

Attachment 47
Environmental Considerations
WXTV License Partnership, G.P.
WXTV-DT Paterson, NJ
Channel 40 200 kW-DA 321 m

This application proposes continued use of the former WXTV analog auxiliary transmitter site and antenna, which is a multiple-user facility owned by The Durst Organization and managed by Royal Realty. No physical construction is proposed outside the existing building. Use of currently utilized, shared sites is environmentally preferred to new site construction.

Operation on channel 40, with its center frequency of 629 MHz, implies a radiofrequency radiation exposure guideline value of $419 \mu\text{W}/\text{cm}^2$ for the general population. The Dielectric TUA-C8SP-8/64U-2-R antenna has its radiation center 97.1 meters above the building rooftop. The radius from the building and tower center to the farthest point of the rooftop (the outer edge of the display signage) is 31.3 meters, yielding a minimum depression angle of 71.8° . The antenna has a maximum radiation value of 0.01 at depression angles greater than that limiting value. Consequently, the worst-case predicted exposure level at 2 meters above ground level is $0.074 \mu\text{W}/\text{cm}^2$, 0.02% of the guideline value.

Access to the building rooftop is restricted and marked by warning signs and RFR level signal lights tied into a radiation monitoring system. WXTV-DT recognizes its obligation to reduce power or cease operation when tower work is occurring at elevations that might otherwise lead to radiofrequency radiation exposure in excess of pertinent guideline values. A formal RFR protocol is in effect at this multi-user site.

14 September 2009



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