

**Romar Communications Inc.  
Proposed New Cross-Service FM Translator  
Ithaca, NY  
Ch. 266FT (101.1 MHz.); 0.20 kW, -11m AAT**

**RF Power Density Study**

The following RF Power Density Analysis has been prepared for Romar Communications Inc. by William J. Sitzman, Trumansburg, NY, Engineering Consultant, and former President of Independent Broadcast Consultants, Trumansburg, NY:

RF Power Density limits and calculations for the instant facility were addressed in OET Bulletin #65, released August 1, 1997. Table B on Page 67 of the document depicts the ANSI/IEEE protection requirements. The maximum permissible exposure for uncontrolled environments in the 30 to 300 MHz. band is a power density of 0.2 milliwatts per centimeter squared ( $\text{mW}/\text{cm}^2$ ). As a worst-case, power density is studied at points two (2) meters above ground level contiguous to the FM translator antenna and if not excessive at that elevation, it would certainly not be excessive below that elevation where the general public may have access.

Since this FM translator will operate with 0.200 kW (200 watts) ERP with a two-bay FM antenna, its radiation center 14 meters above ground level, the greatest radiofrequency power density 2 meters above ground level is defined by the field elevation pattern of the Armstrong FMA-707-2 antenna and produces a maximum power density at 2 meters AGL of  $19 \text{ uW}/\text{cm}^2$  or  $0.019 \text{ mW}/\text{cm}^2$ . This is 9.5% of the  $0.2 \text{ mW}/\text{cm}^2$  limit for an uncontrolled environment and is well within FCC/ANSI limits for an uncontrolled environment.