



**SUPPLEMENTAL STATEMENT OF JOHN E. HIDLE, P.E.  
IN SUPPORT OF AN  
AMENDMENT TO AN APPLICATION FOR MODIFICATION OF  
A DTV CONSTRUCTION PERMIT  
BMPCDT-20080620AJZ  
WTVZ-DT - NORFOLK, VIRGINIA  
DTV - CH. 33 - 960kW - 375.6 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 Professional Engineer in the Commonwealth of Virginia, License No. 7418, and in the State of New York, License No. 63418.

**GENERAL**

This office has been authorized by WTVZ Licensee, LLC, licensee of WTVZ-TV, channel 33, Norfolk, Virginia, and permittee of WTVZ-DT, on post-transition channel 33, to prepare this statement, FCC Form 301, Section III-D, and the associated exhibits in support of an amendment to its application, BMPCDT-20080620AJZ, for modification of its post-transition construction permit BPCDT-20080317AGK. The instant amendment proposes only to reduce the Effective Radiated Power from 1000 kW to 960 kW in order to comply with Section 73.622(f)(8)(i) in regard to the maximum permitted DTV facilities for UHF DTV stations. Consequentially Exhibit 4 and Appendix A have been revised and are attached to this statement. No other change is herein proposed.

### **PREDICTED COVERAGE CONTOURS**

The predicted coverage contours were re-calculated in accordance with the method described in Section 73.684 of the Rules, utilizing the appropriate F(50,90) propagation curves (47 CFR Section 73.699, Figure 9), power, and antenna height above average terrain as determined for each profile radial. The average terrain on the eight cardinal radials from 3 kilometers to 16 kilometers from the site, was determined using the National Geophysical Data Center Thirty Second Point Database (TPG-0050) as prescribed in the FCC Rules. The antenna site elevation and coordinates were determined from FCC antenna registration data. The revised Exhibit 4 contains the predicted DTV Noise Limited (41 dBu) contour and the predicted principal community (48 dBu) contour. The 48 dBu contour entirely encompasses the principal community of license, Norfolk, Virginia.

### **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.

### **RADIO FREQUENCY IMPACT**

Effective October 15, 1997 the FCC adopted new guidelines and procedures for evaluating environmental effects of radio frequency (RF) emissions. The 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, LLC (IEEE) in ANSI/IEEE C95.1-1992 (IEEE C95.1-1991). The guidelines establish a maximum permissible exposure (MPE) level for occupational or "controlled" situations that apply in cases that affect the general public. The FCC Office of Engineering and Technology's technical bulletin No. 65 entitled, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields" (DA 04-319, February 6, 2004), provides assistance in the determination of whether FCC-regulated transmitting facilities, operations or devices comply with guideline limits for human exposure to radio frequency electromagnetic fields as adopted by the Commission in 1996. Bulletin No. 65 provides the technical data required to evaluate compliance with the FCC's policies and guidelines.

The FCC's Maximum Permitted Exposure (MPE) level for "uncontrolled" environments is 0.2 milliwatts per centimeter squared ( $\text{mW}/\text{cm}^2$ ) when applied to broadcast facilities operating between 30 MHz and 300 MHz, and for broadcast facilities operating between 300 MHz and 1500 MHz, primarily UHF TV stations, is derived from the formula,  $(\text{frequency}/1500)$ . The MPE level for "controlled" environments is 1.0 milliwatts per centimeter squared ( $\text{mW}/\text{cm}^2$ ) for operations between 30 MHz and 300 MHz, and for broadcast stations operating between 300 MHz and 1500 MHz is derived from the formula,  $(\text{frequency}/300)$ . The predicted emissions of WTVZ-DT must be considered, along with the predicted emissions from other proposed stations at the site, and within 315 meters of the site. For WTVZ-DT, which will operate on DTV Channel 33 (584-590 MHz), the MPE

