

Site Selection and RF Energy Exposure

prepared 10/29/2018 for

Univision Cleveland LLC

WQHS-DT Cleveland, OH

Channel 36 780 kW-DA 352 m

This application proposes continued use of the existing WQHS-DT communications tower, located in the de facto “antenna farm” near Parma, OH. Use of currently utilized, shared sites in areas with similar structures is environmentally preferred. The antenna installed for post-repack operation replaces the dormant analog channel 61 antenna at the tower top.

Operation on channel 36, with its center frequency of 605 MHz, implies a radiofrequency radiation exposure guideline value of $403 \mu\text{W}/\text{cm}^2$ for uncontrolled areas. The radiation center of the RFS SAA21-WQHS-E400-ET6R-36 is 305.0 meters above ground level, with vertical ERP at 30% of horizontal ERP. The maximum downward radiation value, at depression angles greater than 30° , does not exceed 0.05. Consequently, the worst-case predicted exposure level at 2 meters above ground level is calculated at $0.92 \mu\text{W}/\text{cm}^2$. This exposure level is 0.23% of the guideline value, far below the “responsibility threshold” of 5%. 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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