

Attachment 47
Environmental Considerations
Univision Cleveland LLC
WQHS-DT Cleveland, OH
Channel 34 570 kW-DA 361 m

This application proposes continued use of the present WQHS-DT transmitter site, which is a multiple-user facility. The existing top-mounted channel 61 antenna and its associated waveguide are to be replaced by the proposed channel 34 antenna and coaxial transmission line. No other outdoor construction is contemplated. Use of currently utilized, shared sites located in areas where other towers are present is environmentally preferred.

WQHS-DT operates on channel 34, with its center frequency of 593 MHz yielding a radiofrequency radiation exposure guideline value of $411 \mu\text{W}/\text{cm}^2$ for the general population. The ERI ATW21HS3-ETS-34H antenna has its radiation center 306 meters above ground level. Per the antenna elevation radiation patterns provided in Attachment 44, the maximum downward radiation values, at depression angles of 60° or higher, are 0.04 for its horizontally-polarized component and 0.06 for its vertically-polarized component, which has 25% of the horizontally-polarized power. Consequently, the worst-case predicted exposure level at 2 meters above ground level is $0.515 \mu\text{W}/\text{cm}^2$. This exposure level is 0.13% 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 radiofrequency radiation warning signs. FM broadcast station WDOK also uses this site. WQHS-DT and WDOK cooperate to reduce power and/or suspend operation as may be needed to ensure that tower workers are not exposed to RFR levels in excess of guideline values.

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Karl D. Lahm, P.E.
California Registration #E010307
Director, RF Systems Engineering
Univision Management Company
P.O. Box 647
Lake Villa, IL 60046
847.245.8699