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## **Merrill Weiss Group** LLC

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### **Technical Statement for ATSC 3 Host and ATSC 1 Guest License Modification Application:**

**WSOC Television, LLC  
Station WAXN-TV, Facility ID 12793  
Channel 32  
Kannapolis, NC**

### **Application for Modification of License in File No. 0000081193**

#### ***Introduction***

This Technical Statement provides required information associated with an application of WSOC Television, LLC, for a Modification of the License of WAXN-TV, for Facility ID 12793, in File Number 0000081193 ("WAXN-TV"). The purpose of the license modification is to convert the Station's operations on Channel 32 to those of an ATSC 3.0 Host, while simultaneously permitting WAXN-TV to operate as an ATSC 1.0 Guest on Channel 23 using the facilities of WBTV, Facility ID 30826, in File Number BLCDDT-19991025AEB. The information provided is that required by §73.3801(f)(6) of the Commission's rules. The application is filed under the Streamlined Process of §73.3801(f)(3) and, as shown below, meets the requirements enumerated in §73.3801(f)(5) of the rules for Expedited Processing. The purposes for which the current application is filed are those described in §73.3801(f)(2)(i) (moving the WAXN-TV ATSC 1.0 signal to the facilities of a Host Station) and §73.3801(f)(2)(iii) (converting the existing WAXN-TV station to transmit an ATSC 3.0 signal).

#### ***WAXN-TV ATSC 1.0 Signal Coverage from Shared WBTV Facilities***

Section 73.3801(f)(6) of the FCC rules requires that certain information be provided describing the Host station or its relationship to the Host station when the Station filing the application will be a Guest on that other station's facilities. The required information follows, enumerated for each subsection of §73.3801(f)(6) as numbered in the rule:

- (i)(A) The station serving as the Host for the WAXN-TV ATSC 1.0 service will be WBTV.
- (i)(B) The technical facilities of the Host station will be those having Facility ID 30826, i.e., an omnidirectional antenna at a Radiation Center Height Above Average Terrain (HAAT) of 565 m and 808 m Above Mean Sea Level (AMSL), and an Effective Radiated Power (ERP) of 1000 kW.

**Technical Statement for WAXN-TV License Modification Application for ATSC 3.0 & ATSC 1.0 Simulcast Operation**

(i)(C) The DMA of WAXN-TV (the Originating Broadcaster) is Charlotte, NC, and the DMA of WBTV (the Host station) also is Charlotte, NC.

(i)(D) No other information has been identified by the FCC as deemed necessary to process the application. Any such additional information identified to WAXN-TV will be supplied upon request.

(ii)(A) The predicted population within the noise-limited service contour served by WAXN-TV's original ATSC 1.0 signal is 2,679,569 Total Population. The area within the contour is 22,102.277 km<sup>2</sup>. (All contour, population, and area determinations were carried out using EDX SignalPro version 8.6.1 with data from the 2010 U.S. Census provided by EDX for use with its software.)

(ii)(B) The predicted population within the noise-limited service contour served by the station's original ATSC 1.0 signal that will lose the station's ATSC 1.0 service because of the simulcasting arrangement is 8,490. The predicted loss area is 815.759 km<sup>2</sup>. The required contour overlap map appears below in Figure 1.

In Figure 1, the WAXN-TV noise-limited service contour is shown in orange outside the olive circle and in green inside the olive circle. The olive circle is the noise-limited contour of WBTV. The portion of the current WAXN-TV service area that is predicted to lose service when WBTV hosts the WAXN-TV ATSC 1.0 signal is the portion of the WAXN-TV service area between the olive circle (where it is covered with the green contour) and the orange crescent generally to the east-southeast. The green contour is the current WAXN-TV contour as limited by the WBTV contour to show the loss area outside the WBTV contour and the new service area within the WBTV contour. The blue contour shows the "principal community" contour (i.e., the "noise-limited plus 7 dB" contour) of WBTV and demonstrates that the WAXN-TV community of license – Kannapolis, NC – outlined in red, falls completely within that contour, as required by §73.3801(c). It should be noted that the field strength of each contour on the map in Figure 1 has been adjusted using the "dipole factor" specified in OET Bulletin Number 69 for the channel to which the contour applies.

(ii)(C) The ATSC 1.0 simulcast signal aired on the Host station (WBTV) is predicted to serve 99.68 percent of the population listed in paragraph (ii)(A) above, exceeding the 95 percent threshold below which further information would be required as described in §73.3801(f)(6)(iii). The area predicted to be served is 96.31 percent of the area listed in paragraph (ii)(A).

