

TECHNICAL SUMMARY
APPLICATION FOR CONSTRUCTION PERMIT
TV STATION WUVC-DT
FAYETTEVILLE, NORTH CAROLINA
CHANNEL 22 235 KW (MAX-DA) 556 m

1. The instant application is the initial 90 day application for the reassigned facilities of WUVC-DT, Fayetteville, North Carolina (Ch. 22). It is proposed to replace the existing side-mount directional antenna with a new top-mount directional antenna. The antenna height will change from 594 meters AMSL to 643.8 meters AMSL. There will be no change in the overall structure height of the existing tower (ASRN 1238110).¹

2. The proposed maximum directional effective radiated power was adjusted to 235 kW to account for differences in the current and proposed directional antenna patterns and antenna heights. Although there is some slight extension of the predicted service area relative to the baseline reassignment facility listed in the FCC's *Closing and Reassignment Public Notice*, the extension will not exceed 1% in any direction. The proposed facility is also compliant with the 95% population service requirement. See attached FCC *TVStudy* analysis exhibit. Also, the proposal complies with the city coverage requirements as demonstrated in the Predicted Coverage Contours exhibit.

3. As also demonstrated in the TVStudy analysis exhibit, the proposal complies with the FCC's interference protection requirements based on a cell size of 2.0 km and profile resolution of 1.0 points/km.

5. RFR Compliance: The proposed facilities were evaluated in terms of potential radiofrequency radiation (RFR) exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna will be located 521.9 meters above ground level. The total DTV ERP is 235 kW (horizontal polarization only). A conservative vertical plane relative field value of 0.15 is presumed for the antenna's downward radiation in both the horizontal and vertical planes of polarization (for angles below 60 degrees downward, see attached antenna data). The calculated power density at a point 2 meters above ground level is 0.65 uW/cm^2 which is 0.18% of the FCC's recommended limit of 347.3 uW/cm^2 for channel 22 for an uncontrolled environment. Therefore, based on the responsibility threshold of 5%, the proposal will comply with the RF emission rules.

¹ This is a correction in the FCC antenna structure registration number (ASNR) associated with the WUVC-DT license which is incorrectly listed as ASRN 1006704.

Access to the transmitting site is restricted and appropriately marked with RFR warning signs. Furthermore, as this is a multi-user site, a formal RFR protection protocol is in effect in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measure will be taken to assure worker safety with respect to RFR exposure. Such measures include limiting the exposure time, wearing protective clothing, reducing power to an acceptable level or termination of transmitter output power all together until workers leave the restricted area.