

TECHNICAL SUMMARY  
APPLICATION FOR CONSTRUCTION PERMIT  
DTV STATION WWTW  
SENATOBIA, MISSISSIPPI  
CHANNEL 23 1000 KW (MAX-DA) 261 M

1. The instant application is a channel sharing application for WWTW (Facility ID 84214, the “sharee”). The “sharer” station will be WTVV at Memphis, Tennessee (Facility ID 81692) using WTVV’s pre- and post-auction channel 23 facilities (FCC License File No. BLEDT-20090619AAW). Specifically, WWTW proposes to operate on channel 23 with a directional antenna maximum effective radiated power (ERP) of 1000 kW utilizing WTVV’s existing Dielectric model TFU-30GTH/VP-R 6T130 elliptically polarized directional antenna (antenna ID 91069) having an orientation of 0 degrees true with an antenna center of radiation of 349 meters AMSL.

2. City Coverage Compliance: The proposed operation will provide the requisite city grade [48 dBu, f(50,90)] signal to 100% of the Senatobia city limits as depicted on the attached Figure 1.

3. 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 DTV antenna is located 265 meters above ground level on the existing tower (ASRN 1249321). The total DTV ERP is 1250 kW (1000 kW horizontal polarization, 250 kW vertical polarization). A greater than expected vertical plane relative field value of 0.1 is presumed for the antenna’s downward radiation (for angles below 60 degrees downward). The calculated power density at a point 2 meters above ground level is  $6.0 \text{ uW/cm}^2$  which is 1.7% of the FCC’s recommended limit of  $351.3 \text{ uW/cm}^2$  for channel 23 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 markets 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.