Attachment 47
Environmental Considerations
WUVC License Partnership, G.P.
WUVC-DT Fayetteville, NC
Channel 38 1000 kW-DA 562 m

This application proposes continued use of the present WUVC-DT transmitter site. The existing top-mounted channel 40 antenna and is to be replaced by the proposed channel 38 antenna. No other outdoor construction is contemplated. Use of currently utilized sites is environmentally preferred over new construction.

WUVC-DT operates on channel 38, with its center frequency of 617 MHz yielding a radiofrequency radiation exposure guideline value of 411 $\mu W/cm^2$ for the general population. The ERI ATW26H4-ETWC-38H antenna has its radiation center 525 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 0.06 for its horizontally-polarized component and 0.065 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 0.569 $\mu W/cm^2$. This exposure level is 0.14% 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. WUVC-DT reduces power and/or suspends operation as may be necessary to ensure that tower workers are not exposed to RFR levels in excess of guideline values when working in areas where excessive exposure might occur.

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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