

TECHNICAL STATEMENT  
RADIOFREQUENCY ELECTROMAGNETIC  
FIELD EXPOSURE SURVEY  
WVBA, BRATTLEBORO, VERMONT

This statement will report the results of a radio frequency electromagnetic field exposure survey in the immediate vicinity of the WVBA transmitter site, located at 884 South Street, Brattleboro, Vermont. WVBA operates on FM Channel 205, (88.9 MHz) with an equivalent maximum effective radiated power of 8.9 kilowatts, as authorized by construction permit (BMPED-20110922ACG), for permittee, Vermont Public Radio. Special operating condition 7 of the construction permit calls for the measurement of radio frequency (RF) electro-magnetic fields within and around the transmitter site to determine if there are any areas that exceed the FCC guidelines for human exposure.

The WVBA facility employs a 2-bay, one half wavelength spaced circularly polarized directional antenna manufactured by Shively Laboratories, type 6810-2R-DA with a radiation center of (35 meters) above ground level. WVBA is co-located with, and shares its antenna tower facility with several cellular telephone companies, including Verizon Wireless, ATT, and Sprint and other communications.

The undersigned completed a ground level radio frequency electromagnetic survey around the WVBA transmitter site on October 2, 2012 to determine if any area(s) under or near the antenna tower exceeded the Commission's uncontrolled environmental standard (OET Bulletin No. 65, Edition 97-01) that are caused by the operation of WBVA in conjunction with other existing radio frequency emitters. The survey employed a Narda RFR test set.<sup>1</sup> Proper operation of the WVBA facilities was verified prior to the measurement survey.

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<sup>1</sup> The Narda 7818B test set, serial number 1533, was last calibrated on December 15, 2011. The associated Narda B8742D Isotropic Shaped Electric Field Probe, serial number 08001, was last calibrated on June 30, 2011. The instrumentation indicated the measured exposure value as a percent of the standard. The measurements were obtained by averaging the electric fields existing in a vertical line from ground level to a point 6 feet above ground level.

The analog transmitter power output was calculated and set to 5.86 kilowatts with IBOC carriers present at -20dbc. All co-located facilities were considered together in the measurement process, with all co-located facilities fully operational. The Narda survey meter was calibrated and set to display total radio frequency electromagnetic fields as a percentage of the maximum permissible exposure (MPE) to general population (uncontrolled) environments.

The results of the survey, indicate that the WBVA facility, in combination with the other emitters, does not cause any areas within an approximate 600-foot radius around the antenna tower to exceed (8) percent of the uncontrolled environment standard. This includes all areas within the boundaries of the property to which public access is restricted by an electronically controlled security gate at the drive way entrance. Beyond the 600 foot radius, the total contribution to the uncontrolled exposure limit, including the contribution from all other nearby emitters was measured to be less than (1.0) percent of the maximum limit and therefore not considered.<sup>2</sup>

I hereby affirm that the forgoing information is true and correct and based upon my personal knowledge and experience in obtaining these measurements.

Very Truly Yours,



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David W. Groth  
Broadcast Technical Consultant

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<sup>2</sup> Section 1.1307(b)(3) of the Commission's Rules of the Rules states:  
"In general, when the guidelines specified in §1.1310 are exceeded in an accessible area due to the emissions from multiple fixed transmitters, actions necessary to bring the area into compliance are the shared responsibility of all licensees whose transmitters produce, at the area in question, power density levels that exceed 5% of the power density exposure limit applicable to their particular transmitter..."