

RADIATION HAZARD STUDY

SITE: **E890397**

KGW has evaluated the radio frequency environment in and around the proposed earth station and found it to be safe for continuous exposure of operating personnel and the general public.

Only the internal antenna structure, specifically the area between the feedhorn and the dish, shows a radio frequency environment that is considered excessive for continuous exposure of personnel. This area is sufficiently high above ground level that it cannot accidentally be entered without the aid of mechanical equipment.

1.0 Station Parameters

Antenna, Andrew ES24SN6-LTE, 2.4 M, +48.9 dBi @ 14.25 GHz
Operating Wavelength (λ) = 0.2105 M

Transmitter RF Power (P) = 250 watts

2.0 Equipment Used In This Study

Radiation Monitor,
Narda 8616. SN: 05044
Calibrated 8/30/2002. Next calibration due on 8/30/2003.

Isotropic Probe,
Narda 8621D. SN: 24105
Calibrated 11/2002. Next calibration due on 11/2003.

3.0 Summary of Results

All test readings were taken with the equipment described in section 2.0.

The satellite transmitter was set to its' maximum power of 250 watts. Operating frequency for this test was 14.031 GHz.

The probe was placed at head height (6') and the parameter of the vehicle was surveyed. At no time did the readings exceed .037 mw/cm². The highest reading was taken under the feedhorn .

The lowest readings were taken perpendicular to the satellite dish. These readings did not exceed .030 mw/cm².

The readings directly behind the satellite dish was .025 mw/cm². Again this reading is at ground level.

The highest reading inside the vehicle was found directly behind the transmitter and it was a reading of .60 mw/cm².

The readings in the front operations compartment did not exceed.001 mw/cm².

4.0 Conclusions

At no place, in or around our vehicle does the measured RF exceed the Occupational Safety and Health Act (OSHA) limit of 5 mw/cm². The exposure to the general public and the operating personnel of this vehicle are well below all recommended limits for RF exposure.

Note too that all of these readings are actual readings and not calculated, proving that this earth station meets and easily meets all recommended RF levels for this type of installation.

TECHNICAL CERTIFICATION

I hereby certify that I am the technically qualified person responsible for the preparation of the engineering contained in this application; that I am familiar with the applicable rules of the Commission; that I have either prepared or reviewed the engineering information submitted in this application; and that it is complete and accurate to the best of my knowledge.

P. Eric Dausman
Director of Broadcast Operations & Engineering
KGW-TV
King Broadcasting Company