

E-16 RF RADIATION CALCULATIONS

The RF contributions for the proposed translator were calculated using the Commission's FMMODEL program. The resulting RF calculation for a 3-bay directional antenna mounted at a COR AGL of 106 meters operating at 250W, assuming a worst-case relative field of 1.0, and including the reference height of 2 meters above ground level, is calculated to be $0.168 \mu\text{W}/\text{cm}^2$ at a distance of 51 meters from the tower. Addition of the contributing RF from a co-located 6 bay antenna mounted at a COR AGL of 144 meters operating at 50 kW is calculated to be $11.63 \mu\text{W}/\text{cm}^2$ at a distance of 45 meters. A combined worst-case RF yields $11.8 \mu\text{W}/\text{cm}^2$ at an average distance of 48 meters.

Following the requirements outlined in 47 CFR §1.1307 and §1.1310, it is submitted that this RF exposure is well below the $200 \mu\text{W}/\text{cm}^2$ maximum exposure limit for General Population/Uncontrolled Exposure of a CFR part 47 broadcast facility. Consequently, it is concluded that the proposed facility is within RF exposure guidelines.