

SMITH AND FISHER

POWER DENSITY CALCULATION

PROPOSED KIXE-DT TRANSLATOR
CHANNEL 18 – CHICO, CALIFORNIA

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 4.0 kw, an antenna radiation center 101 meters above ground, and assuming a vertical relative field value of 20 percent at the steeper elevation angles for the proposed Scala antenna, maximum power density two meters above ground of 0.00055 mw/cm^2 is calculated to occur near the base of the tower. Since this is only 0.2 percent of the 0.33 mw/cm^2 reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 18 (494-500 MHz), this proposal may be excluded from consideration with respect to public exposure to nonionizing electromagnetic radiation.

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive nonionizing radiation.