM-FM antenna system contributes 0.0362 mw.[8] Based on exposure limitations for a controlled environment, 3.6% of the allowable ANSI limit is reached at two meters above the ground at the base of the proposed tower. For uncontrolled environments, 18.1% of the ANSI limit is reached at two meters above the ground at the base of the tower.

The WIDA-FM three bay antenna system is mounted with its center of radiation 57.0 meters (187.0 feet) above the ground at the existing tower location and operates with an effective

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7) This level of field occurs at 11 meters out from the base of the tower and is considered worst case.

8) This level of field occurs at 18 meters out from the base of the tower and is considered worst case.

radiated power of 25.0 kilowatts in the horizontal and vertical planes (circularly polarized). The WIDA-FM antenna is a Jampro JSCP, Double V style (FCC/EPA type #2). At two meters, the height of an average person, above the ground at the base of the tower, the WIDA-FM antenna system contributes 0.0857 mw.[9] Based on exposure limitations for a controlled environment, 8.6% of the allowable ANSI limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 42.9% of the ANSI limit is reached at two meters above the ground at the base of the tower.

The WMEG six bay antenna system is mounted with its center of radiation 58.0 meters (190.3 feet) above the ground at the existing tower location and operates with an effective radiated power of 25.0 kilowatts in the horizontal and vertical planes (circularly polarized). The WMEG antenna is a Jampro JSCP, Double V style (FCC/EPA type #2). At two meters, the height of an average person, above the ground at the base of the tower, the WMEG antenna system contributes 0.0401 mw.[10] Based on exposure limitations for a controlled environment, 4.0% of the allowable ANSI limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 20.1% of the ANSI limit is reached at two meters above the ground at the base of the tower.

Combining the contributions of WPRM-FM auxiliary, WPRM-FM main, WIDA-FM, and WMEG, a total of 98.3% of the uncontrolled environment limit is reached at two meters above ground at the base of the tower. Since this level for uncontrolled environments is well below the

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9) This level of field occurs at 25 meters out from the base of the tower and is considered worst case.

10) This level of field occurs at 20 meters out from the base of the tower and is considered worst case.

100% limit defined by the Commission, the proposed WPRM-FM auxiliary facility is believed to be in compliance with the radio frequency radiation exposure limits as is required by the Federal Communications Commission. Further, Arso has posted warning signs in the vicinity of the tower warning of potential radio frequency radiation hazards at the site. In addition, Arso 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.