

## **EXHIBIT 29**

### **DISCUSSION OF ENVIRONMENTAL CONSIDERATIONS**

The applicant, Gold Coast Broadcasting LLC, licensee of Channel 284B station KCAQ(FM), Facility I.D. No. 25092, is proposing to move the location of the KCAQ(FM) transmitter site. The proposed site is located at South Mountain, 21.2 kilometers northeast of the center of Oxnard, Ventura County, California.

The proposed antenna support structure is an existing guyed, steel tower, 121.6 meters in overall height, FCC Structure Registration No. 1018563. It is proposed to side-mount an SWR, Inc., Illumitron Model FM3/4, four-bay, circularly-polarized,  $\lambda/2$ -spaced, reduced side-lobe, nondirectional antenna. The center of radiation will be 45.7 meters above ground. The overall height of the existing supporting structure will not be changed as a result of the proposed KCAQ(FM) operation.

### **RADIO FREQUENCY FIELDS**

In accordance with FCC rules, the worst-case power density in  $mW/cm^2$  has been calculated using equation three of Section 2 of the Office of Engineering & Technology Bulletin No. 65 entitled, *Evaluating Compliance With FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields*. Equation three has been reduced so the constant reflects both the factor 1.64 used to obtain ERP relative to EIRP and the factor 1000 for the number of milliwatts/watt. Further consideration includes the Environmental Protection Agency (“EPA”) recommendation that a more realistic approximation should include ground reflection by assuming a maximum 1.6-fold increase in field strength or an increase in power density of  $1.6^2$  (2.56).

Therefore, for an isotropic antenna

$$S_{mW/cm^2} = \frac{0.10496 \cdot (ERP_h + ERP_v)}{\pi \cdot R^2}$$

$$S_{mW/cm^2} = \frac{0.10496 \cdot (8,000)}{\pi \cdot 45.7^2}$$

$$S_{mW/cm^2} = 0.1280 \text{ mW/cm}^2$$

$$S_{mW/cm^2} = \text{Power Density in milliwatts/centimeter}^2$$

$$ERP_h = 4,000 \text{ watts, horizontally-polarized ERP}$$

$$ERP_v = 4,000 \text{ watts, vertically-polarized ERP}$$

$$R = 45.7 \text{ meters from antenna radiation center to tower base}$$

Based on recommendations of the American National Standards Institute (“ANSI”), Institute of Electrical and Electronics Engineers (“IEEE”), and the National Council on Radiation Protection and Measurements (“NCRP”), the Federal Communications Commission (“FCC”) has established maximum permissible exposure (“MPE”) limits. The limits are  $1.0 \text{ mW/cm}^2$  for occupational/controlled environments, averaged over any 6-minute period, and  $0.2 \text{ mW/cm}^2$  for general population/uncontrolled environments, averaged over any 30-minute period. These limits apply over the radio frequency band from 30 to 300 Megahertz.

In the aforementioned report, reference is made to studies conducted by the EPA in which a mathematical model of antenna behavior was developed to predict the required distance from the antenna radiation center to the bottom of the antenna supporting structure so the FCC limit will not be exceeded anywhere on the ground. By interpolation of tabulated values in Supplement A to OET Bulletin No. 65, Section 2, Tables 5 and 6, it was determined that a maximum “worst case” distance of 29.3 meters would be required for a general population/uncontrolled area, and 14.2 for an occupational/controlled environment. These figures are for a dipole antenna with an effective radiated power of 8.0 kilowatts (the sum of horizontally- and vertically-polarized power). Typical “best case” distances are 11.7 and 8.1 meters, respectively, using modern, commercially-available antennas.

The following graph depicts the predicted power density two meters above ground as a function of horizontal distance from the base of the tower, based on the vertical radiation characteristics of the proposed antenna system, as supplied by the antenna designer, Ali Mahnad, Ph.D. E.E. The figure shows that the facility will produce a power density that is well below the standards for both occupational/controlled and general public/uncontrolled environments.

