



Exhibit 15

Analysis of Non Ionizing RF Radiation

In accordance with the order of Docket 79-144, as adopted January 1, 1986, the following analysis of human exposure to non ionizing RF radiation has been performed. Calculations are based on both the worst case formulas and graphs as prescribed in OST bulletin number 65 and the real world models as calculated by the Commission's FM Model software.

Facilities

KSDL (FM)
92.3 MHz
6.0 kW H&V
66 m AGL

KSIS (AM)
1050 kHz
1.0 kW
Tower Height = 86°

Calculations

KSDL (FM)

$$s = \frac{(0.64)(\text{EIRP})}{R^2}$$

$$s = \frac{(0.64)(1.64)(6,000 + 6,000)W(1000)mW/W}{((64 \text{ m})(100 \text{ cm.m})^2)}$$

$$s = 0.0979 \text{ mW/cm}^2$$

$$\text{ANSI Max} = 0.2 \text{ mW/ cm}^2$$

$$\text{KSDL percentage of ANSI Max} = 48.94\%$$

KSIS (AM)

The KSIS (AM) and KSDL (FM) tower is surrounded by a locked fence which is constructed such that the nearest any person could passively come to the tower is 10.5 feet (3.2 meters). In order to determine the AM fields at a distance of 3.2 meters the graph in Figure 2 of OST Bulletin Number 65, Supplement A was used. A copy of that graph is included in this report as Exhibit 16 and, from that exhibit, we find that the KSIS electrical field is 21.8 V/m and the magnetic field is 0.24 A/m. The ANSI maximum fields for general population conditions at 1050 kHz are 616 V/m electrical and 1.63 A/m magnetic. The KSIS fields thus represent 3.54% of the electrical maximum and 14.72% of the magnetic maximum.

Site Totals

KSDL (FM)	48.94%
KSIS (AM)	14.72%
Total	63.66%

Conclusion

As the above calculations indicate, the total power density at a point 2 meters above the tower base falls well below the limits set forth in ANSI C95.1 (1992) for general population conditions. In reality the contribution from KSDL (FM) is considerably less than the 48.94% determined by the worst case formulas. KSDL (FM) employs an ERI model LPX-3E antenna. When the relevant parameters we entered into the Commission's FM Model software it was revealed that the maximum power density from KSDL (FM) is actually only 10.2616 $\mu\text{W}/\text{cm}^2$ which occurs at a distance of 32.1 meters from the tower base. The 10.2616 $\mu\text{W}/\text{cm}^2$ represents only 5.13% of the 0.2 mW/ cm^2 ANSI limit. A copy of the FM Model plot is included in this report as Exhibit 17. Bick Broadcasting has further precautions in place as well. The site is posted with signs warning of hazards due to RF Radiation and High Voltage. So as to prevent occupational overexposure Bick Broadcasting further certifies that it will reduce power or cease operation as necessary so as to protect any tower workers during periods of tower maintenance. Under no circumstances will work be allowed on the tower while KSIS AM is operational.