

Engineering Statement and Environmental Considerations
Application for Construction Permit Minor Change
W36EP-D
DTV Channel 35
Yauco, Puerto Rico

With this application, W36EP-D is requesting to change its antenna system, antenna orientation and, increase power to 15 kW Horizontal and 4.5 kW vertical polarization. The proposed W36EP-D minor change is compliant with the FCC Rules interference protection requirements.

The results of the interference analysis, using a cell size of 1.0 km and a profile spacing of 0.14 km, with FCC's *TVStudy version 2.2.5*. are attached hereto.

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.

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