

Engineering Statement and Environmental Considerations

Application for Construction Permit
Displacement
W36EP-D
DTV Channel 36
Yauco, Puerto Rico

As a result of the broadcast television repacking process W36EP-D Ch. 36, facility id: 188722, is displaced by the assignment of channel 36 to WVOZ-DT, facility id: 29000, in the same geographic area. An interference study shows that the channel 36 operations of W36EP-D will cause 14.47% of impermissible interference to Full-Service station WVOZ-TV, and receive interference of 42.51%, therefore W36EP-D qualifies for displacement application. The result of the displacement interference analysis, using the FCC's *TVStudy version 2.2.5* predicted service and interference analysis tool along with a cell size of 1 Km and a point profile spacing of 1 Km, is attached.

With this application, W36EP-D requests displacement to TV Channel 35, relocating its antenna to a site 6.4 km west of the present site, change its antenna system, orientation and, adding 4.5 kW of vertical polarization to its signal. The interference analysis of the proposed channel 35 operations of W36EP-D, using the FCC's *TVStudy version 2.2.5* predicted service and interference analysis tool along with a cell size of 1 Km and a point profile spacing of 0.14 Km, is predicted to cause interference of 7.42% to the WIPM-TV, facility ID: 102356, channel 35 operation, it should be noted that WIPM-TV is no longer broadcasting on channel 35, it is operating on channel 32 since the Puerto Rico and USVI stations transitioned to their new repack channels on August 1st, 2018. The interference study result of the channel 36 operations of W36EP-D is attached.

Environmental Considerations

The proposed W36EP-D channel 35 operations were evaluated for potential radiofrequency exposure to workers and the general public. Based on a radiation center at 50 meters above ground, a maximum relative antenna field of 0.127 between 45 and 90 degrees from horizontal, and a total ERP of 19.5kW, (15 kW H, 4.5 kW V), the calculated RF exposure at two meters above ground will not exceed 2.60 $\mu\text{w}/\text{cm}^2$ or, 0.65% of the 399.33 $\mu\text{w}/\text{cm}^2$ general population uncontrolled limit applicable to DTV channel 35

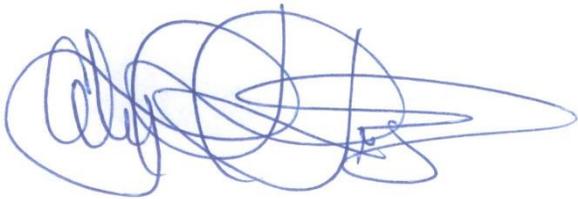
The transmitter site is restricted from access. The tower is not located in a flood plain, a wilderness area, or in a wildlife preserve that might affect threatened and endangered species or their habitat, it is not located in an Indian religious and/or cultural site. No significant changes in surface features will take place. If workers are required to climb the tower the W36EP-D emission shall be reduced or terminated as necessary to prevent RF radiation exposure above the FCC limits.

As described above the proposed modifications will not have a significant environmental effect.

Protection to FCC Monitoring Station and Arecibo Observatory

The proposed W36EP-D facility is located 40.3 Km from the FCC monitoring station at Santa Isabel, Puerto Rico, because of the low ERP of the WNTE-LD radiation toward the Santa Isabel monitoring station and the intervening terrain, no adverse effects to the monitoring station are expected.

According to Section 73.1030 of the FCC Rules, concurrently with the filling of this application, the Arecibo Observatory is being notified of the proposed facility.

A handwritten signature in blue ink, consisting of several overlapping loops and a long horizontal stroke extending to the right.

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