

## **EXHIBIT 12**

### **COMPLIANCE WITH RADIOFREQUENCY RADIATION GUIDELINES**

This proposed K54FX Companion Channel facility will be co-located with other existing or proposed non-broadcast facilities. The site will, therefore, be considered a "multiple use" site.

The proposed K54FX digital antenna will be an Antenna Concepts Model ACS8E slotted cylinder antenna. The antenna will be mounted with its center of radiation 95 meters above ground, making it 93 meters above an observer on the ground, who is assumed to be 2 meters tall. A maximum effective radiated power of 0.5 kW (500 watts) has been proposed. The addition of this antenna will not require any alteration of the Antenna Structure Registration data for this site.

Equation 10 of OET Bulletin No. 65 can be used to predict the potential exposure to radiofrequency radiation for human observers on the ground as indicated by total power density expressed in units of  $\mu\text{W}/\text{cm}^2$ . This equation states:

$$S = \frac{33.4(F^2)ERP}{R^2}$$

where: S = Total Power Density in units of  $\mu\text{W}/\text{cm}^2$   
 F = Relative Field of Pattern  
 ERP = Effective Radiated Power in Watts  
 R = Distance in Meters

The standard procedure for RF exposure studies considers all locations within 315 meters of the base of the supporting structure. The depression angle at this distance is  $16.4^\circ$ . The antenna manufacturer has supplied a tabulation of the relative field for the vertical plane pattern and the greatest relative field for depression angles below  $16.4^\circ$  is below 0.300. Therefore, a worst case relative field of 0.300 has been used for the calculation of Equation 10. The shortest possible distance between an observer on the ground and the antenna is directly under the antenna where the distance is 93 meters. Using these values, the above equation yields a predicted power density of  $0.17 \mu\text{W}/\text{cm}^2$

At Channel 39, the maximum permitted exposure level for uncontrolled areas, where members of the general public might have access, is found by dividing the channel center frequency of 623 MHz by 1500. The resulting power density is  $0.41533 \text{ mW}/\text{cm}^2$ , or  $415.33 \mu\text{W}/\text{cm}^2$ . The limit for occupational or controlled areas is five times this value.

Thus, the maximum predicted total power density of  $0.17 \mu\text{W}/\text{cm}^2$  is 0.04% of the limit for uncontrolled areas. This would also be 0.01% of the exposure level for controlled areas where workers aware of the hazards of exposure might have access.

Chapter 47 of the Code of Federal Regulations, §1.1307(b)(3) states: *"In general, when the guidelines specified in §1.1310 are exceeded in an accessible area due to the emissions from multiple fixed transmitters, actions necessary to bring the area into compliance are the shared responsibility of all licensees whose transmitters produce, at the area in question, power density levels that exceed 5% of the power density exposure limit applicable to their particular transmitter or field strength levels that, when squared, exceed 5% of the square of the electric or magnetic field strength limit applicable to their particular transmitter. Owners of transmitter sites are expected to allow applicants and licensees to take reasonable steps to comply with the requirements contained in §1.1307(b) and, where feasible, should encourage co-location of transmitters and common solutions for controlling access to areas where the RF exposure limits contained in §1.1310 might be exceeded."* Should the level of radiofrequency radiation at the proposed multiple use site ever exceed the FCC guidelines, the proposed digital facility is categorically exempt from responsibility for bringing the shared transmitter site into compliance because its contribution is less than 5.0% of the applicable limit.

The facility will be properly marked with signs, and entry will be restricted by means of fencing with locked doors and/or gates. Any other means as may be required to protect employees and the general public will be employed. In the event work would be required in proximity to the antenna such that the person or persons working in the area would potentially be exposed to fields in excess of the guidelines, the station will cooperate with other licensees at the site to reduce power or cease operation during the critical period.