

TECHNICAL SUMMARY
APPLICATION FOR CONSTRUCTION PERMIT
CLASS A STATION WMDO-CD
WASHINGTON, DC
CHANNEL 44 12 KW (MAX-DA)

1. The instant application is a channel sharing application for WMDO-CD (Facility ID 38437, the “sharee”). The “sharer” station will be WIAV-CD at Washington, DC (Facility ID 168063) using WIAV-CD’s pre-auction channel 44 facilities (FCC License File No. 0000001572). Specifically, WMDO-CD proposes to operate on channel 44 with a directional antenna maximum effective radiated power (ERP) of 12 kW utilizing and SBP model UPC-4 (antenna ID 93820) directional antenna having a main lobe orientation of 138 degrees true with an antenna center of radiation of 218.9 meters AMSL.

2. 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 is located 101 meters above ground level on the existing tower (ASRN 1036610). The total DTV ERP is 12 kW (horizontal polarization only). A greater than expected vertical plane relative field value of 0.5 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 10.2 uW/cm² which is 2.3% of the FCC’s recommended limit of 435.3 uW/cm² for channel 44 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.