is 0.391 milliwatts per centimeter squared ( $\text{mW}/\text{cm}^2$ ) in an "uncontrolled" environment and  $1.985 \text{ mW}/\text{cm}^2$  in a "controlled" environment. The proposed WTVZ-DT facility will operate with a maximum ERP of 960 kW using a horizontally polarized transmitting antenna at 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-DT facility is predicted to produce a power density at two meters above ground level of  $0.02208 \text{ mW}/\text{cm}^2$ , which is 5.40% of the FCC guideline value for "uncontrolled" environments, and 1.08% of the FCC guideline value for "controlled" environments (see revised Appendix A). The total percentage of the ANSI value including all stations at the proposed site is 29.47% of the limit for "uncontrolled" environments, and 5.89% of the limit for "controlled" environments.

### **OCCUPATIONAL SAFETY**

The permittee for WTVZ-DT is committed to the protection of station personnel and/or tower contractors working in the vicinity of the proposed 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.

### **SUMMARY**

It is submitted that the instant amendment to its application for modification of construction permit for WTVZ-DT seeking to reduce its effective radiated power 960 kW, as described herein complies with the Rules, Regulations and Policies of the Federal

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WTVZ-DT - NORFOLK, VIRGINIA  
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Communications Commission. This supplemental statement, FCC Form 301, Section III-D, and the attached revised exhibits 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.

