

**MINOR CHANGE APPLICATION**  
**POSITIVE ALTERNATIVE RADIO, INC.**  
**W231BC FM TRANSLATOR STATION**  
**CH 232D - 94.3 MHZ - 0.0115 KW**  
**CHRISTIANSBURG, VIRGINIA**  
**September 2011**

**EXHIBIT C**

**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 facilities and utilizes the appropriate formulas contained in the OET Bulletin.<sup>1</sup> It is noted that the tower on which the W231BC antenna is to be installed is located with several other towers along a ridge. Therefore, this area is considered a de facto tower farm.

The proposed W231BC antenna system will be mounted with its center of radiation 33.8 meters (111.0 feet) above the ground at the tower location and will operate with an effective radiated power of 0.0115 kilowatt (11.5 watts) in the vertical and horizontal planes (circularly polarized). At 2.0 meters above the ground at the base of the tower, the height of an average person, the proposed W231BC antenna system will contribute 0.0005 mw/cm<sup>2</sup>.<sup>2</sup> Based on exposure limitations for a controlled environment, <0.1% of the allowable ANSI limit is reached

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- 1) 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.
  - 2) This level occurs at 9.0 meters out from the base of the tower and is considered worst case.

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.

Since this level for controlled and uncontrolled environments is less than the 5% limit defined by the Commission {§1.1307(b)(3)(i)}, the proposed W231BC facility is believed to be in compliance with the radio frequency radiation exposure limits, as required by the Federal Communications Commission. Further, PAR will post warning signs in the vicinity of the tower warning of potential radio frequency radiation hazards at the site. In addition, PAR 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.