



STATEMENT OF JOHN E. HIDLE, P.E.  
IN SUPPORT OF AN  
APPLICATION TO MODIFY A  
CONSTRUCTION PERMIT  
BPCDT-19991101AIQ  
WTVZ-DT - NORFOLK, VIRGINIA  
DTV - CH. 38 - 1000 kW - 360.5 M HAAT

Prepared for: WTVZ Licensee, LLC

I am a Consulting Engineer, an employee in the firm of Carl T. Jones Corporation, with offices located in Springfield, Virginia. My education and experience are a matter of record with the Federal Communications Commission. I am a registered Professional Engineer in the Commonwealth of Virginia, Registration No. 7418, and in the State of New York, Registration No. 63418.

**GENERAL**

This office has been authorized by WTVZ Licensee, LLC, licensee of WTVZ-TV Channel 33, Norfolk, Virginia, and permittee for the paired Digital Television Allotment for WTVZ-DT, Channel 38, to prepare this statement, FCC Form 301, Sections III and III-D, and associated exhibits in support of an Application to Modify the outstanding Construction Permit for WTVZ-DT, BPCDT-19991101AIQ. This construction permit authorizes the construction of WTVZ-DT on an existing support structure at 36° 48' 31" N. latitude, 76° 30' 13" W. longitude owned by Hampton Roads Educational Telecommunications Assoc. The structure is registered in the FCC tower registration database, tower structure registration number 1057874. This application seeks to amend the outstanding construction permit.



### **PROPOSED MODIFICATION**

The instant proposed modification seeks to adjust the authorized Height Above Average Terrain from 379 meters to 360.5 meters. The proposed modification will provide conformity with other broadcasters whose transmission facilities are to be located on the tower. Since the proposed modification includes a change in HAAT, a complete Longley-Rice interference analysis was performed using tv\_process, the FCC processing analysis program available at [www.fcc.gov](http://www.fcc.gov). The analysis results confirm that the proposed modification of construction permit complies with the requirement of Section 73.623(c)(2) of the Commission's Rules.

The permittee herein provides FCC Form 301, Sections III and III-D, and exhibits showing WTVZ-DT's antenna position in relation to the overall structural arrangement. No other changes are herein proposed.

### **BLANKETING AND INTERMODULATION INTERFERENCE**

A number of broadcast and non-broadcast facilities are located within 10 km of the proposed WTVZ-DT transmitter/antenna site. The applicant recognizes its responsibility to remedy complaints of interference created by this proposal in accordance with applicable Rules.



## **ENVIRONMENTAL CONSIDERATIONS**

### **GENERAL**

The proposal described herein meets the criteria specified in Section 1.1306 of the FCC Rules and Regulations as an action, which is categorically excluded from environmental processing. The proposed TV facility involves neither a site location specified under Section 1.1307(a)(1)-(7) of the Rules nor high intensity lighting as specified in Section 1.1307(a)(8).

### **RADIO FREQUENCY IMPACT**

Effective October 15, 1997, the FCC adopted new guidelines and procedures for evaluating environmental effects of radio frequency (RF) emissions. The new guidelines are generally based on recommendations by the National Council on Radiation Protection and Measurements (NCRP) in NCRP Report No. 86 (1986), and by the American National Standards Institute and the Institute of Electrical and Electronic Engineers, Inc. (IEEE) in ANSI/IEEE C95.1-1992 (IEEE C95.1-1991). The newly adopted guidelines provide a maximum permissible exposure (MPE) level for occupational or "controlled" situations as well as "uncontrolled" situations that apply in cases that affect the general public. The FCC's Office of Engineering and Technology (OET) Commission has issued a revised technical bulletin (OET Bulletin No. 65) entitled, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields" (Edition 97-01, August 1997), to aid in the determination of whether FCC-regulated transmitting



facilities, operations or devices comply with limits for human exposure to radio frequency electromagnetic fields as adopted by the Commission in 1996. The revised Bulletin contains updated and additional technical information for evaluating compliance with the new FCC policies and guidelines.

The newly adopted FCC MPE level for “uncontrolled” environments is derived from the formula,  $(\text{frequency}/1500)$ , for UHF TV stations. The MPE level for UHF stations in a “controlled” environment is derived from the formula,  $(\text{frequency}/300)$ . We must consider the contributions of our own stations, WTVZ-TV channel 33, and WTVZ-DT channel 38; as well as three FM radio stations, two NTSC television stations, four proposed DTV stations and one low-power television station also located at this site. All of these facilities are individually listed in Appendix A, which contains the results of the radiofrequency radiation study. There are no other licenses, construction permits, or applications on file for other broadcast or non-broadcast facilities at the proposed site at this time.

For WTVZ-DT, which operates on television Channel 38 (617 MHz), the MPE is 0.411 milliwatts per centimeter squared ( $\text{mW}/\text{cm}^2$ ) in an “uncontrolled” environment and  $2.055 \text{ mW}/\text{cm}^2$  in a “controlled” environment. The proposed WTVZ-DT facility will operate with a maximum ERP of 1000 kW from a horizontally polarized directional transmitting antenna with a centerline height of 356.5 meters above ground level (AGL). Considering a very conservative vertical plane relative field factor of 0.3, the WTVZ-DT facility produces a predicted power density at two meters above ground level of  $.02392 \text{ mW}/\text{cm}^2$ , which is



5.82% of the new FCC guideline value for "uncontrolled" environments, and 1.16% of the new FCC guideline value for "controlled" environments (see Appendix A).

For WTVZ-TV, which will operate on television Channel 33 (587 MHz), the MPE is 0.391 milliwatts per centimeter squared ( $\text{mW}/\text{cm}^2$ ) in an "uncontrolled" environment and  $1.955 \text{ mW}/\text{cm}^2$  in a "controlled" environment. The proposed WTVZ-TV facility will operate with a maximum ERP of 5000 kW from a horizontally polarized omnidirectional transmitting antenna with a centerline height of 371.6 meters above ground level (AGL). Considering a very conservative vertical plane relative field factor of 0.3, the WTVZ-TV facility produces a predicted power density at two meters above ground level of  $.05503 \text{ mW}/\text{cm}^2$ , which is 14.06% of the new FCC guideline value for "uncontrolled" environments, and 2.81% of the new FCC guideline value for "controlled" environments (see Appendix A).

The total percentage of the ANSI value at the proposed site, considering the cumulative radiation of all stations at the site, is 96.98% of the limit for "uncontrolled" environments, and 19.40% of the limit for "controlled" environments.

### **OCCUPATIONAL SAFETY**

The licensee of WTVZ-DT is committed to the protection of station personnel and/or tower contractors working in the vicinity of the WTVZ-DT antenna. The applicant is committed to reducing power and/or ceasing operation during times of service or maintenance of the transmission systems, when necessary, to ensure protection to



personnel. As an additional safety measure, the base of the tower will be fenced to preclude casual access.

In light of the above, the proposed WTVZ-DT facility should be categorically excluded from RF environmental processing under Section 1.1307(b) of the Commission's Rules.

### **SUMMARY**

It is submitted that the proposal described herein to modify WTVZ-DT's outstanding Construction Permit, BPCDT-19991101AIQ, complies with the Rules and Regulations of the Federal Communications Commission, and may be granted. This statement, FCC Form 301 and its associated exhibits and appendix were prepared by me or under my direct supervision and are believed to be true and correct to the best of my knowledge and belief.

DATED: July 13, 2001

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John E. Hidle, P.E.