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Federal Communications Commission
Media Bureau
445 12th Street SW
Washington, DC 20554

Dear Sir,

This will serve as the exhibit for the RF Radiation Hazard calculation for this proposed facility. This facility is an Occupational & Controlled site.

Due to the unique nature of the transmission site configuration, it is possible for a worker to be very close to the antenna while broadcasting. Therefore, instead of executing "typical" calculations, an RF radiation measured power was recorded using a 75 ohm dipole antenna less than one meter away from the transmitting antenna. The measured power from the dipole antenna was fed through a matched cable and minimum loss 5.7 dB attenuator. The maximum reading was recorded and converted to a field strength value and from that, the power density was determined. The calculations are shown below.

Power leveled measured = 12.6 dBm (P)

$P^* = P + 5.7 \text{ dB} + 0.9 \text{ dB}$ to compensate for the minimum loss pad & cable loss at 105.5 MHz.

Field strength (dBuV/m) = $P^* + 75.1 + 20 \cdot \log(f)$

$E = 12.6 + 5.7 + 0.9 + 75.1 + 20 \text{ Log} (105.5)$

$E = 134.7 \text{ dBu/m}$

$134.7 \text{ dBu/m} = 20 \text{ log} (V/m)$

$V = 5.43 \text{ V/m}$

Power Density = $V^2/3770 \text{ (mW/sq cm)} = 0.0078 \text{ mW/sq cm} = 7.8 \text{ uW/sq cm}$.

This compares with the 1000 uW/sq cm maximum allowed safe level for Occupational & Controlled areas and the 200 uW/sq cm for General Population Access areas. So this level is well below the safe level and thus will not cause an RF Exposure issue and the broadcast facility may be excluded from an environmental assessment.

This transmission facility is located within a fence with controlled access. The facility is located on government property. Appropriate signage is located on the premises on the entry fence and on the antenna mounting structure and personnel operating on the premises are appropriately cautioned regarding the hazards of RF radiation.

Should you have any questions regarding this information please contact me.

Sincerely,



President