

Radio One of Indiana, LLC
WHHH, Indianapolis, IN
Application for Construction Permit – September 2005
Exhibit 30 – RF Exposure Analysis

The following radiofrequency exposure analysis was conducted using the “FM Model for Windows” program provided by the FCC Office of Engineering and Technology.

Presently, the only broadcast facility co-located at the proposed WHHH auxiliary antenna site is WTLC-FM, 106.7 MHz, Greenwood, IN. Several land mobile stations are also based at the site, however none radiate more than 1 kW ERP and their antennas are installed least 10 meters above ground level, so they are not considered in this analysis.

WTLC-FM's existing two-bay fullwave-spaced Shively 6814 main antenna is mounted at 109 meters above ground level and radiates a total of 6 kW (3 kW in each polarization.) Using the worst-case assumption that this antenna is a “dipole”, the maximum calculated power density at two meters above ground level is 10.4 microwatts/cm² at 26 meters from the tower base, 5.2 percent of the General Population/Uncontrolled maximum permissible exposure limit.

Radio One proposes to install a second two-bay Shively 6814 antenna at 79 meters above ground level for auxiliary use by WHHH, with a total effective radiated power of 2.96 kW (1.48 kW in each polarization.) Under the same worst-case assumption, its greatest contribution to the total power density at two meters above ground level will be 9.9 microwatts/cm² at 19.2 meters from the tower base, 5.0 percent of the general population/uncontrolled MPE limit. Therefore, with both FM stations operating, the total power density near the tower base is not expected to exceed 10.2 percent of the most stringent applicable guidelines.

Radio One also recognizes its obligation to reduce power or cease operation during tower or antenna maintenance as required to avoid excessive exposure to workers. RF hazard warning signs have been posted at the tower base, and unauthorized access to the structure is restricted by a locked fence.