R.F. RADIATION COMPLIANCE STATEMENT

Cadillac, Michigan
Roy Henderson

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Channel 35 (proposed)

This proposed 15 kW digital LPTV station will operate with its high-gain horizontally polarized antenna at a height of 213 meters above ground. Using the OET 65 formulas we can show that at head height (2 meters) this station will produce a power density of 0.113 microwatts per square centimeter ($\mu W/cm^2$). This amounts to 0.0056% for a controlled environment and 0.028% for an uncontrolled environment.

WFQX-DT (CP)

WFQX-DT operated on channel 32 from the applicant's proposed tower with a CP ERP of 200 kW, polarized horizontally, at an antenna height of 305 meters above ground. Using the OET 65 formulas, we can show that at head height, this station will produce a power density of 0.73 ($\mu W/cm^2$), or 0.035% for a controlled environment and 0.174% for an uncontrolled environment.

WWTV-DT (CP)

WWTV-TV has (or will) terminate its digital operation on channel 40; however, the station was still listed in the CDBS at this time of this filing. (We have chosen not to consider this past station in the RF emissions calculations.) WWTV-DT (CP) operates on channel 9 from the applicant's proposed tower with an ERP of 45 kW, polarized horizontally, at an antenna height of 376 meters above ground. Using the OET 65 formulas we can show that at head height, this station will produce a power density of 0.4299 ($\mu W/cm^2$), or 0.043% for a controlled environment and 0.215% for an uncontrolled environment.

Combined Total:

Together, all three stations will produce a total of 0.417% of the maximum for an uncontrolled environment. Therefore, the proposed LPTV station will not cause an over-the-limit power density at head height at the tower base.

The applicant will reduce power to safe levels or terminate transmission in event a worker must go on the tower and be at a distance from one or more of the radiators such that overexposure would result.

Consequently, it appears that the proposed transmitter site will be in full compliance with the FCC's human exposure to radio frequency electromagnetic field rules and regulations.