

## **ENGINEERING STATEMENT**

### **Request for Special Temporary Authorization Early Digital Transition** prepared for

**Gray Television Licensee, Inc.**  
KXII-DT Sherman, TX  
Facility ID 35954  
Ch. 12 36 kW 546 m

*Gray Television Licensee, Inc.* (“Gray”) is the licensee of television station KXII(TV), analog Channel 12 and digital Channel 20, Sherman, TX. This statement supports *Gray*’s request for Special Temporary Authority (“STA”) for an early transition to operate on its post-transition digital channel during the pre-transition period. This statement certifies compliance with coverage and interference criteria as specified in the Report and Order in the Third Periodic Review<sup>1</sup> for an early transition.

A construction permit (BMPCDT-20080609ACT) authorizes KXII-DT to operate its post-transition digital facility on Channel 12, the current KXII analog channel. This channel was established in Appendix B of the Seventh Report and Order in MB Docket 87-268. The authorized post-transition digital operation is a “maximized” facility and involves an effective radiated power (“ERP”) of 36 kW at 546 meters antenna height above average terrain (“HAAT”), with a nondirectional antenna.

Modifications of the KXII analog Channel 12 transmitter are underway for conversion to provide digital operation. Representatives of *Gray* indicate that the modifications are proceeding quickly and will allow an early transition. The proposed early transition STA facility will operate with the full facilities as authorized in the maximized Construction Permit (36 kW and 546 meters).

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<sup>1</sup>*Third Periodic Review of the Commission’s Rules and Policies Affecting the Conversion to Digital Television*, MB Docket No. 07-91, FCC 07-228, released December 31, 2007.

A contour comparison map is supplied as **Figure 1**, showing that coverage areas associated with the currently licensed analog Channel 12 and digital Channel 20 facilities will be completely encompassed by the proposed digital Channel 12 operation. Interference analysis pursuant to OET Bulletin 69<sup>2</sup> show that the proposed early transition facility complies with the Commission's 2% / 10% *de minimis* interference limits for operation during the transition. The facility has already been authorized for post-transition operation by a Construction Permit (BMPCDT-20080609ACT). Thus, existing viewers will be served and impermissible interference will not be caused.

The proposed STA operation complies with the FCC's limits concerning human exposure to RF energy, as described in the application underlying BMPCDT-20080609ACT.

The undersigned hereby certifies that the foregoing statement and associated attachments were prepared by him or under his direction, and that they are true and correct to the best of his knowledge and belief.



Joseph M. Davis, P.E.  
January 19, 2009

**Chesapeake RF Consultants, LLC**  
11993 Kahns Road  
Manassas, VA 20112  
703-650-9600

List of Attachments

Figure 1      STA Coverage Contour Comparison

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<sup>2</sup>FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004 ("OET-69"). A standard cell size of 2 km was employed. Comparisons of various results of this computer program (run on a Sun Sparc processor) to the Commission's implementation of OET-69 show excellent correlation.

