

ENVIRONMENTAL AND RADIO FREQUENCY EXPOSURE STATEMENT
GUENTER MARKSTEINER
MINOR MODIFICATION OF LICENSE FILE NUMBER BLDTL20091210ADU
WHDT-LD, BOSTON, MA
PROPOSED: CH 4, 3 KW, NON-DIRECTIONAL, 175.3 m AGL

The transmit antenna for the WHDT-LD will be mounted on top of a multi-story building with the building having an overall height 179 meters AGL with an Antenna Structure Registration number of 1031648. There will be no environmental impact with the antenna being located on the roof of this existing building.

The WHDT-LD facility, operating on channel 4, was evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. The radiation center for the antenna is located 175.3 meters above ground level. The proposed operation was evaluated using Far-Field Equation (1) on page 30 of Supplement A to OET Bulletin No. 65 (August 1997). The ERP utilized in the calculations was set to the maximum ERP value of 6 kW which is the total power radiated in both the horizontal and vertical planes. Conservative elevation-plane antenna relative field values ["F" in Equation (1)] were utilized in the calculations.. The maximum calculated power density at 2 meters (6.6 feet) above ground level is 0.00625 mW/cm² which is 0.62% of the FCC's recommended limit of 1.00 mW/cm² for an occupational/controlled environment and 3.12% of 0.20 mW/cm² for general public/uncontrolled exposure.

The total contribution of all nearby, existing and the proposed facilities was also evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. Total contribution is within the allowable exposure limit for both workers and the general public.

Access to the roof top where the transmitting antenna is located and to any radio frequency generating equipment is restricted and will be appropriately marked with warning signs. In the event that workers or other authorized personnel enter restricted areas, appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the station is at reduced power or shut down.