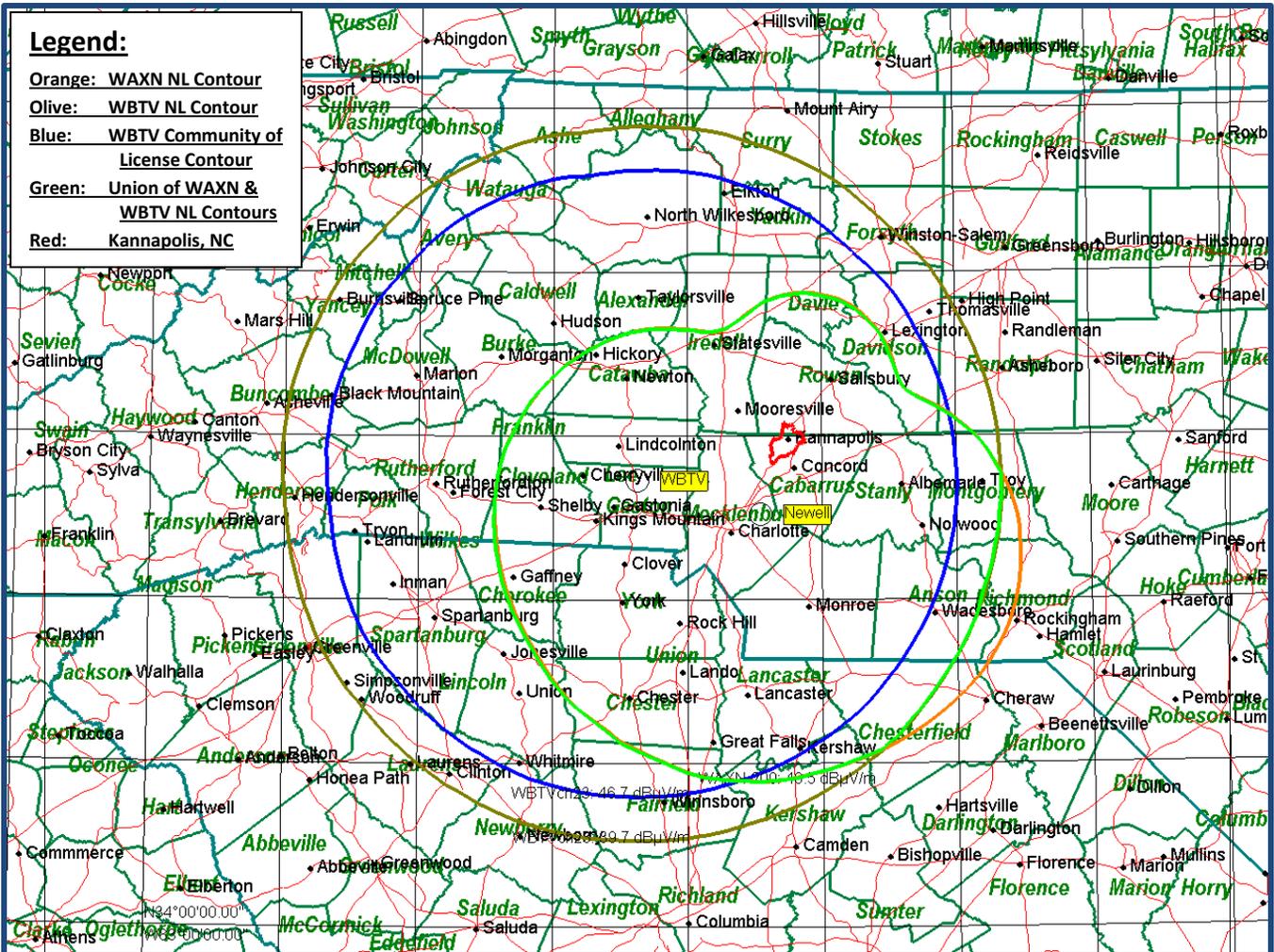


Figure 1 – Contours of WAXN-TV and WBTV related to transmission of the WAXN-TV ATSC 1.0 signal as a Guest signal from the WBTV facility on Channel 23, acting as a Host station; also showing the location of Kannapolis, NC, the WAXN community of license.

### Environmental Impact/Radio Frequency Radiation

Since the facilities to be used both for WAXN-TV transmissions on Channel 32 and WBTV transmissions on Channel 23 are those covered by the respective licenses of the two stations, without change, prior showings with respect to environmental impacts and radio frequency radiation provided with applications for the two facilities remain valid. Consequently, no new showings on these matters are included with the current application.