

Site Selection and RF Energy Exposure

prepared 01/06/2020 for

Univision New York LLC

WFUT-DT Newark, NJ

Channel 26 240 kW-DA (Aux) 224 m

This application proposes continued use of a multiple-use communications tower and antenna owned by American Tower, located at West Orange, NJ. Use of currently utilized, shared sites in areas with similar structures is environmentally preferred.

Operation on channel 26, with its center frequency of 545 MHz, implies a radiofrequency radiation exposure guideline value of $363 \mu\text{W}/\text{cm}^2$ for “uncontrolled” areas (the general population). The Dielectric TUD-C5SP-10/34U-2-B antenna has its radiation center 98.5 meters above ground level and is horizontally polarized. The maximum downward radiation value, at depression angles greater than 10° , does not exceed 0.147. Consequently, the worst-case predicted exposure level at 2 meters above ground level will not exceed $18.6 \mu\text{W}/\text{cm}^2$. This exposure level is 5.12% of the guideline value.

Five other full-power television stations have auxiliary facilities at this site, three of which share the same antenna as WFUT-DT proposes. The others, WABC and WPIX, share a separate antenna. Assuming a worst-case downward radiation value of 0.2 for these stations, the combined total RF energy exposure is 72.5% of the “uncontrolled” guideline value.

Access to the site and tower base is restricted by fencing and marked by appropriate warning signs. A formal RFE exposure control protocol is in effect for on-tower work. The applicant recognizes its responsibility to reduce power or interrupt operation during tower work, to ensure safe working conditions for rigging personnel.



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