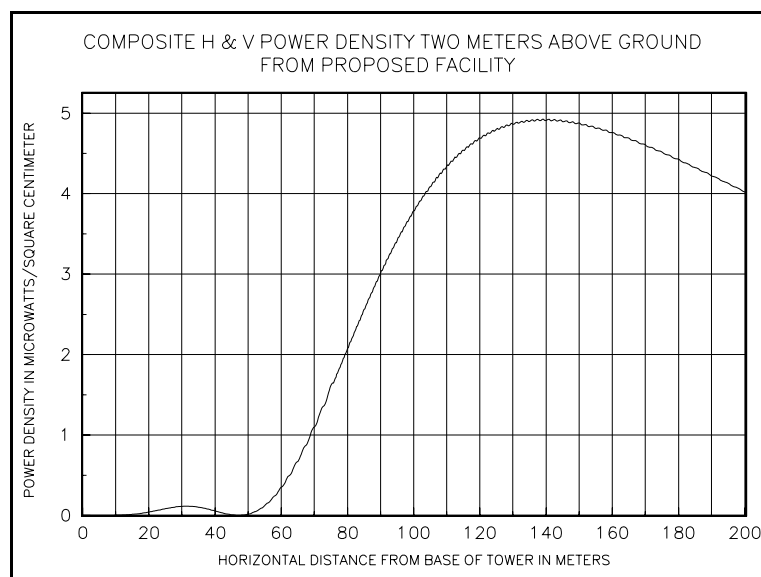


Figure 1

However, the supporting structure is already in use by full power analog television stations KADY-TV on Channel 63, and KJLA(TV) on Channel 57, as well as digital television station KADY-TV on Channel 24. Thus, the effect of radiated fields from these facilities has been considered also in the determination of compliance with the FCC standard. The KADY-TV and KJLA(TV) analog stations each operate with a peak visual power of 5,000 kW, and antenna centers of radiation above ground of 113.4 and 92.9 meters, respectively. KADY-DT operates with an ERP of 85 kW and the center of radiation is 97.5 meters AG.

Contributions to the total potential radiofrequency electromagnetic field exposure were determined using the methods of Section 2, Supplement A, *Additional Information for Radio and Television Broadcast Stations*, of the above-referenced Bulletin. The EPA determined that a typical relative field value of 10% (0.1) is appropriate for UHF television antennas. Using this as a baseline relative field for the three television stations, and accounting for the factors addressed in the Bulletin, it was determined that the analog facilities of KADY-TV and KJLA(TV), and the digital KADY-TV facility contribute 12.7%, 19.9% and 0.84%, respectively, to the limits within an uncontrolled environment. As figure 1 shows, the proposed KCAQ(FM) facility will produce a maximum field value of  $4.887 \mu\text{W}/\text{cm}^2$  ( $0.004887 \text{ mW}/\text{cm}^2$ ). This is equivalent to 2.4% of the permissible limit within an uncontrolled area. Therefore, the combined contributions from all facilities is equal to 35.8 percent of the MPE limit for an uncontrolled environment.

Protection to station workers and the general public will be accomplished in two ways. First, the supporting structure will be surrounded with a chain link fence and locked gate to discourage casual public access to the facility. Furthermore, to warn the public of possible danger from radio frequency emissions, KCAQ(FM) will liberally mark the area around the tower with warning signs that comply with the ANSI standard C95.2-1982 Radio Frequency Radiation Hazard Warning Symbol. Second, when maintenance is to be performed on the antennas or supporting structure, the stations will reduce power or cease operations completely as necessary until such work has been completed and the workers are no longer on the tower.

## **CONCLUSION**

Human exposure to radio frequency emissions will not exceed the maximum level established by the Federal Communications Commission based on predictions employing the vertical radiation characteristics of the proposed antenna.

Therefore, it is concluded that the proposed operation will not significantly affect the quality of the human environment and that an environmental assessment as described in Part 1, Subpart I, of the Commission's Rules is not required. Furthermore, the proposed facility is not classified as having a significant impact upon the

environment as defined in Sections 1.1305 and 1.1307 of the Commission's Rules and Regulations.

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