

Transition to Reassignment Channel

Television Station: WBXX-TV Facility ID 72971 Crossville, TN
Pre-Auction Channel: 20
Reassignment Channel: 31
Transition Phase Assignment: Phase 5
Phase Testing Period Start Date: 08/03/2019
Phase Completion Date: 09/06/2019

STA purpose: To operate on pre-auction Ch. 20 with an interim antenna prior to transition in order to accommodate tower work, removal of pre-auction Ch. 20 main antenna, main transmission line replacement, and installation of post-auction Ch. 31 main antenna. Work to commence June 2019.

STA Site Location: WBXX-TV licensed Ch. 20 site

STA Antenna System: Side-mount broadband directional (Figure 1)

STA Power and Height: 480 kW effective radiated power
699 meters height above average terrain

STA Facility Coverage: Does not extend beyond licensed, provides required principal community coverage (Figure 2)

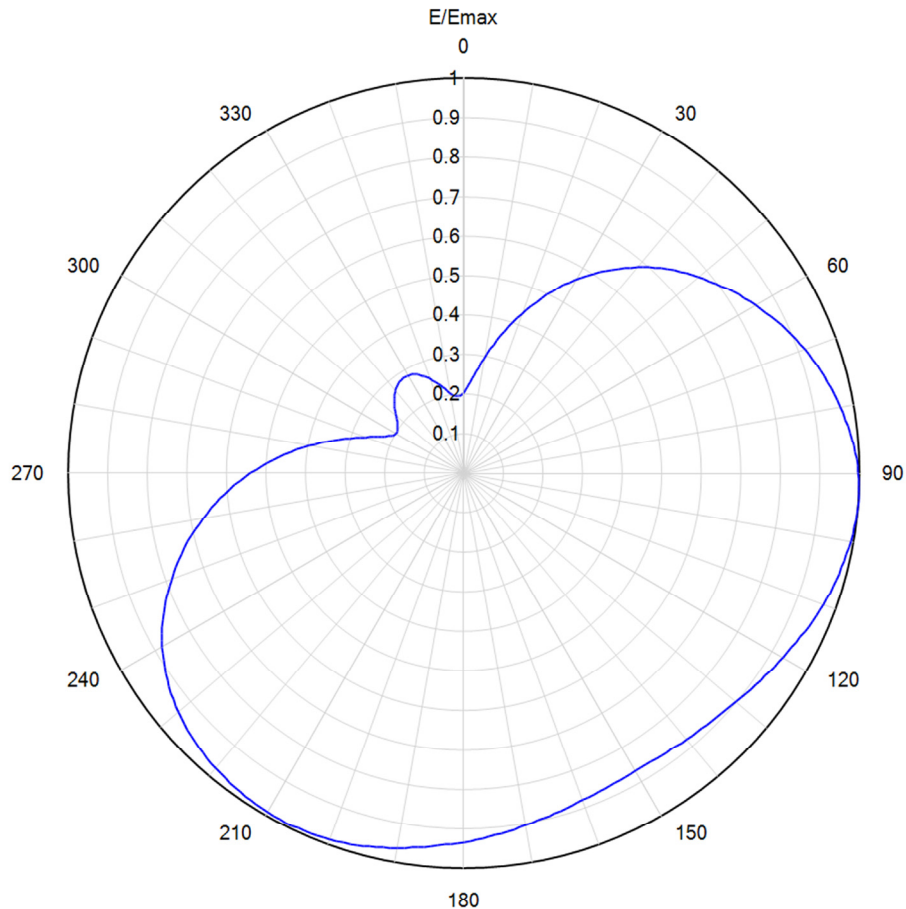
RF Exposure: The calculated signal density near the tower at two meters above ground level attributable to the proposed facility is 4.7 percent of the general population/uncontrolled maximum permitted exposure limit. Calculations conducted pursuant to FCC OET Bulletin Number 65 and incorporate 20 percent relative field at downward angles. This is below the five percent threshold limit described in §1.1307(b) regarding sites with multiple emitters, categorically excluding the applicant from responsibility for taking any corrective action in the areas where the proposal's contribution is less than five percent.

Chesapeake RF Consultants, LLC

Joseph M. Davis, P.E. May 16, 2019
207 Old Dominion Road Yorktown, VA 23692 703-650-9600



Azimuth Pattern



Model: SBB-24C170
Location: Crossville, TN
Customer: WBXX-TV Gray Television
Date: May 15, 2019
Rotation Angle: 150 degrees

Note: Pattern Tolerance +/-5% of Emax

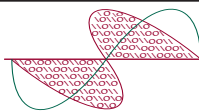
Polarization: Horizontal
Frequency: 509.00 MHz
Directivity: 1.8 (2.51 dB)
Elevation Angle: 0.75 degrees
Horizontal Unit Pattern:
File = SBB-C170-509.pat



Figure 1
Interim Antenna Azimuthal Pattern
WBXX-TV Crossville, TN
Facility ID 72971
Ch. 20 480 kW 699 m

prepared for
Gray Television Licensee, LLC

May, 2019



Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio

Figure 2
Proposed Interim Contours
WBXX-TV Crossville, TN
Facility ID 72971
Ch. 20 480 kW 699 m

prepared for
Gray Television Licensee, LLC

May, 2019

Proposed Interim Ch. 20
480 kW 699 m directional
48 dBμ
(Principal Community)
41 dBμ
(Noise Limited Service Contour)

Licensed Ch. 20
BLCDT-20090619ABD
652 kW 735 m nondirectional
41 dBμ Contour

Crossville, TN

