



**ENGINEERING STATEMENT**  
OF  
**JOHN F.X. BROWNE, P.E.**  
IN SUPPORT OF AN APPLICATION FOR  
**MINOR MODIFICATION OF A POST-TRANSITION CONSTRUCTION PERMIT**  
**WNIN-DT**  
**EVANSVILLE, IN**

**Background**

WNIN Tri-State Public Media, Inc. (Tri-State) is the licensee of WNIN-DT which has been authorized to operate its post-transition DTV facility on Channel 9 (BPEDT-20080424AAG) at Evansville, IN, with an ERP of 3 kW at an HAAT of 304m. The tower is located at the following coordinates:

(NAD27)  
37° 59' 01" N  
87° 16' 13" W

Tri-State now wishes to "maximize" the post-transition WNIN-DT facility ERP to 19 kW.



### **Antenna System and Tower**

WNIN-DT proposes to reuse its existing analog antenna, a Dielectric TW-15B9-R (which is also specified to be used for its recently authorized post-transition operation). The antenna is installed on a tower (ASR#1231157) that has an overall height of 441.6m AMSL (with appurtenances). The antenna has a center-of-radiation of 427.6m AMSL (with a calculated HAAT of 304m). No modifications to the tower or antenna system are necessary to effect the proposed change in ERP.

### **Coverage**

The entire principal community of Evansville, IN is well within the predicted F(50,90) 43 dBu contour based on the proposed 19 kW ERP.

### **Interference**

Studies were conducted with the proposed parameters using software that emulates the software used by the FCC (OET-69 analysis). The results of the study indicate that there are no post-transition domestic stations that would receive more than the 0.5% new interference based on the Commission's Eighth Report and Order (8<sup>th</sup> R&O) Appendix B parameters.

Tri-State wishes to note, for the record, that the Commission's action in response to Tri-State's Petition for Reconsideration of the Seventh Report and Order (7<sup>th</sup> R&O) Appendix B parameters for WNIN-DT had the effect of reducing the coverage of its digital facility and, collaterally, reducing the baseline interference caused to co-channel stations WILL-DT and WISH-DT, instead of increasing the coverage as requested in the petition. This unintended consequence reduced WNIN-DT's maximization potential vis-à-vis that which would have been possible under the 7<sup>th</sup> R&O parameters. Under the 7<sup>th</sup> R&O parameters, WNIN-DT could have



maximized to an ERP of 37 kW without causing impermissible interference to either WILL-DT or WISH-DT; under the 8<sup>th</sup> R&O modifications to its allotment, WNIN-DT is constrained to a maximization of 19 kW in order to provide a level of protection to these stations that was not afforded to them under the 7<sup>th</sup> R&O. Tri-State may wish to revisit this matter in the future.

### **Environmental/RFR**

The proposed construction does not require preparation of an Environmental Assessment as it does not involve any of the factors listed in Section 1.1306.

The additional ground level RFR contributed to the site by this proposal in public areas is calculated to be 0.000336 mW/cm<sup>2</sup> which is less than 5% of the MPE for public exposure (0.20 mW/cm<sup>2</sup>) at the proposed frequency and, therefore, the proposal is excluded from further consideration.

WNIN agrees to comply with the Commission's requirements regarding power adjustments or cessation of operation as may be necessary to ensure a compliant environment for worker access. Workers will be encouraged to wear personal RFR monitors when on the structure. The tower base is enclosed by a locked security fence and appropriate signage warning of RFR hazards is posted.

### **Certification**

I hereby certify that the foregoing report or statement was prepared by me but may include work performed by others under my supervision or direction. The statements of fact contained therein are believed to be true and correct based on personal knowledge, information and belief unless otherwise stated; with respect to facts not known of my own personal knowledge, I believe them to be true and correct based on their origin from sources

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known to me to be generally reliable and accurate. I have prepared this document with due care and in accordance with applicable standards of professional practice.

A handwritten signature in black ink, appearing to read "John F. X. Browne", written in a cursive style.

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John F. X. Browne, P.E.  
June 18, 2008