

TECHNICAL SUMMARY
AMENDMENT TO
APPLICATION FOR MODIFICATION OF CONSTRUCTION PERMIT
LMS FILE NO. 0000034450
TV STATION WUVC-DT
FAYETTEVILLE, NORTH CAROLINA
CHANNEL 22 480 KW (DA) 558 m

1. This instant application is an amendment to the pending application for modification of the WUVC-DT construction permit (LMS File No. 0000034450) for operation on channel 22 at Fayetteville, North Carolina. The purpose of this amendment is to eliminate the interference conflict with the pending application of WARZ-CD on channel 23 at Smithfield-Selma, North Carolina (LMS File No. 0000034835). Specifically, it is proposed to change the directional antenna system and decrease the ERP from 780 kW to 480 kW. There will be no other changes. There will also be no change in the overall structure height of the existing tower (ASRN 1238110).

2. Section 73.622(f)(5) Compliance: It is proposed operate on channel 22 with a directional antenna maximum ERP of 480 kW and an HAAT of 558 meters. These facilities exceed the nominal maximum facilities specified in Section 73.622(f)(8)(i). However, the proposed facilities have been calculated in accordance with the largest station provision of Section 73.622(f)(5). The largest station in the Fayetteville, North Carolina market is WTVD on channel 9 (LMS File No. 0000025609) which is authorized to provide noise-limited 36 dBu, f(50,90) service to an area of 51,660 square kilometers whereas the proposed WUVC-DT operation is predicted to provide noise-limited 41 dBu, f(50,90) service to an area of 35,520 square kilometers (see Figure 2 attached). Clarification of the largest station provision is provided in the Report and Order and Further Notice of Proposed Rule Making in MM Docket No. 00-39 at paragraphs 73-74.

3. As demonstrated in the *TVStudy* analysis exhibit, the proposal complies with the FCC's interference protection requirements based on a cell size of 0.5 km and profile resolution of 0.5 points/km.

4. 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 523.2 meters above

ground level. The total DTV ERP is 600 kW (480 kW horizontal polarization, 120 kW vertical polarization). A conservative vertical plane relative field value of 0.1 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 0.74 uW/cm^2 which is 0.21% 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.

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.