

R.F. RADIATION COMPLIANCE STATEMENT

Traverse City, Michigan
Roy Henderson

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The proposed existing authorized tower, having an ASRN number of 1004108, has a 40-foot fence built around it that defines the area near the base as “controlled” space. The fence is gated with a lock to keep out nonauthorized personnel. The calculated RF power density figures have been updated using the Commission’s new procedure for calculating contributed antenna emissions. The figures shown below, are known to be the same as the Commission’s on-line computer program for calculating the contributions of various EPA antenna types.

Channel 7 (proposed)

The proposed 3 kW digital LPTV station will operate with its horizontally polarized antenna at a height of 78 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 0.694 microwatts per square centimeter which amounts to 0.069 percent for the controlled environment.

The WLLS-FM antenna:

The proposed tower supports the antenna of WLLS-FM. This station transmits from an eight-bay EPA type 2 antenna (opposed “V”) with a height above ground of 79 meters, at an ERP of 50 kW, polarized horizontally. Using OET 65 calculations, we find that this station will produce 9.06 microwatts per square centimeter at the base of the tower at head height of two meters. This amounts to 0.9 percent of the maximum for a controlled environment.

The WLDR-FM antenna:

The proposed tower supports the antenna of WLDR-FM. This station transmits from an eight-bay EPA type 3 (opposed “U” dipole) antenna with a height of 103 meters, at an ERP of 100 kW. Using OET 65 calculations, we find that this station will produce 379.0 microwatts per square centimeter at the base of the tower at head height of two meters. This amounts to 2.0 percent of the FCC’s maximum for a controlled environment.

(continued)

The WCCW-FM antenna:

The proposed tower supports the antenna of WCCW-FM. This station transmits from an eight-bay, EPA type 1 ("unknown"), with an antenna height of 69 meters at an ERP of 50 kW polarized circularly. Using OET 65 calculations, we find that this station will produce 379.0 microwatts per square centimeter at the base of the tower at a head height of two meters. This amounts to 3 percent of the maximum for a controlled environment

Therefore, the sum of all four stations, including the applicant's proposal, is 40.0 percent of the maximum allowed for a controlled space.

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

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

Doug Vernier