W216BE

The Board of Trustees of The University of North Carolina at Chapel Hill

Buxton, North Carolina

Radiofrequency Electromagnetic Exposure Exhibit

February 2009

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The Board of Trustees of The University of North Carolina at Chapel Hill
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Declaration

I declare, under penalty of perjury, that I am a technical consultant to broadcasting and other communications systems, that I have over twenty-five years of experience in the engineering of broadcast and other communications systems, that I am familiar with the Federal Communications Commission's Rules found in the Code of Federal Regulations Title 47, that I am a Professional Engineer registered in North Carolina, that I have prepared or supervised the preparation of the attached Radiofrequency Electromagnetic Exposure Exhibit for The Board of Trustees of The University of North Carolina at Chapel Hill, and that all of the facts therein, except for facts of which the Federal Communications Commission may take official notice, are true to the best of my knowledge and belief.

As required for all broadcast facilities by §1.1307(b), the subject facility complies with the maximum exposure limits in 47 C.F.R. §1.1310 TABLE 1.—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE) both part (A) Limits for Occupational/Controlled Exposures and part (B) Limits for General Population/Uncontrolled Exposure. The evaluation was conducted using the procedures in OET Bulletin 65, Edition 97-01, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields, and the computer program FM Model developed by the Environmental Protection Administration.

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25 February 2009

Narrative

The purpose of this Exhibit is to establish compliance with the Commission's limits on nonionizing radiofrequency electromagnetic exposure. The facility requires calculations which are beyond the scope of the worksheets for FCC Form 349.

W216BE Calculations

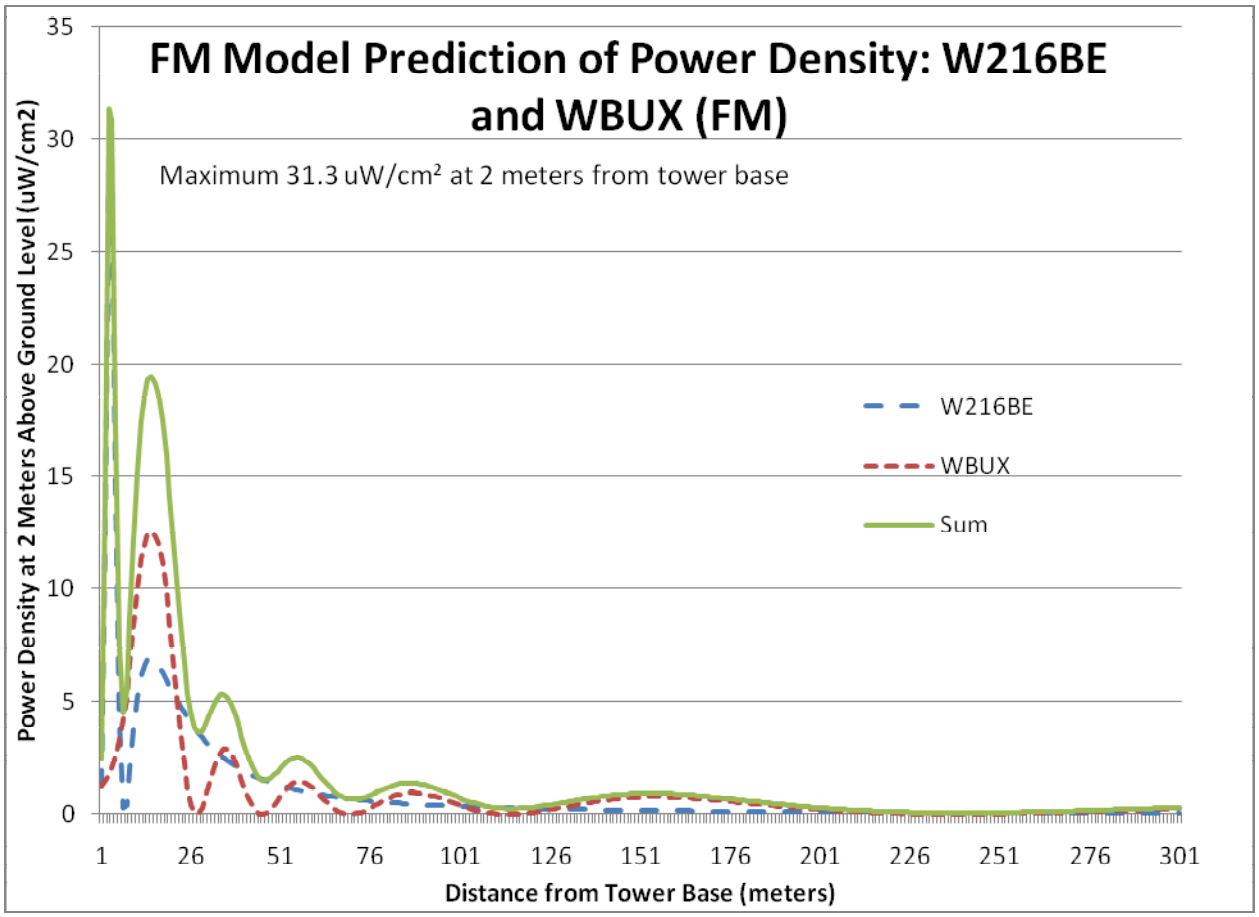
The W216BE facilities, when evaluated under worst case methods in OET-65[1], would be .103 mW/cm^2 at two meters above ground level, or 51% of the limit for uncontrolled/public exposure. When the vertical elevation pattern of the antenna, a Shively 6812-2 two bay full wave spaced antenna, is considered, the power density at ground level will be significantly reduced. The exposure was also calculated using the computer program FM Model[2] which calculates the maximum field at two meters above ground to be 0.0296 mW/cm^2 at 2 meters from the tower base, or 15% of the maximum public exposure. The power density calculated by FM Model for all of the FM stations at the site is plotted in this Exhibit.

The site also includes WBUX (FM), Buxton, North Carolina. The WBUX power density is also shown on the plot in this exhibit. The combined power density reaches a maximum of .0313 mW/cm^2 at two meters from the tower base, or 16% of the allowable uncontrolled/public exposure.

[1] Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields, OET Bulletin 65, Edition 97-01, Robert F. Cleveland, Jr., David M. Sylvar, and Jerry L. Ulcek, and Supplement A, Additional Information for Radio and Television Broadcast Stations.

[2] FM Model for Windows, version 2.10 Beta, March 22, 1995, Office of Engineering and Technology, Spectrum Engineering, Telecommunications Analysis Branch, Michael R. Davis

Figure 1: FM Model Output Plot



The proposed facility was evaluated using the computer program FM Model. The distance was set to 300 meters. Power density was calculated at one (1) meter increments along the horizontal axis. Elevation was adjusted to compute power density at two (2) meters above ground level, or normal head height.