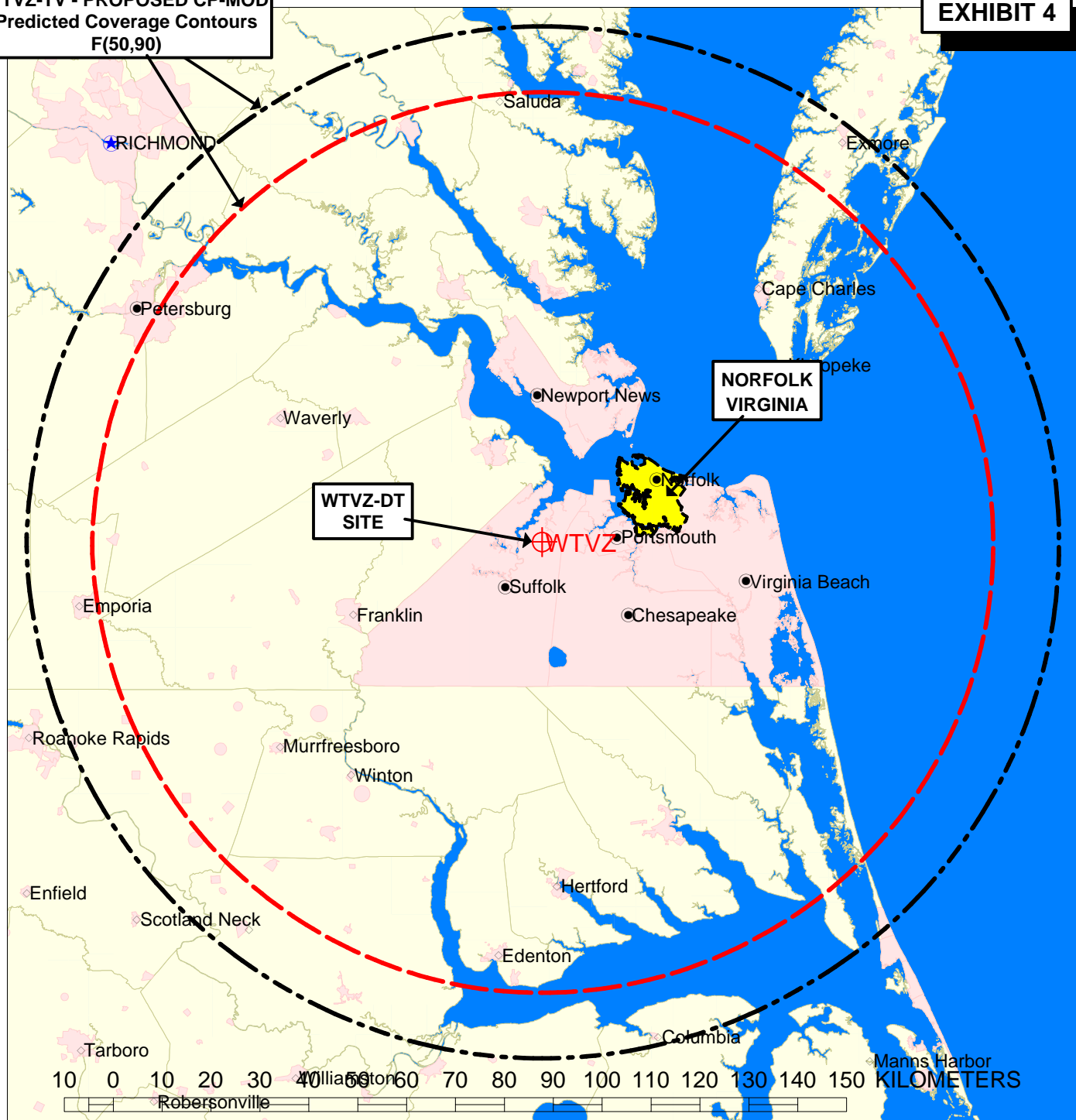
DATED: December 23, 2008

  
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John E. Hidle, P.E.



**WTVZ-TV - PROPOSED CP-MOD**  
**Predicted Coverage Contours**  
**F(50,90)**

**EXHIBIT 4**



## PREDICTED COVERAGE CONTOURS

WTVZ-DT, NORFOLK, VIRGINIA

PROPOSED CP MODIFICATION

CH. 33, 960 kW - 375.6 m HAAT

**Predicted Principal Community Contour**

F(50,90) - 48 dBu

25,625 sq km - 1,826,329 persons

**Predicted Noise Limited Contour**

F(50,90) - 41 dBu

33,645 sq km - 2,007,407 persons

DECEMBER, 2008

**CARL T. JONES**  
**CORPORATION**

**SUMMARY OF RADIOFREQUENCY  
RADIATION STUDY**  
WTVZ-DT, NORFOLK, VIRGINIA  
CHANNEL 33, 960 kW ERP, 375.6 m HAAT  
DECEMBER, 2008

<u>CALL</u>	<u>SERVICE</u>	<u>CHANNEL</u>	<u>FREQUENCY</u>	<u>POLARIZATION</u>	<u>ANTENNA HEIGHT ** mAGL</u>	<u>ERP (kW)</u>	<u>VERT. RELATIVE FIELD FACTOR</u>	<u>PREDICTED POWER DENSITY (mW/cm<sup>2</sup>)</u>	<u>FCC UNCONTROLLED LIMIT (mW/cm<sup>2</sup>)</u>	<u>PERCENT OF UNCONTROLLED LIMIT</u>
WTVZ-DT	DT	33	587	H	369.6	960.000	0.300	0.02112	0.391	5.40%
WHRO-DT	DT	16	485	H	354	950.000	0.300	0.02279	0.323	7.05%
WTKR-DT	DT	40	629	H	371	950.000	0.300	0.02075	0.419	4.95%
WPXV-DT	DT	46	665	H	354	1000.000	0.300	0.02399	0.443	5.41%
WHRV(FM)	FM	208	89.5	H & V	344	8.800	1.000	0.00497	0.200	2.48%
WHRO(FM)	FM	212	90.3	H & V	344	8.800	1.000	0.00497	0.200	2.48%
WJCD(FM)	FM	299	107.7	H & V	183	1.700	1.000	0.00339	0.200	1.70%

**TOTAL PERCENTAGE OF ANSI VALUE= 29.47%**

*\*\* The antenna heights indicated above are 2 meters less than the actual antenna heights*

*so that the predicted power densities consider the 2 meter human height allowance.*

*This evaluation includes facilities collocated at the site, and facilities located within 315 meters.*

**CARL T. JONES**  
**CORPORATION**